Usenet Newsgroup Archive: rec.ham-radio

1990-01 - 1990-07

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Date span: 1990-01-01 through 1990-07-31

Source text: rec.ham-radio.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 4,805

Message records with no readable body available in the source text: 1

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Re: AUTOMATIC DIGITAL ON HF

Newsgroup: rec.ham-radio
Date: 1990-01-01 00:14:01 UTC
From: johnh@hpubvwa.NSR.HP.COM
Message-ID: <2880003@hpubvwa.NSR.HP.COM>
Source record: 14509

I have recieved a couple of interesting responses to my original posting. My main concern is that we don't regulate ourselves into a corner... Open up more of the band for the Automatic modes, but use Gentlemen's Agreements (i.e. SSTV is allowed on much more spectrum than where it is actually used) ...

One of the places I would really like to see a lot of Automatic Operation is 28.000 to 28.1xx ... not to many of the Frequency Pirates from 27Mhz. would hang around with "Brapp Brapp Brapp"

John

2. Re: IC-32AT Expanded xmit range??

Newsgroup: rec.ham-radio
Date: 1990-01-01 10:38:38 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500341@ux1.cso.uiuc.edu>
Source record: 14505

> From Mailer-Daemon@robotics.jpl.nasa.gov Sun Dec 31 21:09:48 1989
> Received: from jpl-mil.jpl.nasa.gov by ux1.cso.uiuc.edu with SMTP
> (5.61+/IDA-1.2.8) id AA24075; Sun, 31 Dec 89 21:09:43 -0600
> Received: from robotics.jpl.nasa.gov by jpl-mil.Jpl.Nasa.Gov
(4.0/SMI-3.4+DXR+main+mr+oramail)
> id AA22150; Sun, 31 Dec 89 19:08:18 PST
> Received: by robotics.jpl.nasa.gov (4.0/SMI-4.0)
> id AB25094; Sun, 31 Dec 89 19:05:38 PST
> Date: Sun, 31 Dec 89 19:05:38 PST
> From: Mailer-Daemon@robotics.jpl.nasa.gov (Mail Delivery Subsystem)
> Subject: Returned mail: User unknown
> Message-Id: <9001010305.AB25094@robotics.jpl.nasa.gov>
> To: <phil@ux1.cso.uiuc.edu>
> Status: R
>
> ----- Transcript of session follows -----
> 421 crunch: Host crunch.jpl.nasa.gov is down
> 550 Postmaster... User unknown
>
> ----- Unsent message follows -----
> Return-Path: <phil@ux1.cso.uiuc.edu>
> Received: from ux1.cso.uiuc.edu by robotics.jpl.nasa.gov (4.0/SMI-4.0)
> id AA17911; Thu, 28 Dec 89 18:08:10 PST
> Received: by ux1.cso.uiuc.edu
> (5.61+/IDA-1.2.8) id AA18897; Thu, 28 Dec 89 20:10:40 -0600
> Date: Thu, 28 Dec 89 20:10:40 -0600
> From: Phil Howard KA9WGN <phil@ux1.cso.uiuc.edu>
> Message-Id: <8912290210.AA18897@ux1.cso.uiuc.edu>
> To: katzmann@robotics.jpl.nasa.gov
> Subject: mod for ic-32at vers 3
>
> From: billp@col.hp.com (Bill Pherigo)
> Subject: ICOM 32AT MODS
> Date: 21 Apr 89 18:54:19 GMT
> Organization: HP Colorado Springs Division
>
>
> MODS FOR ICOM 32AT
>
> 1. Remove battery and antenna.
> 2. Loosen two screws on top of unit as much as possible without removing them.
> 3. Loosen 4 flat head screws on bottom of unit 1 turn.
> 4. Loosen 2 screws near PTT switch 1 turn.
> 5. Remove 4 black screws on back of unit.

> 6. Lift bottom of front cover .25 inch, slide it down .25 inch, then lift
> front cover up 1 inch.
> 7. Disconnect plug on 4 wires coming from the speaker.
> 8. Lay front panel on table up-side down being careful of the flex circuit.
> 9. All mods are done to the back of the front panel. Notice places for 5
> axial diodes, which I will call 1 through 5, 1 being nearest the display.
> Add/remove diodes so there are diodes in positions 3 and 5. This will
> open up receive coverage for VHF & UHF and enable keyboard entry of the
> 10 MHz digit.
> 10. Notice 4 surface mount resistors slightly left of center directly above the
> speaker, lined up in a row. Solder the anode (the side without the bar)
> of two diodes to the right side of the lower of the four caps. Now find
> the CPU. It's the PGA under the shield near the top of the board. Find
> the row of pins on the CPU nearest the speaker. Notice the the 8th pin
> from the right has a thicker trace coming from it. Now notice that there
> are small solder pads about .25 inch toward the speaker on both the fat
> trace and the two traces to the right of it. Solder one each of the
> cathodes of the 2 diodes to the solder pads on the two smaller traces.
> This will open up the transmit for VHF & UHF.
> 11. Put unit back together in reverse order.
>
> This procedure worked for my unit (and many others), but I can't
> guarantee it will work for yours.
>
> Bill Pherigo
> WR0Y
>
>

3. Re: IC-32AT Expanded xmit range??

Newsgroup: rec.ham-radio
Date: 1990-01-01 10:38:43 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500342@ux1.cso.uiuc.edu>
Source record: 14506

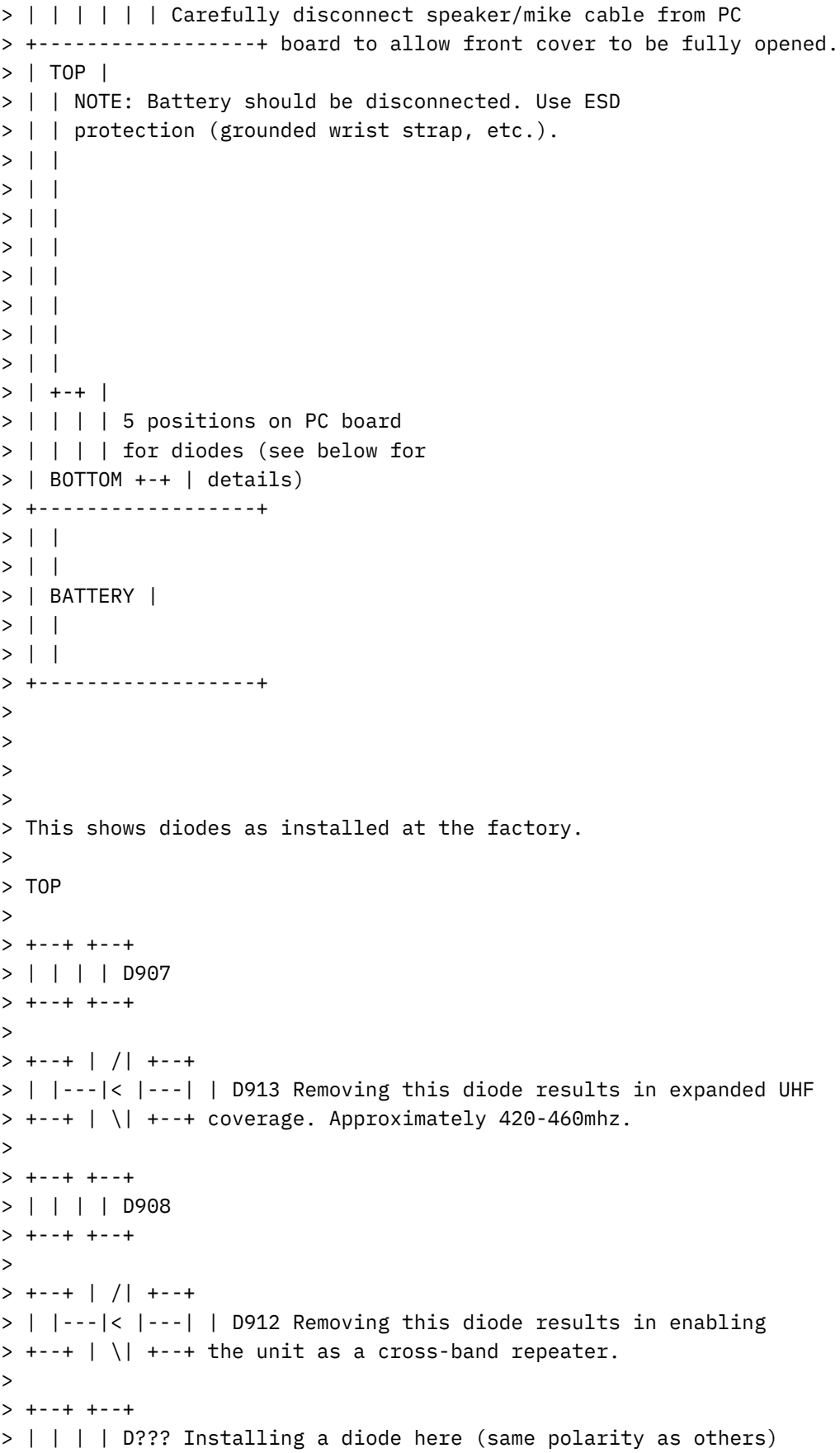
> From Mailer-Daemon@robotics.jpl.nasa.gov Sun Dec 31 21:11:01 1989
> Received: from jpl-mil.jpl.nasa.gov by ux1.cso.uiuc.edu with SMTP
> (5.61+/IDA-1.2.8) id AA24289; Sun, 31 Dec 89 21:10:59 -0600
> Received: from robotics.jpl.nasa.gov by jpl-mil.Jpl.Nasa.Gov
(4.0/SMI-3.4+DXR+main+mr+oramail)
> id AA22165; Sun, 31 Dec 89 19:09:34 PST
> Received: by robotics.jpl.nasa.gov (4.0/SMI-4.0)
> id AC25094; Sun, 31 Dec 89 19:06:54 PST
> Date: Sun, 31 Dec 89 19:06:54 PST
> From: Mailer-Daemon@robotics.jpl.nasa.gov (Mail Delivery Subsystem)
> Subject: Returned mail: User unknown
> Message-Id: <9001010306.AC25094@robotics.jpl.nasa.gov>
> To: <phil@ux1.cso.uiuc.edu>
> Status: R
>
> ----- Transcript of session follows -----
> 421 crunch: Host crunch.jpl.nasa.gov is down
> 550 Postmaster... User unknown
>
> ----- Unsent message follows -----
> Return-Path: <phil@ux1.cso.uiuc.edu>
> Received: from ux1.cso.uiuc.edu by robotics.jpl.nasa.gov (4.0/SMI-4.0)
> id AA17905; Thu, 28 Dec 89 18:07:11 PST
> Received: by ux1.cso.uiuc.edu
> (5.61+/IDA-1.2.8) id AA18558; Thu, 28 Dec 89 20:09:39 -0600
> Date: Thu, 28 Dec 89 20:09:39 -0600
> From: Phil Howard KA9WGN <phil@ux1.cso.uiuc.edu>
> Message-Id: <8912290209.AA18558@ux1.cso.uiuc.edu>
> To: katzmann@robotics.jpl.nasa.gov
> Subject: mod for ic-32at vers 1
>
> Subject: IC32E/AT/A ... mods
> Date: 16 Mar 89 14:40:44 GMT
> From: SV1IW@SV1IW
> Subject: IC-32 Mod
>
> Hello everybody, new radios are getting more and more complicated, don't
> you agree?
>
> Here is a modification for the new Handheld Icom xcver IC-32 which will make
> it to act as a cross band repeater!
>
> 1. First take off the battery pack.
>

> 2. Remove the 4 screws from radio's back.
>
> 3. Remove two screws above and below the PTT and take the whole thing off
> so the four microswitches are revealed.
>
> 4. Take carefully the radio apart by slightly pushing away the front cover.
>
> 5. Put the two pieces in front of you with the front part at your left and
> the back at your right. Be carefull with the ribbon joining the two
> pieces!!! Orientation is as usual with the place that the battery plugs
> down and the top of radio (i.e. where the antenna goes) up.
>
> 6. Find some pads with diodes in the lower right of the left part (front) of
> the radio below to the speaker.Take a look in the drawing below:
>
>
> Top of the radio
>
> [[-|>--[[The number of diodes installed in the top 3 pads
>
> [[-|>--[[depends on the frequency coverage of the rig, maybe
>
> [[[[two or all three.
>
> _ZDDBD
> @DDAD This is a small diode, by removing it the unit
> will receive from 300-370 Mhz but this is an
> untested mod!
>
> [[-|>--[[When you cut this one crossband repeater is enabled!
> \
> [[\ [[If you put this diode crossed and have full
> frequency coverage not only you enable cross band
> repeater but you can insert the frequency from the
> keypad starting from second digit (without this mod
> Bottom of the radio when you wish to insert a frequency in another
> where battery plugs decade from the one you already are, you have to
> go there manually).
>
>
>
> Last but not least to enable cross band repeating first choose a pair of
> frequencies with the two vfo's for VHF and UHF.Then press and hold function
> key while pressing with the other hand the following "C" "6" "D". The radio
> will start scanning the two frequencies continiously, if a station is heard
> in one of the two it will retransmitted from the other! The two frequencies
> must be simplex, no cross band repeaters yet sorry!
>
> Next John? >
>

4. Re: IC-32AT Expanded xmit range??

Newsgroup: rec.ham-radio
Date: 1990-01-01 10:38:48 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500343@ux1.cso.uiuc.edu>
Source record: 14507

```
> From Mailer-Daemon@robotics.jpl.nasa.gov Sun Dec 31 21:12:17 1989
> Received: from jpl-mil.jpl.nasa.gov by ux1.cso.uiuc.edu with SMTP
> (5.61+/IDA-1.2.8) id AA24511; Sun, 31 Dec 89 21:12:15 -0600
> Received: from robotics.jpl.nasa.gov by jpl-mil.Jpl.Nasa.Gov
(4.0/SMI-3.4+DXR+main+mr+oramail)
> id AA22181; Sun, 31 Dec 89 19:10:50 PST
> Received: by robotics.jpl.nasa.gov (4.0/SMI-4.0)
> id AC25094; Sun, 31 Dec 89 19:08:10 PST
> Date: Sun, 31 Dec 89 19:08:10 PST
> From: Mailer-Daemon@robotics.jpl.nasa.gov (Mail Delivery Subsystem)
> Subject: Returned mail: User unknown
> Message-Id: <9001010308.AC25094@robotics.jpl.nasa.gov>
> To: <phil@ux1.cso.uiuc.edu>
> Status: R
>
> ----- Transcript of session follows -----
> 421 crunch: Host crunch.jpl.nasa.gov is down
> 550 Postmaster... User unknown
>
> ----- Unsent message follows -----
> Return-Path: <phil@ux1.cso.uiuc.edu>
> Received: from ux1.cso.uiuc.edu by robotics.jpl.nasa.gov (4.0/SMI-4.0)
> id AA17908; Thu, 28 Dec 89 18:07:40 PST
> Received: by ux1.cso.uiuc.edu
> (5.61+/IDA-1.2.8) id AA18694; Thu, 28 Dec 89 20:10:08 -0600
> Date: Thu, 28 Dec 89 20:10:08 -0600
> From: Phil Howard KA9WGN <phil@ux1.cso.uiuc.edu>
> Message-Id: <8912290210.AA18694@ux1.cso.uiuc.edu>
> To: katzmann@robotics.jpl.nasa.gov
> Subject: mod for ic-32at vers 2
>
> From: kral@larkan.dec.com (Larry NAMP)
> Subject: IC-32AT Modifications
> Date: 16 Jun 89 11:15:28 GMT
>
>
> Here are 3 modifcations for the IC-32AT, one was taken directly from an ICOM
> service bulletin. The following was partly done by NXION.
>
>
> | This is a view of the interior (front side) after
> | the front of the case has been removed (4 screws
> / \ in back, 2 screws near PTT switch loosened only).
> | | +-+ +--+
```


| | | | | | Carefully disconnect speaker/mike cable from PC
+------------------+ board to allow front cover to be fully opened.
| TOP |
| | NOTE: Battery should be disconnected. Use ESD
| | protection (grounded wrist strap, etc.).
| |
| |
| |
| |
| |
| |
| |
| |
| +-+ |
| | | | 5 positions on PC board
| | | | for diodes (see below for
| BOTTOM +-+ | details)
+------------------+
| |
| |
| BATTERY |
| |
| |
+------------------+

This shows diodes as installed at the factory.

TOP

+--+ +--+
| | | | D907
+--+ +--+
+--+ | /| +--+
| |---|< |---| | D913 Removing this diode results in expanded UHF
+--+ | \| +--+ coverage. Approximately 420-460mhz.
+--+ +--+
| | | | D908
+--+ +--+
+--+ | /| +--+
| |---|< |---| | D912 Removing this diode results in enabling
+--+ | \| +--+ the unit as a cross-band repeater.
+--+ +--+
| | | | D??? Installing a diode here (same polarity as others)

> +--+ +--+ permits keypad entry of 10mhz digit.
>
> BOTTOM
>
> Icom Service Bulletin #13889-005
>
> The IC-32AT has the capability of being used as a cross-band repeater.
> This function is not enabled as the unit is shipped from the factory.
>
> To enable this function perform the following steps:
>
> 1- Cut D912 on LOGIC UNIT. (see above figure)
>
> 2- Push and hold the (FUNCTION) switch.
>
> 3- Push the (C) key.
>
> 4- Push the (6) key.
>
> 5- Push the (D) key.
>
> 6- Release the (FUNCTION) switch.
>
> To cancel "MINI REPEATER" perform the following steps:
>
> 1- Push and hold the (FUNCTION) switch.
>
> 2- Push the (D) key.
>
> 3- Push the (C) key.
>
> 4- Release the (FUNCTION) switch.
>
>
>

5. Re: The un-net on 10meters on Saturday (1600-1800Z)

Newsgroup: rec.ham-radio
Date: 1990-01-01 17:48:22 UTC
From: rusty@cadnetix.COM
Message-ID: <10723@cadnetix.COM>
Source record: 14515

In article <10695@cadnetix.COM> I write:
>I'll probably be gone next 2 weeks from the un-net, but that does
>not mean you cannot go and talk to each other anyway! so don't let
>my absence keep you from un-netting away!

So, anybody have any luck the last two weekends?

>Also, when I get back (first weekend in Jan, probably),

Well, I'm back. :-)

>lets move the
>time later an hour (1700-1900Z),as I got 2 positive replies, and no
>negative replies to my query.

In case you forgot, the question was whether or not moving the time
to 1700 - 1900 Z would improve your ability to join the 'un-net'.

>Thanks, 73, happy holidays, and cu after Jan 1!

Er, lets make that 'on Jan 1' :-)

<blatherings about the callsign database deleted>

>from rusty n7ikq (alias mr un-net, alias mr callsign project :-))

Ditto, I'm sure.

Summary: time of the un-net has been CHANGED to 1700 UTC through 1900 UTC,
the day stays the same ('every' Saturday). Thanks!

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

6. Radio as peripheral card in PC, Mac, etc

Newsgroup: rec.ham-radio
Date: 1990-01-01 19:36:55 UTC
From: root@sbcs.sunysb.edu
Message-ID: <4349@sbcs.sunysb.edu>
Source record: 14508
Cross-posted to: rec.ham-radio,sci.electronics

Has anyone investigated building a receiver as a plug in peripheral to
eg an IBM PC or Mac, etc? I'm curious as to whether the major problem
would be noise radiated into the frontend, or if power supply carried
noise would be the problem.

Rick Spanbauer, WB2CFV
State U of NY/Stony Brook

7. REmote Base option for TM-721 - how to enable?

Newsgroup: rec.ham-radio
Date: 1990-01-01 19:56:58 UTC
From: erc@khijol.UUCP
Message-ID: <875@khijol.UUCP>
Source record: 14510

If anyone could document how to enable the remote base option for the Kenwood TM-721. I'd really appreciate it. I hear that it's a real simple change. Thanks!

Please reply via email.
--
--------------------------- discard all after this line ----------------------
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
"Good tea. Nice house." -- Worf

8. AM antenna

Newsgroup: rec.ham-radio
Date: 1990-01-01 21:39:10 UTC
From: markj@lopez.UUCP
Message-ID: <1083@lopez.UUCP>
Source record: 14514
Cross-posted to: rec.ham-radio,misc.misc

I stumbled across a catalog that had an AM antenna that is supposed to increase your signal by 75X. Living out in a rural area with virtually nothing on the AM band during the day, I shelled out the $50 and gave it a shot. When I received it, I found there are no connections like you find on active antennas, and no power required. You just place it near your radio <must have a loop-stick Am antenna> and tune the dial on the antenna. On empty parts of the band, stations would just jump out of no-where. I haven't had any "record" Dx but it does improve the reception on stations I already receive. The CHEAPER the radio, the better the improvement. I have a cheap clock radio which up until now, received 3 stations. Now, with the antenna, it has turned into a DX MACHINE. I strongly recommend it for people like me who live out in the boonies and want better reception.

9. CW subbands

Newsgroup: rec.ham-radio
Date: 1990-01-02 01:18:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500344@ux1.cso.uiuc.edu>
Source record: 14511

I am curious about the history of the HF subbands. I would like to know why it is that CW and RTTY have been lumped together? Two reasons I have thought of are:

1. CW and RTTY are both digital modes, so should be together.

2. Phone emissions became so popular they threatened to overrun all other emission modes.

Which of these reasons was more important? Were there any others?

My personal opinion is that HF bands need some slice of CW only where not even RTTY or packet is allowed. Fundamentally better is no regulation at all, but far too many hams have shown on these bands that the regulations are absolutely needed. So if we have to have them, can we improve them?

50.0-50.1 and 144.0-144.1 are CW only subbands. Why can't we have some (albeit smaller) on the "crowded bands"? How about the first 50 khz of 80, 40, 20 and 15, and 28.0-28.1 ? (CW would still always be legal anywhere)

How will this affect packet?
How will this affect conventional RTTY?
Will CW contests stay in the CW-only bands?

[if you must flame, do it in e-mail where I can delete it faster]

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

10. Motorola HT-600 Mods.

Newsgroup: rec.ham-radio
Date: 1990-01-02 03:40:13 UTC
From: lawrence@smcnet.UUCP
Message-ID: <475@smcnet.UUCP>
Source record: 14518

I posted this question a while back and got no reply. We were having problems with our modem so here it goes again....

Does anyone have the information on how to convert the Motorola HT-600 or P-200 Radius radios from 2 channels to 6 channels. If you remove the stopper on the freq. select switch you can physically move the switch into channels 3-6 but the thing still only acknowleges channels 1-2. The radio will also let you program freq. data into CMOS RAM for channels 3-6 so I feel real close to finding the answer tho this puzzle.

The question here is:

- Is there an additional jumper or diode somewhere?

- Does the radio have "2 CHANNEL ONLY" burned into a chip somewhere?

I heard rumors that somewone in L.A. had figured out the mod. Has anyone else?

Thanks in advance and Happy New Year.

Lawrence Roney - Telecom. Tech. Santa Monica Community College Dist.
Santa Monica, California

Mail: uunet!ucla-cs!smcnet!lawrence
Voice: 213-452-9351
---

11. Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-02 03:45:10 UTC
From: julian@bongo.UUCP
Message-ID: <287@bongo.UUCP>
Source record: 14512

I have been somewhat troubled of late. last week I was
driving along the freeway and decided on a whim to ask a girl
out to dinner. It was mid afternoon, so I called her at work
using the Autopatch facility of the local 220 MHz repeater. The
attendant (operator) at the girl's employer put me through to
her extension but she didn't answer. I was routed back to the
attendant who put me on hold while she paged.

The phone system had a "music on hold" system. While waiting
to talk to my party I had to endure a commercial from Domino's
Pizza and a rendition of "When Will I Be Loved." Yes I did get
to make the dinner date and all went well. What troubles me is
this:

Was I "Broadcasting"? Will the FCC get in touch with me?

Should I pay royalties to BMI for the broadcast of the song?

Can I collect a fee from Domino's for running the Ad?

Myself and several barrackroom lawyers await the answers.

Your "learned friend"

--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

12. Desperately seeking info/plans for a VHF FM audio receiver (Please, somebody help me. Anybody!)

Newsgroup: rec.ham-radio
Date: 1990-01-02 04:17:11 UTC
From: tedi@Apple.COM
Message-ID: <37541@apple.Apple.COM>
Source record: 14513
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.electronics

I'm posting this for a friend (Chris). Please respond to him through me (Ted) at TEDI@APPLE.COM.

I am a hobbiest desperately seeking information on how to obtain or build a tiny portable VHF FM audio receiver. In my "research" on the subject, I have obtained hundreds of schematics for receivers of every kind. However, I was surprised to find that the info of was of any help for my little "pet" project. I realize that this is a RIDICULOUSLY simple device but I seem to be getting nowhere fast.
Here are my specs:
* Freq Range: 150Mhz-216Mhz
* Signal: FM audio (mono) 80Khz-20Khz (or as good as possible)
* FM Modulation: +/- 15Khz
* Dimensions: Smaller than a deck of cards
* Power requirements: Able to run 2-4 hours on small batteries

I will need to tune to any one of 5 or so frequencies which I already know. Therefore, the device should be crystal controlled. This project is basically a simple VHF FM receiver and I could easily build it myself, if I only had some schematics to work with. I can handle the power supply, amplifiers, antenna and housing.

I would be very grateful if anybody could provide me with information/plans or point me in the right direction. I might even be willing to make an extra one for you, depending on how things work out. Please respond by MAIL to TEDI@APPLE.COM or by calling me (Chris) collect at 408 522-8373. Happy Holidays!

13. Celebrity Hams

Newsgroup: rec.ham-radio
Date: 1990-01-02 11:29:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9001030803.AA23956@ucbvax.Berkeley.EDU>
Source record: 14430

I have seen previous interest in celebrity hams recently in this newsgroup.
Here's another one for those who are interested.
Ronnie Milsap WB4KCG, Nashville, TN, Advanced Class.

Although I haven't talked to Ronnie, I have heard he's fairly active. He also
did a PSA for ARRL a few years ago and it occasionaly shows up on TV somewhere.
I think I saw it on a PBS station.

Just in case there is someone who doesn't know Ronnie, he is a popular Country &
Western singer. He is also blind. He writes most of his own music and plays a
variety of instruments.

73,
Michael WA7SKG

14. Re: Multiband (80-10m) vertical antennas

Newsgroup: rec.ham-radio
Date: 1990-01-02 15:18:35 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840023@hpl-opus.HP.COM>
Source record: 14521

"All" Band Verticals....

REMEMBER, that unless you put LOTS (>50) of radials on the ground,
or you mount the vertical 1/2 wave above the ground (for the lowest
band) (BEST WAY)- the system will be inefficient due to ground losses.
This is because you are trying to use the ground as the other half
of your antenna, and unless you live on the sea shore, ground losses
will be appreciable.

I have owned the Hustler 6BTV and Cushcraft AP-8 and have heard about
the Butternut HFV6 (or whatever it is called).

Hustler 5BTV: Very sturdy, well constructed - went up and tuned up
fairly easily and without any hassles. I have used this antenna
without radials, and have made contacts. So far as I know it does NOT
have the capability of mod. for 12 and 17 meters. 30M can be added.

Cushcraft AP-8: Only vertical that comes ready to work ALL the bands
including WARC. I had trouble with initial tuneup, and there was a
bad connection on one of the trap coils which arced. After fixing, it
seems to work well, except that the 10M section could never get
close enough to resonance, and the antenna is not real sturdy, although
it could be guyed to help it out. It also has a funny mounting, as it
is slipped over a mast rather than clamped to it like the Hustler.

Butternut: I have heard favorable things about it, and with add-ons
can be used on all the bands. It does look kind of flimsy to me though.

George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ
----

15. Re: Digital Filters

Newsgroup: rec.ham-radio
Date: 1990-01-02 16:57:11 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490081@hpscdc.scd.hp.com>
Source record: 14526

> / hpscdc:rec.ham-radio / mfineman@cadev5.intel.com (Mark Fineman) / 1:12 pm Jan 1, 1990 /
> Has anyone heard of a digital filter being used instead of the
> typical mechanical or analog filters used in receivers?

Yes, Collins has been doing it for years in their HF receivers.
Recently, Kenwood introduced the TS950 with DSP.

>
> At some point commercially available microprocessors should be
> fast enough for real-time DSP to simulate just about any filter
> bandpass we'd want. The question is are the currently available
> things (80486, 80960, 88000, etc.) fast enough?

Well, there was an article in "VHF Engineering" where the author
actually used an MC6800 (he lives in Yugoslavia, so that may be
all he could get). However, you really need to use a dedicated
DSP chip like the TI 32010 series. They have much more effective
power than even a 486, when used for DSP. Even so, it is quite
possible to run out of horsepower even with TI's latest 32XXX
parts. Motorola has come out with the much faster 56000 family
which will probably be able to do just about an receiver
filtering function you would want. You'll still need a
relatively low final IF of 10 to 100 kHz, even with a 56000.

Rick N6RK

16. Limerick Packet Repeater ??

Newsgroup: rec.ham-radio
Date: 1990-01-02 17:04:52 UTC
From: 8904596@ul.ie
Message-ID: <1726@ul.ie>
Source record: 14516

Can anyone please tell me if the Limerick Packet Repeater 144.650 is located at

the same site as the voice repeater on 145.750?
Also are there any Nets on packet in the locality ?

17. Re: Digital Filters

Newsgroup: rec.ham-radio
Date: 1990-01-02 19:05:17 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250105@hpnmdla.HP.COM>
Source record: 14525

I think the problem with using a Digital Signal Processor (with the required ADC and DAC) as the main IF filter in a receiver is dynamic range. Even a 16-bit signal has less than 100 dB. If you set the high end to be 0 dBm (better would be +10 or +20), then your digitization noise would be around -100 dBm. Receiver sensitivity (for 10 dB S/N) could be no better than 7 uV.

Digital filtering would be useful if done AFTER the AGC'd stages so you wouldn't need so much dynamic range.

Al N1AL

18. Re: Desperately seeking info/plans for a VHF FM audio receiver (Please, somebody help me. Anybody!)

Newsgroup: rec.ham-radio
Date: 1990-01-02 19:14:05 UTC
From: tob@cbnewsk.ATT.COM
Message-ID: <1724@cbnewsk.ATT.COM>
Source record: 14517
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.electronics

```
In article <37541@apple.Apple.COM>, tedi@Apple.COM (Ted Ives) writes:
>
> I am a hobbiest desperately seeking information on how to
> obtain or build a tiny portable VHF FM audio receiver. In my
> "research" on the subject, I have obtained hundreds of
> schematics for receivers of every kind. However, I was
> surprised to find that the info of was of any help for my little
> "pet" project. I realize that this is a RIDICULOUSLY simple
> device but I seem to be getting nowhere fast.
> Here are my specs:
> * Freq Range: 150Mhz-216Mhz
> * Signal: FM audio (mono) 80Khz-20Khz (or as good as possible)
> * FM Modulation: +/- 15Khz
> * Dimensions: Smaller than a deck of cards
> * Power requirements: Able to run 2-4 hours on small batteries

Radio Shack sells several 'weather radio' receivers. These are in the 160 Mhz
area and should be tunable to cover your needs.

Ted
```

19. RTTY

Newsgroup: rec.ham-radio
Date: 1990-01-02 19:25:00 UTC
From: hfair@PAXRV-NES.ARPA
Message-ID: <9001030858.AA27284@ucbvax.Berkeley.EDU>
Source record: 14431

ANY REPORTS OF 3Y5X ON RTTY? IF SO, WHAT FREQ AND TIME, AND HOW BAD
WAS IT?

20. Assigned Radio Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-02 22:08:08 UTC
From: myoung@nunki.usc.edu
Message-ID: <7219@chaph.usc.edu>
Source record: 14522

Does anyone know where I could find a comprehensive list of assigned radio frequencies in the Los Angeles area? I realize that this list is probably huge, but being the proud new owner of a scanner, I'd like to know what I am (possibly) listening to. Please respond in email - if there is interest, I'll summarize.

Thanks!

21. Re: Packet compression, what issue?

Newsgroup: rec.ham-radio
Date: 1990-01-02 22:37:45 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880104@hpfcdc.HP.COM>
Source record: 14519

Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:

Well, I guess it's UseNet Ad Hoc Committee time again, a la the no-code proposal. Volunteers, take one step forward.

Yup, I think it's time. While we're at it, let's dump ASCII and go for real bit streams. There are more efficient modes than asyncronous ASCII.

As far as 97.309(a) goes, I'll have to find a copy of Part 97. I assume it talks about 7 bit ASCII with parity, but not 8-bit ASCII. What a shame. 7-bit ASCII was obsolete a couple decades ago. Nothing like trying to make a silk purse when all you have are sow ears.

A question I have is regarding the HF packet restrictions on 300 baud and nothing other than ASCII. From what I read in Phil's posting (thanks), it wasn't clear if we couldn't use LZ compression on HF, as long as the parity bit wasn't used. The LZ program is easily modified to do this. At 300 baud, you need every optimization you can find. It also isn't clear why 300 baud is maximum, given that 9600 can be done over telephone (3KHz) channels now. Again, I suspect we are dealing with technology artifacts in the rules.

Perry

22. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-02 23:27:47 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880106@hpfcdc.HP.COM>
Source record: 14520

Give W1AW some slack ? This really sounds like some stations are more equal than others. Yes, there is a gentleman's agreement here. The problem with these agreements is that newcomers (like me) don't know all the rules and get stepped on (and do our share of stepping, too). I thought all I needed was my ticket. Apparently, I need to buy some of the ARRL literature, too. Funny, I didn't think that was in Part 97.

I think it all boils down to the same ugliness we saw on '313, other nets, and the non-stop Bible-on-CW transmitters. I'm not part of ARRL, and don't take kindly to automatic QRM. In this case, I QRT'ed shortly after hearing them, feeling sheepish about possibly QRMing someone that actually listens to that stuff in the middle of the night. Afterwards, I was angry for feeling sheepish. Then I got angry about auto-QRM.

Makes me want to get a legal-limit amp, and pipe the online KJV through my morse code generator onto 7.290 at legal limit. Nah. I'm more civilized than that. Is W1AW ?

I mean, why do it to all HF bands ? Maybe two would suffice. We don't hear W1AW on 40 out here, unless we listen hard beyond the snap, crackle, and pop (and go deaf).

Perry, KF0CA and sometime rabble-rouser

23. 31 metre helical wound dipole (10 feet long!)

Newsgroup: rec.ham-radio
Date: 1990-01-02 23:35:51 UTC
From: ems@Apple.COM
Message-ID: <5971@internal.Apple.COM>
Source record: 14524
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Well another holiday came and went, giving me the chance to try
yet another antenna design. This one was a 31 meter helical wound
dipole.

Summary: It works with 4 foot elements on a 2 inch boom, and rather well.

I used 2 inch diameter PVC pipe for the form and wound two elements
on it. Each element is 4 feet long and made of 22 ga. enamel wire
wound about 1/2 inch pitch. I then pruned it to resonance (about
82 turns per helix were left after pruning, but I havn't recounted to
see exactly what I was left with ... if you really care, let me know
and I'll go count turns again.) The wire is held in place with
strapping tape every 8 inches or so (varnish to follow someday...).

The wire is connected to a metal post at each end. These are made
from 3 inch brass bolts passing all the way through the mast with
two nuts and washers (for leadin attachment and/or loading coil
attachment; a future project...)

There is a 2 inch gap between one helix and the other (where the
coax is attached) and both elements are wound with the same screw sense
(i.e. the handedness is the same. Just picture it as one long helix
with a 2 inch section chopped out for the leadin.)

Construction was a snap. I used an electric drill to make holes for the
bolts. The bolts were inserted (two in the middle, each one inch toward
a mast end from the center; and two more, each 11 inches from a mast end.
The mast is a 10 foot lenght of 2 inch diameter schedule 40 PVC pipe.
Nuts and washers were screwed on loosely. The enamal wire had the
insulation scraped from an end, the end was attached to a bolt and the
nut was tightened, then 88 turns were loosely wound onto the pipe to
make that helix.

The turns were spread evenly over the 4 feet and taped in place, the other
wire end was stripped and attached to it's bolt. Repeat for the other
helix. Then an antenna bridge was used to prune for resonance at 31
metres. It looks like about 82 turns were left in each helix.

I have installed the antenna as a 'sloper' on my roof and use coax for
the lead-in. (I added a 'T' to one end of the pipe and put a hinged
TV mast foot on the other. The hinged foot is screwed to the eaves of the
roof and the other end leans against my brick fireplace chiminey. A
wire rope passed through the 'T' fitting is tied arround the chiminey.
The antenna angle is about 45 degrees with the slope pointing east.
(low in the east, high end in the west).

You cannot see this antenna from the street, as it is behind the
chiminey and roof. From the back yard it looks like a chiminey
support of some kind. Some paint to match the roof color would make
is mighty hard to notice!

Total time to construct and install (not counting going to the store
to get the pipe...) was about 3 hours. Total cost was about $6.00
including the brass bolts. (Though it only includes a 'pro-rata' share
of the $14 of enamel wire I bought ... ALOT is still on the spool...)

Performance? It seems to work well for me, given a subjective evaluation.
I don't have a good reference antenna. (Why would I be playing
with helicals if I had room for a full sized dipole! I may yet put
up a folded dipole for 31 metres as a reference antenna ...)
What I can say is that for the first time ever I have used the
attenuation switch on my Sony 2002 radio. I recieved both WWV and
WWHV clearly on 10000 hz with the attenuation on. It seemed like
every 5khz increment had SOMETHING on it (which has not been the
case with other antennas...) and I had to use the fine tuning
to pick out which one I wanted far more than with other antennas.
It beat the pants off all my indoor antennas and the 'long wire'
that is really about 40 feet strung on the roof top.

So far I like it very much. It could be that propagation was just
suprisingly good the first night ... but I doubt it. The reception
on the whip antenna was about as usual. (Though I did get a bit
of a surprise there... I was using a 3 foot piece of twin lead
from the coax to the radio jack. I unplugged it from the radio to
see how the whip was doing. Not much change. Hmmm I wonder; what's
wrong. I pick up the radio and walk to the kitchen to get some Coco
and think. Reception plummits. Removing the twin lead chunk
provides the answer. Whip was picking up signals from the twin lead...
gotta get reciever with a real coax connector on it ...)

I intend to wind one of these for 49 metres and one for 25 metres.
If I get real ambitious I'm going to wind a helix as a director
and try to make a beam out of it. At 0.2 wavelength that's only
6.2 metres or about 20 feet separation between the elements for
a 31 meter beam. I have 20 feet of rooftop ...

Another modification: I am going to make one with a 'T' in
the center. Then the individual elements can be friction fit
into the 'T' which can be friction fit onto a short mast (like
5 feet). This will give me a 'take down dipole' for use when
traveling ... 4"x4"x5' for a dipole in a bag? Not bad!

Conclusions? I think it works well, but would like to find someone
with a 'real dipole' to compare it to. It is certainly easy to
construct and install. As a sloper on the rooftop it is astoundingly
easy to find a place for it and point it. I'm not sure how directional
it is (if at all) since I have no signal strength measuring gear.
It is not particularly sensitive to design parameters (the 2" coil
resonated within 10% of the same wire length as a 4" version

using plastic insulated hookup wire) though it is most sensitive
to coil spacing (pitch) at the feed point. ('loading coils' are more
effective the closer to the feed point they are.) I don't know if the fact
that I'm using pudgy coil forms (2 inches to 4 inches) is causing
higher than expected impedences or if I'm just not very good at
using my antenna bridge. It measured about 40 ohms. I was expecting
much less. If you don't have room for a full sized dipole, one of
these would be a quick and easy alternative.

--

E. Michael Smith ems@apple.COM

'Whatever you can do, or dream you can, begin it. Boldness has
genius, power and magic in it.' - Goethe

I am not responsible nor is anyone else. Everything is disclaimed.

24. It's a Mods, Mods, World...

Newsgroup: rec.ham-radio
Date: 1990-01-02 23:51:00 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9001030051.AA21296@ti.com>
Source record: 14432

I've seen mods posted for several radios here, but none in the time I have
been watching the net have mentioned the Alinco ALD-24T. (or any Alinco, for
that matter!)

I received from Alinco a mod to change the up/down switch from VFO to MEMORY
mode, but promptly filed it away. I did not do the mod, but now intend to
as soon as I find the paper they sent me.

I complained in the letter I sent with the warranty card about that feature,
and so I guess they had lots of complaints, because this was a photocopy
of something that looked like it'd been sent out a lot.

I was wondering if there are any other common mods that might have appeared
in the past? I'd kinda like to be able to hear NOAA, or any of those neat,
nasty things you can do.

This is an older radio, I guess, having been a close-out in '88 when I bought
it. They now have a newer spiffier model, with a higher price tag...

Anybody got comments, complaints, or anything about this critter?

73, Bob West WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

25. vk2sg.rtty

Newsgroup: rec.ham-radio
Date: 1990-01-03 00:39:28 UTC
From: gws@n8emr.UUCP
Message-ID: <1396@n8emr.UUCP>
Source record: 14436

```
Sorry, a bit late with this one... Was out skiing over the
holidays..... -gary n8emr

================================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-457-4227 (1200/2400/19.2 telebit,8N1) |
================================================================

Subject : RTTY DX NOTES (BID RTDX2912)

(RELAYED VIA APLINK STATIONS WA1URA AND VK2AGE)

ZCZC NR 12624 BULLETIN VK2SG 1229/0113Z
RTTY DX NOTES FOR WEEKENDING 29TH DECEMBER 1989 (BID RTDX2912)

AS THESE WILL BE THE LAST DX NOTES FOR THIS YEAR, I WOULD LIKE
TO WISH ALL THE READERS OF THESE NOTES A VERY HAPPY, HEALTHY AND
PROSPEROUS 199., AND MAY ALL THE GOOD DX COME TO YOUR SHACK.
WE HOPE THAT 1990 WILL BE A YEAR OF PEACE AND HARMONY AMONG THE
AMATEUR FRATERNITY. TO THOSE WHO HAVE SENT ME DX INFORMATION
DURING THE PAST YEAR, A SPECIAL THANKS TO YOU ALL, YOUR EFFORTS
ARE REALLY APPRICIATED.

OUR THANKS THIS WEEK GO TO JA1BLV, OD5NG, UT5RP, VE3JPC, VK2EG,
VK2KM, W1DA, N2HOS AND W6/G0AZT THANKS CHAPS FOR YOUR HELP.

BANDPASS

FRIDAY

EA9JV 14093 AT 0100Z
FO5LQ 14086 AT 0358Z
GJ4YMX 28087 AT 1048Z
UZ9CWA 28087 AT 1050Z
RT4UP 14089 AT 1558Z
J28TY 14090 AT 2049Z QSL/NOTE

SATURDAY

ZS6PI 14091 AT 0550Z
UW9AZ 14086 AT 0650Z QSL
UA1ASM 14090 AT 0720Z QSL
7S4BX 14087 AT 0730Z QSL
RT5UP 14085 AT 0759Z QSL
TU2BB 21084 AT 0855Z
BY1QH 21086 AT 0900Z QSL
UA9CHK 21091 AT 1202Z QSL
OD5SK 28087 AT 1210Z
```

GU0/KD7TT 21087 AT 1240Z
TA3B 21085 AT 1430Z
D44BC 21090 AT 1440Z
TZ6VV 21092 AT 1733Z
HV3SJ 14091 AT 2305Z

SUNDAY

EA8RA 14094 AT 0100Z
CT3BX 14093 AT .145Z
BV2B 21091 AT 0238Z NOTE
BY1QH 28091 AT 0930Z
ZD8BOB 21092 AT 1144Z
FP5HL 14089 AT 1226Z
D44BC 21083 AT 1247Z
TU2BB 21087 AT 1320Z
9H1EL 21090 AT 1323Z
J28TY 28094 AT 1351Z
5V7DP 21085 AT 1500Z
LX150L 21088 AT 1551Z QSL

MONDAY

UQ1GWW 21097 AT 0035Z
9K2KA 14086 AT 0041Z
BY1QH 21092 AT 0050Z
UT5RP 14084 AT 0556Z
TK/DL7HZ 14092 AT 0855Z
HL1SX 14090 AT 1022Z
RB5TF 14094 AT 1130Z
TU2BB 28089 AT 1236Z
HV3SJ 21088 AT 1720ZT
TUESDAY

UT5RP 14084 AT 1248Z
SV9ABG 14073 AT 1354Z FEC
RO4OR 14095 AT 1444Z
R3TM 14086 AT 1518Z QSL
TZ6VV 14090 AT 1526Z
CT3BX 21087 AT 1655Z

WEDNESDAY

BY1QH 14092 AT 0840Z
UA9CHK 21094 AT 1315Z
J28TY 28092 AT 1316Z

THURSDAY

BY1QH 21086 AT 0030Z

QSL INFORMATION.....

J28TY, PAT, SAYS TO QSL TO BOX 2417, DJIBOUTI........UW9AZ,
YURI, SAYS THAT HE WILL QSL VIA BOX 40 KOPEISK, 454600. USSR.....
UA1ASM WILL QSL VIA BOX 27 LENINGRAD, 798013 USSR.....RT5UP
QSL ADDRESS IS BOX 32, 252124, KIEV-124, UKRAINE USSR....
UA9CHK QSL TO BOX 21, SEVEROURALSK, 624470 USSR....7S4BX,
QSL VIA PL6082 S-692 00 KUMLA SWEDEN. BY1QH VIA BOX 2654,
BEIJING, 100084, PEOPLES REPUBLIC OF CHINA... LX150L, OPERATOR
WAS LX1DA SUGGEST QSL TO HIS HOME ADDRESS..... R3TM WILL QSL
VIA BOX 7 GORKY USSR..........

NOTES OF INTEREST...........
BV2B SAYS THAT HE WILL BE QRV EVERY SUNDAY AT 0010 - 0300Z....
3B8FP , RASHID KARROO ADDRESS IS C/O MAGASIN EDOMA, BOX 164,
CUREPIPE, MAURITIUS....... AT THE TIME OF WRITING THESE NOTES,
THERE WAS NO SIGN OF THE BOUVET ISLAND OPERATION DUE TO HEAVY
FOG IN THE AREA, BUT IT IS BELIEVED THAT THEY WILL STILL
OPERATE FOR 23 DAYS AFTER THEY LAND....... THERE ALSO WAS NO SIGN
OF THE JA STATION REPORTED TO BE GOING TO XW8 FOR AN RTTY OPERATION...
ZD8BOB REPORTS THAT HE REGULARLY CHECKS INTO THE WB7QWG/9
MAILBOX AND MESSAGES MAY BE LEFT THERE FOR HIM....... VR6TC
HAS BEEN SEEN ON 21349 KHZ, YES THATS RIGHT 21349 KHZ WHICH IS
HIS USUAL PHONE FREQUENCY, BUT HE WILL GO TO RTTY UPON REQUEST.....
J28TY WILL BE THERE UNTIL 1991.........
FINALLY. REGARDING THE EARTHQUAKE IN VK LAND. IT WAS 100 MILES
NORTH OF SYDNEY, AND WHILE THERE WAS CONSIDERABLE DAMAGE IN
NEWCASTLE CITY, THERE WERE NOT A LOT OF CASUALTIES, ALTHOUGH
THERE WERE NUMEROUS PEOPLE INJURED. RADIO COMMUNICATIONS HAVE
BEEN MAINTAINED AT ALL TIMES.
HAPPY NEW YEAR TO ALL
LATE NEWS OF DX . JUST AS I WAS ABOUT TO SEND THESE NOTES, THERE
THEY WERE, THE BOUVET GROUP, ON 14028KHZ AT 0100Z, NOW ON CW
WE WAIT FOR THEM ON RTTY ...

GL DE DX1.

26. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-03 01:47:38 UTC
From: michaelb@mikebat.UUCP
Message-ID: <199@mikebat.UUCP>
Source record: 14523

> > It would be a lot nicer for them to ask
> > first, but I am not >sure how
> > practical it is.
>
> I think the FCC is willing to give W1AW slack here because of their
> unquestioned value as a medium for distributing ...

I wouldn't say the value is unquestioned. The only time I've ever heard them is when I run across them by accident. They may be invaluable to the people who do listen, but I would bet fewer listen than the ARRL would like to think.

> that W1AW has been using pretty much the same frequencies for decades, one
> might ask if some people are 'volunteering' to be QRM'ed.

I agree. The frequencies are very well known in the ham world. Trying to operate there makes about as much sense as standing on a train track and complaining about the train traffic.

--
Michael Batchelor / KA7ZNZ uunet!wshb!mikebat!michaelb

Ships don't come in; they're built. -- (I don't know who said it.)

27. A question about receiver components

Newsgroup: rec.ham-radio
Date: 1990-01-03 02:14:35 UTC
From: dbraun@cadev5.intel.com
Message-ID: <1429@mipos3.intel.com>
Source record: 14427
Cross-posted to: rec.radio.shortwave,rec.ham-radio

(This is a repost of an article that never got out, I think)

I have a shortwave radio that a recently rescued from my parent's place.
It is a Heathkit GR-78 general coverage receiver that I built about
12 years ago. It's not a bad radio, but I was thinking of doing something
to improve it.

The IF section is at 455 KHz, and it uses four of these little creamic
filters for the filtering. I would like to modify the circuit to have
something fancier, such as a crystal IF filter. Does anyone have information
on where I can get these sort of parts?

Three possibilities have presented themselves:

1: Collins mechanical filters. Where can I get these? Hamfests?
Someone told me they would be quite expensive ($150).

2: Could I build some sort of network out of these ceramic filters?
I can get lots of them cheap. I guess these electrically look
something like a quartz crystal, but with a lower Q.
I saw a vague reference in the ARRL handbook that you can make
"a crystal filter in a ladder configuration, where all crystals
are cut to the same frequency". Could I do the same thing with
ceramic filters? Where do I find more information on this sort
of thing?

3: Apparently companies such as Murata make mulit-element ceramic
IF filters that are presumably used in most modern receivers.
Has anyone ever seen them for sale or bought any?

If anyone has some advice or references that would help me,
please let me know.

Doug Braun Intel Corp CAD
408 765-4279

/ decwrl \
| hplabs |
-| oliveb |- !intelca!mipos3!cadev4!dbraun
| amd |
\ qantel /

or:

dbraun@cadev4.intel.com

28. AUTOMATIC DIGITAL ON HF

Newsgroup: rec.ham-radio
Date: 1990-01-03 03:56:04 UTC
From: jpb@ATHENA.MIT.EDU
Message-ID: <9001030356.AA26316@M11-113-7.MIT.EDU>
Source record: 14433

In reply to the 28 Dec 89 message of John D. Hays, KD7UW:

I have no opinion one way or the other on whether or not Automatic
Digital subbands are a good idea, but I fail to see why the CW bands
are the best place from which to take them. The phone bands are far wider;
removing any given amount bandwidth from them would clearly have less
of an impact than removing the same amount from the CW bands.

Knocking the CW bands down to 25 kHz from the current 60 kHz or so
would leave the remaining part extremely conjested. Trimming 35 kHz
from a 200 or 300 kHz phone band would be noticed, but not a disaster.

Whose idea was it to take the space from CW ?
Maybe the "Phone Good Ol' Boys" ?

73 de John Paul Braud, ka1rcv (jpb@athena.mit.edu)
CW Good Ol' Boy
Massachusetts Institute of Technology

29. Feds finger shortwave jammers again

Newsgroup: rec.ham-radio
Date: 1990-01-03 04:30:22 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <12379@cbnewse.ATT.COM>
Source record: 14429
Cross-posted to: rec.radio.shortwave,rec.ham-radio

x
FEDS FINGER SHORTWAVE JAMMERS AGAIN

Copyright 1989 by Bob Parnass, AJ9S

Shortwave broadcasters in the United States, the United Kingdom, Israel, and West Germany have long been subjected to intentional interference (jamming).

To identify the jammers, an intensive investigation was conducted in 1984 and 1985 under the auspices of the International Frequency Registration Board of the International Telecommunication Union (ITU). A 318 page report was issued after the investigation,1 and I summarized the report in an earlier article2.

Since the original study, closer East/West relations have led to a decrease in jamming. The Russians have stopped jamming Radio Liberty's broadcasts aimed at the Soviet Union, ending a 35 year long tradition. Another study was conducted in July 1988, and this article summarizes that report.3

Jamming Characteristics

Foreign language programs, particularly those in languages spoken in Iron Curtain countries, are the primary targets of the jammers.

Jamming installations fall into two categories:

1. Ground wave jammers are used for localized jamming, directed toward the immediate vicinity (up to 100 km) of the jammer. They are situated close to the people who are to be prevented from hearing the broadcast, and are effective in blanketing high population regions with strong signals.

2. Sky wave jammers are used to prevent people far away from the jammer from hearing the targeted broadcast.

The jamming transmitters monitored in this operation were assumed to run 250 KW power and antennas with 10 dB gain. Jammers need not provide a signal with the same field strength as the broadcast signal in order to be disruptive to the the targeted transmission. By using appropriate

modulation schemes, a jamming signal can obtain 10 to 15 dB relative gain compared to a broadcast signal.

Sometimes, several different jamming transmitters are used at the same time to interfere with a single broadcast frequency. About 90% of the jamming signals observed during the study were accompanied by a 2 character Morse Code identifier, which presumably allows the offender's field monitoring stations to determine the effectiveness of each jamming transmission.

Monitoring Stations

Jammers were monitored between July 4 and 24, 1988, in a cooperative effort by monitoring stations in West Germany, the United Kingdom, Norway, Sweden, Canada, South Korea, Japan, Italy, and the United States,

The American locations were FCC field monitoring sites, and most employed fixed monopole (Wullenweber) antenna systems with goniometers.

Most European monitoring stations employed Adcock antennas, and Korean and Japanese stations used log periodic antennas.

Findings

The July 1988 study uncovered an entirely new set of markers (Morse Code identifiers), different from those recorded in earlier studies. Monitors reverified their assumption that each marker transmitted from only one location.

Although the markers heard in 1988 were different than those in 1984, the general locations of the jammers did not change drastically. The 1984 surveillance traced the source of most jamming to the USSR. In 1988, 61 of the 69 jammers monitored were again located in the western USSR, with a large grouping around Moscow. Four jammers were located in Czechoslovakia and three in Bulgaria.

Most jammers in the USSR were aimed against Russian and Russian dialect broadcasts, with the exception of a few Bulgarian and Czechoslovakian language jammers.

Russian jamming of Polish language broadcasts stopped, even though they were consistently jammed in 1984. Jamming of Radio Liberty stopped, although it was jammed more than any other broadcaster observed in the 1984 operation.

```
-------------------------------------------------------
| Participating U.S. Monitoring Stations |
| |
| Location Antenna Type |
```

|____|
| Anchorage, AK fixed monopoles with goniometer|
| Belfast, ME fixed monopoles with goniometer|
| Douglas, AZ fixed monopoles with goniometer|
| Ferndale, WA fixed monopoles with goniometer|
| Vero Beach, FL fixed monopoles with goniometer|
| Grand Island, NE rotating Adcock type |
| Kingsville, TX fixed monopoles with goniometer|
| Laurel, MD fixed monopoles with goniometer|
| Livermore, CA fixed monopoles with goniometer|
| Powder Springs, GA fixed monopoles with goniometer|
| Sabana Seca, PR fixed monopoles with goniometer|
| Honolulu, HI fixed monopoles with goniometer|
|____|

____
| Participating Foreign Monitoring Stations |
| |
|Location Antenna Type |
|____|
|Ft. Smith, Alberta, Canada (no bearing information) |
|Langley, B.C., Canada (no bearing information) |
|St. Remy, Quebec, Canada (no bearing information) |
|Bockhacken, W. Germany Adcock |
|Berlin, W. Germany Adcock |
|Darmstadt, W. Germany Adcock |
|Munchen, W. Germany Adcock |
|Itzehoe, W. Germany Adcock |
|Konstanz, W. Germany Adcock |
|Krefeld, W. Germany Adcock |
|Norway (4 stations) Adcock |
|Enkoping, Sweden Adcock |
|Baldock, U.K. fixed monopoles with goniometer|
|Crowsley Park, U.K. (bandwidth measurement only) |
|Rome, Italy Adcock |
|Tokyo, Japan log periodic |
|Seoul, S. Korea log periodic |
|Rusan, S. Korea log periodic |
|Kwangcu, S. Korea log periodic |
|Kangnung, S. Korea log periodic |
|____|

____
Jammer Jammer	Jammer Jammer
cw id Location	cw id Location
________________________	_________________________
A5 Bulgaria	MU USSR
AL USSR	MX USSR
AR USSR	NA USSR
B1 Czechoslovakia	ND USSR
BF USSR	NI USSR

BN USSR	NK USSR
BS USSR	NU USSR
CB USSR	PF USSR
DK USSR	R9 Czechoslovakia
DP USSR	RA USSR
DW USSR	RD USSR
FG USSR	RP USSR
FI USSR	RQ USSR
FL USSR	RT USSR
G3 Bulgaria	S5 Czechoslovakia
GA USSR	SF USSR
GD USSR	SU USSR
GF USSR	TF USSR
GL USSR	TK USSR
GS USSR	TU USSR
GU USSR	U7 Czechoslovakia
GV USSR	UA USSR
HD USSR	UD USSR
HP USSR	UR USSR
IL USSR	VL USSR
IR USSR	VN USSR
KM USSR	WA USSR
KU USSR	WQ USSR
KV USSR	WU USSR
L4 Bulgaria	WV USSR
LK USSR	XD USSR
LR USSR	Z3 Czechoslovakia
LU USSR	ZA USSR
M3 USSR	ZK USSR
MB USSR	ZN USSR
MG USSR	ZT USSR
ML USSR	
_____	_____

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1. Monitoring of Harmful Interference to the HF Broadcasting Service: I. Results of the October 1984 and March/April 1985 Coordinated Monitoring Periods, by M. W. Sowers, G. R. Hand, and C. M. Rush, U.S. Department of Commerce, NTIA, Institute for Telecommunications Sciences. NTIA Report 85-187, December 1985. PB86163011/AS.

2. Shortwave Jammers Identified, by Bob Parnass in The Radio Enthusiast, June 1987.

3. Monitoring of Harmful Interference to the HF Broadcasting Service: I. Results of the July 1988 Coordinated Monitoring Period, by M. W. Sowers, G. R. Hand, and C. M. Rush, U.S. Department of Commerce, NTIA,

Institute for Telecommunications Sciences. NTIA Report
89-244, June 1989. PB89231732.

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Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

30. Beam heading and range program

Newsgroup: rec.ham-radio
Date: 1990-01-03 07:16:39 UTC
From: sampson@attctc.Dallas.TX.US
Message-ID: <10814@attctc.Dallas.TX.US>
Source record: 14434
Body handling: HTML body converted to readable text

I donated this program before, but it didn't work at +/- 90 degrees latitude. This was due to an acos() Domain Error. I took the easy way out and just changed 90.0 to 89.9 when entered. This archive is basically for those who need a quick command line bearing and range to a station. If you forget the syntax a little usage message is included. The Basic version is not as good but should work on the older micros. The gc.exe is based on the C version and for IBM PC. I used a PC to shar this so your extract may not like the character count. I'd be interested in a command line version that uses Grid squares. Steve, N5OWK, EM15gh

```
#! /bin/sh
# This is a shell archive. Remove anything before this line, then unpack
# it by saving it into a file and typing "sh file". To overwrite existing
# files, type "sh file -c". You can also feed this as standard input via
# unshar, or by typing "sh gc.c <<'END_OF_gc.c'
X/*
X * gc.c
X *
X * Great Circle. This program is used to determine bearing
X * and range to a station given latitude and longitude.
X *
X * Ver 1.03 By S. R. Sampson, N5OWK
X * Public Domain (p) November 1989
X *
X * Ref: Air Force Manual 51-40, "Air Navigation", 1 February 1987
X *
X * Usage examples:
X *
X * gc 35.19n97.27w 0s0e (Moore to Prime/Equator)
X * gc 35.19N97.27W 38.51n77.02W (Moore to Washington D.C.)
X * gc 33.56n118.24w 55.45n37.35e (L.A. to Moscow U.S.S.R.)
X * gc 35N70W 35N71W (No decimal points used)
X */
X
X/* Includes */
X
X#include
X#include
X#include
X#include
X
X/* Defines */
X
```

```
X#define RADIAN (180.0 / M_PI)
X
X/* Globals */
X
Xdouble tmp,
X dist,
X range,
X bearing,
X QTH_Lat,
X QTH_Long,
X DEST_Lat,
X DEST_Long,
X Delta_Long;
X
X/* Simple Declare, No Prototypes */
X
X/*
X * Error routine
X */
X
Xvoid err(type)
Xint type;
X{
X switch(type) {
X case 1:
X printf("\007Latitude Out of Range (90N to 90S)\n");
X break;
X case 2:
X printf("\007Longitude Out of Range (180W to 180E)\n");
X break;
X case 3:
X printf("\007Minutes Out of Range (0 to 59)\n");
X }
X
X exit(1);
X}
X
X/*
X * Convert Degrees and Minutes to Decimal
X */
X
Xdouble dm2dec(n)
Xdouble n;
X{
X double t;
X
X t = (int)n;
X n -= t;
X n /= .60;
X
```

```
X if (n >= 1.0)
X err(3);
X
X return (n + t);
X}
X
X/*
X * Parse the input line
X *
X * dd(.mm)[NnSs]ddd(.mm)[EeWw]
X */
X
Xvoid parse(s, lat, lon)
Xchar *s;
Xdouble *lat, *lon;
X{
X register char *i, *t;
X int l;
X
X l = strlen(s);
X for (i = s; i < (s + l); ++i) {
X switch(toupper(*i)) {
X case 'N':
X *i = '\0';
X t = i + 1;
X *lat = atof(s);
X break;
X case 'S':
X *i = '\0';
X t = i + 1;
X *lat = -atof(s);
X break;
X case 'E':
X *i = '\0';
X *lon = -atof(t);
X break;
X case 'W':
X *i = '\0';
X *lon = atof(t);
X }
X }
X
X *lat = dm2dec(*lat);
X *lon = dm2dec(*lon);
X
X if (*lat > 90.0 || *lat < -90.0)
X err(1);
X
X if (*lon > 180.0 || *lon < -180.0)
X err(2);
```

```
X
X /* Prevent ACOS() Domain Error */
X
X if (*lat == 90.0)
X *lat = 89.9;
X
X if (*lat == -90.0)
X *lat = -89.9;
X}
X
Xmain(argc, argv)
Xregister int argc;
Xregister char **argv;
X{
X if (argc != 3) {
X printf("Usage: gc station1 station2\n\n");
X printf("This program computes Great Circle Bearing and Range\n");
X printf("given the latitude and longitude (degrees and minutes).\n\n");
X printf("You must input the lat/long of the two stations.\n");
X printf("The output will then be relative from station1 to station2.\n\n");
X printf("Input the two station lat/longs using the following format:\n\n");
X printf("\tdd.mmHddd.mmG lead/lagging zeros can be left out.\n\n");
X printf("d = Degrees, m = Minutes, H = Hemisphere (N or S), G = Greenwich (W or E)\n");
X
X exit(1);
X }
X
X /* Process the command line data */
X
X parse(argv[1], &QTH_Lat, &QTH_Long);
X parse(argv[2], &DEST_Lat, &DEST_Long);
X
X /* Compute the Bearing and Range, From the Formula in Chapter 23 */
X
X Delta_Long = DEST_Long - QTH_Long;
X
X QTH_Lat /= RADIAN; /* Convert variables to Radians */
X QTH_Long /= RADIAN;
X DEST_Lat /= RADIAN;
X Delta_Long /= RADIAN;
X
X tmp = (sin(QTH_Lat) * sin(DEST_Lat)) +
X (cos(QTH_Lat) * cos(DEST_Lat) * cos(Delta_Long));
X
X dist = acos(tmp);
X range = 60.0 * (dist * RADIAN);
X
X tmp = (sin(DEST_Lat) - (sin(QTH_Lat) * cos(dist))) /
X (sin(dist) * cos(QTH_Lat));
X
```

```
X bearing = acos(tmp) * RADIAN;
X
X if (Delta_Long > 0.0)
X bearing = 360.0 - bearing;
X
X /* Computations complete, show answer */
X
X printf("\nBearing is %.0f Degrees for %.0f Nautical Miles\n",
X bearing, range);
X
X exit(0);
X}
X
X/* EOF */
END_OF_gc.c
if test 4620 -ne `wc -c gc.bas <<'END_OF_gc.bas'
X100 '
X105 ' gc.bas
X110 '
X115 ' Great Circle. This program is used to determine bearing
X120 ' and range to a station given the latitude and longitude
X125 ' of both stations.
X130 '
X135 ' Ver 1.02 Public Domain (p) November 1989 By S. R. Sampson, N5OWK
X145 '
X150 ' Ref: Air Force Manual 51-40, "Air Navigation", 1 February 1987
X155 '
X160 RADIAN = (180 / 3.14159)
X165 GOTO 215
X170 '
X175 T = INT(V1) : V1 = V1 - T : V1 = V1 / .6 : V1 = (T + V1)
X180 RETURN
X185 '
X190 ACOS = -ATN(TMP / SQR(1 - TMP * TMP)) + 1.570796
X195 RETURN
X200 '
X205 ' Get the user data
X210 '
X215 PRINT "East Longitudes and South Latitudes are negative" : PRINT
X220 PRINT
X225 INPUT "Latitude of your QTH [+-]dd.mm : ", V1
X230 GOSUB 175
X235 IF V1 > 90 OR V1 < -90 THEN 225
X240 L1 = V1
X245 INPUT "Longitude of your QTH [+-]ddd.mm : ", V1
X250 GOSUB 175
X255 IF V1 > 180 OR V1 < -180 THEN 245
X260 A1 = V1
X265 PRINT
X270 INPUT "Latitude of destination [+-]dd.mm : ", V1
```

```
X275 GOSUB 175
X280 IF V1 > 90 OR V1 < -90 THEN 270
X285 L2 = V1
X290 INPUT "Longitude of destination [+-]ddd.mm : ", V1
X295 GOSUB 175
X300 IF V1 > 180 OR V1 < -180 THEN 290
X305 A2 = V1
X310 '
X315 ' Compute the Bearing and Range, From the Formula in Chapter 23
X320 '
X325 DELTA = A2 - A1
X330 '
X335 ' Convert variables to Radians
X340 '
X345 L1 = L1 / RADIAN
X350 A1 = A1 / RADIAN
X355 L2 = L2 / RADIAN
X360 DELTA = DELTA / RADIAN
X365 TMP = (SIN(L1) * SIN(L2)) + (COS(L1) * COS(L2) * COS(DELTA))
X370 GOSUB 190
X375 DIST = ACOS
X380 RANGE = 60 * (DIST * RADIAN)
X385 TMP = (SIN(L2) - (SIN(L1) * COS(DIST))) / (SIN(DIST) * COS(L1))
X390 GOSUB 190
X395 BEARING = ACOS * RADIAN
X400 IF DELTA > 0 THEN BEARING = 360 - BEARING
X405 '
X410 ' Computations complete, show answer
X415 '
X420 PRINT
X425 PRINT "Bearing is "; BEARING; " Degrees for "; RANGE; " Nautical Miles"
X430 PRINT
X435 END
END_OF_gc.bas
if test 2051 -ne `wc -c gc.uue <<'END_OF_gc.uue'
Xbegin 644 gc.exe
XM35IP`2P`"P`@`!$`__]@!8`````````(@```$`^Q!R:@(```#S`0``E0<`
XM`-0```#E!P``[P<``/L'```%"```,0@```8$R@00!,H$`````````````````
XM`````````````````````````````````````````````````````````````
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XM`````````````````````````````````````````````````````````````
XM`````````````````````#[NLH$+HD6HP&T,,TABRX"`(L>+`".VJ.&`(P&
XMA`")'H``B2Z<`,<&B@#__^@F`<0^?@"+QXO8N?]_)H$].#=U&2:+50*`^CUU
XM$(#FW_\&B@"`_EEU!/\&B@#RKN-G0R8X!776@,V`]]F)#GX`N0$`T^.#PPB!
```

```
XMX_C_B1Z"``[_%KH(C-HKZHL^0`B!_P`!
_``&)/D`(@<=:"7(H`S[6!W(B
XML033[T<[[W(9@SY`"`!T!X,^U@<`=0Z_`!`[[W<'B_WK`^G%`(O?`]J)'I0`
XMB1Z8`*&$`"O8CL"T2E?-(5_3YX[2B^?H_A?HYA@SP"Z.!J,!O]`(N5H)*\_S
XMJO\6O@C_-GP`_S9Z`/\V>`#H\P)0Z&01+HX>HP'H5``._Q:\"#/`B_"Y+P"0
XM_`($@-0`1N+X+38-D'0*N1D`D+HO`.A"`(OLM$R*1@+-(;D.`)"Z2`#K/QZX
XM`#7-(8D>=`",!G8`N``EC,J.VKI,`N``EQ19T`,TA'\/'!HH```#+
XMP[1`NP(`S2'#N1X`D+I6`"Z.'J,!Z.G_N`,`4.AR_P``58OLBT8$2#T"`'#,TY'\T]ZQ'&!`!7Z)`&1$2+7@S-
XM.1_-/4:+1@@#1OX[QG8#Z6O_BUX*S3D'@^P(S3E>]LT]Z-;^@\0(BUX*S3D?
XMS3V+7@S-.0>#[`C-.5[VS3WHN?Z#Q`B+7@S-.1_-/=QG-.08D`#,TY!\TZV"LTY!\TZVPU9758OLBW8*BWX(@_\#
=$BX3`%0Z,026;AJ`5#HO!)9N*`!
XM4.BT$EFXV@%0Z*P26;@,`E#HI!)9N$H"4.B<$EFXB`)0Z)026;B^`E#HC!)9
XMN`$`4.@>#EFXV`A0N-`(4/]T`NCH_8OEN`@)4+@0"5#_=`3HV/V+YV`C-
XM/``G-/?\V!@G_-@0)_S8""?\V``GHGP.+Y"8OE@^P*S3=^]LT]
XM_S;N"/\V[`C_-NH(_S;H".B*`X/$",TW;O;-/8/$"LTZR8/L"LTW?O;-/?\V
XM%@G_-A0)_S82"?\V$`GHU0B#Q`C--V[VS3V#Q`K-.NF#[`K--W[VS3W_-NX(
XM_S;L"/\VZ@C_-N@(Z*H(@\0(@^P*S3=^[,T]_S;6"/\VU`C_-M((_S;0".@5
XM`X/$",TW;NS-/8/$"LTZR=P/I$0#-.093`\TX)O`(S3D>\`C-/?\VY@C_-N0(_S;B"/\VX`C_-O8(
XM_S;T"/\V\@C_-O`(N`D#4.C5#XOE,\!0Z&<+65U?7L-5B^R#[`)46#O$=0G-
XM$24"`'4SZS3;X\=&_@``V7[^N10`XOZ+1OXE/P\]/P.X``!U%\=&_O__W7[^
XMN10`XO[W1OZ_N'4#N`$`B^5=PP`````````````````````````````````
XM`````````````````````5P::+PH``+@T-;D*`+]D!\TA+HD=+HQ%`H/'
XM!$#B\;@^-XVZ!^>!_C--<'--,C-.NG--?K-
XM--'-.7[\M$'-/2)F_70)`N1X0_-->"`?@K_=0;-->O-.L'K<)!W4(M$!`M$`@L$=4;K$+8`
XMS3G8@'X*_W0.S37NZ\S-.=B`?@K_=/+'1O[__\T[1O[-->O--?W-.=GKK\TZ
XMV<=&_O[_S3M&_LTUZ\TU_N8"'0'S3G8,\!04%!04/]V#/]V"+@!`%#H
XMZ`>#Q!"+Y5U?7L-5B^R-1@10N/\`4+A<`U#H]?Z+Y5W#58OLC48$4#/`4+AA
XM`U#HX/Z+Y5W#58OL,\!0_W8$Z.`%B^5=PU6+[,<&B`````,TY1@2X\'\C1@H]
XM0$-S!L;S3G8,\!04%!04(U&!%"X9@-0N`4`4.AN!XOE7Q19J
XM`[@")!(,_!'40S3D&4`3-
XM.5\4S3VX`0#K`C/`7<-658OL@^P(QP:(````BT8&"\!]`O?8=07-->CK:#W_
XM`7=EO@<`(_#1YM'FS36$6`31Z-'HT>C1Z',%S30.>`1T.='HL'@'__+G4!2\-65U6+[(/L+`8>!XM&#CTH`'8&N"
@`
XMB48.BE8*@.+?@/I&=0OWV'X0*\")1@[K"0O`?P6X`0#K!H#Z1G0!0(E&#O]V
XM$%"-7OY3C7;45NC7`Y.+?@S\@'[^`'0#L"VJBE8*@.)?@/I&=`^`^D5T38/[
XM_7Q(.UX.?T.#^RA_/@O;?PRX,"ZK=`:P,*I#=?RL"L!T":I+=?>P+JKK\DMT
XM$X!^"`!U#8I6"HM.#(??Z#3_A_L[?@QU5K`PJNM1K:JP+@KD=!RJBL2JK`K`
XM=?J`?@@`=0V*5@J+3@R'W^@&_X?[L"`B1@H,1:JP*TM]!+`M]]NJDSWG`W8#
XMN.<#LV3V\P0PJH;$F+,*]O,%,#"KL`"J!XOE75]>P@H`PU9758OL@^P2QD;R
XM`,9&\P#'1O0``,=&]@$`!KX`@+_^_RO`B4;XB4;ZB4;\B4;^_T;T_W8,_U8(
XM60O`?%J8D_;#@'4']H.D[@*`/=F_HE&_K@*`/=F_(E&_%*X"@#W9OJ)1OI2
XMN`H`]V;X`\.)1O@15OI:$5;\6A%6_NE7_\=&]@``@WX.``P,_W8,4/]6"EE9
XM_T[TS37NZ>(`@__^=-Z!_@"`=0*+]XE^\(EV[BO_/$5T!#QE=4[_3@Y\5?]&
XM]/]V#/]6"%D\*W0'/"UU$OY&\_].#GP[_T;T_W8,_U8(63PY=QHL,'(4F)>Z
XM"@#WX@/X@?\/)W;:OP\GZ]4$,/Y.\WP"]]__=@Q0_U8*65G_3O2+7O`+VWT%
XMS37NZU^+3NZ+P0/'/30!?1`]SOY_'\TU[L=&]@(`ZT20Z`7\S3E>^,T]QT;V
XM`@#-.4;XZR^+PX/[$G8#NQ(``\$KRP/YS3MN^(O'"\!T%7T"]]A0Z`;\6`O_
XM?07-.OGK`\TZR8!^\@!T`\TUX(M^$(M>]`$=BWX2BU[VB1T'B^5=7U[#S3G8
XMPU9758OLBWX(@WX*`'0%S3D=ZP/--1U=7U[#PU6+[,<&B`````,TY1@2X\'\C
XM1@H]0$-S!8B_"+Q@O`=06X___K`HO&75[#58OLBUX&_P]=PU6+[(/L
```

```
XM#,=&]```QP:(````C4;V4(U&]%"X_W]0C48$4+A8#U"X-@]0Z$@)@\0,S3E>
XM^,T]@W[V`'\(BT;T*48$ZPR#?O8"=0;'!H@`(@"#?@8`=`B+1@2+7@:)!\TY
XM1OB+Y5W#5E=5B^R#[`['1O(*``8>!XM^#HM%!BO)T>#1T8M^"HD-T>AT#SWP
XM?W(MNO]_L#GK",TYV+H!`+`PBTX,"\E_`_?908/Y*'8#N2@`_(M^"/.JL`"J
XMZ0`!NM$$+?`_BWX.S3D%]^KWV(/2`(M&#`O`S37A?P;WV`/"?+<]$@!^`[@2
XM`(O8*\*+\'05?0+WV%#H7?I8"_9_!L#S3K)4^A,^EC---G-.7[TS3WV
XM1O5%=!1"0X/[$G<&@WX,``XKS3IV\DOK)(O#2%#H(?I8S339S3E^],T]]D;U
XM074-2DN#?@P`?@7-.D[R0\TU_,T[=O:+?@@#^U>P`/VJC7;VN00`S3T+VW4'
XMBBR`]0'K&HH$1HK@TNPD#P4P,*H*Z$MT"(K$J@KH2W7F6X#E#W4%0L9%`3&+
XM3@P+R7\$]]D#RH/Y*'8#N2@`B\,K1@@KR'8'QPL&BUX,S3D'S3E>\,T]BT84B4;^BT82B4;\BT80B4;ZBT8.B4;X
XMC4;D4.@-^5D+P'4RBUX&2]'C_[>^!/]V"+CU!%"XC@90Z'4!@\0(@WX&`W0&
XM@WX&!'4%N"(`ZP.X(0"CB`#-.4;XB^5=7L-5B^R#/@P%('4%N`$`ZQ.+1@2+
XM'@P%T>.)AQH)_P8,!3/`7<-5B^R+1@2+U('J``$[PG,%HXX`ZPG'!H@`"`"X
XM__]=PU6+[(M&!(M6!@,&C@"#T@"+R('!``&#T@`+TG4*.\QS!H<&C@#K"<<&
XMB``(`+C__UW#58OL_W8$Z*7_65W#58OLBT8$F5)0Z+;_B^5=P[DL`)"Z$`;K
XM";DK`)"Z/`;K`+1`NP(`S2'I%>_#58OLH0P%_PX,!0O`=`R+'@P%T>/_EQH)
XMZ^G_%F@&_Q9J!O\6;`;_=@3H<.Y97<-65U6+[(MV"(M$#CO&=5J#/`!\*_=$
XM`@@`=0R+1`J+UH/"!3O"=4?'!```BT0*B]:#P@4[PG4WBT0(B40*ZR^+?`8#
XM/$+1`B)1`I0BD0$F%#H_`R+Y3O'=!'W1`(``G4*@4P"$`"X___K`C/`
XM75]>PU6+[+A:&%#_=@3_=@:-1@A0Z"H(7<-65U6+[(-^"`!U`^F4`(M^"(/'
XM_HLV.`CK%8M$`CO&=PL[_G<5BT0".\=W#HMT`CO^=N>+1`([QW;@BP4#QSM$
XM`G42BUP"BP"(LWB\:)1OZ+7@CW1P)``'0$B\;K'8M>
XM"(M_"HO&3@O`=`V+WT>`/PIU`_]&_NOLBT;^B^5=7U["`@!658OLBW8&5NB!
XM_ED+P'0%N/__ZU>#?@P!=1Z#/`!^&8M6"HM&"%)05NB0_YE;62O8&\J)3@J)
XM7@B!9`)?_L<$``"+1`B)1`K_=@S_=@K_=@B*1`284.C"`(OE@_K_=0H]__]U
XM!;C__^L",\!=7L-658OL@^P$BW8&5N@/_ED+P'0(NO__N/__ZSVX`0!0,\!0
XM4(I$!)A0Z($`@\0(B5;^B4;\@SP`?AF+5OZ+1OQ24%;H"/^9B]B+REA:*\,;
XMT>L&BU;^BT;\B^5=7L-658OLBW8&"_9\%(/^6'8#OE<`B3;8!XJ$V@>8ENL-
XM]]Z#_B)WZL<&V`?__XO&HX@`N/__75["`@!5B^RX`$2+7@3-(;@``'($T>+1
XMT%W#58OLBUX$T>.!IZX'__VT0HI&"HM>!(M."(M6!LTA<@+K!5#HB_^97<-6
XM5U6+[(/L(@:+?@X>!XM>#(/[)'=8@/L"]]D#
XMSOQ.B@0L"G,$!#KK`P)&"*KB[[``J@>+1@Z+Y5U?7L(,`%6+[(-^"`IU!HM&
XM!)GK!8M&!#/24E#_=@;_=@BP`5"P85#H7O]=PU6+[/]V!O]V!/]V"/]V"K``
XM4+!A4.A$_UW#58OL_W8&_W8$_W8(_W8*@WX*"G4%N`$`ZP(SP%"P85#H'_]=
XMPU9758OL@^P$BWX("_]U!3/`Z8(`B\<%!0`E_O^+^*$X"(E&_(M>_(MW`HL$
XM.\=R+8L$B]>#P@0[PG<+BT0"BU[\B4<"ZPHI/(L$`\:+\(D\BT;\HS@(B\8%
XM`@#K.3LV.`AU`NL(B7;\BW0"Z[V+QS/2)?__@>(``%)0Z$[[65F)1OZ#?O[_
XM=00SP.L*BW;^B3R+Q@4"`(OE75]>PU6+[+A:&%"X?@90_W8$C48&4.AF!%W#
XM5E6+[(MV"/\,]T0"D`!U!_=$`@(`=0N!3`(0`+C__^G.`(%,`@`!@WP&`'0Q
XM@SP`=!%6Z'S[60O`=`:X___IKP#K"KC__XM4!BO"B016BD8&F%#HG0"+Y>F5
XM`.F2`(,^/@@`=3BX?@8[QG4QBD0$F%#HM_U9"\!U!8%D`O_]N``"4/=$`@`"
XM=`6X`@#K`C/`4#/`4%;HCP*+Y>F%_X!^!@IU'O=$`D``=1>X`0!0N#H(4(I$
XM!)A0Z&H)B^4]`0!U%[@!`%"-1@90BD0$F%#H4PF+Y3T!``01]T0"``)U"H%,
XM`A``N/__ZP>*1@:T`.L`75[#5E6+[$Q,BW8(BD8&B$;__P2+!`O`?3:*1O__
XM1`J+7`J(1_^`?O\*=`:`?O\-=17W1`((`'0.5NB%^ED+P'0%N/__ZQ2*1O^T
XM`.L-ZPM6_W;_Z+G^65GK`(OE75[#5E6+[(MV!KA^!E!6Z)3_B^5=7L-65U6+
XM[(M^"(MV"D;W10((`'0B3HO&"\!T&5>+7@S_1@R*!YA0Z&?_B^4]__]T!.OB
XMZ^#K.TZ+Q@O`=#3_!8L%"\!]%8M>#/]&#(H'_T4*BUT*B$?_M`#K#E>+7@S_
XM1@S_-^@W_HOE/?__=`3KQ^O%B\9=7U["!@#_)L`(_R;$"/\FQ@C_)L@(````
XM``+H\&XA@NC![D&/R.!H0`OH``,\`FK$",Q8?6DXLV?@"#Q@*Y`0"`/H8`
```

```
XM`W(1C@:``(O^L7\RP/*NXW:`\7^#[`*X`0`#PP/!)?[_B_PK^')@B^>,P([8
XMC-".P%%)\Z0RP*J.W8?RA]F+PXO00^@9`'<``/")U`JQ)"_;#
XMZ?'G60/*+HX>Y!B)'G@`0P/;B_2+["OK@#C#HEV`(/%`C:L"L#@
XM^G3P,\")1@`N_R;B&(L.?@!1Z&C\68OX"\!T)!X>!XX>@``S]OSSI!^+^`;_
XM-H(`Z$K\@\0"B]@'HWP`"\!U`^F$YS/`N?__B3^#PP+RKB8X!77TB0?#5E=5
XMB^R+?@Z+=@B+1`X[QG4,@WX,`G\&@?__?W8&N/__Z:<`@SX^"`!U#[A^!CO&
XM=0C'!CX(`0#K%(,^/`@`=0VX;@8[QG4&QP8\"`$`@SP`=`ZX`0!0,\!04%;H
XMH/F+Y?=$`@0`=`?_=`CHI_A9@60"\__'1`8``(O&!04`B40(B40*@WX,`G0_
XM"_]V.\<&:`9>(8-^"@!U&%?HB/M9B48*"\!T!X%,`@0`ZP6X___K&8M&"HE$
XM"HE$"(E\!H-^#`%U!8%,`@@`,\!=7U[#5E=5B^R,V([`_(M^"#+`N?__\JZ+
XMP??02%U?7L-658OLBW8&B\:T`(O8]HO^L/"5TY(F^;O\KR8F.>/^(CG;_B(YW_\>&
XM&=/___^L!K)B+T).`ZR"`^V!S18J?60B+PST6`'8#Z:<#B]C1XR[_
XMI^4;+AP6'&P<(AR0')DJ1W)'5L7
XMZ1<#BWX(BP6#1@@"@/T"OP@/T$<]2U
XM!.OGDBPPF(#]`G<5M0*'AG+_"\!\U+H*`/?B`89R_^O)@/T$=:V'AG3_"\!\
XMO+H*`/?B`89T_^NQ@(YV_Q"U!>NH@*9V_^^U!>N?MPCK"K<*ZPNW$+/I`MK&
XMAG?_`,:&)=@KV
XMAG;_$'0$BQ5'1XE^"%)0"\)T!8".=O\$C;Y]_U>*QYA0BH9Q_U!3Z!GX%@>+
XMEG3_"])_`^GH`.GT`(B6"/:&=O\@=`__-T-#
XMB5X(%@?HLOVP.JH6!^BJ_<8%`,:&-OGW_M`")!;D!`.FR`(EV"HB6_0@CH``#IK@$[
XMCG3_=@2+CG3_ZW*0B78*B)9P_XM^"(N.=/\+R7T#N08`5U&-GGW_4U*X`0`B
XMAG;_4.B@^H-&"`@6!XV^??_VAG;_"'06BY9R_PO2?@[H``#I6@$KT7X$B99X
XM_XJ&=_\*P'04)H`]+70.3X.N>/\!@Y9X_P`FB`7H``#I,`&+]XN^;O^+GG+_
XML`4BAG;_/`5U-XJF/\`?R?'AGC_`0#K'X#\>'0%@/Q8=16`
XMCG;_0(/K`H.N>/\"?0;'AGC_```#CGC_]H9V_P)U#^L)L"#H``#IX@!+.]E_
XM\_:&=O]`=!*P,.@``.G.`(J&"-'C]X>N
XM!P"`=!+_=@S_=@K_=@CH[P"#Q`;IXP"+7@C1XX&GK@?__8M&"HF&>/^+?@R-
XMMG[_"_]U`^EY`$^+GGC__X9X_XH'B(9W_X#X"G4$Q@0-1HJ&=_^(!$:-AG[_
XMB]8KT('Z@`!\28V&?O^+UBO0B99Z__^V>O^-AG[_4/]V".B!`(/$!HF&?/\[
XMAGK_=!V#OGS_`','N/__ZV+K#XM&#"O'`X9\_RN&>O_K48VV?O_I@/^-AG[_
XMB]8KT(F6>O\+TG8W_[9Z_XV&?O]0_W8(Z#$`@\0&B89\_SN&>O]T&X.^?/\`
XM
X___K$NL-BT8,`X9\_RN&>O_K`XM&#(OE75]>PU6+[(M>!-'C]X>N!P`(
XM=!"X`@!0,\!04/]V!.C_\XOEM$"+7@2+3@B+5@;-(7(/4(M>!-'C@8^N!P`0
XM6.L$4.B,\UW#5E>_`@"^;@;K$/=$`@,`=`56Z#7Q64^#QA`+_W7L7U[#`````
XM``````````````````````````````````````````````````````````````
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XM`````````"`!(`$```"0``````````````````````````````````````````
XM`````````````````9P)U`H,"BP*3`IT"IP*K`E%2B\R,T@X7O'8!45)35597
XM4!X&CL*+^3:+)D0!^S;&!DH!`/R,VR;%=01.B\ZR`*TL-#P(/`$$V#:C0@'I=`&R`8K$),!T
XM%3S`=`P\@'0$C,/K"8S;ZP4VBQYD`:R&X"0'-HD>2`$VB0XZ`3:,'CP!-J-"
XM`;L'P"+<(OR1@/_`<@TFB74$C-".V([`Z8P`*\"`_T!W&'02@/L&=1*M)HEU
XM!!8?C@9F`>M?K)CK`:TFB74$%A^W`-'C_Z=V`0,&<`$#!FP!C@9F`>L^`P9P
XM`0,&:@&.!F8!ZS`#Q0,&;``'K*`/%`P9J`>L@`P9L`8X&9@'K%@,&:@&.!F8!
XMZPP#Q>L(`P9P`8X&9@&6@/H!=02.!D@!B38^`8P&0`'VP0%U"^DD`YT)Y0DL
```

```
XM"BX*@/W`
@#`.M_D%!1'A8?H#8!B@XX
XM`8#A/X#Q/PK%BN`BX3+@]L0(=`(,((3!=`\,@*(V`2+!/"!U#1]96,,D?Z(V
XM`1]96,.X`C7-(3:)'C(!-HP&-`$VH$H!^KQD`075M:68[2B^%:6<]*!%P$;@2`!)($I`2W!$($;Q0`%/D;Z!OP&_
0;
XM[`3!C:+)D0!^_P6'\8&2@$!BL&8D_^7Q`.))D0!^KQD`0
XM7X[6B^=?7L_#B_2`=`P!PUL>!XOT5H/&#%96Z/X%B^;KSEL>!XO\C74,5E=6
XMZ.@%B^;KO%L>!XOT5H/&#%96Z-8%B^;KJEL>!XOT5H/&#%96Z#T'B^;KF%L>
XM!XO\C74,5E=6Z-0(B^;KAEL>!XOT5H/&#%96Z,((B^;I<_];CL:-?0J^%`'H
XMB1:+SBO,=`T6!X/N`K\>`?W1Z?.E@\0,Z4[_CL8FCD4&ZPB.QNL$C@9F`8/$
XM`NA4%H/$#.DR_UN+W%.#PPQ3Z$4,@\08CL8FB&4(Z1O_'@>--F@!6X/L#(O\
XM4^FZ%5L>!XT^:`&+].@X%8/$#.GY_@O2>!`>!XTV:`%;@^P,B_Q3Z8816RO;
XM4[D@`%%2_S9H`5-3Z=/^6QX'C3YH`8OTZ+`1@\0,Z<'^6QX'C3YH`8OT@'P*
XM`'56@WP(('T)Z)(1@\0,Z:/^?T6+7`(*'`I<`8M$!(M4!K$,(@XY`8#Y#'0B
XM@/D`=`N`^01T&/?;<@SK$K$!(L@*V8'#_W\5``"#T@!R"HD6:@&C:`'I7/ZU
XM`>A._;C__YGKZ]D:RQ8"'*<5/P9&!E`&3097!E8&7P9>!HOI@/W`#H`&
XM>@9A!\<&L@;1!GH&O0;HL@#HM`"X(`$KQ+(,]O*Y__^1`\G3Z*NX$`#W)CP!
XM`P8Z`1+6J[$$T\JA0@&&X`O"J[@0`/#^H3@!J\.X(`$KQ+$,]O$D![$#TN"+#C8!@.7'"NB1
XMJ\.+](/&`NB6$,(,`(OT@\8"Z%4+P@P`B_2#Q@+HF`W"#`#K!GH&,`?+!Z`'
XMU@>E!\``O08`(^GVQ2!U*?;%$'40]L4(=0F#[`R+_/^6:@;K+(O\A_=1_Y9R
XM!EGVQ0AT'8/$#.L8N`@`(L4+Z/;%$'4&_Y;;!NL&A_?_EN$'Z6#[>`BZ"(<(
XM@0C!"+H(P0C!",\(N@C6"-X(W@BZ"-X(W@BP#/;C`\26NQ@`(MV`X08*V?RY
XM!@#_IS\(@^P,B_SSI>MEOPP`ZP20OP``@?X4`70,A_ZX_S_H\PL#Y^M*@\<,
XMB]>+SBO,=`X6!X/N`K\>`?W1Z?.E_(/$#.LLM0'H8OKK)8O\BP6'!*N#Q@+B
XM]NL7]L4'=>;K$(O^B_3SI>L(B_Z+]/.EB^;IMOH$!`0$!`0$!``````````$
XM!`@&"`8$`@`*"`0$!`H$!$D)3@F+"8L)PQ'I$8L)BPD)%!H4*Q0\%$T47A1X
XM%(L)FR%_(BX?3B!3"8L)BPF+"6T0(".G#XL)5QEA%HL)BPF`=`H!P\9$"@##
XM5E=65_RY!@#SI5]>A_>-=`B!/```?@^!//\_?0S_#.@R#,<$`0!?7L/'!```
XMQT4(#0#&10>`Z^ZU`>F1^<.P"<0)MPF["CX^.ES^>OV]L4?=?&X
XM(`$KQ+$,]O$D![$#TN"+#C8!@.7'"NB)#F@!Z4WYL0'K`K$`58OLC6;Z5E>+
XM=@B+?@:*P3)%"C)$"HA&^HM$"(M="#O#?0@R30J3A_?K`XI,"HA.^XM,"(E.
XM_#W_/WT-@?L!P'X'*\,]0`!^#HL$BUP"BTP$BU0&Z>``B$;_BP6+70*+302+
XM50;&1OX`@&[_"'P9B$;^BL2*XXK?BOF*S8KJBM:V`(!N_PA]YX!F_P=T$-'J
XMT=G1V]'8T%[^_D[_=?`K_X!^^@!U'0,$$UP"$TP$$U0&
XM_O]&_.M4@';[`2L$&UP"&TP$&U0&^0``*]G@D3G06T&;^T=#1T]'1$])Y\(/N0`%V_.L,D,=&_```QD;[`.L@
XMT&;^$\<3WQ//$]=S!=':_T;\@7[\_S]](H%^_`''?B3\BWX$JY.KD:N2JXM&
XM_*N*1ONJ7UZ+Y5W"!@"U",=&_/\_ZP>U$,=&_`''Z&3WQD;[`"O`B]B+R(O0
XMZ\15B^Q65_R+=@B+?@:+70B+1`@[PWP!DX'[_S]](#T!P'X1`\,]_S]]#ST!
XMP'\BM1#H(_>[`<#K"+4(Z!GWN_\_*\"+?@2KJZNKDZNP`*KK4HI<"C)="E-0
XMZ)((A_?HC0B+W%6-;_SH80!=@\087PO2>`M/T>;1T-'3T='1TM'F%0``@],`
XM@]$`@](`
+]XM^!*N3JY&KDJN6JUBT`*M?7EW"!@!5B^Q65XI&#C!&
XM&N@4`(E&$(E>$HE.%(E6%HO&7UY=P@P`*_^+SXOW]D83@'0&BTX$BW8&]D8'
XM@'0/`TX0$W82$__V1A.`=`%/*]N+1A#W9@@#R!/R@]<`BT84"\!T%_=F!`/(
XM$_*#UP"+1A3W9@8#\!/Z@],`BT80]V8*`_`3^H/3`(M&$O=F"`/P$_J#TP"+
XM1A8+P'0*]V8$`_`3^H/3`"O)5HOQBT82]V8*`_@3VH/1`(M&%`O`=!?W9@@#
XM^!/:@]$`BT84]V8*`]@3RH/6`(M&%@O`="3W9@8#^!/:@]$`@]8`BT86]V8(
XM`]@3RH/6`(M&%O=F"@/($_*+UI=>PU6+[(UF^(M>"/]W!O]W!/]W`O\W*\!0
XM5E?\BWX&BW4(BT<(@?X!P'XJ/?\_?2H]`_`!0BP6+70+C$8M5!"E&[AE>\!E6\AEV].+R7O?FDI/WY@/8
XM$\J+103WY@/(@](`DI;W908#QH/2`"M>[AM.\!M&\AM6](E>[HE.\(E&\HMU
```

```
XM!O?VD??V*]+Y$\(3RHE&]@%.^!%6^A!6_):+50*2BUT$XPLI1NX97O`95O+B
XM]??FDI/WY@/8$\J+10;WY@/!@](`*U[N&T;P&U;RB5[NB4;PBW4$`_:+=0:#
XMU@!S!(?:ZQ'1X]'0T=+W]I/W]M'KT=C0WKG__XOQBM'WT_?0]M[U%0``$U[V
XM$T[X$W;Z$E;\T.IS#='>T=G1V]'8T-[_1OXK_P+V$\<3WQ//$_>`T@"+5OYT
XM!+X`@$*!^O\_?`/I1/Z+?@2)!8E=`HE-!(EU!HE5"(I&_8A%"E]>B^5=P@8`
XM58OL5E>+1`@]`+7@R+5@J+1@B+3@;1
XM^W,'0]'JT=C1V8/Z_G,=4U&+RHO8B_KYT=_W]T\[^'821P/XT=^+T8O#Z^[Y
XMT=K1V.L71SOX+!8M=`HM-!(M5!L=&_```
XMBWT(*WP(?1CK4I!'ZSU/?/K19OS1X-'3T=$3TG(;>>X[5`9W%'+G.TP$=PUR
XMX#M<`G<&?4#?`A7BW[VJY.KD:N2JUBKBD;^F*LV@"8W`;R_!P"+1OR`?OX!=0+WV"/X
XM-HJ591`V"!8W`5]>B^5=PX?1A\N3@^\0"])UJ(?1A\N#[Q"'T8/O$`O2=9B_
XM`<`KTBO)*]LKP.N?58OL5E>+=@:+?@2+1`@[10A]`XM%"#T!P'XW/?\_?4V*
XM3`HZ30I\0'\TBT0(.T4(?"=_+XM$!CM%!G4;BT0$.T4$=1.+1`([10)U"XL$
XM.P5U!;@`0.L9=PJ`^0!U"K@``>L-@/D`=?:X``#K`[@`13:()C,/``/#6EE;PU6+[%97)HI$"26`
XM`-#`B44*L00FBD0(T^#2Z-4*OQ`G]^>3C70&Z*?_`\,2UHO:]^>3B\KWYP/(
XM$M:#[@+HD/\#PX/1`!+65HO:]^>1B_+WYY.'^O?B`]X3^%Z#[@+H;_\#P1/:
XM$_J^$"?WYI.+RO?FEH?Z]^(#SA/X@](`BW;^Z$W_`]B#T0"#UP"#T@"X0``+
XMTG4-+1``="R'UX?YA\OK[W@+2-'CT='1UQ/2>?6+=OR)'(E,`HE\!(E4!HE$
XM"%]>B^5=P[@!P.OD4%&P9+$$DO;RBM34"M+D"N"2U`K2Y`K$BN:K65C#58OL
XM5E?\BT0(BQR+3`*+5`:+=`0]``!\."T\``P??S.!^@O>+V8O.B_(KTNOPZV?K;BP0?0[1ZM'>
XMT=G1V]#<_L!\\@+D@],`@]$`@]8`@](`EKX0)_?VD??VD_?VZ%[_*]*1]_:3
XM]_:1]_;H4/^+TY'W]I'W]NA%_XO1]_;H/O_4"K$$TN0*Q*J+=OZ*1`K0R*I?
XM7EW#L`"Y"0#SJNOJM0CH,>^PF>OP`````````(`!````6X/L#(O\4Q8'N/03
XMZVW^BAO-2WB:U`(```"X#A3K7+OP%UPI.ZJX`0```+@?%.M+-<)H(:+:#\D"
XM````N#`4ZSJ9]\_[A)H@FO__``"X013K*:QYS]'W%W*Q`````+A2%.L8````
XM!!!!!!!P```6X/L#(O\4Q8'N&,4'@X?EORY!@#SI8/O#)8?PU-T%='0J]'K@>O^/Y.KI:6EI?P''U]>PZNX`<"K
*\"KJZNK
XMZ^U65_REI:6EK8L,/?\_?0\%_C]\#]'@T>G1V*M?7L.[_W_K`BO;*\"#[PBK
XMJZNKD^OI)HL$*\FZ```+P'P'?PF[`<#K$/?8L@$KVY%#T>G1V.,"Z_>)50J)
XM70B)10:)302)30*)#<.+3`B#^0]_"H'Y`@N[;@`@.MEBUP&
XM*\"+T(/Y`'T$T>O1V@L4"U0""U0$@_D`?@;1X]'0XOH*W@K:L0PV(@XY`8#Y
XM#'0J@/D`=!8"3`J`^01T'8#Y"708]]L5``!XJNL/L@$BT`K:@+3`B#^0]_"`O)?PXKP.L7<.U".AH[+C_/^L(M1#
H7NRX`<#HPOWKY2:+'":+5`(KP+D```O2>0GW
XMTO?;@]K_L0&)30JY$``+TG4$A]JQ``O2=`Q!T>K1V]'8Z_.Y`<#C^XE-"(E=
XM!HE%!(E5`HD5PXM,"(/Y'W\T"\E]/8'Y`.0$"7`J`^P5T"X#[
XM"'0&*]*+PNL:*]*X`0"`^P5U$/?8]]+K"K4!Z,WKN@"`*\#IB`"+7`(*'`I<
XM`8M$!(M4!H#I$'<0"L,*QY.2*]*`P1!^\X#A#^,=5K[__]/"T\#3YHO.(\@S
XMP2/R,]8+Q@K?"MF*_5ZQ##8B#CD!@/D,="V`^0!T$P),"H#Y!'0@@/D)=!OW
XMVW(,ZQ6Q`2+("MF!P_]_%0``@](`>0/I>/^`?`H!=0?WTO?8@]K_)HD%)HE5
XM`L-55B:+!":+7`(FBTP$)HM4!KT```O2?!-_)@O)=2(+VW4>"\!U&KX!P.LS
XM]]+WT??3]]CU@],`@]$`@](`O0$`OD``"])U"H?1A\N3@^X0Z_)X"TX#P!/;
XM$\D3TGGUB6T*B74(B54&B4T$B5T"B05>7<-55XM,"(/Y/W\Z"\E]1X'Y`.0$"7`J`^P5T"8#["'0$*^WK("OMB]6
X`0"`^P6+W748]]CWT_?2
XM]]7K#K4!Z'KJO0"`*]*+VHO#Z9(`BVP&BU0$BUP"BSPKP(#I,'<6"L2T``O'
XMB_N+VHO5*^V`P1!^[8#A#_;9=!&`P1`*Q-'MT=K1V]'?T-SB\K$,-B(..0&`
XM^0QT,(#Y`'05`DP*@/D$=".`^0ET'O?8<@WK&.N,L0$CSPK!!?]_N0``$_D3
XMV1/1$^EXZ)>`?`H!=1+WU??2]]/WV/6#TP"#T@"#U0!?)HD%)HE=`B:)500F
XMB6T&7<-55E>'[HM."(/Y0'TM"\E]1H'Y`L1*\")1@")1@*)1@2)7@:)=@CI
XML0"^.```C\3/.T>[1[M'N]]Z#Q@>#_@=U!K0`B@+K`HL"*]N+_D]\!@H;B#OK
XM][K_`(#A!]/JB_I'(]!U!`K;='*U(.@OZ3/"L0PV(@XY`8#Y#'08@/D`=!X"
```

```
XM3@J`^01T"X#Y"70&"MIU(^M'B`*`?@<`=3_I7_\*VW4,A<=U"`/2.]=VY^L&
XM`]([UW+?@^X'?`D#QXA"!_;L%NP'`M0(+T'0#Z/7GO@``*](KR>O0CL8FCD4&ZPF.QNL%
XM-HX&9@&+^(OT1D97BT0!BWP#BTP%BE0'BUP(M@,B\`HT=02H"'01!00`@]<`
XM@]$`@-(`
!^_\'?">!?`C_/WT%M0CHD.>Z\'_K#H%\"``'`
XM?@6U$.A_YRO2*\F+V8O#ZR\D^-#BT>O0V@K'BO.+W]'OT=C1VM'9T=O1[]'8
XMT=K1V=';"D0*T>_1V-':T=G1VU_\JY.KD:N2JX/O",..QB:.10;K"8[&ZP4V
XMC@9F`8OP6X/L#(O\4U>,V(S#CMN.P(M4!BO`T>+1T+$%T^IT3H'Z_P=T3_V-
XM?0JK@>K^`Y*KBU0%BTP#BUP!BB2P`(#F#]'@T=/1T='2T>#1T]'1T=+1X-'3
XMT='1TH#.@)*KD:N3JY*KC-B,PX[;CL!?P[H!P+4"ZP6Z_S^U`8I$!B4/``M$
XM!`M$`@L$=`/HFN:2Z`#XZ]%5B^Q65XM&!(M>!HM."(M6"BO_BW8,@_[P?PV+
XM^(O#B]F+RBO2@\801G\,T>K1V=';T=C1W^OQT>>_```3QQ/?$\\3UXE&!(E>
XM!HE."(E6"HO?B\^+]_9&!X!T"HM>!(M.!M'CT=&+1@3W9@@#V!/*$_<#V!/*
XM$_>+V8O.*_:+1@;W9@@#V!/*$_<#V!/*$_>+1@3W9@H#V!/*$_<#V!/*$_?1
XMXQ//$_>+V8O.*_:+1@CWX`/8$\H3]XM&"O=F!@/8$\H3]P/8$\H3]XM&"O=F
XM"`/($_(3_P/($_*#UP"+1@KWX`/P$_J)7@2)3@:)=@B)?@K&1@X`QT8,``!?
XM7EW#58OL5E<>!K`,]F8(+0P`Q78$`_`6!X/L#(O\_+D,`/.DB_[^3@B#[PS^
XM3@A\98UV"NC=]NBO[H/O#%6+[(L=BTT"BU4$BW4&BD4*.D8,=#0K7@(;3@0;
XM5@8;=@AS%/?6]]+WT??;]8/1`(/2`(/6`#0!B5X"B4X$B58&B78(B$8,7>NE
XM`5X"$4X$$58&$78(7>N66UE:7EA8*_\\`741]];WTO?1]]OU$\\3UQ/WZQ+Y
XMT=[1VM'9T=L3WQ//$]<3]T>)?A+&1A0`B5X*B4X,B58.B780!Q]?7EW"!@`(
XM`````````````````+:JJJJJJJHJ```!``,D(B(B(B("`````+/D``W0``T`
XM```!`&X(2\<[+@```````,9`%IEK```````!``Q%DK``````````-5%U@``
XM```````!``@`````````````````B/_______W\```$`IIJJJJJJJ@H`````
XM?^8$6[`%6P````$`[R:;`1J@`0``````'<[^YD7+/__P``M85'_'0P$:$`````````````
XM`(`!````G/IDL+(=!^;^_P``G/IDL+(=!^;__P``];M+!$96A:P`````YF[9
XM'[T)^NG^_P``C7LUO5N$W?;__P``?]4U`MN`<\P`````58OLC6;^5E=65U;H
XM&.W&1OX`O]8?@'[^`W,25E?HVO`]``!U"/Y&_H/'#.OH@'[^`'4%Z$4`ZSW^
XM3OZP#/9F_@4J()>#[`R+Q%974.BUZ5975N@HZ[CZ'U!65NBJZ8O$4%96Z,#L
XM@\0,Z`\`@\?<5U96Z)/I7UZ+Y5W#5E?HZO.#?`C@?P>+_NCS\^L?B_R#10@#
XMZ*G[-O\V=!^X=A\.4.B<_%=65NC4ZH/$#%]>PPT``````````````````P``
XM`````$``````J:JJJJJJ@H`````>%55555550$`````)B,B(B(B(@``````
XM'"O8@BW8`@``````_/DS0`,T````````%%(#-$`#`````````'FS'.RX`````
XM````3+#)3P(`````````D0[F&@`````````478?`0`````````Q2P+````
XM````````58OL5E>#[`R+_.BV\E=65N@=ZH/$#(M\"(/_X'Y(BP2+7`*+3`2+
XM5`9'?1?1ZM'9T=O1V$=\]14``(/3`(/1`(/2`+\``%+!8M=`HM-!(M5!H'Z!;5W$-'@T=/1T='2O@``
XM_T[^ZQ7WTO?1]]/WV/6#TP"#T0"#T@"^`0`K_PO2=163D9*#[Q"#_\!_\8/L
XM#(O\Z*+QZR%X"T_1X-'3T=$3TGGU5E=245-0B_3H6P"X!2)05E;HTNB-=OZ#
XM[`R+_.BC\HUU#%975^A)YU?_=OS_=OSHM.B#Q!A?7HOE7<-5B^Q65XOWZ([Q
XMB_3H'`"X!2)05E;HD^A6_W;^_W;^Z(GH@\0,7UZ+Y5W#58OL5E>#?`C`?D&#
XM[`R+_.BK\#;_10A65U?H[N965U?H!NKH;O&+W#:#1P@"Z!+Y-O\V$2(.N!,B
XM4.@%^HO$4%=6Z#OH-O]$"(/$&%]>B^5=P[$`ZP:Q`NL"L02#[`R+[(IN%E%0
XM@WX4X'\0C68,@/D"=06+_.A%\.G8WX-^%$!^#(U^#+C_/^BU\.FJ`,9&%@"-
XM?@#H6?"#;0@"C78,A_[H?NPD!XA&_(I>_H#[!'1``E[\@.,'B%[\T>MS$XU^
XM`.@M\(-M"`*-=@Q75E;H-N:-=@R-?@#H"?OV1OP#>@C\N0P`A_?SI(I>_-#K
XMT.OK._9&_`%T$XU^`.CT[X-M"`*-=@Q75E;H_>6-=@R-?@#HT/KV1OP#>@*'
XM]XU&#%974.@%Z8I>_-#K@.,!@'[^`G0#,E[_B%X6C68,Z1;?B_2#[`R+_.AV
XM[XM$"#W_/WT[/0'`?C&Q`(O>2'P'Z%#PB]^Q`8OLM0"&;PI1Z)7[@'[^`74,
XMZ'KO_TT(5U96Z(?EBD;_B$0*B^;IR=Z+_O]T"NA>[X]$"O],".OKB^R#[`R+
XM_.AN[^L8B^R#[`R+_.@-[^L,B^R#[`R+_.A%[^L`Z.WO@'T*`'4;BT4(/0``
```

```
XM?@\]_S]]#HOUZ%K]B^7I==ZU!.L"M0'H[MVX_S^+_>A0[^OHB^R#[`R+_.CD
XM[NL1B^SK%HOL@^P,B_SHP^[K`0!55U7H:^:#Q`S&!EDE`(M&"#T+`']*/<#_
XM?E3H9^^+_/]%"(`F.0'S@`XY`02+]^C+\X`F.0'S4(O\Z$7P_TP(5595Z++D
XM6-'X@[
XM[NLNQP0``,=$`@``QT0$``#'1`8`@$")1`C&1`H`B_Z+]>BI^U575>C3Y557
XM5>A8Y(`^624!=02`=@H!B^7ID=T``%6+[%!6'O9&!P)T`?O%=@*+1/\L-#P(
XM6%W/<@)V`GH"80/*`\\#U`,5!!P$(`1345)&B78"@.3?BL0"Q)@\
XM$'<8EB[_E$T`6EE;Z\D\"7<)@^X"QP20F^N4Z[HF`2P!,@$X`3X!1`&2`:4!
XM2@%0`;H!I@&M`;0!\``<`>,!Z@'5`<$!R`'/`=``]P$#`A0"/P(0`C`"(``[
XM@/DL=12;WME04%6+[)O=?@)=FUB>6,H"`%-658OSMP"*V2[_EXX`75Y;SUN+
XM[!XN_SP>C'_YO>Z>C!_YO>X>B[_YO>R>BU_YO>^>BO_YO>\>BI_YO9[NBC
XM_YO9Z,.0D)"0D)"0F]G!F]W"PY";V<*;W#L/#Z&K_FR[=
XM!^AC_YLVW0?H/_^;W0?H5O^;)MT'Z$__FR[=%^A(_YLVW1?H)/^;W1?H._^;
XM)MT7Z#3_FR['^@M_YLVW1_H"?^;W1_H(/^;)MT?4E"+[)O91@"#Q`3#@^P$
XMB^R;V5X`FUA:PPO2>`Q24(OLF]M&`(/$!,,KVU-34E"+[)O?;@"#Q`C#@^P(
XMB^R;WWX`FUA:6U[#@^P$B^R;VUX`FUA:PS7":"&BV@_)_C\UPF@AHMH/R?\_
XM``#`_P```#^%9-[Y,_,$M?\_L0#K!K$"ZP*Q!)O9Y56+[(UF_IO=?OZ;BF;_
XMGG(/=2Z`^0)U!IO=V)O9Z.L>=`Y[#)O=V)LNV09@`IO9Y.L,F][9FR[9!F`"
XMF]GDZ9T`F]GAFR[;+DP"F]G)F]GXM0(B[-#MF]U^_IN*9O^>>M&P`R+$T.30
XMY-#0!/S0T(#Y`G4$`L&U`"0'J`%T!9O>Z>L0F]GDF]U^_IO=V?9&_T!U@)O9
XM\H#Y!'0IJ`-Z`YO9R9O9P9O8R)O9R9O8R)O>P9O9^M#HT.@RQ70#F]G@F][Y
XMZQJ*X-#L@.0!,N5T`YO9X*@#>@6;WO'K`YO>^8OE7<.;V>55B^R-9OZ;W7[^
XMFXIF_YZ1<@1U'.M,=$I[2)O=V)LNVRY6`NLUF][9FR[;+DP"ZRJ;V>&;V>B;
XMV-&;W7[^FXIF_YYTX7,#F]G)F]GSWK"IO9Z.L%F]GLZP";V6-9OZ;W7[^FXIF_YYR#'0%]L0"
XM=!>;W=CK!'0+>PF;W=B;+MD&8`*;V>3K`YO9\8OE7<.;V>JQ`>L+*\GK!YO9
XMZ;$!ZP#C`YO9R9O9Y56+[(UF_)O=?OSC`YO9R9N*9OV>DW(0=2:;W=CC`YO=
XMV)O9Z.FH`.,#F]W8=`M["9O=V)LNV09@`IO9Y.F0`.,#F][)F]GAFR[8%F0"
XMF]U^_)OV1OU!=`N;V?";V>B;WL'K89O9Z)O9P9O9?OR;V?V`3OT/F]EN_)O9
XM_(!F_?.;V6[\F]]6_IO9R9O9X)O9R9O9_9O=V9O>Z8%^_O\/?Y";V?";V>B;
XMWL'1;OYS"9LNVRYH`IO>R9O?1OZ;V\8OE7<,`
XM`````````````````````!4=7)B;RU#("T@0V]P>7)I9VAT("AC*2`Q.3@W
XM($)O5;`57-A9V4Z(&=C('-T871I
XM;VXQ('-T871I;VXR"@H`5&AIF5R;W,@8V%N(&)E(&QE9G0@;W5T+@H*`&0@/2!$
XM96=R965S+"!M(#T@36EN=71E
XMM7`KJ*W%G6E`U:;/_TD?>,+30-^,Z8#)1[J3J$&,WOF=^^M^JE%#<&]W,3``
XM`````````!S:6X`R@31!-8$WP3I!.\$1$]-04E.`%-)3D<`3U9%4D9,3U<`
XM54Y$15)&3$]7`%1,3U-3`%!,3U-3`"5S.B`E!)X$G@2```)`@``
XM`````````!N!@``"@(!````````````?@8```("`@`````````(X&``!#
XM`@,````````````">!@``0@($````````````K@8`````_P````````+X&
XM`````/\````````#.!@```#_````````````W@8`````_P``````````
XM`.X&`````/\````````#^!@```#_````````````#@<`````_P``````
XM`````!X'`````/\````````N!P```#_````````````/@<`````_P``
XM`````````$X'`````/\````````!>!P```#_````````````;@<`````
XM_P````````````'X'`````/\````````".!P```#_````````````G@
```

31. 80-10 meter short verticals.

Newsgroup: rec.ham-radio
Date: 1990-01-03 09:38:30 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <03.Jan.90.09
Source record: 14428

Remember that on 80 and 40, short loaded verticals will show very low
radiation efficiency, since the actual radiating element is a small fraction
of the wavelength. They will also show narrow bandwidth - or at least they
SHOULD if the 'Q' of the antenna is high. This can be inconvenient, as
modern solid-state PA stages reduce power when running into high SWR.
My experience of a base-loaded 25 foot vertical on frequencies around
4.3MHz was that it had a usable bandwidth of about 80KHz.
Outside this bandwidth, you could either go outside to retune the
antenna (climb a ladder and move alligator clips on an air-spaced coil)
or resign yourself to transmitting into a dummy load. (Eventually our patience
ran out so we put up a full-sized dipole, as we had the space)..
You will need a good set of ground radials tuned for each band. Some people
cut the radials to length, then bury them in the ground, but they do not
realise that the length needed for resonance is altered (because wet earth
of variable dielectric properties does not approximate to the 'free space'
velocity of the same length of cable in air).
Their radials are then non-resonant and of reduced efficiency.
If you must bury radials, cut them to length using a dip oscillator
AFTER you have buried them. You will get VERY muddy doing this, but
at least you will have a good RF ground.
Commercial organisations (the BBC) have been experimenting with ground
radials mounted a few feet above the earth, and this has shown greater
efficiency. I can't remember the exact date, but it was published in
RadCom about a year back.

Please use the following addresses for reply: + \/Natural
+ \/\Environment
JANET: PJML@UK.AC.NERC-WALLINGFORD.IBMA + \/\/Research
ARPA : PJML%IA.NWL.AC.UK@NSS.CS.UCL.AC.UK + \/\/\Council
EARN : PJML%UK.AC.NWL.IA@UKACRL + NERC Computer Services
AX25 : G6WBJ {144.650MHz} + Holbrook House
SPAN : STAR::"PJML%IA.NWL.AC.UK@NSS.CS.UCL.AC.UK" + Station Road
PHONE: +44 793 411613 + SWINDON SN1 1DE
FAX : +44 793 411503 + GREAT BRITAIN

32. recent AMSAT bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-03 12:34:01 UTC
From: karn@ka9q.bellcore.com
Message-ID: <18732@bellcore.bellcore.com>
Source record: 14437

Posted: Tue, Dec 12, 1989 3:09 AM GMT Msg: CGIJ-4115-8537
From: DLOUGHMILLER
To: IS
CC: W1AW
Subj: $ANS-345

SB ALL @ AMSAT $ANS-345.01
MICROSAT LAUNCH STATUS REPORT #1

HR AMSAT NEWS SERVICE BULLETIN 345.01 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 11,1989
TO ALL RADIO AMATEURS BT

MICROSAT LAUNCH STATUS REPORT

Since arriving in Kourou, French Guiana on Saturday, Dec. 2nd, the AMSAT
MICROSAT team has been busily testing each of the MICROSATs and preparing
them for launch, this process has included the final calibration of
the various telemetry channels on all four MICROSATs. Specific telemetry
information will be published in an up-coming edition of the AMSAT Journal.

Other activities in which the AMSAT MICROSAT team have been involved in this
past week included a test-firing of a pyrotechnic bolt cutter to ensure that
the sequence of events for the release of the MICROSATs from launch vehicle
will occur properly. Also, all of the flight computers have been turned on
and the flight software has been loaded. Likewise, each of the transmitters
for the different MICROSATs have been thoroughly tested and checked for proper
operation. W3GEY reports that all is going well and the AMSAT team members
are in good spirits and enthusiasm is running high.

The four MICROSATs and two UOSATs are flying as secondary payloads
to the French SPOT-2 satellite aboard an Ariane IV launch vehicle.
This mission is designated as mission V-35. The launch window for
this mission will open at 01:35 UTC on January 11th, 1990. The
window is 10 minutes in duration. If the launch does not occur
within this 10 minute window on the 11th, the next window of opportunity
will occur on January 13th UTC at about the same time.

In order that radio amateurs around the world can listen to the launch
activities in real time, AMSAT officials are planning an extensive AMSAT
Launch Information Network Service (ALINS). Specific details concerning
the ALINS will be announced via the AMSAT News Service next week.

/EX
SB ALL @ AMSAT $ANS-345.02
AMSAT-NA FIELD OPERATIONS UPDATE

HR AMSAT NEWS SERVICE BULLETIN 345.01 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 11, 1989
TO ALL RADIO AMATEURS BT

AMSAT-NA FIELD OPERATIONS UPDATE

AMSAT-NA Vice President of Field Operations, Jack Crabtree, AA0P, has announced the following recent change to the Field Operations Organization. To improve support for California AMSAT members, the Pacific Region has been split into two separate regions. Southern California and Hawaii now make up the Pacific Region. The Pacific Regional Coordinator is Gene Davies, AA6NP. Northern California and Nevada now make up the Sierra Region. Bob Gobrick, WA6ERB has been appointed the Regional Coordinator for the Sierra Region. AMSAT is confident this change will improve Field Operations support to these areas and welcomes Bob and Gene to the AMSAT Field Operations Management team.

/EX
SB ALL @ AMSAT $ANS-345.03
AMSAT OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 345.02 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 11, 1989
TO ALL RADIO AMATEURS BT

Following is the schedule for Operations Nets for the next several weeks.

Day UTC Day U.S. Freq. NCS Guest

16 Dec 89 1855 Saturday 435.970 N5BF KO5I ** Note Time Change **
30 Dec 89 1415 Saturday 435.970 N5BF KL7GRF
07 Jan 89 1700 Sunday 435.970 TBD TBD
20 Jan 90 1400 Saturday 435.970 N5BF TBD

The start of the 16 December net, originally given as 1830 UTC will be delayed to accommodate the mode J/L ZRO test scheduled for that time. Those wishing to participate in both the Operations Net and the ZRO Test will therefore be able to do so. The net will probably begin around 1855 or 1900 UTC. Doug Loughmiller, KO5I, AMSAT-NA President and General Manager will be the featured guest.

On 30 December, John Fail, KL7GRF, will be discussing satellite DXing, presenting operating hints and information about the upcoming DXpedition to Bouvet Island.

Mark your calendars now for both of these interesting and informative Operations Net sessions.

/EX
SB ALL @ AMSAT $ANS-345.04
SATELLITE OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 345.03 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 11, 1989
TO ALL RADIO AMATEURS BT

OSCAR Satellite Operating Schedule

Here is the current AO-13 transponder operating schedule
and Bahn coordinates by AMSAT-DL:

TRANSPONDER SCHEDULE

MODE B MA 000 TO MA 110
MODE JL MA 110 TO MA 145
OFF MA 145 TO MA 150 BAHN LAT +3.6 deg
S BEACON MA 146 TO MA 147 BAHN LON 179.4 deg
MODE S MA 147 TO MA 160
MODE B MA 150 TO MA 255
OMNI ANT MA 225 TO MA 035

AMSAT OSCAR-10 is currently available for whole orbit operation
via the mode B transponder.

/EX
SB ALL @ AMSAT $ANS-345.05
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 345.07 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 11, 1989
TO ALL RADIO AMATEURS BT

ZRO Test Schedule

The following is a schedule of ZRO test times. These test times
were chosen for convenient operating times and favorable squint angles:

Saturday December 16, 1989 at 18:30 UTC MODE JL 435.945 MHz
Saturday December 16, 1989 at 20:00 UTC MODE B 145.840 MHz
Saturday December 30, 1989 at 16:00 UTC MODE B 145.840 MHz
Saturday January 06, 1990 at 18:00 UTC MODE JL 435.945 MHz
Saturday January 13, 1990 at 12:00 UTC MODE B 145.840 MHz
Saturday January 20, 1990 at 15:30 UTC MODE B 145.840 MHz

Any changes will be announced as soon as possible via the AMSAT HF/VHF Nets
and OSCAR-13 Operations Nets.

/EX

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Posted: Wed, Dec 13, 1989 6:14 AM GMT Msg: GGIJ-4116-8203
From: TCLARK
To: is
CC: dloughmiller
Subj: Sequence mixup on ANS-345

The following message has been posted on the W3IWI BBS:

SP SYSOP @ AMSAT < W3IWI $ANS-345.ERR
Sequence mixup in ANS-345 bulletins
R:891213/0604z 23532@W3IWI [Balto/Wash MD/DC/VA/DE] Z:21029

Apparently a sequence mixup occurred when this week's AMSAT bulletins
were posted and the bulletin name in the text may not match the BID on
four of the bulletins. The BID is correct! Do not change it!

BID $ANS-345.02 matches "AMSAT-NA FIELD OPERATIONS UPDATE" which has the
text header "AMSAT NEWS SERVICE BULLETIN 345.01 FROM AMSAT HQ"

Similarly
BID = $ANS-345.03 = AMSAT OPERATIONS NET SCHEDULE is called BULLETIN 345.02
BID = $ANS-345.04 = SATELLITE OPERATING SCHEDULE is called BULLETIN 345.03
BID = $ANS-345.05 = ZRO TEST SCHEDULE is called BULLETIN 345.07

After I spotted the problem I tried to correct the text in the copies sent
from W3IWI to match the BID, but a number of copies had already been exported.

73, Tom
/EX

Posted: Tue, Dec 19, 1989 8:55 PM GMT Msg: KGIJ-4121-6615
From: DLOUGHMILLER
To: IS
CC: W1AW
Subj: $ANS.353

SB ALL @ AMSAT $ANS-353.01
MICROSAT LAUNCH STATUS REPORT #2

HR AMSAT NEWS SERVICE BULLETIN 353.01 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 19,1989
TO ALL RADIO AMATEURS BT

MICROSAT LAUNCH STATUS REPORT

Harold Price, NK6K reports that all of the MICROSAT spacecraft
were mounted to the Ariane ASAP on Wednesday, 13 December 89.
Finalized engineering checkout software was loaded the following
day and regular checks of telemetry since show all to be nominal.
Once the primary payload, SPOT 2, is mated to the payload
structure and fueled, the MICROSATs may only be trickle charged
10 hours per day. The mating is scheduled to occur on Tuesday 19
December followed by "encapsulation" or closing of the fairing
on Wednesday 20 December. The entire payload structure will then
be placed on the Ariane third stage around 3 January 90.

During the final days before the AMSAT - UOSAT closeout, team
members were busy with final preparations. Jeff Zerr and Chuck
Stout applied final thermal coatings to all spacecraft. Project
Manager Jan King, W3GEY, spent much of his time in meetings with
Ariane officials to verify the integration schedule and ensure
that the spacecraft batteries could be kept charged during the
final days before launch. He also was involved in carefully

rechecking everything to make sure that last minute handling had not damaged any of the spacecraft. WEBERSAT and UOSAT-E cameras were tested in an arrangement where each spacecraft could take pictures of the other and its support personnel. The LUSAT CW beacon was given a final tuning by Jose Machao, LU7JCN, and secured for flight.

With less than a month remaining before launch, most of the integration team have returned home or will shortly. Dave Cowdin, WD0HHU, has arrived in Kourou where he will spend the holidays and early January through launch day with the AMSAT payloads, monitoring their condition and making sure they remain in launch-ready condition.

/EX
SB ALL @ AMSAT $ANS-353.02
PRELIMINARY ALINS PLANS ANNOUNCED

HR AMSAT NEWS SERVICE BULLETIN 353.02 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 19,1989
TO ALL RADIO AMATEURS BT

MICROSAT / UOSAT LAUNCH NETWORK PLANS ANNOUNCED

AMSAT is planning a comprehensive AMSAT Launch Information Network (ALINS) in support of the up-coming MICROSAT/UOSAT launch. The launch net will provide real time coverage of the launch day activities.

Providing HF support for the ALINS activity will be W1AW, WA3NAN, W5RRR, W6VIO and several overseas stations. Additional stations may be added to the HF network. Exact HF frequencies and times of operation will be published in next week's report.

In support of local distribution via 2 meter FM repeaters around the country, AMSAT has, with the aid of the ARRL headquarters staff, secured the use of a teleconference bridge that will support over 100 different ports. It will therefore be possible for local repeaters to simply place a long distance telephone call and join the bridge.

It will be necessary for local repeater groups to reserve a port on the ALINS teleconference bridge. To reserve a port on the ALINS bridge for your local repeater group either drop a post card to: AMSAT Launch Information Network Service, c/o Courtney Duncan, N5BF, 4522 Ocean View, LaCanada, CA 91011. or make a telephone request by contacting Courtney at 818-957-8455 between 7 and 10 pm PST. Requests should be made no later than January 1st, 1990. AMSAT will notify repeater groups as to how they will be able to access the teleconference bridge around the 5th of January.

/EX
SB ALL @ AMSAT $ANS-353.03
EARLY MICROSAT FLIGHT OPERATIONS DETAILED

HR AMSAT NEWS SERVICE BULLETIN 353.03 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 19, 1989
TO ALL RADIO AMATEURS BT

The engineering checkout software now residing in the MICROSAT computers is the software that will be used for the first few weeks of operation so that the spacecraft can be characterized in the space environment. Full telemetry will be available but there will be no interactive packet operation from the PACSATS, speech from DOVE, or pictures from WEBERSAT during the first few weeks of operation from space.

The four MICROSAT payloads are being flown "hot," that is, with electronics powered and software in the computer. When ejected from the ASAP, the separation switch will power satellite transmitter electronics, however, the transmitters will only be turned on by ground command later UOSATs D and E are, by contrast, being flown "cold," that is, the battery connection to the electronics passes through the separation switch. UOSAT ground command will spend the first several days of the mission uploading operating software to both spacecraft.

WEBERSAT, LUSAT, and PACSAT will be turned on between 90 and 300 minutes after launch. DOVE activation may be delayed for some additional time so that it can drift further away from the other MICROSATs to help prevent its two meter transmitter from blocking the receivers on the other MICROSATs.

Reception of WEBERSAT, LUSAT, and PACSAT will require an SSB receiver capable of tuning 437.0 to 435.2 MHz, an FO-12 compatible 1200 baud PSK demodulator, TNC, and terminal or computer. Early data may be obtained with the TNC in MONITOR mode but later, advanced operations will require TNC KISS mode operation and special PC software. DOVE telemetry will be transmitted in AFSK packet on 145.825 MHz FM. An unmodified 1200 baud terrestrial packet station can be used to receive this data.

Telemetry information and equations will be published very shortly before launch. Watch the AMSAT News Service for information on "opening day" for each spacecraft.

/EX
SB ALL @ AMSAT $ANS-353.04
KL7GRF APPOINTED AMSAT OC - DX

HR AMSAT NEWS SERVICE BULLETIN 353.04 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 19, 1989
TO ALL RADIO AMATEURS BT

AMSAT-NA Vice President for Operations, Courtney Duncan, N5BF
announces the appointment of John Fail, KL7GRF, Operational
Coordinator for Satellite DX. John has been a very active
satellite DXer for several years, has been instrumental in
getting many countries active on the satellites, and has
generally taken the lead in coordinating satellite DX operations.

KL7GRF and "the group" can usually be found on AMSAT-OSCAR 13
on 145.890 MHz or 435.960 MHz when in Modes B or J/L
respectively. All satellite operators are welcome to check
in for the latest news. In addition, John writes an up-to-the
-minute DX column for AMSAT publications.
For more information write to John Fail, KL7GRF, 6170 Downey
Ave., Long Beach, California, 90805.

KL7GRF will be the featured guest on the AMSAT Operations Net
for 30 December 89 which will meet on AO-13 at 1415 UTC on
435.970 MHz. He will be discussing upcoming DXpeditions to
Bouvet Island and Juan Hernandez, scheduling, DX operating
hints, and other satellite DX issues.

/EX
SB ALL @ AMSAT $ANS-353.05
AMSAT OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 353.05 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 19, 1989
TO ALL RADIO AMATEURS BT

Following is the schedule for Operations Nets for the next several
weeks.

Day UTC Day U.S. Freq. NCS Guest

30 Dec 89 1415 Saturday 435.970 N5BF KL7GRF
07 Jan 89 1700 Sunday 435.970 TBD TBD
20 Jan 90 1400 Saturday 435.970 N5BF KO5I

On 30 December, John Fail, KL7GRF, will be discussing satellite DXing,
presenting operating hints and information about the upcoming DXpeditions
to Bouvet Island and Juan Hernandez.

/EX
SB ALL @ AMSAT $ANS-353.06
SATELLITE OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 353.06 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 19, 1989
TO ALL RADIO AMATEURS BT

OSCAR Satellite Operating Schedule

The following information is provided by AMSAT-DL.

AO-13 TRANSPONDER SCHEDULE

MODE B MA 000 TO MA 110
MODE JL MA 110 TO MA 145
OFF MA 145 TO MA 150 BAHN LAT +3.6 deg
S BEACON MA 146 TO MA 147 BAHN LON 179.4 deg
MODE S MA 147 TO MA 160
MODE B MA 150 TO MA 255
OMNI ANT MA 225 TO MA 035

AMSAT OSCAR-10 is currently available for whole orbit operation
via the mode B transponder.

/EX
SB ALL @ AMSAT $ANS-353.07
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 353.07 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 19, 1989
TO ALL RADIO AMATEURS BT

ZRO Test Schedule

The following is a schedule of Mode B and Mode J/L ZRO test times and
downlink frequencies.

Saturday December 30, 1989 at 16:00 UTC MODE B 145.840 MHz
Saturday January 06, 1990 at 18:00 UTC MODE JL 435.945 MHz
Saturday January 13, 1990 at 12:00 UTC MODE B 145.840 MHz
Saturday January 20, 1990 at 15:30 UTC MODE B 145.840 MHz

Any changes will be announced as soon as possible via the AMSAT HF/VHF Nets
and OSCAR-13 Operations Nets. ZRO brochures are available from WA5ZIB, Andy
MacAllister, AMSAT V.P. of User Operations, 14714 Knightsway Drive, Houston,
TX 77083 for an S.A.S.E. with one unit of postage.

/EX

Posted: Tue, Dec 26, 1989 11:14 PM GMT Msg: LGIJ-4124-9130
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$360

SB ALL @ AMSAT $ANS-360.01
MICROSAT LAUNCH STATUS REPORT #3

HR AMSAT NEWS SERVICE BULLETIN 360.01 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 26, 1989
TO ALL RADIO AMATEURS BT

MICROSAT LAUNCH STATUS REPORT

All seven payloads: four microsats, two UoSATs and the primary
SPOT-2 payload have been integrated and encapsulated in their
payload structure. The SPOT-2 has also been fully fueled and all
are awaiting mating with the Arianne vehicle which will occur in

a few days

The microsat batteries are being trickle charged, 10 hours on and 14 hours off per day, by Dave Cowdin, WD0HHU who will be in Kourou through launch day. This is done so that the onboard computers will remain powered up and retain their software loads in preparation for early flight operations.

Although separation from the launcher physically connects power to the microsat transmitters, they will not actually be turned on until a few hours after launch by either NK6K operating W6TRW on the U. S. west coast or N4HY on the east coast.

A prelaunch keplerian element set useful for all seven payloads will be published next week.

Rudimentary telemetry software for IBM-PC and compatibles is being prepared at this time and will be available soon. Distribution will be first to command stations and Command Station Development Program members followed by availability from AMSAT Headquarters and various electronic sources. If you do not have your software in place on launch day, simply capture files of received data for later processing.

Monitor the following frequencies early in the mission:

LUSAT 437.150 PSK (straight PSK transmitter)
LUSAT-CW 437.125 CW (modified character set)
WEBERSAT 437.075 PSK (raised cosine transmitter)
PACSAT 437.025 PSK (raised cosine transmitter)
DOVE 145.825 FM packet

Monitoring of the PSK signals will require an SSB receiver and a TNC-2 modified with a 1200 baud PSK demodulator. FM packet from DOVE may be monitored with an unmodified TNC and FM receiver. The LUSAT CW beacon transmits telemetry values in Morse Code om which numeric characters have been modified in order to save CW transmitter power. In all cases, more information will be published as it becomes available from the spacecraft development team. Copy CW signals as heard and capture packet telemetry into computer disk files for later processing.

Additional information including other downlink frequencies and the uplink frequencies will be released as "opening day" for each of the satellites nears.

/EX
SB ALL @ AMSAT $ANS-360.02
ALINS PREPARATIONS UNDERWAY

HR AMSAT NEWS SERVICE BULLETIN 360.02 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 26, 1989

TO ALL RADIO AMATEURS BT

MICROSAT / UOSAT LAUNCH NETWORK PLANS ANNOUNCED

The AMSAT Launch Information Network (ALINS) in support of the up-coming MICROSAT/UOSAT launch is taking shape. The launch net will provide real time coverage of the launch day activities.

Providing HF support for ALINS will be W1AW, WA3NAN, W5RRR, W6VIO and several overseas stations. Additional stations may be added to the HF network. Exact HF frequencies and times of operation will be published in next week's report.

In support of local distribution via 2 meter FM repeaters around the country, AMSAT has, with the aid of the ARRL headquarters staff, secured the use of a teleconference bridge that will support over 100 different ports. It will therefore be possible for local repeaters to simply place a long distance telephone call and join the bridge.

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/EX
SB ALL @ AMSAT $ANS-360.03
AMSAT OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 360.03 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 26, 1989
TO ALL RADIO AMATEURS BT

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On 30 December, John Fail, KL7GRF, will be discussing satellite DXing, presenting operating hints and information about the upcoming DXpeditions to Bouvet Island and Juan Hernandez.

/EX
SB ALL @ AMSAT $ANS-360.04

SATELLITE OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 360.04 FROM AMSAT HQ
SILVER SPRING, MD DECEMBER 26, 1989
TO ALL RADIO AMATEURS BT

OSCAR Satellite Operating Schedule

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AMSAT OSCAR-10 is currently available for whole orbit operation
via the mode B transponder.

/EX
SB ALL @ AMSAT $ANS-360.05
ZRO TEST SCHEDULE

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SILVER SPRING, MD DECEMBER 26, 1989
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Any changes will be announced as soon as possible via the AMSAT HF/VHF Nets
and OSCAR-13 Operations Nets. ZRO brochures are available from WA5ZIB, Andy
MacAllister, AMSAT V.P. of User Operations, 14714 Knightsway Drive, Houston,
TX 77083 for an S.A.S.E. with one unit of postage.

/EX

Posted: Tue, Jan 2, 1990 8:34 PM GMT Msg: GGJA-4128-1725
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$001

SB ALL @ AMSAT $ANS-001.01
AMSAT LAUNCH INFORMATION NETWORK

HR AMSAT NEWS SERVICE BULLETIN 001.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

MICROSAT / UOSAT LAUNCH NETWORK PLANS

For the planned launch time of 0135 UTC on 11 January 1990 (Wednesday evening, 10 January in the U. S.) the AMSAT Launch Information Network (ALINS) will run from 0100 to 0230 UTC.

The following stations will be carrying the event on HF:

Call Location Frequency Beaming

W1AW Connecticut phone bulletin Europe
frequencies,
see QST

WA3NAN GSFC, Maryland 14.295 USA
3.860, 7.185

W5RRR JSC, Texas 14.280 Central, South America,
3.840 and Caribbean

W6VIO JPL, California 21.280 New Zealand / Australia
3.850 or Japan / Asia

South Africa 3.718, 7.080, 14.282 (SSB)
3.665, 7.094 (AM)

In addition, an uplink to AO-13 (over Asia) will be provided by I2KBD near Milan, Italy, and an uplink to AO-10 (over South America) will be provided by W5RRR. Operations downlink frequencies of 435.970 and 145.950 will be used on the satellites.

Due to physical constraints imposed by the required orbit, the launch windows are very short (around ten minutes in length). If the launch occurs on another day, it will still be at roughly the same time of day and the ALINS schedule will also be similar.

The teleconference bridge, arranged with the aid of the ARRL headquarters staff, still has several available slots for interested repeater operators. To reserve a slot, contact Courtney Duncan, N5BF, at 818-957-8455 as soon as possible. Be prepared to leave your name, call, address with zip, phone number, repeater call, frequency, and coverage area on an answering machine when calling. The machine will be on-line 24 hours a day until reservations close late this week. Keep in mind that users of the bridge will be calling in at their own long distance expense on launch day.

Those who have reservations will be mailed the telephone number and other last minute information as soon as it becomes available. If time is too short, contact will be made by telephone.

/EX
SB ALL @ AMSAT $ANS-001.02
PRE-LAUNCH MICROSAT KEPLERIAN ELEMENT SET

HR AMSAT NEWS SERVICE BULLETIN 001.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

SPOT-2 / MICROSAT / UOSAT KEPLERIAN ELEMENT SET

The SPOT-2/Microsat/UoSat launch window for 11 January 1990 opens at 013525 UTC and closes ten minutes later. Bob McGwier, N4HY, has provided the following element set which should be valid for launch anytime during the window (excepting the mean anomaly, which may need to be adjusted by a few minutes if launch is at other than 013525 UTC). If the launch occurs on another day, simply add 0.98561226 degrees of RAAN per day to the listed value, and adjust the epoch time by the amount that launch is different from 013525 UTC, leaving all other parameters the same.

Following deployment, all seven satellites will be in close proximity for several days. In about a week, users with high gain antennas will begin to find the cumulative errors per satellite growing large enough to cause significant pointing errors. All users will begin to notice the changes in AOS and LOS time.

The element set given is valid for all of the satellites but they will drift apart at the rate of several minutes in orbital position per week. Early in the flight, the estimated element set can be patched for individual satellites by adjusting the mean anomaly by a corresponding number of minutes. For instance, if after one week, PACSAT appears three minutes later than predicted by the element set, simply add three minutes (0.0020833 days) to the mean anomaly given to obtain better predictions. Actual orbital element sets for each new satellite will be made available as soon as possible.

Satellite: SPOT-2, UO-D, E, Microsat-A, B, C, D
Catalog number: not yet assigned
Epoch time: 90011.0816319
Element set: pre-launch
Inclination: 98.738 deg
RA of node: 87.11413 deg
Eccentricity: 0.00134
Arg of perigee: 110.95 deg
Mean anomaly: 297.18 deg
Mean motion 14.1988896 rev/day

Decay rate: 1.0e-06 rev/day^2
Epoch rev: 0

/EX
SB ALL @ AMSAT $ANS-001.03
MICROSAT AND UOSAT FREQUENCIES

HR AMSAT NEWS SERVICE BULLETIN 001.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

MICROSAT AND UOSAT FREQUENCIES AND DEPLOYMENT ORDER

The following are the Microsat and UoSat listening frequencies
and modes listed in order of deployment. The OSCAR numbers
listed are, of course, tentative and assume a successful launch
on schedule.

Spacecraft OSCAR number Frequency, MHz Mode

UoSat D UO-14 435.070 9600 bps AFSK AX.25
UoSAT E UO-15 435.120 9600 bps AFSK AX.25
PACSAT PO-16 437.025 1200 bps PSK AX.25
DOVE DO-17 145.825 1200 bps AFSK AX.25 (FM)
WEBERSAT WO-18 437.075 1200 bps PSK AX.25
LUSAT LO-19 437.150 1200 bps PSK AX.25
LUSAT - CW LUSAT 437.125 12 WPM CW telemetry

Packet transmission from DOVE may be monitored with an unmodified
TNC-2 or clone, using an FM receiver. The other microsats
(PACSAT, WEBERSAT, and LUSAT) require an SSB receiver and TNC
with a 1200 bps PSK demodulator (FO-12 compatible, NOT the 400
bps PSK demodulator used with AO-10 and AO-13). The 9600 bps
modulation scheme used by the UoSats is compatible with K9NG and
other similar 9600 baud modems commonly used in terrestrial
packet applications.

Bob McGwier, N4HY, will attempt to activate microsat transmitters
on the first orbit after separation. The pass he will use for
this attempt will begin at about 0329 UTC on 11 January 1990.

/EX
SB ALL @ AMSAT $ANS-001.04
HINTS FOR MICROSAT/UOSAT RECEIVING ANTENNAS

HR AMSAT NEWS SERVICE BULLETIN 001.04 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

MICROSAT ANTENNAS CONSIDERED

Drawing on previous studies of ground antennas for low earth
orbit satellites and operating experience, Dick Jansson, WD4FAB,
has designed and theoretically analyzed performance of an antenna

which is thought to be optimum for microsat work. Essentially, the antenna is a fixed, dual band J pole with two feedlines.

Details of the antenna design and analysis will be published in the February 1990 issue of the AMSAT-NA Journal.

Users of AO-13 class satellite stations using the gain antennas to track microsats will experience in some cases up to 50 dB of excess link margin. The nature of the PSK transmission mode from the pacsats is such that excessive signal can actually make acquisition and demodulation more difficult. In any case, there is plenty of signal available to cover losses incurred from the use of fixed antennas and polarization mismatches.

Microsat users, particularly those intending to set up automatic mail forwarding or data capture installations are encouraged to use fixed antennas so as to reduce automatic system maintenance and wear to a minimum. Automated ground stations requiring significant maintenance are likely not to be able to support much long term use.

For fixed antennas, Jansson recommends a vertical arrangement, such as the dual J-pole design, over turnstile-reflectors and other traditional horizontal or circular designs.

Simple, low gain vertical antenna radiation patterns closely match that required by low orbit satellites at various slant ranges and corresponding elevation angles. This is particularly true near the horizon where the most gain is needed and the satellites spend most of their visible time. The drawback is linear polarization, but Microsat downlinks are circularly polarized so that the polarization mismatch is typically only 3 dB.

Turnstile-reflector antenna response drops off near the horizon where it is most needed and has peaks at higher elevations where low orbit satellites spend relatively little time.

For further details and dual J-Pole construction information, look for WD4FAB's article in the upcoming AMSAT-NA Journal. If you already have a simple vertical (quarter wave ground plane or vertical dipole) in place, it should be adequate.

Submitted by Courtney Duncan, N5BF.

/EX
SB ALL @ AMSAT $ANS-001.05
LUSAT CW TELEMETRY INFORMATION

HR AMSAT NEWS SERVICE BULLETIN 001.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

LUSAT CW TELEMETRY BEACON DETAILS

The LUSAT microsat carries as its special payload a CW transmitter which will operate at 437.125 MHz at about half of a watt. This experiment is separate from the remainder of the LUSAT (which is a pacsat). The telemetry encoded by it applies only to the CW transmitter module and is therefore unique and independent from the LUSAT telemetry transmitted on the 1200 bps PSK downlink (437.150 MHz).

The 12 word per minute transmission format is:

E LUSAT HI HI NL 111 222 333 444 555 666 777 888
where

E is an artifact of processing (for power measurement)
LUSAT is the spacecraft identifier
HI HI is the international CW identifier for OSCARs
N indicates which version of code is running from EPROM
(The firmware is stored 7 times in the EPROM to protect
against environmental degradation, so the range is 1-7;
the lowest non-corrupt version number is executed.)
L is "O" for "6805 OK" and "E" for "6805 ERROR"
(6805 is the RAM microprocessor.).

The following numbers are readings of the eight telemetry channels. All numerals are sent in "reduced CW" (extra dashes suppressed) under the following plan to save transmitter power:

A = 1 6 = 6
U = 2 B = 7
V = 3 D = 8
4 = 4 N = 9
E = 5 T = 0

The following equations are then used to convert the readings to engineering units:

CH# 1 = N1 +5 Reg. Voltage 636/N1 = volts
CH# 2 = N2 +10 Volt Battery 0.064*N2 = volts
CH# 3 = N3 CW TX Temperature 0.354(134.7-N3)= degrees C
CH# 4 = N4 CW TX Power Output (10.9+N)^2/40.1= milliwatts
CH# 5 = N5 Temp. BOX Nr. 4 0.356(136-N5) = degrees C
CH# 6 = N6 +10 V Current 0.7*N6 = milliamps
CH# 7 = N7 Panel +Z Volts 0.15*N7 = volts
CH# 8 = N8 Reg. +8.5 Volts 0.056*N8 = volts

A sample reception might be:

E LUSAT HI HI AO AUD A6B T4U A6U T4T A4D T4E AE6

This translates to:

E LUSAT HI HI 1O 128 167 042 162 040 148 045 156

NL = 1O : N=1 (first version) ; L=O (Memory 6805 RAM "OK")

N1=128: 636/128 = + 4.97 volts regulated.
N2=167: 0.064*167 = +10.69 volts battery
N3=042: 0.354(134.7-042)= +32.81 degrees C
N4=162: (10.9+162)^2/40.1=745.5 milliwatts
N5=040: 0.356(136-040) = +34.17 degrees C
N6=148: 0.7*148 = 103.6 milliamps (at 10 V)
N7=045: 0.15*045 = + 6.75 volts +Z
N8=156: 0.056*156 = + 8.736 volts regulated

/EX
SB ALL @ AMSAT $ANS-001.06
WEBERSAT EXPERIMENTS AND MICROSAT TELEMETRY

HR AMSAT NEWS SERVICE BULLETIN 001.06 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

Now that the Microsats and UoSats are closed out and awaiting launch in Kourou, French Guiana, Microsat developers Jan King, W3GEY, Bob McGwier, N4HY, and Harold Price, NK6K, have been able to devote their holidays to the task of analyzing volumes of spacecraft test data, calculating telemetry calibration equations for each satellite, and preparing "first cut" decoding software. Also, WEBERSAT engineer Chris Williams, WA3PSD, has prepared an interesting preliminary document describing all of the WEBERSAT "attic" experiments except for the camera system. Besides allowing users everywhere to obtain satellite and experiment data firsthand, this information also has great educational potential.

Bruce Rahn, WB9ANQ, Command Station Development Program administrator, has compiled this and other information onto an IBM compatible diskette for immediate distribution to command stations and CSDP team members. Parts of the information will also be available from electronic sources such as CompuServe or the Dallas Remote Imaging Group BBS which is used by AMSAT-NA members.

Copies of the diskette will also be made available at AMSAT Headquarters (POB 27, Washington, DC, 20044, 301-589-6062) as soon as possible.

More refined information and software will become available as the operational phase of the Microsats evolves.

Submitted by Courtney Duncan, N5BF.

/EX
SB ALL @ AMSAT $ANS-001.07
OPERATIONS NET SCHEDULE

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SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

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several weeks.

Day UTC Day U.S. Freq. NCS Guest

07 Jan 90 1700 Sunday 435.970 WA5ZIB ZRO tests
20 Jan 90 1400 Saturday 435.970 N5BF KO5I
03 Feb 90 1345 Saturday 145.950 N5BF TBA
10 Feb 90 1545 Saturday 435.970 N5BF TBA

On 7 January, Andy MacAllister, WA5ZIB will be net control and
will be leading a discussion of ZRO tests. The 20 January
session will feature AMSAT President Doug Loughmiller, KO5I.

/EX
SB ALL @ AMSAT $ANS-001.08
SATELLITE OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 001.08 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

OSCAR Satellite Operating Schedule

The following information is provided by AMSAT-DL.

AO-13 TRANSPONDER SCHEDULE

MODE B MA 000 TO MA 110
MODE JL MA 110 TO MA 145
OFF MA 145 TO MA 150 BAHN LAT +0.5 deg
S BEACON MA 146 TO MA 147 BAHN LON 179.2 deg
MODE S MA 147 TO MA 160
MODE B MA 150 TO MA 255
OMNI ANT MA 225 TO MA 035

AMSAT OSCAR-10 is currently available for whole orbit operation
via the mode B transponder. Bahn coordinates estimated for AO-10
as of December 24, 1989 are: BAHN LAT -17.7 deg BAHN LON 40.2 deg.

/EX
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 001.09 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

ZRO Test Schedule

The following is a schedule of Mode B and Mode J/L ZRO test times
and downlink frequencies.

Saturday January 06, 1990 at 18:00 UTC MODE JL 435.945 MHz
Saturday January 13, 1990 at 12:00 UTC MODE B 145.840 MHz
Saturday January 20, 1990 at 15:30 UTC MODE B 145.840 MHz

ZRO brochures are available from WA5ZIB, Andy MacAllister, AMSAT V.P. of User Operations, 14714 Knightsway Drive, Houston, TX 77083 for an S.A.S.E. with one unit of postage.

/EX

33. Re: Desperately seeking device/plans for VHF FM audio receiver (Please, somebody help me!)

Newsgroup: rec.ham-radio
Date: 1990-01-03 13:21:44 UTC
From: wa2sff@cbnewsh.ATT.COM
Message-ID: <7003@cbnewsh.ATT.COM>
Source record: 14435
Cross-posted to: sci.electronics,rec.ham-radio

```
In article <37577@apple.Apple.COM>, tedi@Apple.COM (Ted Ives) writes:
> I am a hobbiest desperately seeking information on how to
> obtain or build a tiny portable VHF FM audio receiver. In my
>...
> Here are my specs:
> * Freq Range: 150Mhz-216Mhz
> * Signal: FM audio (mono) 80Khz-20Khz (or as good as possible)
> * FM Modulation: +/- 15Khz
> * Dimensions: Smaller than a deck of cards
> * Power requirements: Able to run 2-4 hours on small batteries
>
> I will need to tune to any one of 5 or so frequencies which I
> already know. Therefore, the device should be crystal
> ...

Try Hamtronics, Inc. 65 Moul Road, Hilton NY 14468-9535.
Tel 716-392-9430.

They have a receiver kit for $139; its size is 3 7/16 by 4,
not quite the size of a deck of cards but still small.

Joe Wilkes
att!hound!wa2sff
```

34. Re: Morse code, obscenity, and packet retransmission.

Newsgroup: rec.ham-radio
Date: 1990-01-03 13:28:59 UTC
From: dianeh@gryphon.COM
Message-ID: <24177@gryphon.COM>
Source record: 14440
Cross-posted to: rec.ham-radio,alt.flame

In <1071@ursa-major.SPDCC.COM> eli@ursa-major.spdcc.COM (Steve Elias) writes:
>In article <979@rsiatl.UUCP> jgd@rsiatl.UUCP (John G. De Armond) writes:
>>amendment challenge to the arbitrary rule against "profanity". (I echew
>>profanity on ham radio AND this network for the same reason I dislike
>>discussions about hemorhoid surgery or "Too many SWRs" or the weather -
>>it makes the speaker sound really stupid and uneducated.)

Well, I couldn't get Dan Mocsny over in soc.sniggles to do it, so let's
see how Monsieur DeArmond does: Define "profanity".

P.S. What the hell's a 'SWR'? -- Single, White, Republican? You're right --
a most distasteful discussion topic...

(BTW: Is "echewing profanity" anything like "eating shit"? Just curious.)

Diane Holt
(dianeh@binky.UUCP)

"How am I posting? Call 1-800-ECHEW-PROFANITY."

35. QSL managers for incoming foreign QSL cards

Newsgroup: rec.ham-radio
Date: 1990-01-03 13:29:13 UTC
From: dls@genrad.com
Message-ID: <30739@genrad.UUCP>
Source record: 14439

As a person who has now volunteered her services to help out with QSL cards, I figured that the information on how it's done might be of use to this net.

Basically, QSL cards are sent to the States in large packages (> 100 cards per package) from the various foreign QSL Bureaus. The cards are separated into 10 districts, corresponding to the digit in the receiver's callsign, at the foreign QSL bureau, then mailed directly to one of the 10 US QSL Bureaus. There, the cards are again sorted, this time based on the first letter FOLLOWING the digit. Each "letter" goes to a different volunteer person, who then further sorts the cards by callsign and mails them to the receiver. These volunteer persons generally pick up a bag full of cards to sort and send out about once every 4-6 weeks.

The envelopes which come in from the receiver again goes to the QSL Bureau (one of 10), where they are given to the volunteer for that particular "letter". At our QSL Bureau, the envelopes are "logged" in, and then sent on. This provides a method of tracing lost envelopes. If a Self-addressed Stamped envelope is enclosed requesting information or status, it is the "letter" volunteer who actually sends out the information (in general), not the QSL Bureau.

Now, down to the "letter" volunteer. The volunteer has a "shoebox" full of Envelopes. He also has a "shoebox" full of 3x5" cards containing the status for each callsign and any money/stamps which is sent. Each time a transaction is done for a callsign, it is logged on the 3x5" status card. Transactions include receiving envelopes/money/stamps, sending out QSL cards, buying envelopes/stamps for the callsign, sending out status information. He also has a "shoebox" to hold DEAD cards. These are cards which come in, but which he has no envelope/money/stamps for. The DEAD cards are held for up to 45 days, then are discarded.

There is ONE case where cards are NOT held for 45 days before being discarded. If he has a 3x5" status card on that callsign, and if a request has been made in the past TO that callsign to send in an envelope/money/stamps and no response has been received within 45 days, then the status card is marked "No Interest, Discard".....then any further cards are simply discarded immediately upon receipt.

At the volunteer's option, he can send out a postcard requesting an envelope/ money/stamps from the callsign. It is NOT required, and it does cost him (at least initially) 15 cents to send the postcard. Our QSL Manager has made up some postcards for this purpose. Generally, the postcards ask for a dollar amount GREATER than that required for just one envelope. If this money is received, the 15 cents is deducted from it, then the remaining amount is placed towards the callsign's "account". So now the callsign may receive

two or three envelopes before the "account" is out of money again. When the "account" becomes too low to send any more envelopes, the volunteer may request additional money to update account....else, it's back to the bit bucket again.

The "letter" volunteer does NOT make any money by doing this service. Somewhere along the line, he has to come up with envelopes and stamps (for those people who send money instead of SASEs). He has to come up with cash to buy 3x5" cards, pens, postage scale, tape, and any number of other supplies to support the service he provides. Many of the items can be obtained thru the QSL Manager himself, but there are always things the "letter" volunteer will have to obtain on his own. Some of this money is made up by the envelopes he sells to the callsigns. I was told to charge 10 cents per envelope or 3 SASEs (25 cents postage) for a dollar. Believe me, that leaves very little "profit" left over to buy supplies. The "letter" volunteer REALLY is just that: a volunteer. The QSL Managers are ALSO volunteers!

I hope the above helps to explain the incoming QSL Bureaus somewhat. I have some final advise to all hams out there:

1. If you ever have any QSO's with foreign countries, be sure you have an open account on file with your QSL Bureau. (Especially with Japanese QSOs, cuz they send a QSL card for everything!)

2. Send a 5x7" or 6x9" envelope to the QSL Bureau. Don't use small envelopes, the cards don't fit in them and they are difficult to keep track of. Same goes for 9x11" envelopes....they are difficult to keep track of. BE SURE TO PUT THE CALLSIGN IN THE UPPER LEFT HAND CORNER!!!! And self address it too.

3. Alternately (or in addition), send some money and/or stamps.

4. If you don't know what the status of your account is, ask. Simply send a self-addressed stamped envelope; almost always, they will respond.

5. If you change callsigns, you COULD send an envelope for both callsigns. But better would be to send it for your new callsign, but enclose a note of what your OLD callsign was. What we do for that is to keep a 3x5" status card with the new "letter" volunteer AND the old "letter" volunteer. When QSL cards are received by the old "letter" volunteer, they are simply returned to the QSL Manager who then gives them to the new "letter" volunteer (or sends them to a different QSL Bureau if that is appropriate).

6. If you change addresses and the address in the Callbook is not correct, send a note to your QSL Manager with the new address. Otherwise, the cards may end up getting disposed...when they are returned with "No Forwarding Address". Remember, the post office will only forward your mail for one year....no longer.

7. Keep in mind that most "letter" volunteers will NOT hold onto cards until they have a bunch to send you. If you only receive one card,

then that's what they put into the envelope. For this reason, it is better that you only put 25 cents onto the envelope, and instead enclose loose stamps or money if you think the envelope may weigh more than one ounce. Don't worry, that money/stamps will still be used for you, and not go into some volunteer's pocket. Don't get upset that some "letter" volunteer has taken postage OFF your envelope! He's doing YOU a favor by saving the excess postage for another time.

CHEERS!

Diana

-> Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: N1GZS/AA<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

36. Re: AM antenna

Newsgroup: rec.ham-radio
Date: 1990-01-03 14:36:00 UTC
From: benk@inmet.inmet.com
Message-ID: <13700013@inmet>
Source record: 14438

Could you post the name/address/phone-number of the vendor, the name/ model number of your antenna, how much it costs, etc., for the benefit of those of us on the net who have been intrigued by your posting.

Thanks.

-- Ben Krepp

From uunet: uunet!inmet!benk
From DDN: benk@inmet.inmet.com

37. Soomer beams - another request for info

Newsgroup: rec.ham-radio
Date: 1990-01-03 15:47:59 UTC
From: w2up@ka2qhd.UUCP
Message-ID: <82@ka2qhd.UUCP>
Source record: 14454

I posted a note a few weeks ago requesting any info on Sommer beams as they compare to other tribanders like the TH6/TH7 and KT34XA both mechanically and performance-wise. Somehow the title of my posting was picked up in a discussion about CW. Any help out there about the antennas??? Tnx de Barry, W2UP

38. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-03 16:37:37 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500007@hpfcso.HP.COM>
Source record: 14459

Re: W1AW & QRM

Since W1AW is funded by a widely recognized association of Amateurs,
one might presume that W1AW's code transmissions might be
the best known of code practice sessions emanating from
the US. In this spirit, I would suggest that W1AW be given a little
bit of slack.

After all, I used their services to attain all my license grades over
the last 18 years. I would expect that many others are doing the same.

I do have trouble with others firing up as if they had some constituency
like ARRL's. Non-stop KJV might be more of a "ministry" than a
code practice session. Perhaps the proof could be as simple as
having the station licensee provide evidence that some minimal number
of people are actually copying the sessions.

While W1AW acts like they own a frequency, I think that they are
actually "more equal than others" in a very useful way. By moving off
their frequency, you may be assisting some wannabe-hams and demonstrating
why newcomers might like to join our ranks. Not moving off of a
KJV session might only get you some prayers for your evil soul....
and most of us can use all the help we can get :-)

W1AW, it's not really *their* frequency, it's OUR frequency.

Ron Miller
NW0U

39. Looking for Kenya

Newsgroup: rec.ham-radio
Date: 1990-01-03 18:09:50 UTC
From: delong@frith.egr.msu.edu
Message-ID: <5912@cps3xx.UUCP>
Source record: 14441
Cross-posted to: soc.culture.african,rec.ham-radio,rec.ham-radio.packet,comp.mail.misc,comp.mail.elm,comp.mail.mh,comp.mail.sendmail,comp.mail.mush

Electronic Mail...

Does anyone know of any mail addresses for sites in the African country of Kenya? We would like some kind of mail communications with our sister college and are in a bit of a hurry.

Please Reply by mail.

Thank you ever so much!

Keith
Delta College
delong@frith.egr.msu.edu

40. R7000 Options, PRO-2005 Mods

Newsgroup: rec.ham-radio
Date: 1990-01-03 19:02:33 UTC
From: frank@ut-emx.UUCP
Message-ID: <22959@ut-emx.UUCP>
Source record: 14445
Cross-posted to: rec.radio.shortwave,rec.ham-radio

ICOM R7000 Questions.
****

I am interested in hearing from people who have ICOM R7000 radios and have used or purchased the NOVELL FC7100B converter. Allows the ICOM R7000 to receive, according to the EEB add I saw, from 20khz to 2ghz. Cost of the converter is about $219 I think, not a bad price when hooked to the R7000 to get that reception range, if it works well.

Also, have users of the R7000 noticed LOTS of overlapping images of broadcast FM stations in the 70 to 87mhz range on the R7000 or is mine just busted? Does the 1GHZ switch on yours basically do nothing except drop the S-meter reading when turned on with a local FM Broadcast station tuned in? example. 93.7mhz then with 1GHZ switch in 1093.7mhz is displayed but the FM Broadcast guy is still good and strong; though the S-meter drops 20-30units.

Has anyone put a good quiet preamp in the 1691mhz range in front of the R7000, to receive the GOES satellites, in FM wide mode with ANY success?
****

PRO-2004 Questions.
****
I have a friend who had a PRO-2004 which has a continual problem in the audio. Radio Shack has been unable to fix it and has given him a PRO-2005 in exchange. Any comments on the relative merits of the two and does anyone have mods to open up the receive range, or other good stuff.
(yeah the cellular stuff :^).

Any comments on the above would be most appreciated. E-mail to me if you can, to keep the noise level on these groups down, or post a follow-up if you can't e-mail to me.

frank@ut-emx.cc.utexas.edu
ut-emx.cc.utexas.edu!frank

Frank Abernathy
P.O. Box 4394
Austin, Texas 78765

(512)-244-0625 Home Ans. Mach., I will return you call if you call me.

41. Mods for Kenwood TH-215A?

Newsgroup: rec.ham-radio
Date: 1990-01-03 19:27:37 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230013@hpfcdj.HP.COM>
Source record: 14442

Well, here's one ham who had a verry Merry Christmas - Santa brought me a new Kenwood TH-215A HT!

Now, I'd like to hear from anyone who has a favorite mod for this unit; I'd be particularly interested in (but don't really expect) some way to extend the receive range down below 144 MHz. (I've had a ball listening to the police on 15X MHz, but I also live close to an airport.)

Any other pet mods?

(No hurry, by the way - I'm at least gonna keep the warranty valid for a little while!)

E-mail, or post if you've got something that would be of general interest.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

42. VERTICALS- Try a SLINKY !!

Newsgroup: rec.ham-radio
Date: 1990-01-03 19:29:08 UTC
From: pjstopa@CRDEC4.APGEA.ARMY.MIL
Message-ID: <9001031429.aa22087@crdec4.apgea.army.mil>
Source record: 14443

SMALL VERTICALS

Several years ago 73 magazine had an antenna, nicknamed the "Ramada Resonator", in their antenna issue. It consisted of a vertical slinky on a collapsible PVC frame which was fed via tuner like a long-wire. The PVC frame was collapsible, making the antenna easily transportable for those business trips and overnight stays in the Ramada.

Living in a townhouse development with strict covenants against antennas, I decided to build the thing. I eventually got rid of the PVC frame and used the slinky elongated out to about 6.5 ft along a 1"x3" driven into the ground. I fed it as both a long-wire and with coax, the ground side going to a quasi-radial system on the ground. I was able to load the thing with a tuner from 160 to 10 meters. Bandwith was narrow on 160 and 80, but the antenna loaded pretty well on the rest of the bands. With this set up, I worked plenty of DX, even on twenty, and my neighbors didn't suspect a thing. I did have a hy-gain vertical which I used before the slinky, but I did not see any dramatic difference between the two. Word of caution- The SWR does change if the slinky bounces, so try and keep it firmly rooted to the support. I have since moved the antenna to my attic without significant loss in performance. For a $3.00 slinky, it might be enough to get started.

BTW- several of you have e-mailed me about the Christmas train, saying that you had problems with it- could I remove such and such codes- etc.. The program was passed along to me on e-mail, so I am not initimately familiar with the codes, etc., to do as you requested. If the thing crashed your system, my humble apology is extended.

HAVE A HAPPY NEW YEAR!

de Peter J. Stopa, KA3LKQ

43. Re: rec.scanners

Newsgroup: rec.ham-radio
Date: 1990-01-03 19:46:42 UTC
From: wilson@ccop1.ocpt.ccur.com
Message-ID: <276@ccop1.ocpt.ccur.com>
Source record: 14452

In article <89122504121296@masnet.uucp>, barry@hprmokg.hp.com@canremote.uucp (barry@hprmokg.HP.COM) writes:
>
> 73 Magazine
> is going to have an article on scanners in a future issue, I hear,
> that will feature two modifications: 1.) how to use the scanner to
> measure FM deviation and 2.) how to use it to decode PL frequencies.

Here's a low-tech way to decode PL frequencies. Using a radio such as a Yaesu FT-23R with a built-in programmable PL decoder, merely program the frequency into the rig. Leave PL decode off and when the signal is active, turn PL decode on and slowly (about 2 seconds a tone) step through the various standard PL tones until you get audio out of the speaker! This may take a few transmissions to get through all the PL tones. (This is not a problem on the Ham bands where we ragchew forever!). An alternative approach is to program the same frequency into different memories but with different PL decode frequency in each one. The scanner will then stop at the appropriate one. My FT-23R doesn't have enough memory channels for this approach.

Remember you need to be monitoring the INPUT frequency of a repeater to hear the PL tones on most modern well engineered repeaters. Many times a notch filter is in the controller to prevent the PL tones from being heard on the output. Sometimes a different PL tone is used on output.

Please, no flames about using an audio frequency counter and all that. I said this was low-tech and it works!

Gary Wilson, WB2BOO

PS a simple way to get many ham PL tones is to look them up in the ARRL repeater guide! (100 Hz is most common).

44. Re: Assigned Radio Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-03 20:34:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9001040802.AA17778@ucbvax.Berkeley.EDU>
Source record: 14444

In reply to the unsigned note (hard to email to) about
getting info on frequency assignments in the LA area, I
suggest you attend a mtg of the RCMA (Radio Communications
Monitoring Association). There are monthly mtgs in both WLA
and the Anaheim area. I don't have mtg details at my
fingertips, but you can listen to the Baldwin Hills ARC
19:30 Tuesday night net on 146.925. They generally have
info about RCMA mtgs.

45. TV and FM radio DXing

Newsgroup: rec.ham-radio
Date: 1990-01-03 20:37:23 UTC
From: trey@ut-emx.UUCP
Message-ID: <22960@ut-emx.UUCP>
Source record: 14451
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I have some questions for the TV and FM radio buffs of the net.

1) What kind of (presumably directional) antenna do you use in
your pursuit of DX?

2) Is there such a thing as an omnidirectional antenna for TV and
FM radio reception?

2.1) How are commercial (broadcast) TV signals polarized and
how does this affect the choices?

I live between markets and I get tolerable reception of about a dozen
TV stations on the indoor antenna clipped to the back of the set. I
would like put up a small omni to improve these pictures without having
to be bothered to rotate an antenna while madly exercising the remote
control. Another use of the omni might be to check channel two for
six meter openings and such.

I would also like to have a second antenna with some serious gain so
I can do some DXing.

Some other questions: is there such a thing as putting a TV antenna
"too high" (too high in the amateur sense, i.e. 0-200 feet) as with hf
antennas? If I run a KW on six or two meters, is it a bad idea to have
my TV turned on to channel 2? turned on to any channel? turned off but
still connected to an antenna? Also, if commercial antennas are the answer,
what is a good way to attach these tiny things to a 2 inch .25 wall mast?

Followups to me or the net. Thanks.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

46. Re: Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-03 20:49:29 UTC
From: jws@hpfcso.HP.COM
Message-ID: <7500008@hpfcso.HP.COM>
Source record: 14460

This has been hashed over many times, and the consensus seems to be:

1. The radio rebroadcast shouldn't go out over the air.

2. Therefore, you should either:

a: Disconnect from the patch

b: Transmit over the patch yourself -- something like "N0XXX waiting for patch answer" -- release intermittently to see if your party has answered.

3. The FCC would not be happy about the rebroadcast music/commercial, so don't try to collect fees :-) :-). (But I won't turn you in.)

John Schmidt, NK0R

47. Re: Sommer antennas - info wanted

Newsgroup: rec.ham-radio
Date: 1990-01-03 21:13:16 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120102@hpcupt1.HP.COM>
Source record: 14446

I am confused. I thought the Sommer was an antenna. Seems it has something to do with cw sub-bands and automatic digital modes. Sounds subversive to me.

48. Re: Assigned Radio Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-03 22:09:59 UTC
From: bmp@hpcupt1.HP.COM
Message-ID: <7120103@hpcupt1.HP.COM>
Source record: 14447

My recommendation for California scanner owners
is to buy a copy of Robert Kelty's publication
called Government Radio Systems. It breaks down local,
regional, state and federal radio systems in fine
and accurate detail. He also produces a smaller
book called Military Radio Systems, which I wouldn't
recommend buying immediately.

You should be able to find this in any good scanner shop.
Try Ham Radio Outlet if that doesn't work.
It costs about 20.00 but it the best researched
directory for California I have seen. I have not
seen a good directory for private sector (business)
frequencies.

Brian Perkin
(N6RSW)

49. Sony 2010 modification info

Newsgroup: rec.ham-radio
Date: 1990-01-03 22:11:01 UTC
From: hcooper@esunix.UUCP
Message-ID: <1714@esunix.UUCP>
Source record: 14448
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I came across this on a BBS today, and I am not sure if this is already known to owners of the Sony 2010, so I am posting it.

I don't own one of these radios, so use at your own risk.

The sony 2010 has a design flaw that causes static electricity to blow the first RF stage. Sony is aware of the problem, and has for some people, repaired the problem at no charge. They may or may not still be doing this. The amount of static charge required to blow the stage can vary from a thunderstorm, to build up due to dragging your feet across the carpet.

Second posting of information related to the Sony 2010

Apparently the built in whip antenna does have protection diodes on it, but these are by-passed when plugged into the external antenna jack. To protect the input when using the external jack, place 2 1N914 diodes in series, then two more in parallel, but back biased.

```
----|<----|<---- ground
antenna ---->|---->|----
```

connect the setup from the input to ground. This will allow either a positive or negative charge of more than 1 volt to bleed to ground. the original poster of this has seen NO negative affects to reception.

This is all the information I have on the subject.

Harrison Cooper N7KST

50. Re: Ground Rod

Newsgroup: rec.ham-radio
Date: 1990-01-03 22:11:55 UTC
From: bmp@hpcupt1.HP.COM
Message-ID: <7120104@hpcupt1.HP.COM>
Source record: 14449

Don't forget your safety glasses.

Brian

51. Re: Multiband (80-10m) vertical antennas

Newsgroup: rec.ham-radio
Date: 1990-01-03 22:43:55 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <1852@ultb.isc.rit.edu>
Source record: 14458

In article <25486@cup.portal.com> Allyn@cup.portal.com (Allyn Mark Lai) writes:

>Does anybody have any suggestions for a good 80-10m vertcal?

Not me, but I've got a general question about them. If you've got a
vertical antenna, then you've got an omni-directional pattern. Does
an HF vertical behave like a VHF vertical does, namely in terms of
a flatter angle of radiation? If so, does this give you a longer
skip? And is only the first skip affected, or will the second (third...)
hops be lengthened, too?

On the lower bands, like 80m, where a full-size vertical dipole
would be "a really neat trick", does this fall apart because of
loading coils, etc.?

Chris N2JGW
cep4478@ultb.isc.rit.edu
cep4478@RITVAXA.BITNET
..!rutgers!rochester!ritcv!ultb!cep4478

52. Re: Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-03 23:00:54 UTC
From: jim@mmsac.UUCP
Message-ID: <3038@mmsac.UUCP>
Source record: 14453

I've had the same thing happen to me numerous times. It wasn't so
bad, since it was my repeater I was using, and we don't have many
users. However, I think it is illegal to rebroadcast commercial
radio. Then again, maybe not, because it is unintentional. You could
always just hang up, call them back, and leave a msg to have them call you.
If it appears that you won't be on hold more than about 30 secs, I
wouldn't worry about it, but if it is more than that, I would just
hang up.

--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==
The opinions stated herein are all mine.

53. Radio Service Question

Newsgroup: rec.ham-radio
Date: 1990-01-03 23:04:31 UTC
From: harrism@dg-rtp.dg.com
Message-ID: <1801@xyzzy.UUCP>
Source record: 14450
Cross-posted to: sci.electronics,rec.ham-radio

My ICOM-701 HF transceiver has been giving me a funny popping noise.
It comes at random yet frequent intervals. This popping noise is barely
audible in the audio unless the audio is cranked up high. It is accompanied
by an aparrent de-sense of the radio to incoming signals.

I thought at first that the band (usually 10m) was fading frequently,
however, I soon noticed it happening on all bands, & then I noticed the
popping noise. It is easy to duplicate now as I turn the rf-gain all the
way down & turn the audio up. There it is. It doesn't appear to be the
audio stage as the cw sidetone is not affected by the popping.
The S-meter is appears to be uneffected by the popping, however, I'm not
certain of this yet. It appears that the radio remains on frequency, although
it appears to sweep 50-200 hz or so at times. This might rule out the PLL
(or it's voltage supply)

Some history. I recently purchased the radio at a hamfest known DOA. My
suspicions were the PLL and, with that, I sent it off to ICOM. The problem
turned out to be a DC-DC converter (DC-2?) for the -9V reference supply (for
the synthesizer op amps, etc). Now, when it went, it also took out a small
resistor. (4.7 ohm, 1/4 watt). We don't acutally know which went first.
I don't know whether it was doing this when it returned as I was happy
with my "new" "bargain" radio & it worked fine esp with strong signals. BTW,
the signals "appear" to drop out by 3 db. Sometimes more.

My suspicion is that the problem is a capacitor which is charging relatively
slowly (time constant 1 second) until it reaches a breakdown threshhold and
discharges. The discharge (short) interferes with the -9 supply & causes the
signal problems. The cap probably was toasted by over voltage when the
converter went out. Or, perhaps, a defective cap caused the coverter to go.

Anyway, any ideas? Also, tips on isolating the component would be appreciated.
I can get access to a 30 mhz scope, but probably not much else (computer
service dept at work). I could also use my backup HW-101 as an rf signal
source.

BTW, the noise isn't really a sharp pop - more like a pop followed by a
brief static rush. It's kind of like listening to frequent lightning strikes
on the radio. BTW, it isn't that as it does it w/o the antenna & w/o the storm.

regards,
Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

54. Re: Morse code, obscenity, and packet retransmission.

Newsgroup: rec.ham-radio
Date: 1990-01-03 23:29:29 UTC
From: erc@khijol.UUCP
Message-ID: <881@khijol.UUCP>
Source record: 14461
Cross-posted to: rec.ham-radio,alt.flame

In article <24177@gryphon.COM> dianeh@binky.UUCP (Diane Holt) writes:
>
>P.S. What the hell's a 'SWR'? -- Single, White, Republican? You're right --
> a most distasteful discussion topic...

Stands for "Standing Wave Ratio", and is a measurement of power going to your
antenna vs. power reflected back to your transmitter.
--
--------------------------- discard all after this line ----------------------
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
"Good tea. Nice house." -- Worf

55. Re: Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-04 02:11:13 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250107@hpnmdla.HP.COM>
Source record: 14462

I think both the music and the ad would be considered a violation
by the FCC. My understanding is that standard procedure in these
situations is to hit the "hangup" code as soon as you hear the music.
If I recall correctly, the ARRL Rule Book recommends you not use the
autopatch to call a business number for this very reason.

Al N1AL

56. Celebrity amateurs

Newsgroup: rec.ham-radio
Date: 1990-01-04 05:30:19 UTC
From: fletcher@OUTLAW.UWYO.EDU
Message-ID: <900103223019.202008e6@UWYO.BITNET>
Source record: 14455

Here's another for the list: Chet Atkins, WA4CZD. Well known for his superb guitar playing.

57. Re: Celebrity Hams

Newsgroup: rec.ham-radio
Date: 1990-01-04 06:55:31 UTC
From: tad@ssc.UUCP
Message-ID: <351@ssc.UUCP>
Source record: 14456

Regarding WA7SKG's posting about Ronnie Milsap, I understand that
Mr. Milsap will be the featured banquet speaker at the 1990
Dayton Hamvention.

73,
Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ

58. Re: Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-04 07:01:55 UTC
From: tad@ssc.UUCP
Message-ID: <352@ssc.UUCP>
Source record: 14457

Our local repeater group does not like music on hold on autopatches,
and tells the users to terminate the patch if this happens, claiming
that it is illegal.

My personal opinion is that the music is incidental to your autopatch
communication, and so you aren't engaging in broadcasting.

However, I notice that the new Pt 97 states "No station shall transmit
...music."

Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ

59. RE: Legalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-04 07:59:16 UTC
From: lawrence@smcnet.UUCP
Message-ID: <496@smcnet.UUCP>
Source record: 14471

The issue of using broadcast radio audio on telephone systems is drawing lots of attention here in the Los Angeles area. Possibly because of the closeness to Hollywood and the recording industry.

We just purchased the new AT&T Definity telephone system this Summer. The AT&T installation crew refused to connect the system's music-on-hold input to a radio station. We started using a compact disc player a few years back. Not only does it give probably the best sounding music-on-hold in all of Santa Monica, but we also don't have to worry about commercials and having people accuse us of supporting the views of a particular radio station since we are a sub-division of the State of California.

I understand your frustration when you get Dominos Pizza on your repeater. I'd blame it on the girl's boss at her company.
That is unless you have a second date in your future.....

Lawrence Roney - Department of Telecommunications
KC6HQR Santa Monica Community College District
1900 Pico Blvd.
Santa Monica, CA 90405-1628

Mail: uunet!ucla-cs!smcnet!lawrence

---

60. Decoding PL Tones

Newsgroup: rec.ham-radio
Date: 1990-01-04 12:23:02 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9001041223.AZ00041@adam.DG.COM>
Source record: 14463

CEO summary:
One problem with decoding PL tones by the "trial and error" method of enabling PL decode on your rig and then switching through all tone choices is that there are more possible PL tones than most rigs have choices. My 1988 ARRL handbook lists 42 of them, from 67.0 Hz to 254.1 Hz. Most rigs support 32 or so (the Communications Specialists chips have 32 EEPROM locations into which they can program *any* frequency you choose, not just the standards) of these.
There was a construction article in 73 magazine a few years back (I'll try to find the reference) that used a PLL to lock onto a harmonic of the received tone and displayed the tone frequency (I think it was the 10th harmonic). They cautioned you that you have to tap into your rig before the de-emphasis network in order to get un-attenuated PL audio.

Our 2 meter repeater passes PL (Motorola's trademark, by the way, stands for "Private Line". The official term is CTCSS, for Continuous Tone Coded Subaudible Squelch) tones so that the users who don't want to listen to the channel chatter on the machine can tell their friends which PL tone they should use to turn on their receiver.

61. Or dryer hose ...Re: VERTICALS- Try a SLINKY !!

Newsgroup: rec.ham-radio
Date: 1990-01-04 13:38:33 UTC
From: ems@Apple.COM
Message-ID: <6003@internal.Apple.COM>
Source record: 14473

In article <9001031429.aa22087@crdec4.apgea.army.mil> pjstopa@CRDEC4.APGEA.ARMY.MIL ("Peter J. Stopa") writes:

>SMALL VERTICALS

> Several years ago 73 magazine had an antenna, nicknamed the "Ramada
>Resonator", in their antenna issue. It consisted of a vertical slinky on a
>collapsible PVC frame which was fed via tuner like a long-wire.
...
>I eventually got rid of the PVC frame and used the
>slinky elongated out to about 6.5 ft along a 1"x3" driven into the ground.
...
>I was able to load the thing with a tuner from
>160 to 10 meters. Bandwith was narrow on 160 and 80, but the antenna loaded
>pretty well on the rest of the bands.

After constructing my pudgy wound vertical (4' by 4" 48 turns) for 31 meters I went out to the garage and almost tripped over the dryer vent hose. Further exploration showed it to be a vinyl coated wire helix.

Off to the hardware store... An hour or so later I had a 4 inch diameter 4 feet long (five if you REALLY streched it) coil. The wire looks like copper coated iron. It had about 48 turns. Depending on how much it was streched it made a decent antenna for 49 through 31 metres. Takes about $5 and not much time or work ... but it isn't as high class as a PVC pipe with solid copper wire on it. It does fit in a coat pocket though ... It also made an OK radial for another helical vertical.
--

E. Michael Smith ems@apple.COM

'Whatever you can do, or dream you can, begin it. Boldness has genius, power and magic in it.' - Goethe

I am not responsible nor is anyone else. Everything is disclaimed.

62. Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-04 14:36:00 UTC
From: Ed@ALDERAAN.SCRC.SYMBOLICS.COM
Message-ID: <19900104143606.4.ED@PEREGRINE.SCRC.Symbolics.COM>
Source record: 14332

Date: 22 Dec 89 22:36:01 GMT
From: galaxy.rutgers.edu!argus!ken@rutgers.edu (Kenneth Ng)

Use last year's output of INFO-VAX for a one time pad :-).

It is essential that the data used as a key be totally random in nature.
INFO-VAX is pseudo-random at best, which is not good enough.

63. AutoExam now available on SIMTEL20

Newsgroup: rec.ham-radio
Date: 1990-01-04 15:22:32 UTC
From: rbono@necis.UUCP
Message-ID: <1200@necis.UUCP>
Source record: 14476

****

Due to many requests, my current version of AutoExam has been uploaded to
the SIMTEL20 archive site. Thanks to Keith, it is now available as:

PD1:<MSDOS.HAMRADIO>AUTOEXAM.ZIP

This program and the included databases will generate an exam from Novice
to Extra. Each exam is different, even the answers to the questions have
been randomized to help prevent memorization, and to promote learning the
correct anwser.

This program should run on ANY MS-DOS or OS/2 computer (yes it is one of those
bi-sexual... oops, I mean bi-modal programs). This version does NOT make
use of any fancy graphics, or colors (this makes it compatible with DOSGATE
to allow it to be used via packet radio by anyone).

Because of the lack of graphics (at this time), some questions from the
pools that deal with schematic diagrams are either very crude, or missing.
Later versions may be upgraded to fix this limitation.

Instead of waiting until I have the time to update this, and get all the
latest question pools included, I thought I would make it available to
those who need it. Even with some of the question pools just out of date,
it is still usefull for studying use. When the question pools are up-to-date,
it can be used to generate printed exams for use by VE's.

The program can be used in a couple of different ways:

1) Interactive exam, gives grade when complete.

2) Printed exam and exam key, useful for classes, or for practice.
(I have used this feature extensivly (sp?) in my Novice classes)

3) Print study guide, this prints each question in the pool along with the
correct answer, to allow use of a simple 'pocket' study or refesher guide.

This is NOT shareware, or in the public domain. But I DO allow it to be
copied and given to others FOR NO COST to help promote and help with those
interested in attaining thier Amateur Radio license.

Get a copy of this and give it to all your friends who would like to see if
they are ready for an exam. It's surprizing how many people can pass these
exams if they would only give it a try.

For those without access to SIMTEL20, I have also uploaded a copy of this
program to a BBS in MA (508) 688-1348.

Rich (NM1D)

```
--
/*************************************************************************\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
\*************************************************************************/
```

64. W1AW & QRM

Newsgroup: rec.ham-radio
Date: 1990-01-04 16:33:21 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9001041633.AA13667@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 14333

Many years ago, when I got started, the W1AW ops looked for a quiet spot on each band before firing up the transmitters. As a result, you never knew where they would be. If there was any activity on the band, it could take 5-10 minutes to find them. By then, the slow speed code was over and the effort wasted. It got very frustrating some times.

Try making WAS on only 2 bands when in the East. It can be done, but it is neither easy or quick. With only 100w, I finally had to string a wire through the trees at night (military installation) and wait for 40 to be open from MD to the north east. If you restrict to 2 bands, there will be significant portions of the country that won't have reception.

-- Doug WA6VVV

65. Crossband repeater mod for TM-701a?

Newsgroup: rec.ham-radio
Date: 1990-01-04 16:48:34 UTC
From: elmquist@NIPS.SSESCO.COM
Message-ID: <9001041448.AA00497@nips.ssesco.com>
Source record: 14336

I don't see a mod on HAMSTER for enabling the crossband repeater
action on the new Kenwood TM-701a 2m/70cm rig. Does anyone
know how to do this? and how to turn it on once the mod is performed HI!
There's plenty of stuff on -721 and -731 relating to this...but
nothing for -701 (probably because it is fairly new...) Several
people have mentioned that the radio is capable of it (I hope
so, I just ordered one!) but aren't able to produce the mod info--
Any clues would be appreciated...

Thanks and 73, Chris N0JCF

66. the dsp in Kenwood TS950

Newsgroup: rec.ham-radio
Date: 1990-01-04 16:49:41 UTC
From: datwyler@esunix.UUCP
Message-ID: <1715@esunix.UUCP>
Source record: 14464

Without looking at the QST/Ham Radio magazine adds for the Kenwood TS950, and remembering not what the ICOM adds contain, I suspect that Kenwood is not using a digital filter at audio frequencies, but is really using direct digital synthesis to get l.o. signals. This is the claim of a spectrum analyzer picture in the add. From my small understanding of the stuff inside, you can filter the audio and i.f. as much as you want, but if the l.o. is not clean, the output from the rig will still be junk. That is why I suspect that Kenwood pulled a marketing ploy, calling DDS (direct digital synthesis) DSP, so as not to be confused with ICOM.

Thank you for your kind attention.
--
Douglas L. Datwyler WR7O
Evans & Sutherland Computer Corporation (801)582-5847
600 Arapeen Drive
Salt Lake City, UT 84108

67. Re: Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-04 17:06:07 UTC
From: amirza@silver.ucs.indiana.edu
Message-ID: <32396@iuvax.cs.indiana.edu>
Source record: 14475

Well, the way I understood it when I took my tests was that any music on
ametuer bands, and any business commercial was illegal, even if
it is background noise, ametuers are not allowed to rebroadcast any
commercial broadcast, I have had the same thing happen to me
occaisionally, it is kind of funny to see me trying to hit the buttons
to bring down the patch.
I wouldn't worry about it, if no one else complained, I doubt
anything will come of it. I don't turn people in if they make an honest
mistake, that would be very petty and look bad to casual observers.

68. Atari ST PD ham software

Newsgroup: rec.ham-radio
Date: 1990-01-04 17:49:29 UTC
From: mn@atari.UUCP
Message-ID: <1923@atari.UUCP>
Source record: 14465
Cross-posted to: rec.radio.shortwave,rec.ham-radio,comp.sys.atari.st

Two good sources of public domain ham radio/swl software for the
Atari ST ---

Atari Microcomputer Network
John Adams, KC5FW
17106 Happy Hollow
San Antonio, TX 78232
USA

ASTUR (Atari ST Users on Radio)
GEERAERT Michel
W. Elsschotlann 21
B-8460 Kokijde
Belgium

```
-------------------------------------------------------------------------
| Michael Nowicki N6LUU Atari Corp,Sunnyvale CA /TT/UNIX/X team |
|.....................................................................|
| char *disclaimer=" Views expressed are my own, not my employer's"; |
-------------------------------------------------------------------------
```

69. 800 MHz allocation chart

Newsgroup: rec.ham-radio
Date: 1990-01-04 18:25:37 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9001050803.AA10513@ucbvax.Berkeley.EDU>
Source record: 14334

Does anyone out there have a listing of the allocations for 800 MHz?
I would like to know what services might be found in different parts
of the band.

Also, how is a trunked radio system licensed? There is service here that
I am interested in monitoring that uses an 80 channel system. To my mind
they would have to be licensed for a block of frequencies. Correct?

Thanks for any info. I'll summarize if the responses are of general
interest.

"It's never too late to have a happy childhood."
- Unknown

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
316B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

Deliberate misuse by concentration of vapors can be harmful or fatal

70. TM-721/621 display upgrade

Newsgroup: rec.ham-radio
Date: 1990-01-04 18:41:57 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2574@wyse.wyse.com>
Source record: 14328

I just got off of the phone with kenwood customer service. There will be a new display for the TM-721a and TM-621a. It will only improve the display and will not add any 731a or 631a features (other than being able to read the display in bright light).

Cost of the modification will be 30 bucks (so I was told). The modification can not be done by most hams since a LCD display, and ribbon cable has to be removed / re-attached. (I think I could do, but who knows)

The modification should be available at the end of January (some delays in shipments).

That is all I know...

Phil
DE KJ6NN

71. Re: Assigned Radio Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-04 18:57:58 UTC
From: mn@atari.UUCP
Message-ID: <1924@atari.UUCP>
Source record: 14466

In article <7120103@hpcupt1.HP.COM> bmp@hpcupt1.HP.COM (Brian M. Perkin) writes:
>My recommendation for California scanner owners
>is to buy a copy of Robert Kelty's publication
>called Government Radio Systems. It breaks down local,
>regional, state and federal radio systems in fine
>and accurate detail. He also produces a smaller
>book called Military Radio Systems, which I wouldn't
>recommend buying immediately.
>
>You should be able to find this in any good scanner shop.
>Try Ham Radio Outlet if that doesn't work.
>It costs about 20.00 but it the best researched
>directory for California I have seen. I have not
>seen a good directory for private sector (business)
>frequencies.
>

I agree. It's the best scanner freq book I have yet seen and if you had to
choose to have only one book, this would be my choice.

```
-------------------------------------------------------------------------
| Michael Nowicki N6LUU Atari Corp,Sunnyvale CA /TT/UNIX/X team |
|.....................................................................|
| char *disclaimer=" Views expressed are my own, not my employer's"; |
| char *good_quote=" 'Wait'll they get a load of me!' - The Joker"; |
-------------------------------------------------------------------------
```

72. Software Control of Kenwood Radio

Newsgroup: rec.ham-radio
Date: 1990-01-04 19:06:50 UTC
From: barry@dgbt.uucp
Message-ID: <1346@dgbt.uucp>
Source record: 14467

A local ham has asked me for help in finding software he can run on his PC which will allow him to control his TS-440S. Apparently Kenwood will happily sell you a serial interface adapter for the radio, but can't, or won't, supply any software. This fellow has no programming experience and is not interested in trying to roll his own. Anybody got any leads?

73, Barry VE3JF

--
Barry McLarnon Communications Research Center Ottawa, ON Canada
UUCP: ...utzoo!bnr-vpa!bnr-rsc!dgbt!barry INTERNET: barry@dgbt.crc.dnd.ca
Compu$erve: 71470,3651 Packet radio: VE3JF @ VE3JF

73. Yaesu FT-727R mod request

Newsgroup: rec.ham-radio
Date: 1990-01-04 19:14:18 UTC
From: gt0818a@prism.gatech.EDU
Message-ID: <4609@hydra.gatech.EDU>
Source record: 14327

I received a nifty, if somewhat scratched, FT-727R dual-bander for Christmas,
and I'd like to know what mods are available. As best as I can tell, it has
the C CPU, but I could be wrong.

Any replies will be most welcome.

-Paul
--
Paul E. Robichaux | Georgia Institute of Technology
(new .sig under construction) | GT PO Box 30818; Atlanta, GA 30332
| Internet: gt0818a@prism.gatech.edu
Disclaimer: GT won't admit undergrads have opinions, much less share them w/ me.

74. Re: Assigned Radio Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-04 21:27:22 UTC
From: kenb@hp-ptp.HP.COM
Message-ID: <2700008@hp-ptp.HP.COM>
Source record: 14468

/ hp-ptp:rec.ham-radio / bmp@hpcupt1.HP.COM (Brian M. Perkin) / 2:09 pm Jan 3, 1990 /
> My recommendation for California scanner owners
> is to buy a copy of Robert Kelty's publication
> called Government Radio Systems. It breaks down local,
> regional, state and federal radio systems in fine
> and accurate detail.
>
> Brian Perkin
> (N6RSW)

This is a great document. The 1990 version doesn't have federal frequencies;
he's putting out another one that has just those (I think). The CA stuff
is also available on floppy for ~$50. I have the floppy version & it's
great for grepping...

Ken Buscho, KC6AKD
Office Automation Coordinator Unit Leader
Hewlett Packard California Explorer Search & Rescue
1266 Kifer Road 354 Parrott Drive
Sunnyvale, CA 94086 San Mateo, CA 94402
(408)746-5065 (415)343-4122

Internet: kenb@hp-ptp.ptp.HP.COM
uucp: hplabs!hp-ptp!kenb

"Support search and rescue, get lost"

75. Re: Radio Service Question

Newsgroup: rec.ham-radio
Date: 1990-01-04 21:50:08 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490003@hprmokg.HP.COM>
Source record: 14469

harrism@dg-rtp.dg.com (Mike Harris) writes:

>My ICOM-701 HF transceiver has been giving me a funny popping noise.
>It comes at random yet frequent intervals. This popping noise is barely
>audible in the audio unless the audio is cranked up high. It is accompanied
>by an aparrent de-sense of the radio to incoming signals.

Sounds like something is being detected by your AGC (Automatic Gain Control)
circuit. These circuits usually have a "fast attack" to suddenly strong
signals and a "slow decay" that occurs after the signal. Possibly some
noise either at the antenna input or, if it's not "external noise",
possibly something in the RF amp. section of the receiver is generating
the noise. Try grounding the antenna with a short piece of wire to
go through the good ol' "process of elimination" to determine whether
it's internal or external.

Good luck,
WB6JZL

76. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-04 22:06:43 UTC
From: trey@ut-emx.UUCP
Message-ID: <22987@ut-emx.UUCP>
Source record: 14329

In article <7880106@hpfcdc.HP.COM>, perry@hpfcdc.HP.COM (Perry Scott) writes:
> [discussion of transmission of W1AW bulletins and stuff on lots of
> bands at once]
>
> I mean, why do it to all HF bands ? Maybe two would suffice. We don't
> hear W1AW on 40 out here, unless we listen hard beyond the snap,
> crackle, and pop (and go deaf).

This is done to provide maximum coverage. Whereas you might find
tranmissions from Connecticut on 7 MHz at midday to be useless, a
person in Maryland might find 28 MHz transmissions at that time
equally useless.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

77. Ten Days After Christmas

Newsgroup: rec.ham-radio
Date: 1990-01-04 23:39:03 UTC
From: k2ph@cbnewsj.ATT.COM
Message-ID: <3162@cbnewsj.ATT.COM>
Source record: 14331

The following appeared today on the Frankford Radio Club
Packet Cluster System, courtesy of N2GST:

Its ten days past Christmas
And here at the shack
I've been hearing a 3Y
Under constant attack

The boys up the band
With the slow scanning bleeps
Are upset and furious
With all of the creeps

The phone cops, the jammers
The one's from Brazil
Canadians and Yankees
Have all had the thrill

On 8 land, on zero's
QSL, I have you
On 8 land, on zero's
QSL, I have you
HEY DUMMY ! HEY STUPID !
The wrong VFO

You're out of the band !
Charlie Victor, again ?
Your five nine, I have you
QRM , QRM
--
==========
Bob Schreibmaier K2PH | UUCP: att!mtuxo!k2ph or k2ph@mtuxo.att.com
AT&T Bell Laboratories | ARPA: k2ph%mtuxo@att.arpa
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o8'W

78. Re: Digital Filters

Newsgroup: rec.ham-radio
Date: 1990-01-05 00:01:31 UTC
From: eyg@hpnjld.HP.COM
Message-ID: <4140013@hpnjld.HP.COM>
Source record: 14470

>The DSP in the Kenwood radio does not work at the IF frequency, does it?
>From the ads, it appears that it is used after the detector, at audio
>frequencies.

The impression I get from the ads is that it is used in the transmitter
to improved the filtering out of the unwanted sideband.

Ed Gilbert, WA2SRQ

79. Listing of "PL" tones

Newsgroup: rec.ham-radio
Date: 1990-01-05 00:27:47 UTC
From: lawrence@smcnet.UUCP
Message-ID: <501@smcnet.UUCP>
Source record: 14330
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In response to the questions asked about "PL" aka CTCSS....

Continuous Tone Coded Squelch System (CTCSS) is a common way of coding two-way radio gear to allow selective calling of radios in the same organization. ie: Units with the same CTCSS code will be able to communicate together. CTCSS is also known as "PL" in Motorola gear, "Channel Guard" in General Electric gear, and "Call Guard" in E.F. Johnson gear.

How it works:
The transmitting unit generates a tone that is broadcasted along with the voice signal of the radio. The receiving unit recieves the tone and opens the radios squelch circuitry if the tones match each other. Most radios put a high pass filter in the audio output statge to filter the CTCSS tone out of the audio. In urban areas and on commercial bands there is usually more than one organization on an assigned frequency. The CTCSS encoding method keeps the two organizations from hearing each other's transmissions. Since there is still only one radio frequency that these two groups are sharing, if both groups key their radios at the same time and are geographically close to each other, they will cause interference and usually nobody hears anything.

Motorola assigns a 2 letter code for ease of remembering the different codes. Here is a list of the CTCSS tones in Hz and the Motorola "PL" code.

67.0 XZ 69.3 WZ 71.9 XA
74.4 WA 77.0 XB 79.7 WB
82.5 YZ 85.4 YA 88.5 YB
91.5 ZZ 94.8 ZA 97.4 ZB
100.0 1Z 103.5 1Z 107.2 1B
110.9 2Z 114.8 2A 118.8 2B
123.0 3Z 127.3 3A 131.8 3B
136.5 4Z 141.3 4A 146.2 4B
151.4 5Z 156.7 5A 162.2 5B
167.9 6Z 173.8 6A 179.9 6B
186.2 7Z 192.8 7A 203.5 M1
206.5 8Z 210.7 M2 218.1 M3
225.7 M4 229.1 9Z 233.6 M5
241.8 M6 250.3 M7 254.1 OZ

Motorola also has a Digital "PL" system that uses a digital code instead of an audible tone. Last I heard, Motorola will guarentee that their Digital PL will keep other groups out of your radio system but they won't guarentee the older "PL" tone system.

Lawrence Roney - Department of Telecommunications
KC6HQR Santa Monica Community College District
1900 Pico Blvd.
Santa Monica, CA 90405-1628

Mail: uunet!ucla-cs!smcnet!lawrence
---

80. KAM and Macintosh

Newsgroup: rec.ham-radio
Date: 1990-01-05 02:21:38 UTC
From: David_Waters.M1@smtp.ESL.COM
Message-ID: <9001050221.AA19137@esl.ESL.COM>
Source record: 14335

KAM and Macintosh
I would like to correspond with anyone that has (or has had experience with) a Kantronics KAM and Macintosh (preferably 512KE/DB-9 plug).
Thanks!

"A little ambiguity never hurt anyone."
Dave Waters WA6AWZ
Internet: David_Waters.M1@SMTP.ESL.CO

Compuserve: 73277,311
GEnie: DRWATERS
ESL Inc. (408) 738-2888 x4611

81. Vertical Suggestions Needed 40/80 meter

Newsgroup: rec.ham-radio
Date: 1990-01-05 06:23:58 UTC
From: wheatley@cbnewsk.ATT.COM
Message-ID: <1740@cbnewsk.ATT.COM>
Source record: 14472

I am likely to head to Macau XX9 in late February, and want to take along a 40/80 meter vertical to work the low bands in the evening (rather than sleep!) ... my last trip there made it painfully clear that most of Europe and everone else needs XX9 on 40/80.

Last trip we tried shortened dipoles in a sloper fasion, with little luck.

Here is the catch, this needs to be mounted on an elevator penthouse or roof of a 23 storey building. The roof area is rather small, so there isn't much hope for radials, but the entire building is loaded with 'rebar'...so there is lots of metal.

I have used a 5band butternut without radials at an apartment by just planting it in the ground. It worked pretty well. Anyone have any suggestions? I am thinking about a 40/80 BUtternut....any and all advise is welcomed with open arms.

Oh yes, I am trying to plan the trip to be in XX9 for the ARRL DX SSB contest first weekend of March. If this works out, I will post something further. I also plan to operate from VS6, HS, and 9V. The call for the contest will be XX9SW, if this all works out....look for you on the bands!

73, steve KU9C
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

82. Packet encryption/protocols?

Newsgroup: rec.ham-radio
Date: 1990-01-05 09:47:02 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <05.Jan.90.09
Source record: 14474

Perry Scott says::
>Lacking that, maybe we just need to make a part of each band a free-for-all
>playpen - only the stout of heart need enter ! Or is that what 20 m phone
>is about ? :-)
>
>Are there any international considerations ? Are we bound by ITU to the
>silly 3KHz bandwidth, or is that a hell of our own design ?
>
Well in the UK, (and i suspect a fair bit of Europe too) adherence
to the bandplan is entirely voluntary.......
There are 'gentlemens agreements' not to use certain modes on certain
frequencies, and *most* people stick to them.
You will not get put off the air for running packet on 14313, or
double-sideband-with-full-carrier (or 'AM' as we used to call it) in the
CW 'segment'.
Equally, you will not make many friends!
The restrictions on licensed data emissions are also much less strict - we
have no worries about whether we are running 7- or 8-bit ASCII, AMTOR,
genuine HDLC (in which the bit-stuffing makes any considerations of
'parity' on a character-level irrelevant), SDLC, 6-bit BCD, or any other
home-grown protocol, encrypted or not. There used to be a net of people who
used 'Hellschreiber' machines (second-world-war enciphering teletypes!),
these things were designed to encrypt, like an 'enigma' machine.
As long as you identify in CW every 15 minutes, you will get away with it.

Pete

83. Re: Weather FAX reciever for Radio Shack CoCo [rec.ham-radio,rec.radio.shortwave]

Newsgroup: rec.ham-radio
Date: 1990-01-05 14:54:39 UTC
From: wynkoop@esquire.UUCP
Message-ID: <1706@esquire.UUCP>
Source record: 14337

In article <782@khijol.UUCP> erc@khijol.UUCP (Edwin R. Carp) writes:
>How 'bout us poor slobs that don't have Internet access, just uucp?

Greeting-
Get it from the coco mailing list. you can get on by sending a message
to ewtileni@pucc.princeton.edu
You should realy be on the list if you have a coco. There are
megabits of files avaiable from the server.

The other place to look for coco stuff (if you have os9 and you
should!) is comp.os.os9

-Brett

84. *Yet Another Ground Rod*

Newsgroup: rec.ham-radio
Date: 1990-01-05 15:10:19 UTC
From: fletcher@OUTLAW.UWYO.EDU
Message-ID: <900105081019.2020126c@UWYO.BITNET>
Source record: 14338

For anyone serious about getting a *REALLY* good ground from a self installed ground rod, and maybe picking up some additional understanding about how ground rod performance can be affected by different soils, I would like to suggest reading the following:

BENTONITE RODS ASSURE GROUND ROD INSTALLATION IN PROBLEM SOILS
by Warren R. Jones,
IEEE Transactions on Power Apparatus and Systems,
Vol. PAS-99, No. 4 July/Aug 1980.

The title is a little deceptive because you don't actually sink a ground rod composed of bentonite into the ground. The paper describes a process wherein you drill a hole in the ground of some reasonable size (e.g. 4-6 inches), place a metallic ground rod in the hole, backfill the hole with crushed bentonite, then flood the hole with water. The bentonite will absorb a great deal of water and swell to a volume that is something around 13 times it's original volume in the process. As I understand the paper, ground rod performance can be improved if the surface area of the rod in contact with the earth is maximized. Bentonite is composed of various chemical salts that form a nice ion-rich conductive bedding. In addition, the bentonite swells to fill all the interstitial space in the hole. Because bentonite is itself very conductive, it apparently "artificially" increases the diameter of the installed rod to that of the hole.

The paper describes various field tests and the obtained results and is intended to address problems with soils considered difficult to achieve good grounds for various reasons. I got the idea however, that the method should improve your ground system no matter what soil you were working with.

And finally, yes I installed a rod as described in the paper. I needed the help of several other hams, mostly because the hole was drilled using a portable (post-hole?) drill. The hole diameter was 6 inches and was 8 feet deep. I used a 10 foot by 5/8 inch copper-clad iron rod. I used several bags of crushed (not powdered) bentonite. The uses listed on the bags were "for ground rod" installation and some other unrelated things. The rod was loose in the hole initially, but after a day or so of soaking up water, became so tight that I could not turn it with a pipe wrench. The soil at my QTH consists of about 2 feet of clay underlain by fine sand. I have a high water table at my QTH, varying seasonally from around 5 feet to 8 feet, so I didn't have to add much water. Bentonite is very hydrophilic and will tend to keep itself hydrated. Sometime in the next year I will install another tower at my QTH, at which time I will put another rod in using the described method. I have a second rod in the ground installed the conventional way. After the third rod is in, I will make some (probably not entirely scientific) measurements to determine if the method makes a measurable difference. For now, I can't say

whether I gained anything from the effort other than some baseless peace of mind. I didn't consider it that much extra effort, but I did have help (Thanks, guys!).

+- 632.8 nanometers or bust. ---------- Photons, the wave of the future. -+
! Walter Reid Fletcher, WB7CJO Bitnet: FLETCHER@UWYO !
! Facility Manager FLETCHER%LODE@UWYO !
! Department of Geology and Geophysics FLETCHER%MOHO@UWYO !
! University of Wyoming Internet: FLETCHER@OUTLAW.UWYO.EDU !
! Laramie, WY 82071 1-307-766-6227 !
+---------- Back off buddy. This is science. ----------+

85. Help, static

Newsgroup: rec.ham-radio
Date: 1990-01-05 16:01:15 UTC
From: ENGE@IBM.COM
Message-ID: <010590.075845.enge@ibm.com>
Source record: 14339

I once worked for the FCC as a Student Trainee Engineer. A standard item of equipment in the investigative cars was a huge wooden circus mallet. When I asked what this was for, I was told that when looking for electrical interference, the investigative engineer would drive along the powerline right of way, stopping at each pole and giving it a good whack with the mallet. Often the interference was being generated by a cracked insulator, and the vibration caused a change in the noise level.

Of course, that was in the days when the FCC was concerned about such interference. Sigh!

You might try the same thing on a smaller scale. Take a portable radio to monitor the noise level, and go along the powerline near your house banging the pole with something heavy. Once found, your next problem might be convincing the power company to fix it.

Jim Campbell - W4BQP @ K4IWW - w4bqp.enc.ampr.org

86. Re: Packet compression, what issue?

Newsgroup: rec.ham-radio
Date: 1990-01-05 16:07:59 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500345@ux1.cso.uiuc.edu>
Source record: 14340

> to do this. At 300 baud, you need every optimization you can find. It
> also isn't clear why 300 baud is maximum, given that 9600 can be done
> over telephone (3KHz) channels now. Again, I suspect we are dealing
> with technology artifacts in the rules.

97.307(f)(3)

Only a RTTY or date emission using a specified digital code listed in
97.309(a) of this Part may be transmitted. The symbol rate must not
exceed 300 bauds, or for frequency-shift keying, the frequency shift
^^
^^
between mark and space must not exceed 1 khz.

[the FCC misspelled "data" as "date" in the original and did not correct
this one in the corrections release]

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

87. Finding 'static'

Newsgroup: rec.ham-radio
Date: 1990-01-05 16:08:14 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <191210@Wayne-MTS>
Source record: 14341

DF-ing with an AM radio is, well, difficult. W8VR taught me to use the highest frequency that the noise is hearable on- this means, in practical terms, using a 2m radio (preferably SSB) and a small beam. Using this technique we tracked down a noisy powerline insulator 1 mile away in about 15 minutes. With an AM radio we'd be wandering around the line of poles- if we even got that far- with no indication of where the problem was originating. To that basic outfit I'd add, of course, a variable attenuator to knock the signal down.
--mike ke8yy
michael_edelman%Wayne-MTS@um.cc.umich.edu
medelman@waynest1

88. Re: rec.scanners

Newsgroup: rec.ham-radio
Date: 1990-01-05 16:09:42 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500347@ux1.cso.uiuc.edu>
Source record: 14342

> PL is Motorola's trade name for subaudible tone squelch. It means that
...
> GE called it Channel Guard, RCA was Quiet Channel, etc.

PL = Private Line, right?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

89. Re: Digital Filters

Newsgroup: rec.ham-radio
Date: 1990-01-05 16:12:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500346@ux1.cso.uiuc.edu>
Source record: 14343

> I think the problem with using a Digital Signal Processor (with the
> required ADC and DAC) as the main IF filter in a receiver is dynamic
> range. Even a 16-bit signal has less than 100 dB. If you set the
> high end to be 0 dBm (better would be +10 or +20), then your
> digitization noise would be around -100 dBm. Receiver sensitivity
> (for 10 dB S/N) could be no better than 7 uV.
>
> Digital filtering would be useful if done AFTER the AGC'd stages
> so you wouldn't need so much dynamic range.

That would have seemed to me to be the first way to do it. One might also try logarithmic conversion ahead of the ADC, if that won't complicate the DSP processing too much (but it might). In the AGC route, the DSP itself should be doing the determination of the AGC levels, too.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

90. Re: ARRL BULLETIN 93 ARLB093

Newsgroup: rec.ham-radio
Date: 1990-01-05 16:14:28 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500348@ux1.cso.uiuc.edu>
Source record: 14344

> ==
> | Relayed from packet radio via |
> | N8EMR's Ham BBS, 614-457-4227 (1200/2400/19.2 telebit,8N1) |
> ==
>
> QST DE W1AW
> ARRL BULLETIN 93 ARLB093
> FROM ARRL HEADQUARTERS
> NEWINGTON CT DECEMBER 28, 1989
> TO ALL RADIO AMATEURS
>
> Do you know a good volunteer instructor or an excellent teacher who
> uses Amateur Radio in the school classroom? Honor them by
> nominating them for the ARRL 1989 Instructor of the Year awards by
> contacting your Section Manager. Nomination deadline is January 31,
> 1989.
^^
old habits die hard.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

91. Re: Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-05 18:49:48 UTC
From: mark@adec23.uucp
Message-ID: <1990Jan5.184948.348@adec23.uucp>
Source record: 14345

In article <32396@iuvax.cs.indiana.edu>, amirza@silver.ucs.indiana.edu (anmar mirza) writes:
> Well, the way I understood it when I took my tests was that any music on
> ametuer bands, and any business commercial was illegal, even if
> it is background noise, ametuers are not allowed to rebroadcast any
> commercial broadcast ...
Our local repeater organization clearly feels that this is a no-no wrt music on hold. I often like listening to music cranked in the car but I am VERY carefull to turn the AM/FM radio OFF before I hit the PTT on my rig in the car. In both the ARRL handbook and the local repeater handbook they specifically state that you are not recommended to phone a commercial establishment (for several reasons, music on hold being one).

When I see incorrect practices around here, I usually inform the user about the repeater user manual supplied by the club and that it is supplied for free to ensure proper operating practices. It is good reading since it tells about the details about the repeaters that will provide higher performance out of the system (linking, autodial etc.).

de VE6MGS, Ciao,
-- Mark
--
Ciao,
-- Mark Salyzyn @ alberta!adec23!mark

92. Re: TV and FM radio DXing

Newsgroup: rec.ham-radio
Date: 1990-01-05 19:35:36 UTC
From: markz@ssc.UUCP
Message-ID: <358@ssc.UUCP>
Source record: 14346
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <22960@ut-emx.UUCP>, trey@ut-emx.UUCP (Trey Garlough) writes:
> I have some questions for the TV and FM radio buffs of the net.
>
> 2) Is there such a thing as an omnidirectional antenna for TV and
> FM radio reception?

For FM, yes. But you'll find that every hill, skyscraper, semi-truck,
containership, or airplane going by will contribute to your signal.

>
> 2.1) How are commercial (broadcast) TV signals polarized and
> how does this affect the choices?

Most are horizontally polarized. If they are using circular polarization,
which can reduce ghosts, they make a big deal about it (It costs them more),
and special antennas are usually available locally.

Off of my book shelf:

TV Antennas and Signal Distribution Systems
M. J. Salvati
Sams ISBN 0-672-21584-5

He did an antenna study for Sony, and this is full of antenna comparisons.
It's 10 years old, but the field hasn't changed much.

markz@ssc.uucp

93. East Coast Flea Markets

Newsgroup: rec.ham-radio
Date: 1990-01-05 19:41:58 UTC
From: ewb@raybed2.UUCP
Message-ID: <1439@raybed2.UUCP>
Source record: 14347
Cross-posted to: rec.ham-radio,rec.ham-radio.swap,rec.radio.shortwave,sci.electronics

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INFORMATION AS OF 05 JAN 1990

!!!!!!!!!! INFORMATION SUBJECT TO CHANGE !!!!!!!!!!

********** ********************
* PAGE 1 * * WINTER EVENTS *
********** ********************
********************************************************************************
Massachusetts
CLUB: MMRA EVENT: FLEA MARKET
PLACE: Westboro Senior High School DATE: 13 Jan. 1990 (Sat)
DEALER SETUP: 0830 OPEN TO PUBLIC: 0900-1400
ADMISSION: $2.00 TABLE PRICES: $10.00 in Adv. $13.00 Door
TALK-IN:146.01/.61 REFRESHMENTS: YES
OTHER NOTES: To get to the event from I-495, take Rt 9 West 1.5 miles to the
bottom of the hill. Exit right onto Rt 30 West, "Westboro". Proceed 1.8 miles
going straight through the circle to stay on Rt 30 West. The Westboro
Senior High School will be on your left 1/3 of a mile West of the circle.
For advance reservations or offers to help out please contact Scott Bullock
KA1CLX 26 Willis Street, Apt. 21, Framingham, Ma. 01701. (508-872-4961)
Tables are $10.00 in advance or $13.00 at the door (last years prices).
********************************************************************************
MASS
CLUB: Algonquin Radio Club EVENT: Flea Market
PLACE: Marlboro Middle School DATE: 17 Feb. 1990(Sat)
DEALER SETUP: 0800 OPEN TO PUBLIC: 1000 to 1500
ADMISSION: $2.00( last year's price) TABLE PRICES: #8.00 and $10.00 at door
TALK-IN: 146.61/.01 and .52 direct REFRESHMENTS: Yes
OTHER NOTES: Note Change in day (Sat instead of Sun) The flea Market will
be held at the Marlboro Middle School off Thresher Street. There was much more
room last year, so I assume there will be the same this year. For more info
call KB1WW at 508-481-1587. Make checks payable to Algonquin Amateur Radio
Club, P.O. Box 258, Marlboro, Ma. 01752.
********************************************************************************
New York
CLUB: Metro 70cm Network EVENT: Flea Market
PLACE: Linclon High School DATE: 21 Jan. 1990 (Sun)
DEALER SETUP: OPEN TO PUBLIC: 0900-1700
ADMISSION: $3.00 TABLE PRICES: $12.00 for a 3X5 Table
TALK-IN: REFRESHMENTS: FREE coffee all day
OTHER NOTES: The event is at the Linclon High School, Kneeland Ave. Yonkers,N.Y
There is FREE parking, NO TAILGATING, (Indoor Fleamarket only).
Table reservations must be pain in advance and a limited number of tables are
available. If you bring your own table the cost drops to $1.25 a foot.
```

Reserve space in advance. One person admitted free for every 5 feet of table space. FULL PAYMENT IS DUE IN ADVANCE (When reservation is made).
For more info contact Otto Supliski at 914-969-1053.
****
Vt

CLUB: BARAC?? EVENT: 8th Annual FLEA MARKET/AUCTION
PLACE: Milton H.S. Milton, Vt. DATE: 24 Feb. 1990
DEALER SETUP: 0830 OPEN TO PUBLIC: 0900 to 1500
ADMISSION: $2.00(under 18 is FREE) TABLE PRICES: No extra charge
TALK-IN: 145.47/146.85 REFRESHMENTS: YES
OTHER NOTES: The event is at the Milton High School, Route 7, Milton Vt. ON I-89 the Milton exit is 4 miles north of exit 17 and 5 miles south of exit 18. There are a very limited number of tables available. FCC exams will be offered at 1300. For more info. call 802-879-6589.
****
NEW ENGLAND
CLUB: HOSS TRADERS EVENT: FLEA MARKET
PLACE: DEERFIELD (LIKELY PLACE) DATE: 12 May 1990 (SAT) TENTITAVE DATE
DEALER SETUP: Anytime OPEN TO PUBLIC: All night Friday & Sat.
ADMISSION: $5.00 buyers or sellers TABLE PRICES: No extra charge
TALK-IN: 146.40/147.00 or .52 direct REFRESHMENTS: LOTS
OTHER NOTES: RAIN OR SHINE (ANNUAL SPRING SWAPFEST) Friday night camping starts at 1600. Profits benefit the Shriner's Hospitals. Flea market opens on Friday night. Questions can be answered by sending an SASE to Joe Demaso, Star Rt. Box 56, Bucksport, Me. Camping as usual, but no open camp fires. Gas grills and charcoal grills and camp stoves are acceptable. Use of the buildings must be authorized by the building owner, also no reserved spaces, and no disposal of metal in the waste paper/food containers.
****
MD.
CLUB: Greater Baltimore Hamboree EVENT: Flea market
PLACE: Md state fairgrounds DATE: 31 Mar and 01 Apr 1990
DEALER SETUP: Friday available?? OPEN TO PUBLIC: 0800 (Sat and Sun)
ADMISSION: $5.00 for both days TABLE PRICES: $5.00 outside $20.00 in.
TALK-IN: REFRESHMENTS: Yes
OTHER NOTES: The fairgrounds are in Timonium, Md. For more info contact GBH&C p.o. box 95, Timonium Md. 21093-00095 or call 301-HAM-FEST. Admission is $5.00 for both days (one ticket). This is quite a good Flea Market, even if it rains there is a lot inside. Calling the number produces a recorded message with all info about the event and info about other events in the area. The fairgrounds is between exit 16 and 17 on I-83 (north of Baltimore). I-95 is looking better south of NYC.
****

********** **********
* PAGE 2 * * SUMMER EVENTS *
********** **********

****

CLUB: Dayton Hamvention EVENT: HAMVENTION
PLACE: HARA Arenia DATE: 27,28,29 April 1990(Fri,Sat,Sun)
DEALER SETUP: Friday OPEN TO PUBLIC: 27 April
ADMISSION: $10.00 in Adv. TABLE PRICES: $25.00 for one space
TALK-IN: REFRESHMENTS: Plenty
OTHER NOTES: Tables are $25.00 for one $50.00 for two and $150.00 for three
(adjacent) There is a maxamum of three adjacent spaces per person.
There are no spaces sold at the gate. For general info call 513-433-7720
for Lodging call 513-223-2612, for Flea Market info call 513-845-3683
No logding reservations by phone. The Flea Market is all three days this year
as it was last year.(More parking space I hope!!)

****
P.A.
CLUB: MURGAS A.R.C. EVENT: FLEA MARKET/COMPUTERFEST
PLACE: Coal St. Sports Complex DATE: 1 Jul. 1990
DEALER SETUP: 0600 OPEN TO PUBLIC: 0800
ADMISSION: $4.00 or $3.00 in adv. TABLE PRICES: $10.00 indoor
TALK-IN: 53.81/53.61/146.52/146.61 REFRESHMENTS: YES
OTHER NOTES: The Event is in Wilkes-Barre Pa. at the Coal St Sports complex.
Table prices are Outdoor Tailgating $3.00(bring your own table) Indoor selling
$10.00 per space (includes table). Indoor reserved space will be held untill
0830 unless paid for in advance. Bring your own extension cord. Make checks
payable to Murgas A.R.C. FCC exams will be available. For more info contact
K3SAE-KB3GB Rd. 1 Box 214, Pittston,Pa. 18643, or call 717-388-6863. There is
abundent space indoors (rain or shine), 110v power avail. Free parking Talk-in
on 53.81/53.61/146.52/146.61/444.825 and 10Gc.
****
MD
CLUB: Foundation for Amateur Radio EVENT: FLEA MARKET
PLACE: Gaithersburg, MD DATE: 09 SEP.1990 (SUN)
DEALER SETUP: Sat Night is avail. OPEN TO PUBLIC: 0700
ADMISSION: $5.00 (buyers) TABLE PRICES $16.00 by 31 Jan 1989
TALK-IN: 146.52 and 146.04/.63 REFRESHMENTS YES
OTHER NOTES: The event is held at the Montgomery County Fairgrounds in
Gaithersburg, Maryland. Table prices are $20.00 at the door, tailgating
is $7.00 (1988 price). Setup may start on Saturday 8 Sep. 1990.
For more info contact Bob Moore N3CKD, P.O. Box 1068, Laurel, Md.
This Flea is very good, and the weather is usually nice. Try to avoid I-95 when
going to events south of NYC.
****
New England
CLUB: ARRL BOXBORO CONVENTION EVENT: ARRL Convention
PLACE: Sheraton in Boxboro Ma. DATE: 13 and 14 Oct. 1990(Sat,Sun)
DEALER SETUP: OPEN TO PUBLIC:
ADMISSION: TABLE PRICES:
TALK-IN: REFRESHMENTS:
OTHER NOTES:
****
If anyone has information about upcoming events, please send it to John Roberts
5 Christina Rd., Merrimack,N.H. 03054 so I can add it to the list. A copy of

[this list may be obtained by sending an S.A.S.E. to the above Address.
****

********** **********
* INFORMATION SUBJECT TO CHANGE * * LAST UPDATE 05 JAN 1990 *
********** **********

****
* NEW ENGLAND'S BIGGEST HAM RADIO FLEA MARKET *
****

+++ THE HOSS TRADERS ANNUAL SPRING FLEA MARKET AND TAILGATE SWAPFEST +++

PLACE: Deerfield, N.H.[Likely] DATE: 12 MAY 1990 (SAT) TENTITIVE DATE
DEALER SETUP: Anytime OPEN TO PUBLIC: All night Friday & Sat.
ADMISSION: $5.00(buyer or seller) TABLE PRICES: NO EXTRA CHARGE
TALK-IN: 146.40/147.00 or .52 REFRESHMENTS: LOTS (The usual bunch
147.625/147.025 and more)
****
The Hoss Traders Tailgate Annual Spring Swapfest (Deerfield) will
be held at the Deerfield Fairgrounds, Deerfield, N.H. on 12 May 1990.
There will be Friday night camping, but no open camp fires are allowed.
Use of the buildings is not permitted unless you have a receipt from the
owner of the building, there are no reserved spaces or disposal of metal
in the waste paper containers.
****

94. PL Tones Above 100 Hz Filtered?

Newsgroup: rec.ham-radio
Date: 1990-01-05 19:50:00 UTC
From: christiansen%chera1.decnet@FLOSSIE.CHE.WISC.EDU
Message-ID: <9001060802.AA04311@ucbvax.Berkeley.EDU>
Source record: 14348

A recent poster (no, I don't have the reference) indicated that
modern, well-engineered repeaters would filter out PL tones.

Is this the case for the tones above 100 Hz? It seems to me that
I read in a recent issue of _Ham Radio_ that the tones below
100 Hz were intended for _repeater_ control and those above
100 Hz were intended for _receiver_ control. Hence, the repeater
should pass or regenerate these tones.

Am I mistaken? Some new radios (IC-2SAT, etc.) have all the hooks
to make use PL as a receiver control system...
--
Reed L. Christiansen UW Polymerization Reaction Engineering Lab
christiansen@chewi.che.wisc.edu (608) 262-7267 WM9I @ WD9ESU

95. KENWOOD TH75 MOD

Newsgroup: rec.ham-radio
Date: 1990-01-05 20:02:00 UTC
From: SKAGOO@MEMSTVX1.BITNET
Message-ID: <9001060802.AA04223@ucbvax.Berkeley.EDU>
Source record: 14349

```
================================================================================

TH-75A TRANSMIT MOD
-------------------

This modification will allow the TH-75A to transmit from 136 to 167 MHz and 420
to 450 MHz. Specifications are guaranteed for the Amateur Bands only. Through
the transceiver will display 136 to 174 MHz and 335 to 512 MHz, the PLL circuit
may not lock through the entire range and it will only transmit were the PLL
locks. This varies from one radio to another. My TH75 will transmit from 136
to 174 MHz on VHF and 380 MHz to 460 MHz on UHF. If you want to change the
transmit range you could play with the VCO of which I know nothing about.

CAUTION
-------

Protect your license. Make sure that you operate on authorized frequencies
only.

MODIFICATION PROCEDURE
----------------------

1. Disconnect the battery and antenna.

2. Remove the three case screws and two battery plate screws.

3. Lift the front panel from the body of the transceiver, but do not
disconnect the two flex cables.

4. Cut the green jumper wire (W1) that is located to the left side of
the CPU in the front panel assembly if you have not already done it.
This increases your RX.

5. Above the position were the green jumper wire (W1) was you will find
two surface mounted diodes. The one you want to remove is D4 according
to the schematic diagram and will have a diode symbol painted on the pc
board. ***CAUTION**** since this diode is quite small and close to the
microprocessor you need to be extra cautious.

5. Assemble the transceiver by reversing steps 1-3.

6. Reset the CPU by holding the M key as the power is turned on.

I have tried it and it works. Standard disclaimer applies!!!!!

Suresh Kagoo N9GSA/4S7??? Memphis State University
Memphis, Tennessee
```

Internet : SKAGOO@MEMSTVX1.BITNET
Bitnet : SKAGOO@MEMSTVX1

96. Re: Celebrity amateurs

Newsgroup: rec.ham-radio
Date: 1990-01-05 20:38:20 UTC
From: forrest@phobos.sybase.com
Message-ID: <7818@sybase.sybase.com>
Source record: 14350

Another guitar playing ham is Joe Walsh (James Gang, Eagles) whose call
I forget but I'm sure someone else remembers.

Anything you read here is my opinion and in no way represents Sybase, Inc.

Jon Forrest WB6EDM
forrest@sybase.com
{pacbell,sun,{uunet,ucbvax}!mtxinu}!sybase!forrest
415-596-3422

97. Re: Morse code, obscenity, and packet retransmission.

Newsgroup: rec.ham-radio
Date: 1990-01-06 00:14:03 UTC
From: dianeh@gryphon.COM
Message-ID: <24333@gryphon.COM>
Source record: 14351
Cross-posted to: rec.ham-radio,alt.flame

In article <881@khijol.UUCP> erc@khijol.UUCP (Edwin R. Carp) writes:
>Stands for "Standing Wave Ratio", and is a measurement of power going to your
>antenna vs. power reflected back to your transmitter.

I see.

Well, then, it's no wonder Monsieur DeArmond has such a distaste for it --
being, as he his, against "obscenity", he no doubt sees (as does anyone who's
against "obscenity") sexual innuendo in every word.

(BTW: Can we expect a round of Standing Wave wars? Or would it just be
Antenna wars?...)

Diane Holt
(dianeh@binky.UUCP)

"Generator, oscillator -- make a circuit with me..."

98. Re: 800 MHz allocation chart

Newsgroup: rec.ham-radio
Date: 1990-01-06 00:52:54 UTC
From: sampson@attctc.Dallas.TX.US
Message-ID: <10844@attctc.Dallas.TX.US>
Source record: 14352

In article <9001050803.AA10513@ucbvax.Berkeley.EDU>, MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
>
> Does anyone out there have a listing of the allocations for 800 MHz?
> I would like to know what services might be found in different parts
> of the band.
>

==========

SCANNER SEARCHERS GUIDE

Version 5, Compiled by N5OWK
Public Domain (p) January 1990

==========

30.000 - 46.610 MHz Business Band, Government

35.020 McDonalds Drive-Up Orders (Common)
40.500 Emergency "Guard" (NAVY)

46.610 - 47.000 MHz Portable Phones

The following channels are listed as BASE/HANDSET.

46.610/49.670 Channel 1
46.630/49.845 Channel 2
46.670/49.860 Channel 3
46.710/49.770 Channel 4
46.730/49.875 Channel 5
46.770/49.830 Channel 6 (Also Baby Monitors on 49.83)
46.830/49.890 Channel 7 (Also Baby Monitors on 49.89)
46.870/49.930 Channel 8
46.930/49.990 Channel 9
46.970/49.970 Channel 10

47.000 - 49.670 MHz Business Band
49.670 - 50.000 MHz Portable Phones
50.000 - 54.000 MHz Amateur Radio
54.000 - 72.000 MHz VHF Television (Ch 2 - 4)

Television Channels are 6 MHz wide
Video is Fo + 1.25 MHz
Audio is Video + 4.5 MHz
Color Burst is Video + 3.5795 MHz

72.000 - 76.000 MHz Model Radio Control, Aviation and Industry

75.000 MHz is Aircraft Navigation Marker Beacon. This is near
airports on the ILS (Instrument Landing System) course. Three lights
are in the cockpit (Purple, Amber, White):

Purple - Outer Marker, Intercept Point, 4 to 7 Miles downrange
Two 400 Hz Dashes Per Second.
Amber - Middle Marker, Cat I Decision Height, 3500 Feet
downrange, 1300 Hz Dot and Dashes 95 times a minute.
White - Inner Marker, Cat II Decision Height, 3000 Feet
downrange, Six 3000 Hz Dots Per Second.

76.000 - 88.000 MHz VHF Television (Ch 5 - 6)
88.000 - 108.000 MHz FM Commercial Advertising
108.000 - 112.000 MHz Aviation Navigation (Terminal VOR, ILS)

Currently 80 50 kHz Channels

112.000 - 117.950 MHz Aviation Navigation (VOR)

Currently 120 50 kHz Channels

118.000 - 136.000 MHz Aviation Communication

Currently 720 25 kHz Channels

121.500 Emergency, Emergency Locator Transmitters (ELT), "Guard"

122.700, 122.725, 122.800, 122.925,
122.975, 123.000, 123.050, 123.075 - UNICOM frequencies
122.900 - MULTICOM frequency
123.050, 123.075 - Heliports
122.750 - Air to Air Communications
122.975 - Air to Air Communications for high altitudes (airliners)
123.450 - Air to Air Communications (Trans-ocean get together, etc)
121.600 - CAP practice ELT search (under authorized missions only)
121.700, 121.800, 121.900 - Ground control frequencies.

136.000 - 138.000 MHz Weather Satellite, Government, Business
138.000 - 144.000 MHz Government (Military Bases)
144.000 - 148.000 MHz Amateur Radio
148.000 - 151.000 MHz Government, CAP, CD, MARS
151.000 - 156.250 MHz Business Band (Police, Fire)
156.250 - 157.425 MHz Marine Band

156.800 Marine Emergency "Guard"

157.450 - 160.200 MHz Business Band (Police, Fire)
160.200 - 161.600 MHz Railroad (161.600 is Marine Band)
161.605 - 161.795 MHz Business Band (Radio and TV Remotes)
161.800 - 162.000 MHz Marine Band (Telephone)
162.000 - 174.000 MHz Government, Some Business (Radio and TV Remotes)

This is the common "Government Band", frequency spacing
is typically 12.5 kHz, other users are 5 kHz spacing

NOAA Weather is transmitted on:

162.400, 162.425, 162.450, 162.475, 162.500, 162.525, 162.550

174.000 - 216.000 MHz VHF Television (Ch 7 - 13)
216.000 - 220.000 MHz Maritime Mobile
220.000 - 222.000 MHz Land Mobile Radio
222.000 - 225.000 MHz Amateur Radio
225.000 - 329.000 MHz Government
329.000 - 335.000 MHz Government (Airport Glide Slope Navigation)
335.000 - 400.000 MHz Government

364.200 AICC (Airborne Intercept Control Common)

Many security low power control devices are located in the 225 - 400
band, both civilian and government.

243.000 Emergency Primary "Guard"
282.800 Emergency Secondary "Twenty-Eight Twenty-Eight"

400.000 - 420.000 MHz Government (Base Walkie/Talkies, Pagers, etc)
420.000 - 450.000 MHz Amateur Radio
450.000 - 470.000 MHz Business Band (Police, Fire, Radio and TV Remotes)
470.000 - 890.000 MHz UHF Television (Ch 14 - 83)

(All channels not used anymore, 70 - 83 Obsolete)

806.000 - 810.000 MHz Business Band (Conventional Systems, Mobile Input)
810.000 - 816.000 MHz Public Safety (Slow Growth Systems, Mobile Input)
816.000 - 821.000 MHz Business Band (Trunked Systems, Mobile Input)
821.000 - 825.000 MHz Land Mobile Satellite Service (Mobile Input)
825.000 - 835.000 MHz Cellular Telephone Non-Wireline (Mobile Input)
835.000 - 845.000 MHz Cellular Telephone Wireline (Mobile Input)
845.000 - 850.000 MHz Cellular Telephone (Expansion, Mobile Input)
850.000 - 851.000 MHz Unallocated
851.000 - 855.000 MHz Business Band (Conventional systems, Base Output)
855.000 - 861.000 MHz Public Safety (Slow Growth Systems, Base Output)
861.000 - 866.000 MHz Business Band (Trunked Systems, Base Output)
866.000 - 870.000 MHz Land Mobile Satellite Service (Satellite Output)
870.000 - 880.000 MHz Cellular Telephone Non-Wireline (Base Output)
880.000 - 890.000 MHz Cellular Telephone Wireline (Base Output)
890.000 - 895.000 MHz Cellular Telephone (Expansion, Base Output)
895.000 - 902.000 MHz Land Mobile Radio (Mobile Input)
902.000 - 928.000 MHz Free-For-All, No use near White Sands, and Denver
928.000 - 930.000 MHz Multi-Address Paging
930.000 - 931.000 MHz Advanced Technology Paging
931.000 - 932.000 MHz Common Carrier Paging
932.000 - 935.000 MHz Government/Private Shared
935.000 - 941.000 MHz Land Mobile Radio (Base Output)
941.000 - 944.000 MHz Government/Private Shared
944.000 - 947.000 MHz Broadcast Studio To Transmitter Link
947.000 - 952.000 MHz Broadcast Radio Services
952.000 - 960.000 MHz Microwave Relay and Paging
960.000 -1240.000 MHz TACAN/DME, RADAR/IFF, Government

TACAN has 126 X and 126 Y channels. Normally only X channels
are used, unless crowded. TACAN frequencies are tied to VOR
frequencies. (Note: there are more TACAN frequencies than
VOR frequencies, some are blanked around the ATCRBS Beacon
frequencies, and others are for expansion and military use).
Pulse widths are 3.5 microseconds. Aircraft sounds like a Top
Fuel Dragster or Funny Car when searching for lock-on.

```
Channel VOR Air Ground
------------------------------
17X 108.00 1041 978
17Y 108.05 1041 1104
18X 108.10 1042 979
18Y 108.15 1042 1105
19X 108.20 1043 980
19Y 108.25 1043 1106
. . .
58X 112.10 1082 1019
58Y 112.15 1082 1145
59X 112.20 1083 1020
59Y 112.25 1083 1146
. . . (Unused to protect Beacon)
70X 112.30 1094 1157
70Y 112.35 1094 1031 (Unused to protect Beacon)

126X 117.90 1150 1213
126Y 117.95 1150 1087 (Last VOR pairing)
```

29Y and 92Y Favorites for Military Air Refueling (Air-Air)
Check the heavens if active. All Air-Air pairs are 63 Y apart.

```
29Y N/A 1053 1116
92Y N/A 1116 1053
```

Air Traffic Control Radar Beacon System (ATCRBS - "At Crabs",
Secondary Radar - to the British)

1030 MHz Ground Interrogations to Transponder
1090 MHz Transponder Replies to Ground

There are currently five interrogation modes in use:

Mode 1, 2 pulses spaced 3 microseconds [Military]
Mode 2, 2 pulses spaced 5 microseconds [Military]
Mode 3/A, 2 pulses spaced 8 microseconds [Military/Civilian]
Mode 4, encrypted, IFF [Military]
Mode C, 2 pulses spaced 21 microseconds [Military/Civilian]

A third pulse is also included in all modes (except 4) at
2 microseconds from the first. This is the sidelobe pulse.
if it's within @6 dB of the first pulse (or greater) the
transponder doesn't reply (as it has detected an antenna
sidelobe). Pulse widths are .8 microseconds.

The reply is two framing pulses spaced 20.3 microseconds apart, with 13 code pulses (0000 - 7777 Octal) and an X pulse at the center which is not used anymore). A fourth pulse (called SPI pulse (Special Position Identifier) is used to identify your position when asked by a controller to "Squawk Ident", it is 4.35 microseconds after the last framing pulse and lasts for 20 seconds (about 2 scans of a long range radar). Pulse widths are .45 microseconds.

1575.42 MHz is the Navstar Global Positioning System (GPS) frequency L1, and 1227.6 MHz is L2.

1240.000 - 1300.000 MHz Amateur Radio, Government

==========

99. Re: 75 foot tower

Newsgroup: rec.ham-radio
Date: 1990-01-06 01:36:52 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250108@hpnmdla.HP.COM>
Source record: 14353

The tower would likely IMPROVE the interference situation since it would get the source of the radiation (the antenna) up 75 feet in the air where it would be farther away from your house.

Al Bloom

100. Lagalities of Phone Patches

Newsgroup: rec.ham-radio
Date: 1990-01-06 01:38:16 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <10457.25A55088@stjhmc.fidonet.org>
Source record: 14354

> From: julian@bongo.UUCP (julian macassey)
>
> to talk to my party I had to endure a commercial from Domino's
> Pizza and a rendition of "When Will I Be Loved." Yes I did get
> to make the dinner date and all went well. What troubles me is
> this:
>
> Was I "Broadcasting"? Will the FCC get in touch with me?

There was no control or intent on your part.

> Should I pay royalties to BMI for the broadcast of the song?

That's no doubt already done by the provider of the system.

> Can I collect a fee from Domino's for running the Ad?

Go for it.

> Myself and several barrackroom lawyers await the answers.

Say Hi! to the gang for us.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

101. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-06 01:38:32 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <10458.25A5508A@stjhmc.fidonet.org>
Source record: 14355

> From: michaelb@mikebat.UUCP (Michael R. Batchelor)
>
> > > It would be a lot nicer for them to ask
> > > first, but I am not >sure how
> > > practical it is.
> >
> > I think the FCC is willing to give W1AW slack here because of their
> > unquestioned value as a medium for distributing ...
>
> I wouldn't say the value is unquestioned. The only time I've ever heard
> them
> is when I run across them by accident. They may be invaluable to the
> people
> who do listen, but I would bet fewer listen than the ARRL would like to
> think.

But the purpose is served even if only local OBS ops monitor regularly. They in turn get on all the local and section nets and pass the info on. It's surprisingy effective, considering it is based on 1930's technology.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

102. * SpaceNews 08-Jan-90 *

Newsgroup: rec.ham-radio
Date: 1990-01-06 02:01:30 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <84@ka2qhd.UUCP>
Source record: 14356

Bulletin ID: SPC00108

=========
SpaceNews
=========

MONDAY JANUARY 8, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world. It is available for UNLIMITED distribution.

* STS-32 LAUNCH TODAY *
======================
STS-32 astronauts arrived at KSC on Friday at about 4:30 PM EST, to prepare for the 10-day mission. Launch remains scheduled for 8:10 AM EST (1310 UTC) today, which is the opening of the 54 minute launch window.

Work is continuing to prepare Atlantis for the STS-36 mission next month. Transfer of the vehicle to the VAB is planned in about two weeks.

* MUSES-A LAUNCH *
==================
ISAS News, Number 105 from December 1989 reported that the launch of MUSES-A is scheduled for 23-Jan-90 at 1150 UTC.

[From: Yoshiro Yamada of the Yokohama Science Center, Japan]

* MICROSAT LAUNCH *
===================
The SPOT-2/MicroSat/UoSAT spacecraft launch is scheduled for 11-Jan-90 at 01:35:25 UTC. The AMSAT Launch Information Network System (ALINS) will be on the air to cover this launch LIVE from French Guiana, South America. The net is scheduled to run from 01:00 to 02:30 UTC on 11-Jan-90.

The following stations are part of the ALINS network:

W1AW : ARRL - Newington, CT. - Beaming Europe
1.890, 3.990, 7.290, 14.290, 21.390, 28.590, 50.190, 147.555 MHz

WA3NAN: Goddard Space Flight Center - Greenbelt, MD. - Beaming USA
3.860, 7.185, 14.295 MHz

W5RRR : Johnson SFC - Houston, TX - Beaming Central and South America
3.840, 14.280 MHz

W6VIO : Jet Propulsion Lab - Pasadena, CA.
3.850, 21.280 MHz

There will also be transmissions from South Africa on:
3.718, 7.080, 14.282 MHz SSB and 3.665 & 7.094 MHz AM

Listen on these frequencies to follow this historic Amateur Satellite launch! Launch coverage may be also found on selected FM repeaters carrying ALINS audio.

* MICROSAT TRACKING *
==========
The following N4HY Keplerian element will help in tracking the MicroSats:

Epoch : 90 011.0816319
Incl : 98.738
RAAN : 87.11413
Eccn : 1.34E-03
ArgPer : 110.95
MeanAn : 297.18
MeanMo : 14.1988896
Drag : 1.0E-06
Rev# : 0

Should a launch delay occur, add 0.98561226 degrees to the RAAN for each day the launch is delayed (ex: 0.0020833 degrees = 3 minutes). Launches on different days should occur around the same time of day (01:35 UTC).

This element set will remain valid for about a week, since all seven MicroSats will remain in close vicinity to one another for some time. After several weeks, they will drift apart and require separate element sets for accurate tracking.

* MICROSAT MONITORING *
==========
The first signals from these new satellites may be heard shortly after deployment on the following frequencies. Note that each OSCAR is named in order of deployment:

Spacecraft Name	Frequency	Telemetry Format
UoSAT-D (UO-14)	435.070 MHz	9600 bps AFSK AX.25
UoSAT-E (UO-15)	435.120 MHz	9600 bps AFSK AX.25
PACSAT (PO-16)	437.025 MHz	1200 bps PSK AX.25
DOVE (DO-17)	145.825 MHz	1200 bps AFSK AX.25
WEBERSAT (WO-18)	437.075 MHz	1200 bps PSK AX.25
LU-SAT (LO-19)	437.150 MHz	1200 bps PSK AX.25
LU-SAT (LO-19)	437.125 MHz	12 WPM Morse Code

In addition to the frequencies listed, PACSAT may also transmit on 437.050 MHz and WEBERSAT on 437.100 MHz.

The downlink signals from DOVE require only a 2-meter FM receiver, antenna and unmodified Packet Radio TNC-2 for reception. The other spacecraft require SSB receivers and PSK demodulators (such as TAPR, G3RUH) in addition to a basic terminal node controller and computer.

Downlink signals should be sufficiently strong to be heard using "J-pole" antennas rather than directional yagis. Thus, "auto-tracking" will not be required for stations wishing to have unattended PACSAT operation, for example.

* GALILEO MISSION STATUS *
==========
January 3, 1990

Today the Galileo spacecraft is 13.6 million miles from Earth. Round-trip light time is almost 2+ minutes. It has travelled 116.4 million of the 185 million miles in its path to Venus encounter, now about 5 weeks away. Heliocentric velocity has risen to 71,020 mph. The spacecraft's spin rate is 3.14 rpm as estimated by the star scanner, and the attitude sun point angle is at 0.5 degrees.

Last week's four-day science checkout was generally successful. All orbiter instruments were exercised and tested; the magnetometer, the heavy ion counter, the dust detector, and the UV spectrometer are still powered. On December 22, Galileo conducted a successful second trajectory correction maneuver, as programmed and monitored by the flight team.

At present the mission is proceeding as planned with the spacecraft in normal dual-spin cruise mode. All temperatures and pressures are within acceptable limits, and the downlink telemetry rate is 1200 bits per second.

DC and AC voltage imbalance measurements continue to fluctuate. All other power related measurements are stable and are as expected.

On January 8, the operational sequence EV-4 (fourth sequence in Earth-Venus cruise) concludes, and EV-5 begins. EV-6 will contain the Venus flyby operations.

[Story by Ron Baalke, Jet Propulsion Lab, Pasadena, California]

* PUZZLE *
==========
Did you identify this message?

".- -.. .- ... - .-. .- .--. . .-. .- ... .--. . .-. .-"

"Ad astra per aspera" = "To the stars through difficulties". This message was chosen by Carl Sagan for the "Sounds of the Earth" recording found on the Voyager spacecraft. It was sent by William R. Schoppe, Jr., WB2FWS, of CBS.

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

103. News From OSCAR-11 04-Jan-90

Newsgroup: rec.ham-radio
Date: 1990-01-06 02:57:37 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <85@ka2qhd.UUCP>
Source record: 14357

UOSAT 2 COMPUTER STATUS INFORMATION

FAD1 Operating System v2.0b
Today's date is 6 /1 /90 (Saturday)
Universal Time is 2 :14 :49
Auto Mode is selected

SPIN PERIOD IS - 252

Z MAG firings = 0
+ SPIN firings = 4
- SPIN firings = 6
RAM Wash Pointer at 9778
WOD commenced 6 /1 /90 at 0 :0 :9
with channels 10 ,11 ,19 ,29 ,
Last cmd was 109 TO 0 WITH DATA 0

Attitude control initiated, mode 1

Data collection in progress

Digitalker active

**** UoSAT-OSCAR-11 BULLETIN - 208 04 January 1990 ****

UoSAT MISSION CONTROL CENTRE
University of Surrey, Guildford, Surrey, GU2 5XH, England

H A P P Y N E W Y E A R FROM ALL AT UoSAT

** UoSAT-D & E WAITING FOR LAUNCH ON ARIANE V-35 **

The UoSAT-D and UoSAT-E spacecraft are now mounted on the top of the ARIANE-40 rocket at the Guiana Space Centre and are waiting for launch due on 11 January at 01:34 GMT - along with SPOT-2 and four AMSAT Microsats. The on-board batteries for each of the six microsatellites are being trickle-charged via umbilical lines to the launch pad. Martin Sweeting (G3YJO) will travel from UoS to Kourou to join 'Max' Meerman (G7DQE) for the launch. Launch nets will be established on the following amateur radio frequencies, commencing at 01:00 GMT:

AMSAT-UK: 3.780 MHz
WA3NAN: 3.860, 7.185, 14.295 MHz
AMSAT-SA: 3.718, 7.080, 14.282 MHz
AO-13: 145.950, 435.970 MHz

Following a successful launch and separation from the rocket, UoSAT-D & E will be activated for the first time around 09:20 GMT when in range of the UoS

Mission Control Groundstation at Surrey. It is intended that the spacecraft will transmit 1200 bps AFSK fixed-format telemetry for the first active orbit with the 435 MHz downlinks switching on/off every 60 seconds under the control of the secondary (Z80) OBC. If all goes well, the FORTH DIARY will be loaded into the primary (RCA 1802) OBC on the following orbit producing telemetry (FORTH format), Bulletins and WOD - all at 1200 bps AFSK. It is planned to fire the tip-mass pyros and release the magnetometer boom on the next day before commencing attitude manoeuvres.

UoSAT-D/E Telemetry formats and calibration equations will be published shortly.

Provisional Orbital Elements for SPOT-2, UO-D & E, Microsat-A,B,C,D:

Catalog numbers: not yet assigned
Epoch time: 90011.0816319
Element set: pre-launch
Inclination: 98.738 deg
RA of node: 87.11413 deg
Eccentricity: 0.00134
Arg of periwee: 110.95 deg
Meananomaly: 297.18 deg
Mean motion 14.1988896 rev/day
Decay rate: 1.0e-06 rev/day^2
Epoch rev: 0

The following are the Microsat and UoSAT listening frequencies and modes listed in order of deployment. The OSCAR numbers listed are, of course, tentative and assume a successful launch on schedule.

Spacecraft OSCAR number Frequency Mode

UoSAT-D UO-14 435.070 1200/9600 bps AFSK Tlm & AX.25
UoSAT-E UO-15 435.120 1200/1200 bps AFSK Tlm & AX.25
PACSAT PO-16 437.025 1200 bps PSK AX.25
DOVE DO-17 145.825 1200 bps AFSK AX.25 (FM)
WEBERSAT WO-18 437.075 1200 bps PSK AX.25
LUSAT LO-19 437.150 1200 bps PSK AX.25
LUSAT LO-19 437.125 12 WPM CW telemetry

** AO-13 OPERATING SCHEDULE **

The following information is provided by AMSAT-DL.

MODE B MA 000 TO MA 110
MODE JL MA 110 TO MA 145
OFF MA 145 TO MA 150 BAHN LAT +3.6 deg
S BEACON MA 146 TO MA 147 BAHN LON 179.4 deg
MODE S MA 147 TO MA 160
MODE B MA 150 TO MA 255
OMNI ANT MA 225 TO MA 035

AMSAT OSCAR-10 is currently available for whole orbit operation via the mode B transponder.

** Reports received from:-

Angus Newman, VE6BJH

** $BID **

Please use BID $UOSAT.208 for PR BBS use.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

104. <^> Mac Accelerator for the SE

Newsgroup: rec.ham-radio
Date: 1990-01-06 03:31:23 UTC
From: art@GAUDI.CSUFRESNO.EDU
Message-ID: <9001060331.AA03593@gaudi>
Source record: 14358

```
Dove Marathon
68020
68881
1Mb Momory
16Mhz

Like New

$550.00 obo

Respond by phone or email

Art Morton/N6DBP
art@CSUFresno.edu
209 432 1614

art
```

105. Used PK-232 Price?

Newsgroup: rec.ham-radio
Date: 1990-01-06 04:07:31 UTC
From: charlie@oakhill.UUCP
Message-ID: <2794@radio.oakhill.UUCP>
Source record: 14359
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

Does anybody know what a used PK-232 goes for? Is $200 too much?
What about PK-FAX? what's the price for this software (used version).

Thanks ,

C.D.T WB4HVD

106. Despirately seeking Microwave Modules!!!!!!

Newsgroup: rec.ham-radio
Date: 1990-01-06 09:22:40 UTC
From: root@mjbtn.MFEE.TN.US
Message-ID: <538@mjbtn.MFEE.TN.US>
Source record: 14360

Hi,

I am despirately (well not really that badly) trying to locate a company called Microwave Modules that makes transverters. If not them direct, any companies that resell their stuff. I have had several responses to an earlier query about transverters pointing towards them, but I have been unsuccessful in tracking them down.

Any help would be *GREATLY* appreciated!

Please email responses. Thanks in advance!

Mark.

--
Mark J. Bailey, N4XHX "Ya'll com bak naw, ya hear!"
USMAIL: 511 Memorial Blvd., Murfreesboro, TN 37129 _____
VOICE: +1 615 893 0098 | JobSoft
UUCP: ...!{ames,mit-eddie}!attctc!mjbtn!mjb | Design & Development Co.
DOMAIN: mjb@mjbtn.MFEE.TN.US CIS: 76314,160 | Murfreesboro, TN USA
<KA9Q-UNIX-USERS Mailing List - Subscribe: ka9q-unix-requests@mjbtn.mfee.tn.us>

107. Re: Morse code, obscenity, and packet retransmission.

Newsgroup: rec.ham-radio
Date: 1990-01-06 10:54:10 UTC
From: erc@khijol.UUCP
Message-ID: <901@khijol.UUCP>
Source record: 14361
Cross-posted to: rec.ham-radio,alt.flame

In article <24333@gryphon.COM> dianeh@binky.UUCP (Diane Holt) writes:
>
>Well, then, it's no wonder Monsieur DeArmond has such a distaste for it --
>being, as he his, against "obscenity", he no doubt sees (as does anyone who's
>against "obscenity") sexual innuendo in every word.

Yeah, right. I don't even know what the word means, since the Supreme Court
has chickened out on us and *refused* to define it. I don't see the sexual
innuendo -- where is it?

>
>(BTW: Can we expect a round of Standing Wave wars? Or would it just be
> Antenna wars?...)

Antenna Wars -- now *that's* filled with sexual innuendo! :-)

>
>"Generator, oscillator -- make a circuit with me..."

Hmmm...
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf
*** Did you know that Barbie Benton PLAYS THE PIANO?? Quite well, too! ***

108. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-06 19:21:13 UTC
From: rbn@umd5.umd.edu
Message-ID: <5885@umd5.umd.edu>
Source record: 14362

The Hare Krishnas used to broadcast code practice on 40 meters continually.
It went on for a few weeks.

-Ron

109. Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-06 20:15:27 UTC
From: remaker@pepsi.amd.com
Message-ID: <28653@amdcad.AMD.COM>
Source record: 14363

Forgive me if this is an inappropriate post, but I figure this audience is best suited to answer this question:

I got a letter from a friend who is spending a year in Japan and lamented that the radio stations were pitiful, presenting a hodgepodge of news, classical, and traditional Japanese music. I also understand that there is a large market for tapes of broadcasts from American radio stations, and yet there are no signs of improvement in the FM market.

My question is: On the shortwave worldwide bands, does any country broadcast something like an American "classic rock" broadcast (which can be received in Japan)? If no such station exists, what are the obstacles and implications of getting licensed to start one? I know that a lot of college radio stations are pushed off the air because they cannot get an American FM license, and I would bet that some college radio station would love to take to the airwaves internationally (the quality would probably be better than carrier current!)

Also, what are the implications of licensing a commercial station to rebroadcast its signal over shortwave? If WFNX in boston did this, I'd buy a shortwave radio tomorrow!!!!!

Phillip A. Remaker remaker@amdcad.amd.com | "Making fun of Tiffany, Rick
Advanced Micro Devices, CAD Networking Support| Astley and Debbie Gibson is
901 Thompson Place, P.O. Box 3453, MS 167 | what rock and roll is all
Sunnyvale, CA 94088-3000 (408) 749-2552 | about" -Mojo Nixon

110. Re: Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-06 22:33:16 UTC
From: gnu@hoptoad.uucp
Message-ID: <9523@hoptoad.uucp>
Source record: 14364
Cross-posted to: sci.crypt,misc.legal,rec.ham-radio

I believe that NSA is monitoring the Internet. They certainly have the right (and duty) to monitor traffic on any part of the net that's run by the Federal Government.

And I find it curious how the official policy of the Internet is "no thru traffic for other nets" but the benevolent administrators kindly turn their backs, spend the money, and bear major amounts of traffic. Surely that couldn't be because in the process they legally get to examine it?

Let's say you were head of NSA, responsible for communications security for the Feds, and Congress called you in to ask how some college student could bring the major Federal research network to its knees. "Oh, we never look at that network. Though we tap all the telegraph lines in and out of the country, and monitored private phone calls between U.S. citizens in the U.S. and other U.S. citizens in Central America under Nixon, we never bother with high speed, technically advanced government research networks." More likely they are getting a copy of every packet, but due to spook mentality they are not men enough to admit it. The Internet administrators prattle about "ethics", e.g. RFC 1087: "unethical and unacceptable any activity which purposely...compromises the privacy of users" while secretly compromising that privacy themselves.

It is probably a coincidence that the main uucp gateway for European traffic, "seismo", was run by the Center for Seismic Studies, a spook-funded organization that tracks nuclear explosions around the world. (And you thought they were studying earthquakes!) Though supposedly the costs of running the gateway were paid by subscriptions among the Europeans, I'm sure that major costs were picked up by the Center (administration, CPU time, disk space, ...).

It is probably also a coincidence that its replacement, "uunet", sat on the same machine room floor (in "donated" space) for a year. But while no other organizations were able to get Internet approval to forward other nets' traffic to-and-from the Internet, uunet somehow is "provisionally" authorized to do so!

I tried bringing this topic up on comp.protocols.tcp-ip but was censored by the moderator, who claimed I had no proof. As if the rest of the messages on tcp-ip were not full of conjectures!

--
John Gilmore {sun,pacbell,uunet,pyramid}!hoptoad!gnu gnu@toad.com
Just say *yes* to drugs. Say "no" to undeclared wars on sovereign countries.

111. Re: Assigned Radio Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-06 23:00:38 UTC
From: myoung@nunki.usc.edu
Message-ID: <7269@chaph.usc.edu>
Source record: 14365

I'd like to thank all those who responded to my orignal posting requesting
sources for a list of Assigned Radio Frequencies in the Los Angeles Area.
Several people responded and below are their recommendations.

From smcnet!lawrence@CS.UCLA.EDU Tue Jan 2 19:17:24 1990

Congrats on the new scanner. I have had one for a few years now and
it is kind of nice to see exactly what LAPD is doing in their helecopter that
is hovering over my house. You can either get a bright orange book from
Radio Shack (published by Hollins Radio Data. not R.S.) that has listings
for all the fire, police, most of the large hospitals and some businesses or
there are also a couple of other books that you can pick up at ham radio
stores. I have seen a few at Henry Radio (Bundy Blvd. just above Olympic
in West L.A.). Many of the books do not include some of the more
interesting listings. The Radio Shack book does have a table in the back
that lists the FCC frequency allocations. This will tell you what type of
people might be talking on what freq.

A couple of the more interesting freqs are between 450.00 MHz and 451.00 MHz.
Here you will find most of the television news crews and some radio crews.
It is particulary interesting to tune in just before they do a "live remote"
from some location. You can hear the director and transmission operations
talk to the reporter and truck personnel.

Channel 2 450.5125
4 450.5625
5 450.2500
450.3500
7 450.1375
450.3125
11 450.5875
450.9500 IFB studio audio
KFWB NewsRadio 450.8500

From skipsand%pnet01%crash%trout.nosc.mil%nosc%ncr-sd%scubed.uucp%ll-xn.uucp@usc.edu Tue
Jan 2 23:14:51 1990

You can download a list (called CPRA.ARC) on my BBS (The Central Intelligence
Agency) at 619-273-6339, online weekdays Midnight to 5pm, randomly evenings
and weekends when I'm not using the computer. (Best eves are before 8pm,
weekends best before 10am). The CPRA list is the list generated by the
APCO Coordinators for all Southern Cal/West AZ/SW NV of public safety
users.

From ron@hpfcso.hp.com Wed Jan 3 08:42:30 1990

Radio Shack sells one version of a frequency listing.
Fox Radio prints another which is usually more specifically targeted
for certain cities.
Bearcat publishes another.

Since RS is the most available, I'd recommend you start with that.
Then start reading scanner and radio mags for other sources.

You could also begin your adventure by programming a frequency range
and then loggin the channels and trying to figure out who (or what)
they are. This is pretty challenging but also lots of fun.

From doug@hokulea.soest.hawaii.edu Wed Jan 3 08:56:10 1990

Try Radio Shack. They carry a scanner book, called Police Call (I believe)
that covers scanner freq. for CA, OR, WA areas. The frequencies are broken
down by state and county. While this is not an exaustive list, it is a good
place to start.

From jincai@muskat.usc.edu Wed Jan 3 18:04:53 1990

I bought a scanner last summer, and most frequencies I'm listening to
are from "Police Call" sought at Radio Shack. You have to do some
screening work since there are too many listings in that book. If you
already have this book, Cilff (a veteran scanner at USC) pointed me
another place to get frequnecy listing. The place is located at 2050
S Buddy Ave. (Herry's Radio), you may take a look at it then give me
your impression since I've never found time making the trip.

From portal!atari!mn@uunet.UU.NET Wed Jan 3 22:16:19 1990

Look around for a book called Government Radio Systems. It's a big phone
book sized book and there's a Calif edition. One of the most complete
scanner freq books I've seen, and very current.
I was in LA just a few weeks ago and remember seing it at some ham radio
store. It's not cheap at $29.95 but if you had to only have one scanner
freq book this is the one to get!

From denwa!bongou Wed Jan 3 23:14:00 1990

There is a book called "FOX Scanner Radio Listings - Los Angeles
Area". There is also another book available. Radio Shack also
carries frequency lists for your area.

You can get scanner books etc at Jun's Electronics in Culver
City. There is a Scanner Club in LA and they have details.

From pacbell!acsdev!bobm@ames.arc.nasa.gov Thu Jan 4 03:10:56 1990

I recently picked up a book covering the entire state of California,
listing all (government type) frequency usage by county and city.
It is called Government Radio Systems.
This book should be available from:

Communications Center or Jun's Electronics
916 North Euclid 3919 Sepulveda Blvd
Anaheim Culver City

At least, that is listed in the book as a dealer who carries this
book. You can purchase it directly for (sit down)... $27.50
from :

Mobile Radio Resources
2661 Carol Drive
San Jose, CA 95125
(408) 292-4342

For a local list, check out your local radio dealer. I hear
that Radio Shack will sometimes have a book available for
local frequencies, but I would check with independent type
places first. The local dealer here (The Base Station) in
Concord publishes their own book compiled from customers and
the store owners. This book is great if you live in Contra
Costa County. Anyway, Government Radio Systems is highly
recommended. Please note, however, that this book lists only
state, county, and local government usage along with sheriff,
municipal police, fire, and ambulance. For other stuff like
aircraft, railroads, transit systems, etc. you will have to
check with a dealer or maybe even a local club.

Thanks again everybody!

112. Re: Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-06 23:48:00 UTC
From: koreth@panarthea.ebay.sun.com
Message-ID: <35067@grapevine.uucp>
Source record: 14366
Cross-posted to: sci.crypt,misc.legal,rec.ham-radio

In article <9523@hoptoad.uucp> gnu@hoptoad.uucp (John Gilmore) writes:
>I tried bringing this topic up on comp.protocols.tcp-ip but was censored
>by the moderator, who claimed I had no proof.

Quite a trick, considering that comp.protocols.tcp-ip isn't moderated.

" !" - Marcel Marceau
Steven Grimm Moderator, comp.{sources,binaries}.atari.st
koreth@ebay.sun.com ...!sun!ebay!koreth

113. Free Fax!

Newsgroup: rec.ham-radio
Date: 1990-01-07 02:18:00 UTC
From: ddillman@cdp.UUCP
Message-ID: <241200005@cdp>
Source record: 14367

```
* * * * * * * * * * * * * * * * *
* *
* FREE FAX! *
* *
* * * * * * * * * * * * * * * * *
```

Greenpeace Radio has an Alden model 519 facsimile recorder which has become surplus to our needs. This machine prints weather maps (both HF and APT) and press photos on 19" wide paper. Pilots will recognize this machine as the one used in flight service stations to produce aviation weather maps. It is built to the highest standards and was in good operating condition when removed from service a few years ago. The model 519 operates at 60, 90 (Russian) and 120 RPM and at 96 and 48 lines per inch, enabling it to copy virtually anything on the air. This unit is complete with a model 421A facsimile converter which will accept a fax signal directly from the audio output of your receiver. Several rolls of paper (still available from Alden) and the service manual are included.

This machine is available free to any person or organization that will put it to good use. It is large and heavy (about the size of a large dresser) so shipping is not possible. If you can give this machine a good home, contact Dick Dillman,

Greenpeace Radio, Building E Fort Mason, San Francisco, CA 94123
or call (415) 474-6767.

114. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-07 02:34:34 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9001070801.AA18374@ucbvax.Berkeley.EDU>
Source record: 14368

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #622 -
Alouette 1
1 00424U 62B-A 1 89365.69914417 .00000305 00000-0 35546-3 0 2528
2 00424 80.4651 91.1974 0023241 346.0476 14.0033 13.67272842359807
ATS 1
1 02608U 66110 A 89362.07951576 -.00000071 00000-0 99999-4 0 908
2 02608 13.3905 15.0647 0003254 334.9523 25.0630 1.00393996 832
ATS 3
1 03029U 67111 A 89361.08956246 -.00000074 00000-0 99999-4 0 2777
2 03029 12.9897 22.6096 0015987 204.9561 154.9794 1.00272383 81075
Cosmos 398
1 04966U 71 16 A 90 3.17971355 .00082236 16596-4 48405-3 0 4069
2 04966 51.5382 284.0686 2393495 202.9919 144.3409 10.79951280573677
Starlette
1 07646U 75010 A 89357.73457172 -.00000012 00000-0 38627-4 0 34
2 07646 49.8239 130.7822 0205953 331.7537 27.2309 13.82127592751518
LAGEOS
1 08820U 76039 A 89358.97907983 .00000005 00000-0 00000 0 0 9611
2 08820 109.8619 295.4408 0044801 275.4869 84.0511 6.38664137 62814
GOES 2
1 10061U 77048 A 90 2.21412918 -.00000015 00000-0 00000 0 0 3421
2 10061 7.6556 65.7736 0008578 187.5421 172.4108 1.00281908 7378
GPS-0001
1 10684U 78020 A 89362.41201924 .00000009 00000-0 99999-4 0 3012
2 10684 63.6758 94.8409 0114959 197.8774 161.7342 2.00558255 72423
GPS-0002
1 10893U 78 47 A 89364.37295296 -.00000026 00000-0 00000 0 0 821
2 10893 64.4595 335.6296 0159257 25.8633 334.9188 2.00550810 85286
GOES 3
1 10953U 78062 A 90 1.27162829 .00000090 00000-0 99999-4 0 7950
2 10953 6.5224 68.4527 0005452 241.6103 118.4916 1.00266702 2921
SeaSat 1
1 10967U 78064 A 90 2.05361080 .00002634 00000-0 96019-3 0 2190
2 10967 108.0136 337.4018 0003227 236.4191 123.6658 14.35303844602611
GPS-0003
1 11054U 78093 A 89365.17478851 -.00000026 00000-0 00000 0 0 1417
```

```
2 11054 64.0051 331.9573 0055276 119.3372 241.2239 2.00565252 82315
Nimbus 7
1 11080U 78098 A 90 1.17185634 .00000294 00000-0 29648-3 0 6249
2 11080 99.2027 269.7884 0009204 165.5641 194.5808 13.83381243564947
GPS-0004
1 11141U 78112 A 89360.78321502 .00000009 00000-0 00000 0 0 2431
2 11141 63.6376 94.7779 0057336 317.6688 41.8952 2.00565226 80923
NOAA 6
1 11416U 79 57 A 90 2.39178024 .00002378 00000-0 10042-2 0 9524
2 11416 98.5166 358.8742 0011127 243.8853 116.1176 14.26378931546295
GPS-0005
1 11690U 80 11 A 89365.40797829 .00000010 00000-0 00000 0 0 8814
2 11690 64.1382 96.6292 0111274 203.4765 155.8606 2.00556183 86870
GPS-0006
1 11783U 80 32 A 89362.73375186 -.00000026 00000-0 00000 0 0 204
2 11783 63.7879 331.6455 0145478 60.8966 300.5522 2.00572319 70905
GOES 4
1 11964U 80 74 A 89364.37008974 -.00000042 00000-0 00000 0 0 1187
2 11964 6.0202 71.2330 0031619 105.8808 254.3106 0.99232367 3970
GOES 5
1 12472U 81049 A 90 2.11772648 -.00000246 00000-0 99999-4 0 8064
2 12472 3.0498 77.9619 0014515 91.2380 268.7197 1.00262237 30589
SME
1 12887U 81100 A 90 2.56124765 .00046043 00000-0 11837-2 0 4290
2 12887 97.6635 41.2703 0001156 280.1246 79.9862 15.39132394455709
Meteor 2-08
1 13113U 82 25 A 90 2.16490906 .00000394 00000-0 34484-3 0 6834
2 13113 82.5397 260.5871 0014039 222.3391 137.6709 13.84118941392763
Salyut 7
1 13138U 82 33 A 90 2.65233269 .00072091 00000-0 11814-2 0 9669
2 13138 51.6074 54.3653 0001322 18.6640 341.4634 15.51802827439055
Cosmos 1383
1 13301U 82 66 A 89361.63848213 .00000170 00000-0 18812-3 0 5269
2 13301 82.9297 66.5087 0025893 274.5860 85.2338 13.67786187374229
LandSat 4
1 13367U 82 72 A 90 3.04921937 .00001315 00000-0 30175-3 0 1975
2 13367 98.1882 68.6295 0001692 296.3310 63.8255 14.57141675397252
Meteor 2-09
1 13718U 82116 A 90 2.25070559 .00000611 00000-0 31454-3 0 8449
2 13718 81.2468 86.7952 0056473 151.3296 209.1014 14.13421470363679
IRAS
1 13777U 83 4 A 90 2.32625997 .00000548 00000-0 40464-3 0 7068
2 13777 99.0277 201.6035 0013781 120.6738 239.5788 13.98713623 23757
Cosmos 1447
1 13916U 83 21 A 90 2.31107430 .00000225 00000-0 22738-3 0 6669
2 13916 82.9461 134.6864 0036630 241.2325 118.5168 13.73995582339895
TDRS 1
1 13969U 83 26 B 90 1.12732646 -.00000204 00000-0 00000 0 0 9040
2 13969 4.0652 66.9907 0008796 281.5430 78.2978 1.00269360 91409
GOES 6
```

```
1 14050U 83 41 A 90 2.31699227 .00000120 00000-0 00000 0 0 539
2 14050 1.8167 80.2437 0000305 189.9621 169.5781 1.00273063 8606
OSCAR 10
1 14129U 83 58 B 89363.33891262 .00000064 00000-0 00000 0 0 4460
2 14129 25.8764 226.6014 6013351 105.5191 325.0786 2.05880366 21230
GPS-0008
1 14189U 83 72 A 89363.32372033 .00000008 00000-0 99999-4 0 6911
2 14189 63.2780 93.2189 0141475 216.1293 142.9334 2.00562101 47351
Meteor 2-10
1 14452U 83109 A 90 2.26670624 .00001281 00000-0 54435-3 0 8031
2 14452 81.1640 94.0025 0093470 242.8399 116.3282 14.22521919320844
LandSat 5
1 14780U 84 21 A 90 3.00808045 .00012109 00000-0 26889-2 0 137
2 14780 98.1419 66.1334 0003033 12.5571 347.6675 14.57173051310665
UOSAT 2
1 14781U 84 21 B 90 2.19381168 .00003021 00000-0 57538-3 0 5829
2 14781 97.9803 60.0518 0014217 53.2711 307.0007 14.64687688311665
LDEF
1 14898U 84 34 B 90 2.86608522 .00141987 00000-0 84157-3 0 963
2 14898 28.4999 189.9288 0002224 48.9688 310.9517 15.76447535322674
GPS-0009
1 15039U 84 59 A 89359.39543586 .00000008 00000-0 00000 0 0 7783
2 15039 63.0273 92.5775 0017055 242.3695 117.4583 2.00563041 40559
Cosmos 1574
1 15055U 84 62 A 89359.00576999 .00000158 00000-0 15849-3 0 8099
2 15055 82.9583 190.6848 0029015 86.7663 273.6811 13.73309057276160
Meteor 2-11
1 15099U 84 72 A 90 3.02883203 .00000232 00000-0 20001-3 0 9907
2 15099 82.5300 207.4200 0014638 39.8197 320.4035 13.83774450277755
GPS-0010
1 15271U 84 97 A 89356.30164502 -.00000026 00000-0 00000 0 0 7330
2 15271 63.2934 331.5058 0104579 322.9043 36.3916 2.00571008 37606
Cosmos 1602
1 15331U 84105 A 90 2.84530712 .00006838 00000-0 96310-3 0 1429
2 15331 82.5373 154.0124 0023469 149.4866 210.7802 14.76991871283671
NOAA 9
1 15427U 84123 A 89362.19609042 .00000764 00000-0 43513-3 0 4650
2 15427 99.1589 353.1519 0015911 127.0570 233.2064 14.12364740259848
Meteor 2-12
1 15516U 85 13 A 90 2.46215474 .00000286 00000-0 24714-3 0 1404
2 15516 82.5361 146.2558 0015827 279.9964 79.9449 13.84243338248628
Cosmos 1686
1 16095U 85 86 A 90 2.65228242 .00075235 00000-0 12319-2 0 4579
2 16095 51.6072 54.3634 0000378 27.9910 331.8644 15.51807478240152
GPS-0011
1 16129U 85 93 A 89361.44721554 .00000008 00000-0 00000 0 0 3815
2 16129 63.7975 93.3238 0121398 150.2516 210.4610 2.00560952 30916
Meteor 3-1
1 16191U 85100 A 89362.70875439 .00000044 00000-0 99999-4 0 8810
2 16191 82.5488 98.2265 0019888 169.9117 190.2411 13.16887385201129
```

```
Meteor 2-13
1 16408U 85119 A 90 2.61303239 .00000306 00000-0 26468-3 0 5580
2 16408 82.5352 60.9939 0017754 99.1111 261.2064 13.84274813203140
Mir
1 16609U 86 17 A 90 2.63312600 .00033614 00000-0 42635-3 0 3147
2 16609 51.6218 83.1327 0001632 245.8927 114.1629 15.59117162222266
SPOT 1
1 16613U 86 19 A 90 2.91318148 .00001025 00000-0 49871-3 0 7209
2 16613 98.7193 79.7782 0000481 22.9675 337.1524 14.20056554 40472
Meteor 2-14
1 16735U 86 39 A 90 2.26053102 .00000524 00000-0 46156-3 0 3448
2 16735 82.5379 88.2041 0014150 168.1807 191.9708 13.84027827181998
Cosmos 1766
1 16881U 86 55 A 90 2.58757818 .00004102 00000-0 58136-3 0 8338
2 16881 82.5188 213.4924 0021726 166.0147 194.1689 14.76668904184705
EGP
1 16908U 86 61 A 89361.60681880 -.00000056 00000-0 -12258-3 0 1603
2 16908 50.0066 63.4672 0011290 118.4950 241.7023 12.44382867153498
FO-12
1 16909U 86 61 B 89360.62011888 -.00000025 00000-0 99999-4 0 1760
2 16909 50.0169 66.8000 0011508 115.0472 245.1558 12.44403318153361
NOAA 10
1 16969U 86 73 A 90 2.53578435 .00001421 00000-0 64254-3 0 3239
2 16969 98.6160 34.0708 0014218 35.4629 324.7491 14.23397145171042
Meteor 2-15
1 17290U 87 1 A 90 2.43361163 .00000259 00000-0 22386-3 0 3201
2 17290 82.4666 353.9520 0014623 65.8182 294.4514 13.83833548151176
MOS-1
1 17527U 87 18 A 90 2.87582279 .00000327 00000-0 26874-3 0 3643
2 17527 99.1280 77.4210 0000797 133.3959 226.7294 13.94866192146215
GOES 7
1 17561U 87 22 A 89362.03086225 -.00000043 00000-0 99999-4 0 3905
2 17561 0.0363 67.6436 0004037 295.5625 356.8007 1.00268420 3706
Kvant-1
1 17845U 87 30 A 90 2.76135661 -.00000141 00000-0 14434-5 0 9571
2 17845 51.6325 82.4790 0003876 353.1312 7.0740 15.59089864158558
DMSP B5D2-3
1 18123U 87 53 A 89363.14896639 .00001479 00000-0 80040-3 0 4488
2 18123 98.8154 191.0193 0015323 144.3793 215.8406 14.13791046130377
RS-10/11
1 18129U 87 54 A 90 2.84979130 .00000012 00000-0 66911-5 0 9943
2 18129 82.9264 90.6892 0011019 212.1758 147.8758 13.72048614126775
Meteor 2-16
1 18312U 87 68 A 90 3.08737211 .00000219 00000-0 18868-3 0 3579
2 18312 82.5648 61.1690 0012210 6.5524 353.5830 13.83582142120154
Meteor 2-17
1 18820U 88 5 A 89359.07664190 .00000231 00000-0 19673-3 0 1826
2 18820 82.5432 128.8639 0018038 92.5272 267.7956 13.84259505 96097
DMSP B5D2-4
1 18822U 88 6 A 90 2.34853454 .00036473 00000-0 16677-1 0 3614
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2 18822 98.6672 244.6071 0007662 39.6302 320.5087 14.21200482 99264
AO-13
1 19216U 88 51 B 89356.84225818 .00000176 00000-0 99999-4 0 602
2 19216 57.1065 176.6044 6856168 217.6445 65.2993 2.09694446 11709
OKEAN 1
1 19274U 88 56 A 90 2.91921525 .00004947 00000-0 71143-3 0 6085
2 19274 82.5191 311.8125 0020758 305.9328 53.9847 14.76104273 80531
Meteor 3-2
1 19336U 88 64 A 90 2.56029384 .00000391 00000-0 99999-3 0 3429
2 19336 82.5317 34.6099 0017217 10.5028 349.6405 13.16876821 69150
NOAA 11
1 19531U 88 89 A 89363.18338970 .00001298 00000-0 73736-3 0 1823
2 19531 98.9625 306.5222 0012820 46.6152 313.6094 14.11373110 64982
TDRS 2
1 19548U 88 91 B 89347.24757333 .00000130 00000-0 99999-4 0 611
2 19548 0.0519 112.6745 0002642 157.6982 89.5772 1.00271530 3585
Cosmos 2001
1 19796U 89 11 A 89362.22522152 -.00001154 00000-0 -17056-1 0 3021
2 19796 62.9357 115.0002 7168455 319.7014 4.9575 2.00700007 6378
GPS-0014
1 19802U 89347.49529899 0.00000016 10000-3 0 627
2 19802 55.0773 204.7364 0062052 156.7951 203.5736 2.00560907 6027
Meteor 2-18
1 19851U 89 18 A 90 3.04039640 .00000117 00000-0 99999-4 0 1336
2 19851 82.5200 0.0331 0016609 107.1796 253.1184 13.83910386 42724
TDRS 3
1 19883U 89 21 B 89357.85859223 -.00000235 00000-0 99999-4 0 422
2 19883 0.0464 182.1883 0004944 80.5317 97.7671 1.00267715 2133
GPS-0013
1 20061U 89 44 A 89357.15234389 -.00000031 00000-0 00000 0 0 435
2 20061 54.6850 22.9781 0082774 171.1525 189.0463 2.00565815 3969
Nadezhda
1 20103U 89 50 A 89359.14816594 .00000187 00000-0 18714-3 0 610
2 20103 82.9605 53.2937 0037631 160.6277 199.6312 13.73545845 23827
GPS-0015
1 20185U 89 64 A 89357.12260936 .00000016 00000-0 99999-4 0 340
2 20185 54.9499 205.2335 0026532 138.6815 221.5938 2.00568443 7164
Soyuz TM-8
1 20218U 89 71 A 90 2.82540635 .00063600 00000-0 79747-3 0 1176
2 20218 51.6231 82.1680 0001860 285.8669 74.1228 15.59135084 18551
GPS-0016
1 20302U 89 85 A 89356.85556601 -.00000030 00000-0 99999-4 0 381
2 20302 54.7462 324.2475 0038323 306.5741 53.0621 2.00573719 1214
Meteor 3-3
1 20305U 89 86 A 89357.42223227 .00000056 00000-0 13034-3 0 375
2 20305 82.5508 341.9667 0017392 48.9339 311.3270 13.15844727 7831
1989 087B
1 20316U 89341.03139726 0.00005964 41604-2 0 360
2 20316 7.0233 179.2574 7261981 212.2333 68.9029 2.27913743 927
Cosmos 2049
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1 20320U 89 88 A 89361.78807173 .00368920 70080-4 46525-3 0 957
2 20320 64.7745 105.4695 0018172 159.5803 200.6598 16.06893076 6486
COBE
1 20322U 89 89 A 89362.44016168 .00005186 00000-0 34972-2 0 348
2 20322 99.0248 9.5683 0006477 113.0058 247.1806 14.00771585 5579
1989 089B
1 20323U 89 89 B 89353.35971497 .00001250 00000-0 39099-3 0 191
2 20323 97.0674 356.4643 0080728 196.2669 163.5922 14.40155175 4421
Cosmos 2050
1 20330U 89 91 A 89361.76168135 -.00000970 00000-0 31810-2 0 431
2 20330 63.0184 315.9270 7367361 316.6277 4.6966 2.00561905 698
1989 091B
1 20331U 89 91 B 89351.92213889 .20989483 43434-4 27464-3 0 479
2 20331 62.8215 229.2985 0029633 121.3548 239.4456 16.46351236 3822
1989 091C
1 20332U 89344.07629308 0.40913519 44119-4 26618-3 0 399
2 20332 62.9123 259.2420 0033088 110.6690 250.1917 16.50931621 2588
1989 091D
1 20333U 89 91 D 89353.86668053 -.00000236 00000-0 10161-2 0 194
2 20333 63.0001 317.0873 7338316 316.4917 4.8230 2.04183202 542
Cosmos 2051
1 20334U 89 92 A 89361.86850778 .00047986 00000-0 78983-3 0 977
2 20334 64.9075 337.2229 0010373 276.6326 83.4145 15.52011863 5113
Kvant-2
1 20335U 89 93 A 90 2.82540153 .00060153 00000-0 75503-3 0 642
2 20335 51.6218 82.1657 0001504 292.8948 67.0684 15.59131886 5833
Molniya3-36
1 20338U 89 94 A 89361.99897702 .00000028 00000-0 -15032-2 0 416
2 20338 62.8475 163.4241 7350042 288.0661 9.5577 2.00598806 600
1989 094B
1 20339U 89 94 B 89360.43949299 -.00011078 00000-0 -28451 0 0 205
2 20339 62.8495 163.6576 7387000 288.0490 9.3117 1.96590183 556
1978 100AV
1 20347U 78100 AV 89360.94889631 .00044516 00000-0 13962-1 0 236
2 20347 82.5762 337.2199 1206985 4.8581 356.8656 12.53902035 9467
Cosmos 2052
1 20350U 89 95 A 89362.68433691 .00633008 27782-4 36072-3 0 812
2 20350 67.1414 186.0607 0125618 113.0536 248.3444 16.03296084 4524
Granat
1 20352U 89 96 A 89356.43128488 -.00000853 00000-0 99999-4 0 79
2 20352 52.4940 20.4620 9256063 287.8800 4.9580 0.24372632 67
1989 096B
1 20353U 89 96 B 89363.07065714 .00195181 77400-5 13353-2 0 811
2 20353 51.5443 285.7829 1146076 195.5426 160.7325 13.47665229 3669
1989 096C
1 20354U 89 96 C 89355.93838038 -.00000821 00000-0 99999-4 0 46
2 20354 52.4180 20.7130 9232878 287.7410 359.1260 0.24958007 64
1989 096D
1 20358U 89 96 D 90 3.11755617 .00154875 62706-5 10478-2 0 635
2 20358 51.5430 267.2929 1142125 209.4368 143.7270 13.48706702 4346
```

GPS-0017
1 20361U 89 97 A 89359.70540543 .00000016 00000-0 99999-4 0 62
2 20361 54.9445 147.2087 0064423 62.4810 298.2044 1.98342652 249
1989 097B
1 20362U 89 97 B 90 3.04914230 .00013750 00000-0 17234-2 0 212
2 20362 35.6442 18.2654 0331815 270.8958 85.3897 14.49640284 3235
1989 097C
1 20363U 89 97 C 90 1.63255785 .00256791 80969-5 20575-2 0 302
2 20363 37.6272 128.9744 6013851 217.1258 80.2556 4.13285115 868
1988 065G
1 20365U 88 65 G 89355.16873724 .00644408 00000-0 55770-2 0 163
2 20365 65.8563 262.4522 0007036 354.3716 5.7366 15.66942667 78474
1988 065H
1 20366U 88 65 H 89354.21119710 .00612218 00000-0 55715-2 0 137
2 20366 65.8025 265.6359 0009862 5.0511 354.9856 15.65762330 78326
Raduga 24
1 20367U 89 98 A 89362.34126448 .00000165 00000-0 99999-4 0 196
2 20367 1.4853 264.0840 0005730 246.0747 114.9298 1.00254989 147
1989 098D
1 20370U 89 98 D 89361.50959978 -.00000108 00000-0 99999-4 0 96
2 20370 1.5215 264.2867 0016064 27.8337 333.4267 0.97859010 120
Progress M2
1 20373U 89 99 A 90 2.76131813 .00055395 00000-0 69649-3 0 233
2 20373 51.6227 82.4908 0001417 271.6417 88.3964 15.59121641 2131
Cosmos 2053
1 20389U 89100 A 90 3.12866767 .00027783 00000-0 15553-2 0 220
2 20389 73.5469 86.8231 0012361 238.2514 121.7852 15.13262671 1083
1989 100B
1 20390U 89100 B 90 3.25986334 .00005829 00000-0 32849-3 0 178
2 20390 73.5471 86.5400 0010896 234.3668 125.6508 15.13420955 1106
1989 101A
1 20391U 89101 A 90 1.34090321 -.00000018 00000-0 99999-4 0 86
2 20391 1.4987 273.9263 0014934 147.2701 213.6088 0.97987834 60
1989 101B
1 20392U 89362.12984992 0.29397945 60934-4 77431-3 0 77
2 20392 51.6068 269.1929 0004042 125.0556 235.1813 16.45644212 116
1989 101C
1 20393U 89363.04448381 0.15909253 61272-4 18049-3 0 103
2 20393 51.6174 264.0207 0005918 249.6947 110.8189 16.49856806 267
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Dr TS Kelso Asst Professor of Space Operations
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115. Re: PL Tones Above 100 Hz Filtered?

Newsgroup: rec.ham-radio
Date: 1990-01-07 05:48:54 UTC
From: brian@ucsd.Edu
Message-ID: <10862@ucsd.Edu>
Source record: 14369

Few commercial repeaters are equipped with PL tone couplers; most regenerate the tone in conjunction with the decoding process. The audio path between receiver and transmitter is pretty sharply high-passed starting at about 250 Hz or so.

The repeaters we used to build were an exception to this. To save on encoders, we installed tone couplers which were a bandpassed amplifier designed to pass the PL tone around the audio circuitry. By doing that, we got much faster response (didn't have to wait for the hilltop encoder to start) but our repeaters rumbled a bit during the delayed-dropoff time.

Commercially, there's no distinction between tone usages. Perhaps in some areas the hams are doing that but it's sure not a nationwide thing unless some Japanese manufacturer starts selling radios equipped that way.
- Brian

116. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-07 13:02:14 UTC
From: kgreer@mcnc.org
Message-ID: <1551@speedy.mcnc.org>
Source record: 14370

In article <28653@amdcad.AMD.COM> remaker@pepsi.amd.com () writes:
>
>My question is: On the shortwave worldwide bands, does any country broadcast
>something like an American "classic rock" broadcast (which can be received in
>Japan)?
>Phillip A. Remaker remaker@amdcad.amd.com | "Making fun of Tiffany, Rick

Try out KUSW in Salt Lake City or WRNO in New Orleans. Both are certainly well heard on east cost US and probably so in Japan. R. Luxembourg on 6090 KHz around midnight gmt is heard so-so here, but probably not in Japan. Try in the upper 19 mb (about 15.4 & ^ MHz). They seem to jump frequency a good bit, and I don't have a schedule for either of them. I think KUSW deliberately tries to get lots of international listeners.

This discussion probably should be moved to rec.radio.shortwave.

117. Re: Vertical Suggestions Needed 40/80 meter

Newsgroup: rec.ham-radio
Date: 1990-01-07 15:29:02 UTC
From: km3t@jjmhome.UUCP
Message-ID: <5112@jjmhome.UUCP>
Source record: 14371

In article <1740@cbnewsk.ATT.COM>, wheatley@cbnewsk.ATT.COM (steven.m.wheatley) writes:
>
> I am likely to head to Macau XX9 in late February, and want to take
> along a 40/80 meter vertical to work the low bands in the evening
>
> Here is the catch, this needs to be mounted on an elevator
> penthouse or roof of a 23 storey building. The roof area is rather
> small, so there isn't much hope for radials, but the entire
> building is loaded with 'rebar'...so there is lots of metal.
>
(stuff deleted)
> have any suggestions? I am thinking about a 40/80 BUtternut....any
> and all advise is welcomed with open arms.

I know some hams who use or have used the Butternut HF-2V 80/40m vertical with great success. Some have used it in the ground-mounted fashion and some have elevated it 5-10 above the ground. Your best bet would be to elevate the vertical a few feet from the roof and use 8 counterpoise radials (4 for 40m and 4 for 80m). Assuming you have no severe local QRN sources the installation should perform quite well. You will be surprised what you'll be able to work.

The West Coast should be easy to work. The Midwest will be fairly easy. The East Coast will be tough....if there is a grayline path you should be able to work a number of East Coast stations. The grayline path is usually much easier to work due to the lack of absorption and the fact that much of the path is over water. I'm not sure how you'll do into Europe but with persistence and some sort of reasonably efficient antenna system you should be able to work the serious European DXers anyway.

Good luck......I could use XX9 on 80m, already have it on 40m..

--
| Internet: pascoe@edcd.GTE.COM or pascoe%edcd.GTE.COM@relay.CS.NET
Dave Pascoe | km3t%jjmhome@m2c.m2c.org
KM3T/1 | UUCP: {backbone}!m2c!jjmhome!km3t
| Packet Radio: km3t @ k1ugm.ma.usa.na

118. Re: Crossband repeater mod for TM-701a?

Newsgroup: rec.ham-radio
Date: 1990-01-07 17:51:05 UTC
From: km3t@jjmhome.UUCP
Message-ID: <5113@jjmhome.UUCP>
Source record: 14372

In article <9001041448.AA00497@nips.ssesco.com>, elmquist@NIPS.SSESCO.COM writes:
> I don't see a mod on HAMSTER for enabling the crossband repeater
> action on the new Kenwood TM-701a 2m/70cm rig. Does anyone
> know how to do this? and how to turn it on once the mod is performed HI!

I can't remember exacctly where I got this and I haven't tried it yet on my TM-701A but I know I've seen the extended frequency mod somewhere else and know people who've performed it successfully. PROCEED AT YOUR OWN RISK.

TM-701A REPEATER CROSS-BAND MODIFICATION (REVISED)

This Mod is from KENWOOD

Perform The following modification to allow the TM-701A to operate in the repeater cross-band mose.

MODIFICATION:

1. Disconnect the power supply and antenna.

2. Remove the top and bottom covers (12 screws). Disconnect the speaker wire from the transceiver.

3. Locate the green jumper wire shown in figure 1. Using a sharp pair of wire cutters, cut the jumper in half.

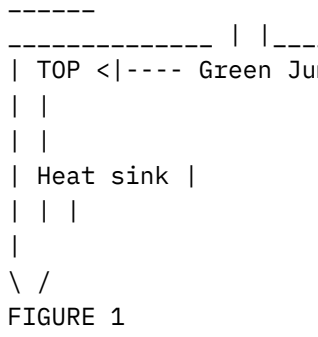
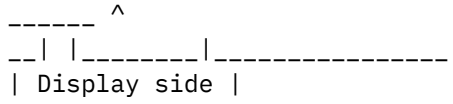


FIGURE 1

CAUTION: Cutting the green jumper allows the TM-701A to transmit from 142 to 151.995 MHz. Protect your license by only using frequencies that you are authorized to transmit on.

4. Solder a jumper wire to the foil side of the TX-RX board as shown in Figure 2.



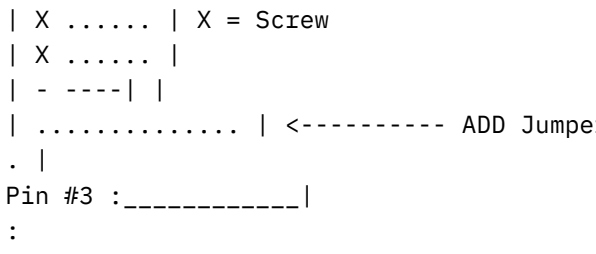


FIGURE 2

5. Assemble the transceiver by reversing steps 1-2.

6. Reset the microprocessor by holding in the MR key as the power is turned on.

The repeater cross-band operation allows the TM-701A to receive on one band and re-transmit the signal on the other band. The TM-701A alternately displays the two bands until a signal is received. The transceiver will then display the band that is re-transmitting the signal. The shift function cannot be used during the repeater cross-band operation. If the TONE or CTCSS function is required, only one EIA tone can be used for the two bands.

OPERATING PROCEDURE:

1. Select the operating frequencies for both bands.

2. Set the squelch control to the threshold point. The TM-701A will transmit in the repeater cross-band mode if the squelch control is set too low or a signal is received.

3. Place the transceiver in the duplex mode (F + DUP).

4. Press the F key for longer than one second. The F indicator will flash.

5. Press the LOW key. The transceiver will now enter the repeater cross-band mode of operation.

6. To cancel the operation and return to the VFO mode, press the VFO key.

--
| Internet: pascoe@edcd.GTE.COM or pascoe%edcd.GTE.COM@relay.CS.NET
Dave Pascoe | km3t%jjmhome@m2c.m2c.org
KM3T/1 | UUCP: {backbone}!m2c!jjmhome!km3t
| Packet Radio: km3t @ k1ugm.ma.usa.na

119. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-07 20:18:33 UTC
From: tad@ssc.UUCP
Message-ID: <362@ssc.UUCP>
Source record: 14373

Michael Bachelor speculated that probably very few people listen to
the W1AW bulletin transmissions.

I feed ARRL bulletins into the packet network from Seattle. The only
way to get them is to pick them up off of HF on Baudot, ASCII or AMTOR
and then format them for packet. I have a C64 and an AT clone sitting
here while I am at work, copying this stuff. When I get home I feed
the network with any new material.

73,
Tad Cook
KT7H @ N7HFZ.WA.USA.NA
tad@ssc.UUCP

120. Re: the dsp in Kenwood TS950

Newsgroup: rec.ham-radio
Date: 1990-01-07 20:35:06 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490082@hpscdc.scd.hp.com>
Source record: 14374

> / hpscdc:rec.ham-radio / datwyler@esunix.UUCP (Doug Datwyler) / 8:49 am Jan 4, 1990 /
> Without looking at the QST/Ham Radio magazine adds for the
> Kenwood TS950, and remembering not what the ICOM adds contain, I
> suspect that Kenwood is not using a digital filter at audio
> frequencies, but is really using direct digital synthesis to get
> l.o. signals. This is the claim of a spectrum analyzer picture in
> the add. From my small understanding of the stuff inside, you can
> filter the audio and i.f. as much as you want, but if the l.o. is
> not clean, the output from the rig will still be junk. That is
> why I suspect that Kenwood pulled a marketing ploy, calling DDS
> (direct digital synthesis) DSP, so as not to be confused with
> ICOM.
> --
> Douglas L. Datwyler WR7O

Sorry, the above is completely wrong. I asked Kenwood about this
and they said their DSP is *not* an audio filter and it is *not*
direct digital synthesis. It actually works at IF frequencies
to generate and detect SSB signals. Notice, when I said IF frequencies,
I didn't say 8 MHz. or even 455 kHz. It is a very low 4th IF frequency
at which DSP is practical. But it is not baseband (audio). Otherwise,
it wouldn't affect opposite sideband rejection, which Kenwood says
it does. The IF bandwidth of the analog filters in the 950 is 6 kHz.
and the DSP then sharpens this up as desired.

I specifically asked them about whether the 950 uses DDS, and they
said no, but their synthesizer scheme was claimed to be much better
than older designs like the 940, and "just as good" as DDS. Now
that may be a marketing ploy. But I haven't seen the numbers to
compare with Icom's DDS.

BTW, you can make the LO in your receiver as clean as you want, but
you will still be limited by the LO in the interfering transmitter.
Unless that happens to be DDS controlled, you are wasting your
money putting a DDS synthesizer in your receiver.

Rick N6RK

121. Rapid Charging FT470 Battery Packs

Newsgroup: rec.ham-radio
Date: 1990-01-07 22:56:31 UTC
From: 31002_1650@uwovax.uwo.ca
Message-ID: <4622.25a782cf@uwovax.uwo.ca>
Source record: 14375

I am in the midst of purchasing the Yaesu FT470. The problem is that the only quick charger available for the radio takes five hours to fha..charge the battery pack.

Would it be possible to build a cheap and dirty rapid charger for the battery. What would be the specs ie. if it was a 10 volt battery at 600 mA, what should the charging voltage, current and duration be.

Please respond to VE3ZAV@HAMSTER.BUSINESS.UWO.CA

Tnak(sp) oxx lousy editor, thanks de Tony VE3ZAV

122. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-07 23:54:56 UTC
From: myoung@nunki.usc.edu
Message-ID: <7289@chaph.usc.edu>
Source record: 14376

Along the lines of a FM station that broadcasts in Shortwave too....

There is a station (100.3 - KPWZ (?) "Pirate Radio") that claims to broadcast on some satellite (it escapes me right now) channels 5 and 6. It even has an 800 number to call in to the station (800-742-2100) from all over the US. On Saturday nights, they intertain callers from all over the country (including Alaska). Maybe people in other countries can listen in on this too? (But I doubt they can call the 800 from another country).

123. Re: Handi-Talkies

Newsgroup: rec.ham-radio
Date: 1990-01-08 01:39:10 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500349@ux1.cso.uiuc.edu>
Source record: 14377

> antenna, the signal won't go as far: 1 w on 144 will go further than
> 1 w on 440 assuming everything else being equal).

The equality is not even possible to achieve. Suppose you are measuring the signal strength using halfwave dipole antennas on transmit and receive. Because of the resonance at the chosen frequency, the receive aperture is very different.

Is it "equal" for the distance to be the same in meters or to be the same in wavelengths?

Given a constant aperture for transmit and receive expressed in meters, and a constant power, you can get further with the higher frequency because of the extra transmit and receive gain you get.

Then there is "equal" in terms of dollars, which changes things around quite a lot. :-)

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

124. Re: Despirately seeking Microwave Modules!!!!!!

Newsgroup: rec.ham-radio
Date: 1990-01-08 01:43:44 UTC
From: wheatley@cbnewsk.ATT.COM
Message-ID: <1756@cbnewsk.ATT.COM>
Source record: 14378

A dealer called "PX Shack" handles their stuff, along wiht a guy in VE3 land. The PX SHack is Ivars Lauzums, 52 Stonewyck Dr, Belle Mead, NJ 08502. The last time i called him, he wasn't handling MM transverters in stock due to the price of them, driven up by exhange rate, i believe...but was happy to order them for you.

--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

125. TM-721A mods - posting

Newsgroup: rec.ham-radio
Date: 1990-01-08 06:48:08 UTC
From: erc@khijol.UUCP
Message-ID: <920@khijol.UUCP>
Source record: 14379

I received a response to my request for 721 mods, but instead of
suggesting that the mods be posted, so they could do everyone
some good, I requested that they be emailed to me. How selfish
of me. I apologize, and to do penance for my misdeed, have added
a section on how to retune the PLL for lock above 460 MHz, and have
also corrected a couple of spelling errors. Have fun!

P.S. Thanks to Frank Abbott at the University of Texas for
downloading these from HAMSTER.

721.mods:

Here are the changes I have made for the 721 mods. They involve
instructions for retuning the PLL for 460 MHz reception. I have
not tested PLL lock for out-of-band transmission (for obvious
reasons), but the PLL should lock over the receive range.

I have also corrected a couple of spelling errors.

Subject: TM721 modification
Cc: ve3pzr@uwo.ca

The TM721 modification is very EASY. Here is the information :

Chip resistor R121 on the Control Unit must be removed. Here is how.

1. Disconnect power and antenna
2. Remove the top and bottom covers (12 screws)
3. Remove the silver coloured screws from the front panel chassis.
(2 on each side, 1 on top, 1 on bottom)
4. Pull front panel away from the radio but DO NOT disconnect cables.
5. Locate chip resistor R121 on the Control Unit and desolder.
When looking at the Control Unit, you will see the lithium battery
located to the left of centre and the power switch sub-assembly
located on the bottom right. Look at the centre of the lithium battery
and you will see R121 located down and to the left of the battery
close to the bottom edge of the board about 3/4" left of centre of
the battery. Remove this chip resistor.

6. There is also a 3 minute time-out timer that will place the radio
into the receive mode after 3 minutes of continuous transmit. I
removed mine and I will describe the location of R122 which defeats
the timer. If you look again at the lithium battery, look at the
bottom edge of the battery and then over to the right about 1 inch

from the bottom centre of the battery and you will come across an upper set of 2 resistors and below that another set of 5 resistors (chip type). Remove the first resistor (left one) in the upper set.

OPERATION

Repeater cross-band operation allows the 721 to receive on one band and retransmit the signal on the other band. An incoming signal will automatically be switched to the subband. The 721 will then re transmit the signal from the main band. Each band may contain offset and subaudible tone information with the tsu-6 tone board.
The encode and decode tones for a single band must be the same. Each band may contain a separate sub-audible tone frequency.

1. Select the first frequency in the main band and select a repeater offset if desired.
2. Select TONE if needed.
3. Press the BAND key to transfer contents of MAIN into SUB.
4. Select the second frequency and if desired a CTCSS tone.
5. Adjust the main and sub band squelches to the threshold.

ENABLING CROSS BAND REPEATER

1. Press the F (orange function) key
2. Press the A.B.C. key within 5 seconds of step 1
Three dots will light in the decimal place locations in the MAIN band.

The repeater will always transmit out of the main band. I will give you an example of accessing a 70cm repeater with a 2m handheld on a simplex freq.
Desired repeater RX 444.8 TX 449.8 2m 145.54

In main band enter 145.54 and press BAND key to transfer to sub display.
Enter 444.8 with + offset. Press F + A.B.C.

Key up simplex handheld and you will see the sub-band receive your frequency and at the same time you will see the main band key up and transmit on 449.8 Mhz.

Release the simplex PTT on the handheld and the radio will quickly flip 145.54 into the MAIN band and 444.8 into the sub-band. The 70cm repeater will be transmitting to your radio in the sub-band at 444.8 and the 721 will be transmitting out of the MAIN band on 154.54.

Neat stuff !!!! Warning, disconnect your mic or be quiet and DOUBLE WARNING DO NOT PUT A 2M repeater in the MAIN and a 70CM in the sub or they will continually key up each other back and forth through the 721. Also note that when the 721 is transmitting on the MAIN band out to your 2M simplex radio and receiving a signal from the 70cm repeater, you will not be able to gain control of the transmitter of your 721 until the 70 cm tail drops as the radio does not sample the incoming audio for a carrier while transmitting.

The mod is neat and if you disable the tail timer on your 70 cm repeater, this works great in situations where a hand held (1 watt) cannot access the 2M

repeater.

Enjoy and RSVP with any further questions or concerns.
****

From: flloyd%crank@Sun.COM (Fred Lloyd)
Newsgroups: rec.ham-radio
Subject: Re: Kenwood TM-621,721 mods ?
Date: 25 Apr 89 21:43:28 GMT
Reply-To: flloyd@sun.UUCP (Fred Lloyd)

>As I was doing the cross-band repeater mod (you
>might consider it a simplex range extender) it seems
>that there are several other 0 ohm surface mount
>resistors (shorts) grounding several other pins
>on the microprocessor. Does anyone know what other
>undocumented features these units have?

The programming resistors do the following:

1. Select the European frequency bands (430 - 440)
2. Select MARS/CAP xmit freqs (141 - 150)
3. Select unrestricted out-of-band xmit (add a jumper)
4. Select cross-band repeater mod
5. Disable built-in 3 minute timeout timer for crossband repeater.

Number 1 was easy, I just installed a jumper where there were a pair
of empty pads next to a row of four or five other 0 ohm (jumper) "resistors".
I found this quite useless and promptly removed it.

Number 2 is also very easy, but unnecessary for 90% of us. If you need
MARS/CAP then you'll be able to get the details from Kenwood.

Number 3 is somewhat of a mystery as I've been told the jumper position
but have been unable to find it on the board. My interest was in
opening up the UHF receive to hear the public service channels.
Unfortuneatly, this mod opens up transmit as well, on both bands and
apparently without restriction (as the gossip goes).

Number 4 is real easy and involves removing the resistor marked R121 on the
schematic.

Number 5 is also easy and just remove R122 to do it. (I haven't though)

What I'd like to know concerns the remote control capabilities that are
available through the microphone plug. From looking at the manual,
it's clear that when the RC-10 remote control handset is used, many of
the radio's front panel controls are made remotely available. Does
anybody know the manner in which the three data pins on the mike plug
are used for this. The three pins are PTT, UP and DOWN (in normal
mode). Presumably, there is a way to communicate with the onboard
microprocessor using these pins. If so, then somebody could
concievably use their PC to control the radio.

Inquiring minds want to know....

Any Ideas?

-fred

| Fred Lloyd KJ6RK PP-SEL flloyd@sun.com |
| Sun Microsystems, Inc. ...sun!flloyd |
| Mountian View, CA |
| (415) 336-6322 |
| Disclaimer: If it ain't broke, don't fix it! |

****

Date: Mon, 8 May 89 11:42:21 PDT
From: flloyd@Sun.COM (Fred Lloyd)
To: MBRAMWEL@uwo.ca
Subject: TM-721A UHF Extend Mod

Modifying the Kenwood TM-721A for Extended UHF Coverage

Well I finally uncovered the specifics of the mod which will extend the UHF coverage of the TM-721A. This mod changes the UHF receive from it's factory setting of 438 - 449.995 mhz to approximately 420-460 MHZ. There are some peculiarities surrounding this mod so I'll describe them first.

First of all, this mod will allow the UHF digital display to traverse from 400.000 to 499.995. The radio will not, however, tune this entire range due to a combination of a limited synthesizer lock range and the input RF amplifier bandwidth. The apparent useful tuning range is about 420-460, with sensitivity dropping off sharply at either end. Naturally, the best performance is in the middle (the Ham Band :-).

Similarly, the VHF tuning range is extended in the same manner. After the mod is made, the VHF side will apparently tune from between 100-199 mhz but as stated above, there is little or no response outside of the published range (138-170 mhz), due to the same reasons as stated above.

As a final side effect, note that performing this mod will remove all out-of-band transmit restrictions on the rig, for both VHF and UHF. After the mod is in place, the radio will transmit on any frequency that it can tune to.

DISCLAIMER:

The author of this report wishes to strongly remind those who perform this mod that it is ILLEGAL to transmit on any frequencies outside of the ham bands, EVEN IF YOU ARE OTHERWISE LICENSED TO DO SO. This is because of the radio's lack of FCC type acceptance for these frequencies. So beware! Unauthorized use of this feature could be hazardous to your ticket. MARS/CAP users are probably OK with a permit.

Now for the nuts and bolts.....

MODIFICATION PROCEDURE

1. Turn the radio on and write down all of your memory channel frequency assignments, PL codes and anything else you have in memory - It will all have to be reprogrammed after the mod. After writing down all of your data, turn off the unit and disconnect it from the antenna and power supply.

2. Next, remove the bottom cover on the unit. Note: this radio contains a number of CMOS parts which could be damaged by static discharge. Take all of the regular precautions to make sure that you and your tools are properly grounded for anti-static work. Note that there is a hole in the rear of the subchassis which supports the controller circuit board in which you can see a small, black, 1/4 watt resistor which is labeled on the board as R57. Using a small pair of sharp cutters, clip the lead on the end of the resistor. It is not necessary to remove the part, just clip one end and bend it slightly out of the way.

2. Next, remove the top cover and then open the front panel assembly into the service position. To do this, remove the four silver screws, one on the top, one on the bottom, and one from each side. Two of the screws are in slotted holes. Loosen the screws in the slotted holes slightly so as to allow the front panel to be pulled out and swung down in a hinge-like fashion. Once open, set the radio on a table with the hinged front panel hanging over the edge of your workbench. Familiarize yourself with the inside of this compartment. The most notable features are a silver, button type lithium battery to the left of center and a large, multi-pin microprocessor chip on the right. DO NOT DISCONNECT ANY OF THE RIBBON CABLES.

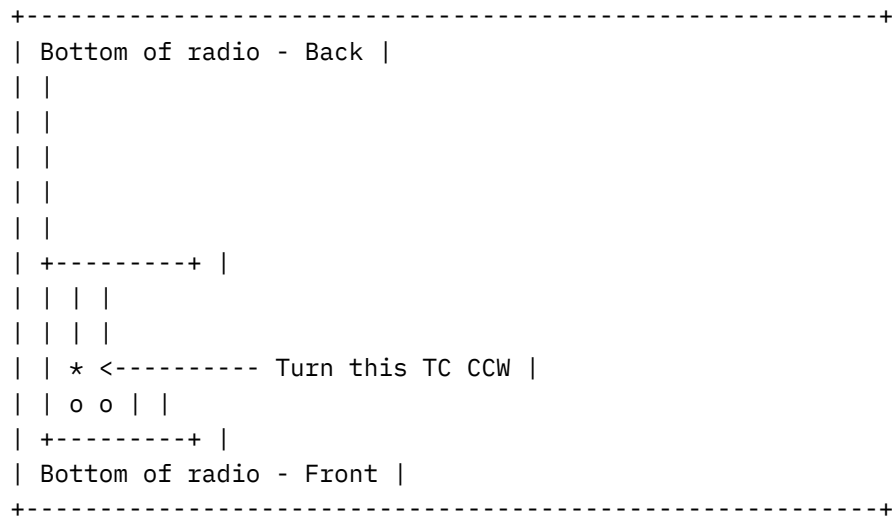
3. Locate the lithium battery and to it's left you will notice a row of five programming resistor positions, with the middle position vacant. The arrangement looks something like this:

```
|
| ____ ______
| I I:II (Bat-) |MPU |
| (tery) | |
| ---- ------
|
| I <- R121 (remove for cross-band repeater operation)
-----------------------------------------------
```

VVV front of rig VVV

The (:) above indicates where a jumper is to be placed. Use care in soldering since everything is quite small.

[This section added by Ed Carp, N7EKG. Do this ONLY if you need the PLL to lock above 460 MHz.]



3a. Look at the bottom of the radio. On the left-hand side, in the lower corner of the PCB, there is a silver can (as indicated). Place a small, non-metallic screwdriver in the hole indicated and turn the cap SLIGHTLY counter clock-wise. This will lock the VCO in the 460 MHz range (and maybe a little bit farther).

If you turn the screw farther than necessary to achieve PLL lock, the receiver or transmitter might not lock up at the band edges.

4. Reassemble the unit in the reverse order as described above. When you power the rig up, the display should show 440.000 and 144.000 on the displays. It is now ready for operation. If necessary, perform the microprocessor reset function by holding down the F button while turning on the power. Reprogram the unit with the data you saved in step 1.

Comments:

There is nothing special about operating the rig once the modification is made. All functions operate exactly as before except that the range on each band is extended as described above. You will probably want to program the band scan limiting channels (A and B) on both bands since otherwise your vfo scanning will be too broad and will spend a lot of time scanning in areas which it cannot receive.

In addition, my rig also has the cross-band repeater mod. I do not know if having this is a prerequisite to performing the mod mentioned above. If it is, then R121 will also have to be removed. The cross-band repeater mod has already been discussed on the net so I won't go into it at this time.

Enjoy this mod but don't endanger your license! Don't transmit out of band and don't allow others to, even if they're licensed for those frequencies!

-fred

| Fred Lloyd KJ6RK PP-SEL flloyd@sun.com |

| Sun Microsystems, Inc. ...sun!flloyd |
| Mountian View, CA |
| (415) 336-6322 |
| Disclaimer: If it ain't broke, don't fix it! |

--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf
*** Did you know that Barbie Benton PLAYS THE PIANO?? Quite well, too! ***

126. Re^2: Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-08 06:53:05 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1404@atha.AthabascaU.CA>
Source record: 14380
Cross-posted to: sci.crypt,misc.legal,rec.ham-radio

koreth@panarthea.ebay.sun.com (Steven Grimm) writes:

>In article <9523@hoptoad.uucp> gnu@hoptoad.uucp (John Gilmore) writes:
>>I tried bringing this topic up on comp.protocols.tcp-ip but was censored
>>by the moderator, who claimed I had no proof.

>Quite a trick, considering that comp.protocols.tcp-ip isn't moderated.

Chr*st on a crutch, who cares? Given the S/(S+N) ratios around here,
they might as well spend their time reading old laundry lists and
washroom walls.

I might add that I am not a US citizen.
--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

127. Re: *Yet Another Ground Rod*

Newsgroup: rec.ham-radio
Date: 1990-01-08 06:56:38 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1405@atha.AthabascaU.CA>
Source record: 14381

Where did you get your bentonite? (Not the specific vendor, but
is it a garden product or do hardware stores carry it or what?)

--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

128. Microwave Modules.

Newsgroup: rec.ham-radio
Date: 1990-01-08 10:13:33 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <08.Jan.90.10
Source record: 14382

Mark Bailey wanted address of Microwave Modules: Well here goes!

Microwave Modules Ltd.
Brookfield Drive
Aintree
Liverpool
L9 7AN
England. Phone +51-523-4011 Telex 628608 MICRO G

(Above information dated Feb. 1987 - they may have moved since!)

I used to have one of their '200 watt' linears. Like most manufacturers
of linears, their ratings are optimistic. It got *very* hot if run at
more than about 100 watts, but thats the case with all solid-state PA's

'The opera is not over till the fat lady sings'

Pete G6WBJ

129. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-08 13:16:00 UTC
From: benk@inmet.inmet.com
Message-ID: <13700014@inmet>
Source record: 14383

Its worth noting that before it was sold to the Christian Science Monitor (and was rechristened KHBI), KYOI in Saipan (Norther Marianas) broadcast good ol' American rock-and-roll beamed towards Japan for about 16 to 20 hours per day. I have absolutey no idea how KYOI fared as a business enterprise, but this would be a *VERY* interesting question to investigate.

One reason why college/university stations might shy away from brodcasting on shortwave (from the U.S., that is) is that (to the best of my knowledge) the FCC requires commercial stations on SW to run a *minimum* of 50 kW. Buying a transmitter with at least that much power (not to mention an antenny system that can handle it) might be a bit of a finanical burden for stations used to running 3 kW or so on FM.

It *does* sound like a nice idea, though ...

-- Ben Krepp

From uunet: uunet!inmet!benk
From DDN: benk@inmet.inmet.com

130. Re: Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-08 14:18:26 UTC
From: hes@ccvr1.ncsu.edu
Message-ID: <1990Jan8.141826.6186@ncsuvx.ncsu.edu>
Source record: 14384
Cross-posted to: sci.crypt,misc.legal,rec.ham-radio

In article <9523@hoptoad.uucp> gnu@hoptoad.uucp (John Gilmore) writes:
>I believe that NSA is monitoring the Internet. They certainly have the
>right (and duty) to monitor traffic on any part of the net that's run
^^^
>by the Federal Government.
^^^^^^^^^^^^^^^^^^^^^^^^^

A large portion of the Internet is the NSFnet. It is run funded by
the NSF, but run (on contract) by Merit (which is under the control of
the Univ. of Mich. and therefor the state of Michigan.)

Does this give the Federal Government, or the State of Michigan, or
both "the right (and duty) to monitor traffic" on NSFnet? Does "monitor"
include reading the contents of the packets - or just looking at
headers?

--henry schaffer

> ...

131. Re: What is HAMSTER?

Newsgroup: rec.ham-radio
Date: 1990-01-08 14:41:10 UTC
From: erc@khijol.UUCP
Message-ID: <922@khijol.UUCP>
Source record: 14385
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

In article <30600029@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>> IP address: 129.100.22.100 HAMSTER.business.uwo.ca

Yes, but is it available via uucp/dialup?
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf
*** Did you know that Barbie Benton PLAYS THE PIANO?? Quite well, too! ***

132. 3rd Annual Listener Festival in Pa.

Newsgroup: rec.ham-radio
Date: 1990-01-08 14:52:19 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <88@ka2qhd.UUCP>
Source record: 14386
Cross-posted to: rec.ham-radio,rec.radio.shortwave

sb swls@allbbs $fest_frm2
3rd Annual Winter Listener Festival

3rd ANNUAWINTER SWL FESTIVAL
February 23-25 1990
Holiday Inn
Sumneytown Pike
Kulpsville, Pennsylvania

The Winter SWL Festival is a good excuse for the folks with a common interest in the Shortwave Listening hobby to gather for a weekend of socializing and meeting other SWL's. Forums d roundtable discussions will be held on Saturday for those wishinto learn more about SWing or to exchange tips and techniques. Door prizes, station freebies, displays from clubs, and a banquet round outhe weekend events.

Fom topics:

Basic Propagation for the BeginnerQSL Preservation and the CPRV
Antennas for the Beginner and Advanced Listener
Shortwaveccessories
What are Utilities and where to start?
DXing Helps - Books, Magazines, Clubs, Newsletters, Atlases
The Collecting and Display of Station Memorabilia
The NASWA Awards Program and Tips for Acquiring Awards
Receivers: What do you need? What to ok for, what is new, and what is in the future.
The Hidden World of Clandestines
What is Pirate Broadcasting and Hoto Hear Them.
Scanners and Scanner Clubs
QSLing Techniques
Computers and the SWL Hobby
The Role of Clubs in the SWL Hobby

Registration Options -

FULL - Incles forums, hospitality room, lunch and banquet - $30

PARTIAL - Includes forums and hospitality room but NO meals $15

SPOUSE - Includes hospitality room and meals - $15

Please register NO LATER than February 10, 1990. Ches should be made payab to WINTER SWL FEST. Registration for hotel rooms should be made directly to the Holiday Inat (215) 368-3800 - As soon as possible! Special rates - $55 single, $59 double. Our function code with the hotel is WINTER SWL

FEST. Please refer to this to get the special room rates. Listen to the ANARC SWL NET on 7.240 at 1500 UTC Sundays for up the minute info.

Theoliday Inn is located at EXIT 31 of the PA Turnpike NorthEast tension - Lansdale Interchange. Limo service iavailable from Phila. tl. Airport directly to the Holiday Inn.

Please submit the following form with your regisation amount to:

Winter SWL Festival
PO BOX 591
Colmar, PA 18915

*** Detatch here ***

Name _____

Address _____

City _____ State__ Zip _____ Pho _____

Circle: FULL PARTIAL SPOUSE (Spouse name:_____)

Banquet - Check one: Roast Beef ___ Chick ___

You saw this on: Packet [] UUCP-UseNet [] Phone BBS [] Other_____

Hope to see you all there. Tell us where you saw this form!

This is for informationapurposes ONLY, not a commercial or an endorsement nor is it held for the profit of any individual or group

[Suns @10am on 7240 LSB,he ANARC Listeners' Net - DC to Light and MORE!]

133. TS-430 Mod for below 150 KHz

Newsgroup: rec.ham-radio
Date: 1990-01-08 15:16:18 UTC
From: john@anasaz.UUCP
Message-ID: <1095@anasaz.UUCP>
Source record: 14387

If you are interested in receiving frequencies below 150 KHz on a TS-430, you might want to try this mod. I discovered this yesterday and as far as I can tell, it works (standard disclaimers apply).

Simply locate R52 on the LL circuit board. Cut the lead on this resistor.

As far as I can tell, the only effect of this is to prevent the VCO from being turned off below 150 KHz.

The receiver is not up to spec below 150 KHz (probably why they don't allow it), but is only a few dB off at 100 KHz (which is the Loran C frequency). It is about 10 dB off at 60 KHz.

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Freedom and Communism are incompatable.

134. FRAMINGHAM (MA) Flea market 8 April 1990

Newsgroup: rec.ham-radio
Date: 1990-01-08 15:54:38 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9001081554.AD00040@adam.DG.COM>
Source record: 14388

CEO summary:
The Framingham (MA) Amateur Radio Association will be holding a flea market and VE exams on Sunday, April 8, 1990. Exams for all license classes will be held at 12 noon, sharp. Advance registration is suggested, since walk-ins will be accepted on a space available basis only, until 11:00 AM. To register for exams, send completed 610 form, copy of current license and a check for $4.95, payable to "ARRL/VEC" to: Dick Marshall, WA1KUG
37 Lyman Rd.
Framingham, MA 01701
Location will be the same as always, Framingham Civic League Building, 214 Concord St (Rt 126), Framingham MA. Talk-in on 147.15.
For further info:
Exams: (508) 877-0568
Tables:(508) 877-7166
===
de KA1AXY
Peter Simpson
Data General Corp
===

135. Ariane, Spot, Microsat launch delayed

Newsgroup: rec.ham-radio
Date: 1990-01-08 17:44:18 UTC
From: mac@idacrd.UUCP
Message-ID: <554@idacrd.UUCP>
Source record: 14389
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,sci.space

Due to a faulty tape recorder, the launch of the Spot-2, Microsat, UOSAT payloads on the Ariane 40 configuration (the first 40, no strap ons) has been delayed until at least January 26 at 0135 UTC. I will post new orbital elements on CI$ and AMSAT BBS's. The tape recorder was not on the small sats of course, it was on the multi-million dollar SPOT-2 earth imaging, earth resources satellite. This quite serious delay is pushing the already delayed launch schedule for ARIANE further into the future.

Bob McGwier
N4HY

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

---

136. Re: Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-08 17:46:53 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1086@rsiatl.UUCP>
Source record: 14390

[Massive ammounts of naked paranoia deleted]

Hey guys, you s'ppose we could acknowledge a couple of things and
then get back to talking about radio?

Stipulated:

The Evil Empire Federal Government (EEFG) monitors publicly accessable networks
for evidence of espionage.

Some people think that this is very good.

Some people think that this is very bad.

Opinions of Usenetters carry little significance to the EEFG.

Don't say anything here you don't want yo' momma to hear.

Any further discussion on this subject should probably go to alt.paranoia.

Thanks,
John

--
John De Armond, WD4OQC | The Fano Factor -
Radiation Systems, Inc. Atlanta, GA | Where Theory meets Reality.
emory!rsiatl!jgd **I am the NRA** |

137. Re: 800 MHz allocation chart

Newsgroup: rec.ham-radio
Date: 1990-01-08 17:53:21 UTC
From: ewb@raybed2.UUCP
Message-ID: <1440@raybed2.UUCP>
Source record: 14391

In article <10844@attctc.Dallas.TX.US>, sampson@attctc.Dallas.TX.US (Steve Sampson) writes:
> In article <9001050803.AA10513@ucbvax.Berkeley.EDU>, MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
> >
> > Does anyone out there have a listing of the allocations for 800 MHz?
> > I would like to know what services might be found in different parts

> SCANNER SEARCHERS GUIDE
>
> Version 5, Compiled by N5OWK
> Public Domain (p) January 1990
>
>
STUFF DELETED

> 220.000 - 222.000 MHz Land Mobile Radio <-------WRONG !!!!
^^^^^^^^^^^^^^^^^
> 222.000 - 225.000 MHz Amateur Radio

Please note that 220.0 - 222.0 IS STILL an AMATEUR BAND. Remember folks, " it ain't over 'till the fat lady sings", and she not even headed for the concert hall. :-)

Note to N5OWK, Please correct your allocation list ! Please avoid editorializing
^^^^^^^

73
GENE WA1UXA

138. Re: FCC to surcharge telephone MODEM users !!

Newsgroup: rec.ham-radio
Date: 1990-01-08 19:54:51 UTC
From: paul@hpldola.HP.COM
Message-ID: <12120032@hpldola.HP.COM>
Source record: 14392

>Dear Sir,

>Please allow me to express my displeasure with the FCC proposal
>which would authorize a surcharge for the use of modems on the
>telephone network. This regulation is nothing less than an attempt to
>restrict the free exchange of information among the growing number of
>computer users.

> Calls placed using modems require no special telephone
>company equipment,

Statistical multiplexors look for pauses in the speech(modem) and are
able to save bandwidth by squeezing several channels onto fewer channels.
Unfortunately, 1200-baud modems never pause so the system may not be
able to carry as many modem calls as voice calls - so it may actually
be more expensive to the telco.

-Paul Bame N0KCL

139. Re: Sommer Antennas

Newsgroup: rec.ham-radio
Date: 1990-01-08 20:01:48 UTC
From: n2ic@druwa.ATT.COM
Message-ID: <4582@druwa.ATT.COM>
Source record: 14407

One of the antennas available for our multi-multi effort at 4U1ITU (4U0ITU) was a Sommer antenna. I don't remember exactly how many elements the particular model had - somewhere around 5 to 7.

Compared to the Cushcraft monobanders we erected on other parts of the roof, the Sommer beam was 1 to 2 S-units WORSE. The SWR on the Sommer antenna was respectable (< 1.5), so it was apparently operating "correctly". The Sommer and the Cushcraft
beams were all at the same height (15 to 20 feet above the roof - about 125 feet above the ground).

The 4U1ITU "insiders" told us that the only reason the Sommer antenna was still up was club and international politics.

In summary, forget the Sommer antenna.

By the way, QSL info for 4U0ITU is via KC7V.

73,
Steve, N2IC/0

140. Hallicrafters & Hammerlund info needed

Newsgroup: rec.ham-radio
Date: 1990-01-08 20:32:02 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <191578@Wayne-MTS>
Source record: 14393

Among my latest aquisitions are two simple (in their day) communications recievers that neither Sams nor Rider list schematics for, viz:

Hallicrafters S-108
Hammerlund HQ100

I'd be greatful (and postage-refund-full) to anyone who could supply schematic or manual copies for these. And if anyone has a line on some fancier tube recievers (dual & triple conversion, etc) or AM transmitters, please drop a line.
--mike ke8yy
michael_edelman%Wayne-MTS@um.cc.umich.edu
medelman@waynest1

141. Grounding for Maritime Mobile antennas?

Newsgroup: rec.ham-radio
Date: 1990-01-08 20:36:59 UTC
From: dml@esl.com
Message-ID: <DML.90Jan8123659@chopin.esl.com>
Source record: 14394

A friend is involved with a racing sail boat, and wants to add HF maritime communications to it for a CA to Hawaii race.

He has picked out a radio, and I think an antenna. In any case, he wants to use a vertical (pretty obviously), and is interested in knowing what the best grouding approaches for him might be.

He is aware of the possibility of using copper foil on the outside of the hull, but doesn't want to take any chances of affecting the boat's sailing performance. He has also considered using foil or some such on the inside of the hull.

Can any of you relate any experience with the tradeoffs to be made here? Any wonderful solutions?

Thanks!
Denis Lynch, N2TI

142. AM Survey

Newsgroup: rec.ham-radio
Date: 1990-01-08 20:38:34 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <191579@Wayne-MTS>
Source record: 14395

Another exciting (yawn) KE8YY survey: How many of you out there
are operating AM? If you are, please send me a note describing the
rig(s) you use and perhaps frequencies and times. I'll summerize
to the net.
--mike ke8yy
michael_edelman%Wayne-MTS@um.cc.umich.edu
medelman@waynest1

143. Re: Rapid Charging FT470 Battery Packs

Newsgroup: rec.ham-radio
Date: 1990-01-09 01:17:51 UTC
From: timb@hpmwtd.HP.COM
Message-ID: <1260016@hpmwtlb.HP.COM>
Source record: 14396

In simple terms, a battery consists of an internal EMF and some series resistance. To recharge a battery, you need simply to drive a current in the opposite direction to that supplied by the battery itself. To do this, you must overcome the EMF of the battery with an external power supply.

A charger is nothing more than a DC power supply set to a voltage that will overcome the battery EMF by an amount suitable to allow a reasonable charging current to flow.

If you want to charge a battery as rapidly as possible, you need to build a voltage regulated DC power supply that has current limiting. By setting the supply voltage to the desired EMF of the battery, a variable charging current will flow until the EMF reaches the supply voltage. The current limit protects the battery from being charged too fast. Simple designs can be found in any of the data books or application books for IC regulators.

You will have to consult the battery manufacturers data to determine the maximum charging current and recommended charging voltage.

73's de WB9MVP

144. Re: Vertical Suggestions Needed 40/80 meter

Newsgroup: rec.ham-radio
Date: 1990-01-09 01:39:34 UTC
From: timb@hpmwtd.HP.COM
Message-ID: <1260017@hpmwtlb.HP.COM>
Source record: 14397

Why not consider a simple rectangular loop antenna with sides that are roughly 1/8 wavelength at 80m. The loop should be broken at one side and fed with open wire line at the other. The radiation pattern is roughly omnidirectional with a few dB more gain in the direction of the side that is fed.

If the size of your building is suitable, the loop could run around the periphery of the roof. This way, any metal in the building should not affect the pattern significantly.

The same antenna can be used on both 80m and 40m by using an antenna tuner. With this approach, the antenna length need not be exact.

Should make for a good DX antenna.

73's de WB9MVP

145. Help requested: using a UHF TV tuner as an 800 MHz scanner converter

Newsgroup: rec.ham-radio
Date: 1990-01-09 03:36:51 UTC
From: mahaun@sactoh0.UUCP
Message-ID: <2396@sactoh0.UUCP>
Source record: 14398
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.electronics

About a year ago, I came across an article in an old issue of 73 Magazine titled "800-900 MHz The Easy Way" -- it was in the October 1987 issue on page 40. Basically it described a way to convert an old UHF TV tuner into an 800 Mhz scanner converter by hooking up an antenna and power supply to the tuner module, and then using the scanner to listen to the (about) 45 MHz IF output. The article was quite short and didn't describe much about the details of using specific types of tuners, although it did contain a low-drift power supply design (the tuner frequency is very dependent on supply voltage).

Around the same time, I found the following advertised in a surplus electronic & radio parts catalog (Fair Radio Sales, Lima, OH):

"UHF Tuner: UHF varacter tuner, covers 450-900 MHz; use for TV repair or modify for scanners, etc. Approx 47 MHz IF output; 300 ohm ANT input, 50 ohm OSC out. Requires +15 (B+), 3-10 (AGC) and 0-30 VDC (tune). 3.5x3.5x1, 1lb. GE #EP85X66"

Thinking this would make a fun and useful project to hear 800 MHz on my BC-100XL scanner, I went ahead and ordered the unit. When it arrived, I noted that a sticker on it read "EP86X65," contrary to the GE number quoted in the ad. It also came with a small sheet listing tune voltage vs. frequency. The unit itself is a small metal box with a clearly labeled "IF out" jack with an RCA-type connecter, and three terminals labeled "AGC," "B+," and "T".

Unfortunately, when I tried hooking it all up, I was unable to receive anything different in the 45-47 MHz range of my scanner. I think the problem may be in the currents I am supplying to the three control terminals. Does anyone who is familiar with these units know the typical current requirements for the varactor diode tune input and the AGC input? Also, I have no idea what the voltage on the AGC input should be set at to start with. There are two holes in the top cover marked L13 and L11 with ferrite slugs inside that can be adjusted -- is it possible that I need to mess with these?

Surely someone reading this has used one of these goodies before... if so, please send me an email address so that I can discuss the details with you. If I figure this out and get it working, I will post a summary of the super-deluxe $20 scanner converter :-)

Thanks in advance for any help anyone can provide on this!

--
(Mark A. Haun KJ6PC)(UUCP: ...ames!pacbell!sactoh0!mahaun)
(Sac-Unix, Sacramento CA)(AMPRNET: kj6pc@kj6pc.ampr.org)
(IP: [44.2.0.56] 144.93 Mhz)(PACKET: kj6pc@wa6nwe.#nocal.ca.usa.na)
(INTERNET: mmsac!sactoh0!mahaun@sacto.West.Sun.COM)

146. None

Newsgroup: rec.ham-radio
Date: 1990-01-09 04:49:38 UTC
From: David_Waters.M1@smtp.ESL.COM
Message-ID: <9001090515.AA23936@esl.ESL.COM>
Source record: 14399

Michael Batchelor / KA7ZNZ /uunet!wshb!mikebat!michaelb writes:
: > that W1AW has been using pretty much the same frequencies for
: > decades, one might ask if some people are 'volunteering' to be
: > QRM'ed.

> I agree. The frequencies are very well known in the ham world. Trying
> to operate there makes about as much sense as standing on a train
> track and complaining about the train traffic.

I disagree. They're only well-known to hams that CHOOSE to invest in any of the ARRL's material. While I would relinquish the frequency to W1AW because I am aware of what it is, many hams choose not to be members of the ARRL and don't care what W1AW is. W1AW should operate as any other individual or club station has to. Despite W1AW's noble goals, I still don't believe its lofty position entitles it to take over a frequency that might be in use. Admittedly, again, I will not stand on the track because I want to prove something, but I just wanted to make the point that not every ham is even aware of the established sked of W1AW. I am a member and I would have to go look in QST right now to find where and when they operate (say, maybe I'll just do that! :-)) Don't get me wrong, I'm not quarreling about it or the ARRL's usefulness. The whole thing strikes me a little like 'eminent domain' though...
Oh well, 'nuff said.

"A little ambiguity never hurt anyone."
Dave Waters WA6AWZ
Internet: David_Waters.M1@SMTP.ESL.COM
Compuserve: 73277,311
GEnie: DRWATERS
ESL Inc. (408) 738-2888 x4611

147. Decoding PL tones

Newsgroup: rec.ham-radio
Date: 1990-01-09 12:28:56 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9001091228.AB00043@adam.DG.COM>
Source record: 14400

CEO summary:
A few days ago, I posted a hint about a CTCSS (PL) tone decoder
and display. Well, I have the reference for it:
Subaudible Snooping, KE6VK, 73 Amateur Radio, November 1986, pp. 48-9.
Kind of a clever circuit that uses an MF10 switched-cap filter to
isolate the tone from the rest of the audio and then a CD4046 PLL
running at 100 times the tone frequency, providing a VCO output which
is counted in 0.2 seconds and displayed on 4 seven segment LEDs. 18
chips and about $70 if you buy them all from Jameco and Digi-Key. I
might whip one up just for fun.

Peter Simpson, KA1AXY (508) 870-9837
Data General Corp M/S E132
Westboro, MA 01580 Internet: PZS@ADAM.DG.COM
---

148. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-09 13:35:16 UTC
From: kgreer@mcnc.org
Message-ID: <1557@speedy.mcnc.org>
Source record: 14408

Got a question or two about a logging in WRTH-1990(and a couple
of other semi-old sources):

There's a listing for a US station on 11730 KHz as KJES, but I don't
see any other references to it, other than the WRTH freq-by-freq entry.
It is listed as El Paso, NM. Does anyone have any information on this
(former? current? part-time?) station? There seems to be no entry in
the US section in the country-by-country listings in the front part of
the book. Thought I would ask some people who would probably know
rather than wasting time and money on long distance calls to possibly
non-existent stations.

(BTW - our dept. mail machine and gateway are going to be down for
about 2 weeks, so mail may or may not bounce back as undeliverable.
Please send any email for the time to kgreer@mcnc.org.UUCP)

Kim L. Greer
Duke University Medical Center try: klg@orion.mc.duke.edu
Div. Nuclear Medicine POB 3949 ...!mcnc!ecsgate!dukeac!klg
Durham, NC 27710 919-681-2711x223 fax: 919-681-5636

149. Cellular Phone parts on 30 cM?

Newsgroup: rec.ham-radio
Date: 1990-01-09 14:10:43 UTC
From: julian@bongo.UUCP
Message-ID: <291@bongo.UUCP>
Source record: 14401

For a few years now we have had a "new band" in the UHF range. Manufacturers have ignored it, but by God it has a band plan. The band is the 30 cm band (902-928 for those who cheated in their Novice test).

I would like to run some high baud rate packet up there. I notice that Cellular telephone and Trunking radios are between 800 and 900 Mhz. I would guess that the most widely manufactured radio these days is the cellular phone. This means to me that RF parts should be cheap and available. I am assuming that PA stages and RX front ends should be tweakable to 30 cm use with little grief.

So three questions:

1. Has anyone done this yet?

2. Anyone know a good source of data on cellular components?

3. How about a good source of parts?

Yours
--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

150. Aurora beacon

Newsgroup: rec.ham-radio
Date: 1990-01-09 14:12:27 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9001100808.AA18238@ucbvax.Berkeley.EDU>
Source record: 14402

I have installed a continuous beacon for monitoring auroras in the northeastern part of the country. It operates from FN24, on 144.047 CW, with 35 watts to a 5-el yagi pointed north. The antenna is 12 feet above ground on an excellent hilltop with a clear shot to the north.

I would appreciate reception reports. The antenna has been designed for suppressed sidelobes (<35 db), so hearing it "direct" should be difficult. On aurora, however, the beacon should be quite loud. I am interested to know how loud it is via Au, because I would like to reduce its power if possible.

CQ Au...

151. TM701A MOD

Newsgroup: rec.ham-radio
Date: 1990-01-09 14:29:00 UTC
From: SKAGOO@MEMSTVX1.BITNET
Message-ID: <9001100810.AA18449@ucbvax.Berkeley.EDU>
Source record: 14403

Date: 7 Jan 90 17:51:05 GMT
From: lectroid!jjmhome!km3t@CS.BU.EDU (Dave Pascoe KM3T)
Subject: Crossband repeater mod for TM-701a?
Message-ID: <5113@jjmhome.UUCP>

In article <5113@jjmhome.UUCP>, Dave Pascoe
writes:

> I can't remember exacctly where I got this and I haven't tried it yet on my
> TM-701A but I know I've seen the extended frequency mod somewhere else and

I did post the mod to this net sometime ago. The main point I want to stress is
that the TM-701a will not cross band full duplex like the TM-621,721,731 etc.
It will only crossband simplex. You cannot put you favorite 2m repeater on one
band and talk through the TM701a with a 440 handi talkie. But you could dial up
your favorite simplex 2m frequency and use your 440 HT to go out on 2m.

Suresh Kagoo N9GSA
Memphis State University
Memphis, Tennessee (Home of Elvis and also of the Pyramid).

152. Re: the dsp in Kenwood TS950

Newsgroup: rec.ham-radio
Date: 1990-01-09 14:58:39 UTC
From: datwyler@esunix.UUCP
Message-ID: <1728@esunix.UUCP>
Source record: 14404

I believe the key to my posting is the following off the wall (no fact, just memory) statement:

> > Without looking at the QST/Ham Radio magazine adds for the
....
> > --
> > Douglas L. Datwyler WR7O

I appreciate being straightened out, wringed out, and being made the fool ocasionally. Thank you for calling Kenwood and getting the low down for the net. The only thing I know for sure is that I can not afford to purchase any rice box or American made rig, so any argument for or against "FEATURES" for me is just fun and helps me understand radio a bit better. Thank you, Rick.

--
Douglas L. Datwyler WR7O
Evans & Sutherland Computer Corporation (801)582-5847
600 Arapeen Drive
Salt Lake City, UT 84108

153. The Privacy Issue

Newsgroup: rec.ham-radio
Date: 1990-01-09 15:36:02 UTC
From: dalyb@godzilla.UUCP
Message-ID: <47eef426.1423f@godzilla.UUCP>
Source record: 14413
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Time Magazine, 1/8/90, page 55:

"...The prevailing legal rationale holds that cordless users have no 'reasonable expectation' of privacy because their phones -- unlike standard wire phones and sophisticated cellular devices -- transmit radio signals between a handset and a base unit that occasionally can be intercepted by other cordless phones and even by shortwave radio sets. As a result, Federal Communications Commission rules require that cordless phones carry a no-privacy warning."

I wonder why they think "sophisticated" cellular devices are immune from being intercepted, other than the fact that it is against the law??

Brian Daly WB7OML
UUCP: {...!ames!ncar!noao!asuvax|uunet!zardoz!hrc|att}!gtephx!dalyb

154. Re: the dsp in Kenwood TS950

Newsgroup: rec.ham-radio
Date: 1990-01-09 17:16:44 UTC
From: bobc@hplsla.HP.COM
Message-ID: <5720055@hplsla.HP.COM>
Source record: 14418

Sampling the IF output does not imply the the IF is operating at
a low frequency. Almost everyone knows that a signal that is
bandlimited to some frequency, say F, can be sampled without aliasing
if the sample frequency is at least 2*F. What many people fail to
realize is that the sampling process is similar to mixing, and that
aliasing can be avoided provided the signal has a bandwidth of F.
It is not restricted to the span 0-F.

Consider an IF with a center frequency of 455kHz and a bandwidth of
7 kHz. If we sample at a 15 kHz rate, then anything in the span
450 - 457.5 kHz (450kHz = 30*15kHz) will mix (alias if you will)
into the span 0 - 7.5kHz. Since the original signal didn't contain
energy at any other frequencies (say 0-7.5kHz), then aliasing really
hasn't occurred since there wasn't any overlapping of spectra. At
the input to the digital filter it appears as though the IF was operating
with a center frequency of 5kHZ, not 455kHZ.

The frequenies chosen for this example aren't very good, but you
get the idea. Although the ADC in this example would be running
at 15kHz (easy), the ADC's sample-and-hold must accurately sample a
460 kHz signal (harder).

Bob Cutler
Hewlett-Packard
Lake Stevens Instrument Division
hplsla!bobc

155. Re: Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-09 17:34:04 UTC
From: jordan@Morgan.COM
Message-ID: <655@s5.Morgan.COM>
Source record: 14405
Cross-posted to: sci.crypt,misc.legal,rec.ham-radio

John Gilmore <gnu@hoptoad.uucp> writes:

I believe that NSA is monitoring the Internet

Well, John, so are you! Granted, the level of sophistication in what you look at is much coarser than you claim theirs is, but you certainly seem to get a look at the contents of quite a number of packets carried by that network. In fact (*gasp*), you're looking at some right now!

Anyone can do this (even in the covert sense that you're apparently affraid of), and why shouldn't they? If you require secrecy in your transmissions (same as cellular telephone, cordless telephone, etc), you need to find a way to deal with it.

And about UUNET, it has been stated for a long time that the net-to-net business was all just a matter of someone "stepping up to the plate" to take responsibility for such a link. To my knowlege, UUNET is the not the first group to take that responsibility. Certainly BBN did the same for CSNET and the NSF people have done similar things.

/jordan

156. 3Y5X on RTTY

Newsgroup: rec.ham-radio
Date: 1990-01-09 17:42:21 UTC
From: reisert@victim.dec.com
Message-ID: <9001091742.AA01416@decwrl.dec.com>
Source record: 14414

From: Trond LA8XM
5-JAN-1990 02:23

According to the locals, Jacky has been on RTTY on 21066 around 17 UTC
we have told him the RTTY QRG is 21085. Anyway it seems like he
tries RTTY around 17 UTC.

157. UHF Linear Amp for Satellite and ATV

Newsgroup: rec.ham-radio
Date: 1990-01-09 17:50:26 UTC
From: gjernes@liszt.mpr.ca
Message-ID: <2012@eric.mpr.ca>
Source record: 14416

I will be purchasing a UHF linear for use with my ATV setup and also
for satellite work.

It appears that these amplifiers come in pretty statndard input/output ranges.
I am interested in the 10W in/100W out, or higher output.

I have the following questions:

1) What have you found to be the best amplifier for these purposes?
(I am only familiar with the "RF Concepts" and the "Mirage". Are
there others?).

2) Mirage has a D1010 for normal usage, and a D1010-ATV for ATV work.
What is the difference between these amplifiers and can I use the
ATV version for satellite work without losing something?

3) Are there UHF linears with higher than 100W output available that won't
cost 10 times as much?

4) Another product I'm looking for is an audio processor (or compressor)
which can be purchased off the shelf (no time for the home project
route these days). Do you know of such a beasty? My Icom IC-271,
IC-471 and IC-1271 do not have built-in RF processors - sigh.

I will compile responses and post the results if you wish.

gjernes@mprgate.mpr.ca or uunet!ubc-cs!mpre!gjernes
Murray B. Gjernes P.Eng. VE7MBG The above are my opinions only.
MPR Ltd Tel: (604)293-5340
8999 Nelson Way, Burnaby, B.C. Fax: (604)293-5787

158. Re: The Privacy Issue

Newsgroup: rec.ham-radio
Date: 1990-01-09 17:53:37 UTC
From: chuq@Apple.COM
Message-ID: <37708@apple.Apple.COM>
Source record: 14415
Cross-posted to: rec.ham-radio,rec.radio.shortwave

dalyb@godzilla.UUCP (Brian Daly) writes:

>>Time Magazine, 1/8/90, page 55:

>>"...The prevailing legal rationale holds that cordless users have no
>> 'reasonable expectation' of privacy because their phones -- unlike
>>standard wire phones and sophisticated cellular devices

>I wonder why they think "sophisticated" cellular devices are immune from
>being intercepted, other than the fact that it is against the law??

The way I interpreted it is that because it's legal to monitor cordless phones (and cordless intercoms and cordless baby monitors and etc) it's also legal to listen in on them for evidence purposes without a warrant. Because the cellular folks were able to ram through 'protection' against monitoring cellular freqs, police therefore can't monitor cellular frequencies without a warrant and hope to have the evidence accepted.

It's the latter that matters -- you can listen to cellular, although it's illegal. So can police. But because monitoring cellular is proscribed, any evidence received via cellular monitoring that isn't backed by a warrant will be inadmissable. A case where to 'protect' people they've created a class of criminals (all the people who listen anyway) and protect another class at the expense of the police. Nice touch...

--

Chuq Von Rospach <+> chuq@apple.com <+> [This is myself speaking]

The Answer? That would be telling, Number Six.

159. Re: 3Y5X on RTTY

Newsgroup: rec.ham-radio
Date: 1990-01-09 18:55:49 UTC
From: davidn@tekigm2.MEN.TEK.COM
Message-ID: <7780@tekigm2.MEN.TEK.COM>
Source record: 14417

In article <9001091742.AA01416@decwrl.dec.com>, reisert@victim.dec.com (Jim -- LTN1-2/H03 -- DTN 226-6905 09-Jan-1990 0942) writes:
> From: Trond LA8XM
> 5-JAN-1990 02:23
>
> According to the locals, Jacky has been on RTTY on 21066 around 17 UTC
> we have told him the RTTY QRG is 21085. Anyway it seems like he
> tries RTTY around 17 UTC.

I worked Jacky on 14085, listening up, around 0300Z from Washington State.
Also heard him yesterday around 0500Z on 14065 RTTY, working mostly Japan.
David, AB9O

160. GaAs FET 2SK152

Newsgroup: rec.ham-radio
Date: 1990-01-09 19:12:28 UTC
From: narayan@cssun.tamu.edu
Message-ID: <4046@helios.TAMU.EDU>
Source record: 14406
Cross-posted to: sci.electronics,rec.ham-radio,rec.radio.shortwave

Could anyone out there tell me if the 2SK152 (GaAs FET) is a commercially manufactured part and if so, some details or sources? It is being used in the front end of the Sony ICF-2010 receiver and perhaps some ham rigs as well.

Isn't an SKxxx part a silicon device, and is it that GaAs devices are being given the 2SKxxx id's?

Thanks in advance for any information.

Sriram Narayan 810446 Texas A&M University |
INTERNET: narayan@photon.tamu.edu | Go Alain Prost!
US Mail: X4 Hensel #K, College Station, TX 77840.|

161. Re: Handi-Talkies

Newsgroup: rec.ham-radio
Date: 1990-01-09 19:29:00 UTC
From: commgrp@silver.bacs.indiana.edu
Message-ID: <12600091@silver>
Source record: 14420

N9ISY writes:

>All I can say is YES!
>HT's are very helpful in the middle of nowhere!
>Yes! You need a license to operate ofn the ametuer bands!
>Yes they are a little expensive! But, did you think that the savings of
>a few dollars was worth a nigh of misery or even death when you bought
>your sleeping bag? Having an HT in the wilderness can be the difference
>between life and death.

Carry a good antenna for more range. "Rubber duckies" are convenient
but terribly inefficient. A few years ago in an article in _73_ about
using h-t's in mountain rescue, the author said that telescoping 5/8-
wavelength antennas were indispensible.

--

Frank W9MKV NSS 9086 reid@gold.bacs.indiana.edu
Nasty unscrupulous modifier

162. Stolen radio

Newsgroup: rec.ham-radio
Date: 1990-01-09 19:47:31 UTC
From: phil@uxa.cso.uiuc.edu
Message-ID: <1990Jan9.194731.19118@ux1.cso.uiuc.edu>
Source record: 14419
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.ham-radio.swap,rec.radio.shortwave

```
Kenwood HF transceiver model TS-440S (with general coverage receive)
S/N 7060175
Stolen during breakin of Synton ARC station between Jan 5 and Jan 8 1990.

Features installed:
AT-440 auto antenna tuner
YK-88S 2.1 khz SSB filter
YK-88C 500 hz CW filter
10 hz display mod

If you find this radio, contact local police or:
University of Illinois Police
Officer Frost
Case I90-0031
Phone 217-333-1216

Phil Howard, KA9WGN
217-384-4934
217-244-6246
phil@ux1.cso.uiuc.edu
uiucuxc!ux1!phil
--

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>
```

163. Can we mention equipt names on the air?

Newsgroup: rec.ham-radio
Date: 1990-01-09 20:45:14 UTC
From: wdh%oversteer@Sun.COM
Message-ID: <130040@sun.Eng.Sun.COM>
Source record: 14421

Can we mention the brand name and/or model number of the equipment
we are using during HAM transmissions?

Wouldn't this be considered business use as it is advertising?

This seems to be much more likely to benefit the manufacturer of
the equipment, and be considered 'business use", than autopatching to
my wife and having her ask me to pick up a loaf of bread.

Personally, I think this strict interpretation is going overboard.

...Dennis Henderson, N6TTW (wdh@Sun.COM)

164. K1EA ConTest Software

Newsgroup: rec.ham-radio
Date: 1990-01-09 20:46:44 UTC
From: wolff@cpoint.UUCP
Message-ID: <3414@cpoint.UUCP>
Source record: 14423

Enough people have asked me how to obtain a copy of my logging program
that I thought I should post.

CT (for ConTest) is a realtime logging program for IBM compatible computers.
It supports CQ World Wide, ARRL International DX Contest, CQ WPX, Worked All
Europe, and ARRL VHF QSO Party. It will control Kenwood and ICOM radios,
talk to PacketCluster for automatic spotting of DX and QSY to the DX frequency,
send the code using a serial or parallel port, and all the usual bookkeeping
of dupes and mults. Of course it prints logs, summary sheets, dupe sheets,
rate sheets and few others.

I used to distribute the program for the cost of a floppy, mailer and
postage. This became a burden, so I donated the right to distribute it
to the Yankee Clipper Contest Club. The club charges $25 for the program
with a decent printed manual and updates for major bugs, but not for all
changes in perpetuity. All revenue goes into a packet fund which pays
for computers, radios and tncs used in our network. KC1EO has donated his
time to the club and does all the production work of reproduction, banking,
user database maintainence. K1VR edited the written manual which I wrote, and
K1GQ did all the publishing work on his Mac.

The program should be obtained for $25 from:

Yankee Clipper Contest Club
c/o Bill McGowan, KC1EO
33 Truell Road
Hollis, NH 03049

I hope this does not look too much like an advertisement, it is not
intended to be.

Ken Wolff, K1EA

165. Re: No Code License

Newsgroup: rec.ham-radio
Date: 1990-01-09 20:50:12 UTC
From: don@gp.govt.nz
Message-ID: <1028@gp.govt.nz>
Source record: 14422

In article <547@idacrd.UUCP>, mac@idacrd.UUCP (Robert McGwier) writes:
> From article <5806@ncar.ucar.edu>, by cmiller@hao.ucar.edu (Charlie Miller):
>>
>> I there a restricted Novice license now obtainable without taking
>> the code portion of the test? If not, is this in the plans for
>> the near future?

> AMSAT and TAPR proposed to the ARRL that we institute a no code license. The
> ARRL put together a panel of some diversity and studied the issue. They have
> sent a proposal for a no code license to the FCC which has not acted on it
> yet.

Hmm. I dunno, these backward overseas countries.... 8-)

Just to add some fuel to the fire, the "T" in my callsign refers to the fact I have a "limited amateur licence", which means (a) that I can do anything a "general" licencee can do above 30MHz, and (b) that I haven't passed (or in my case even sat) a code test. The 30MHz limit is an ITU reg, not inflicted on us by the (reasonably enlightened, in my opinion) NZ Radio Frequency Service. Since I live in a small flat, with nowhere to put a decent HF antenna, nor a heck of a lot of interest in such, this suits me just fine.

There is a Novice licence in this country, requiring a lousy mark in the radio theory exam and a 6wpm code test, and giving access to the 3.525-3.625 MHz and 21.1-21.2 MHz bands (also the 27.12 MHz telemetry frequency) only, with a power limit of 30 watts PEP (as opposed to the 400W PEP limit for limited & general licences). Needless to say, this isn't exactly the most popular way to get into ham radio - most beginning hams go for a limited licence.

Don Stokes ZL2TNM / / vuwcomp!windy!gpwd!don
Systems Programmer /GP/ Government Printing Office PSI%0530147000028::DON
__(and_Postmaster)__/ /__Wellington__New_Zealand________don@gp.govt.nz________
Efforts to improve a program's "user friendliness" invariably lead to work in improving user's "computer literacy".

166. Re: Handi-Talkies

Newsgroup: rec.ham-radio
Date: 1990-01-09 22:18:43 UTC
From: turner@ics.uci.edu
Message-ID: <25AA6343.14038@paris.ics.uci.edu>
Source record: 14426

In article <7619@hubcap.clemson.edu> bjb@hubcap.clemson.edu (BJ Backitis) writes:
>From article <12600091@silver>, by commgrp@silver.bacs.indiana.edu:
>> N9ISY writes:
>>>All I can say is YES!
>>>HT's are very helpful in the middle of nowhere!
>>
>> Carry a good antenna for more range. "Rubber duckies" are convenient
>> but terribly inefficient. A few years ago in an article in _73_ about
>> using h-t's in mountain rescue, the author said that telescoping 5/8-
>> wavelength antennas were indispensible.
>>
>Boy, is this the truth!!! Up here, in the mountains and foothills of SC
>and western NC, there are definite dry spots when it comes to getting
>into repeaters with just a duck antenna. I bring along a AEA Hotrod for
>those times, but I usually don't leave it attached to the HT (due to the
>extra length, and torque applied to the BNC connection).
>
>BJ

AND there is the twin lead J-pole solution which rolls up into a small space
and sets up on your walking stick or tree or cactus, or... and gives good
gain out there where you need it. I have found the little thing to make
the difference between not keying up the repeater and a near full quieting
signal. It costs about $5 if you have to buy everything from scratch, and
weighs very little. For me it is the "cat's meow" of backpacking 2 meter
antennas. If there is any interest, I can post the construction details.

Clark S. Turner "When the going gets weird,
WA3JPG the weird turn pro."
turner@ics.uci.edu -Hunter Thompson
---

167. Re: The Privacy Issue

Newsgroup: rec.ham-radio
Date: 1990-01-09 22:30:58 UTC
From: spl@mcnc.org
Message-ID: <6030@alvin.mcnc.org>
Source record: 14277
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <47eef426.1423f@godzilla.UUCP> dalyb@godzilla.UUCP (Brian Daly) writes:
>I wonder why they think "sophisticated" cellular devices are immune from
>being intercepted, other than the fact that it is against the law??

Cellular phones frequency hop as the user moves from cell to cell. This makes them more difficult to intercept -- at least over the long term.

Continuing on this subject -- I understand that users of cordless phones have, according to the courts, no right to privacy in their conversations -- it would be difficult to enforce, even if the courts said that there was such a right. So when is some smart cordless phone maker going to start selling a phone with a digital encryption chip built in? Seems like a pretty neat solution to the whole problem to me...

spl (the p stands for
phone? Hell, I use a
tin can and a string)
--
Steve Lamont, sciViGuy (919) 248-1120 EMail: spl@ncsc.org
NCSC, Box 12732, Research Triangle Park, NC 27709
"That's People's Commissioner Tirebiter -- and NOBODY'S sweetheart!"
- F. Scott Firesign

168. Re: Can we mention equipt names on the air?

Newsgroup: rec.ham-radio
Date: 1990-01-09 22:56:41 UTC
From: koning@koning.dec.com
Message-ID: <7332@shlump.nac.dec.com>
Source record: 14424

In article <130040@sun.Eng.Sun.COM>, wdh%oversteer@Sun.COM (Dennis Henderson) writes:

> Can we mention the brand name and/or model number of the equipment
> we are using during HAM transmissions?

Of course. Doesn't everyone?

> Wouldn't this be considered business use as it is advertising?
>
> This seems to be much more likely to benefit the manufacturer of
> the equipment, and be considered 'business use", than autopatching to
> my wife and having her ask me to pick up a loaf of bread.
>
> Personally, I think this strict interpretation is going overboard.

I agree. No sane person would consider such a thing "business use".

paul, ni1d

169. Re: Packet compression, what issue?

Newsgroup: rec.ham-radio
Date: 1990-01-09 23:00:52 UTC
From: koning@koning.dec.com
Message-ID: <7334@shlump.nac.dec.com>
Source record: 14425

In article <30500345@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:

>
> > to do this. At 300 baud, you need every optimization you can find. It
> > also isn't clear why 300 baud is maximum, given that 9600 can be done
> > over telephone (3KHz) channels now. Again, I suspect we are dealing
> > with technology artifacts in the rules.

Actually, that wasn't Phil speaking, but it's his note where I saw it,
so... The thing to observe is that the Feds did things right (for once)
and talked about Baud, and NOT about bits per second. The two are not
the same, except in trivial modulation schemes such as FSK.

For example, I believe there exists a voice-line modem that runs at up
to 9600 bits per second, but has a symbol rate of 7 Baud. Consequently,
such a beast would be entirely legal on the HF bands. And indeed, the
latest edition (red/white/blue cover) of the ARRL's annotated FCC
rules specifically mentions this sort of modem as being legal and appropriate
for narrow-band use.

paul, ni1d

170. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-01-09 23:06:28 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9001100810.AA18464@ucbvax.Berkeley.EDU>
Source record: 14284

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 32
1 20409U 90002 A 90 9.70320456 -.00080196 00000-0 -35592-3 0 29
2 20409 28.5036 139.8918 0048305 45.5590 314.7076 15.81699374 21
--
Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

171. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-09 23:07:07 UTC
From: johnh@hpubvwa.NSR.HP.COM
Message-ID: <2880004@hpubvwa.NSR.HP.COM>
Source record: 14409

A station that you might try is KUSW (P.O. Box 7040, Salt Lake City, UT 84107) they were one of the sources of music for the Soldiers in Panama City (they were played at high volume for Norriega) ---

They will send you a program guide and a bunch of information (including a catalog containing SW Recievers and the usual station promo stuff i.e. T-shirts etc.)

Good Luck --- John

172. Re: Radio as peripheral card in PC, Mac, etc

Newsgroup: rec.ham-radio
Date: 1990-01-09 23:36:21 UTC
From: wiz@xroads.UUCP
Message-ID: <916@xroads.UUCP>
Source record: 14410
Cross-posted to: rec.ham-radio,sci.electronics

In article <4349@sbcs.sunysb.edu> root@sbcs.sunysb.edu (Systems Staff) writes:
>Has anyone investigated building a receiver as a plug in peripheral to
>eg an IBM PC or Mac, etc? I'm curious as to whether the major problem
>would be noise radiated into the frontend, or if power supply carried
>noise would be the problem.
>
> Rick Spanbauer, WB2CFV
> State U of NY/Stony Brook

Rick:

And just what would you be needing a radio INSIDE (?) the
computer for anyway?
I've hooked P.C's up to scanners and written programs to switch banks
and load banks with pre-stored frequencies before..and it hasn't been
a problem...although the scanner has been equipped with the necessary inter-
facing.
Are you thinking of some form of sampling set-up using a series of D/A and
A/D converters?
The only time you'd get problems from a radio receiver causing problems
is if the IF sections are not shielded..and I'll bet that would be
a very hard item to find these days.
Just make sure that you are supplying the radio receiver with power
from the computer's supply. Using an external supply is just asking
for trouble.

-Mike N7GYX

173. ICF PRO-80 problems

Newsgroup: rec.ham-radio
Date: 1990-01-09 23:40:43 UTC
From: jeffp@phred.UUCP
Message-ID: <2921@phred.UUCP>
Source record: 14283
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Any Sony PRO-80 owners out there experience the following?

When using the 115.15-223 MHz converter module, I get significant problems with FM stations creeping into the air band, 118-136 MHz, and even above.

I've determined this is due to imaging, by listening to the signals in AM mode (tho they are FM, so this doesn't sound too great). It is clearly the offset frequency of the converter plus the difference between that frequency and the FM station which is interferring. For example, the yechy sounding noises I get at 126.7 MHz turn out upon close inspection to be the FM channel at (115 - (126.7 - 115)), or 103.3

Co-workers who know a lot more about frequency conversion than I do say this is not an unexpected phenomenum. However, considering how well the basic radio is made, and the price of the package, I am thinking (hoping) that my particular converter is out of spec.

By the way, this problem is really bad at my house in Seattle, where I'm not only near lots of transmittors, but leaky cable systems with their own shifted versions of many FM stations. Surprisingly, it is still a significant problem on an island 60 miles away from Seattle, where there is no cable system or FM stations.

PRO-80 owners, do you hear this problem too?
--
...dataio!pilchuck!phred!jeffp {Jeff Parke}
Genie : JEFFP | DELPHI : JEFFPARKE | CIS : 71511,1512

174. Want to find Amateur Radio club***

Newsgroup: rec.ham-radio
Date: 1990-01-10 00:22:09 UTC
From: bradt@hpindda.HP.COM
Message-ID: <5120005@hpindda.HP.COM>
Source record: 14287

Greetings!! I am relativly new to Amateur Radio and would like to find a club in my area that I might be able to join. I would appreciate any info anyone can give me. I live in Scotts Valley which is in Santa Cruz county. It would be convenient to find an organization in my county, but I would be interested in any clubs or Ham organizations in Santa Clara county as that is where I work. Thanks in advance!!

--Brad Taylor KB6ENW
ucbvax!hplabs!hpda!bradt
bradt@hpda.HP.COM
(408) 447-2818

175. Re: Multiband (80-10m) vertical antennas

Newsgroup: rec.ham-radio
Date: 1990-01-10 01:21:31 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880108@hpfcdc.HP.COM>
Source record: 14411

>>Butternut: I have heard favorable things about it, and with add-ons
>>can be used on all the bands. It does look kind of flimsy to me though.
>
>I have one of these here in Colorado and it has withstood wind gusts
>of >99 mph several times. (Thats all the higher my wind guage goes!)
>Never had any trouble with it. It could use a few more radials though :-).
>
>Bruce Thompson
>WB0QWS

Ditto. I live just under the foothills, where the cold air on top gets a gravity-assist downhill. My HF6VX has weathered at least one 100+, and several 80+ blow-outs. If it makes you feel better, guy it with some monofilament to keep it from looking like a willow tree. :v)

Put in as many radials as you can dig. The HF6VX isn't like trapped quarter waves - on 10m, it is much longer (full wave ?), and the radiation angle is lower. Interesting trap design - I still don't know how it works.

It may be interesting to put in a few more radiators and do some phased arrays.

Perry Scott
KF0CA

176. Re: 800 MHz allocation chart

Newsgroup: rec.ham-radio
Date: 1990-01-10 01:38:19 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500350@ux1.cso.uiuc.edu>
Source record: 14278

> In article <10844@attctc.Dallas.TX.US>, sampson@attctc.Dallas.TX.US (Steve Sampson) writes:
> > In article <9001050803.AA10513@ucbvax.Berkeley.EDU>, MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
> > >
> > > Does anyone out there have a listing of the allocations for 800 MHz?
> > > I would like to know what services might be found in different parts
> >
> > SCANNER SEARCHERS GUIDE
> >
> > Version 5, Compiled by N5OWK
> > Public Domain (p) January 1990

---> ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

> >
> >
> STUFF DELETED
>
> > 220.000 - 222.000 MHz Land Mobile Radio <-------WRONG !!!!
> ^^^^^^^^^^^^^^^^^
> > 222.000 - 225.000 MHz Amateur Radio

---> Technically speaking, he was RIGHT!!!!!!!!!!!

> Please note that 220.0 - 222.0 IS STILL an AMATEUR BAND. Remember folks, " it
> ain't over 'till the fat lady sings", and she not even headed for the concert
> hall. :-)

While it definitely is not over, it happens to be the case that the allocation tables no longer list the Amateur Radio Service in the portion of the spectrum.

> Note to N5OWK, Please correct your allocation list ! Please avoid editorializing
> ^^^^^^^
>

It is already correct as it stands. I do suggest ADDING some editorialization to explain that the segment is currently in dispute due to "problems" with the legal process involved to change it from the Amateur Radio Service.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

177. Re: W1AW- Computer-generated QR

Newsgroup: rec.ham-radio
Date: 1990-01-10 01:49:26 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880109@hpfcdc.HP.COM>
Source record: 14412

Lest anyone misunderstand, I have nothing against the W1AW code practice. The CW bands are mostly underutilized because CW doesn't take much bandwidth.

Not so with phone.

I can easily live and let live. I cut W1AW some slack because I listened to their CW practice, and was usually able to record one of the bands for later playback. I'm just wondering why they need to do it in every conceivable mode, on every conceivable band, at least three times a day. Their electric bills must be incredible ! How about just doing it in CW and RTTY ?

It seems that technology should be advanced enough so that this shotgun approach in the HF voice bands is no longer necessary. The original posting talked about 7.290. 40 meter phone QRM is bad enough without getting torpedoed by a computer.

Perry

178. Re: Comments invited: ham/swbc band-sharing

Newsgroup: rec.ham-radio
Date: 1990-01-10 04:02:00 UTC
From: john@frog.UUCP
Message-ID: <11121@frog.UUCP>
Source record: 14279

Those of you who don't read rec.radio.shortwave should check out article
<15384@well.UUCP>, posted by rh@well.UUCP. I won't repost it here, it
ought to be in your news partitions already. Kindly respond politely.
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

Happiness is Planet Earth in your rear-view mirror. - Sam Hurt

179. RE: Can we mention equipt names on the air?

Newsgroup: rec.ham-radio
Date: 1990-01-10 04:33:46 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9001100447.AA25710@ti.com>
Source record: 14285

Dennis Henderson, N6TTW (wdh@Sun.COM) writes:

> Can we mention the brand name and/or model number of the equipment
> we are using during HAM transmissions?
>
> Wouldn't this be considered business use as it is advertising?
>
> This seems to be much more likely to benefit the manufacturer of
> the equipment, and be considered 'business use", than autopatching to
> my wife and having her ask me to pick up a loaf of bread.

The difference? Whether YOU benefit or someone else. If you are telling everyone you talk to that BRAND X is great 'cuz you bought one and tried it, that's one thing. It's one consumer expressing an observation/opinion.

IF HOWEVER, X Co. PAYS YOU, you are doing business.

> Personally, I think this strict interpretation is going overboard.

Possibly. IMHO the constraint on the loaf-of-bread (or pizza) is not about business/profit strictly. It's about a category of use not intended for ham radio that at one time was intended to be covered by "Citizen's Band" and now is probably best covered by Cellular. (I repeat, this is IMHO.)
If I were a repeater trustee and the proper consideration were given (i.e., keeping it short and yielding to other "hotter" traffic...) I would not complain to someone making such a call.
(But again, this is "InMyHumbleOpinion")

This topic has been cussed and discussed ad nauseam on this net. If you have a way to access archives, you can see a lot of interesting opinions.

73,
Bob West WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

180. Standard radios

Newsgroup: rec.ham-radio
Date: 1990-01-10 08:37:15 UTC
From: langz@asylum.SF.CA.US
Message-ID: <9510@asylum.SF.CA.US>
Source record: 14292

Hi. My company is considering investing in a UHF radio system including four or five portable radios and a base/repeater. We'll be running on an itinerant frequency and the portables will also be set up for "talkaround", which I understand means that the portables can talk directly to each other without going through the repeater.

All we know about these radios we learned from the sales rep for Communications Research here in the Bay Area, so I want to ask about the system we find most interesting. It is made by Standard. The rep says that Standard, despite its "Acme"-sounding name, is a solid player in comms systems, specializing in marine radio and around for a long time. Can anyone tell me about the company? Will Standard be around for another 15 years? Can we get service/support? Etc.?

Also, the rep was honest (we hope) about the later resale value of radio systems. He said it is quite low. That later led some of us in the company to wonder whether we would be economically better off trying to find a used system and just replacing the crystals. Any advice?

Thanks,
--Lang Zerner
The Great Escape, Inc.
"living fiction"

--
Be seeing you...
--Lang Zerner
langz@asylum.sf.ca.us UUCP:bionet!asylum!langz ARPA:langz@athena.mit.edu
"...and every morning we had to go and LICK the road clean with our TONGUES!"

181. Search for Valves

Newsgroup: rec.ham-radio
Date: 1990-01-10 13:08:55 UTC
From: evanni@cs.strath.ac.uk
Message-ID: <1458@baird.cs.strath.ac.uk>
Source record: 14293

For some time now I have been trying to obtain a particular valve for a 'ham radio application'. The valve in question is marked '6KV6A USA' and was manufactured by Sylvania.

My search of the UK for one or more of these blighters has so far failed - the best suggestion being that I contact someone in the States for them.

So firstly, if someone reading this in the UK knows where I can obtain these valves or perhaps a UK or European equivalent then PLEASE let me know. Secondly, if any of USA subscribers can tell me how I can (easily and cheaply??) get hold of them from there then I will be their friend for life.

Any info via e-mail will be GREATLY appreciated.

--
#=========================#===#| Enrico V. Vanni | JANET: evanni@cs.strath.ac.uk |
| University of Strathclyde | Internet: evanni%cs.strath.ac.uk@nsf.ac.uk |
| Glasgow |
|#=========================#===#| Glasgow : Citta Europea de la Cultura, 1990
|#===#

182. Stolen Radio Equipment Recovered in Colorado

Newsgroup: rec.ham-radio
Date: 1990-01-10 14:32:25 UTC
From: reisert@victim.dec.com
Message-ID: <9001101432.AA00467@decwrl.dec.com>
Source record: 14281

From: Alan Sieg, WB5RMG
8-JAN-1990 17:43

Well, scratch one bad-guy. Amateur radio CAN be very exciting. It so happened that late one night, an Adam's County Sheriff's Deputy observed someone hanging around the back door of a local comunications store. The officer appeared to be convinced that the suspect was an employee of the shop and was returning some test equipment to the shop. The officer withdrew, but watched from a distance. Lo and behold, the suspect then re-entered the store, and was followed by the officer. Upon detecting the officers presence in the store the suspect drew and fired twice at the officer. The officer returned fire, and guess what, the suspect lost. Everything. DEAD.

To conclude, this suspect turned out to be an electronics addict. A search of his apartment turned up the missing Red Cross radios, as well as a WHOLE BUNCH of other stolen stuff. His COLLECTION was for his own pleasure, none of the stuff he stole was sold, all of the stuff he had was stolen..... Talk about wierd.... most of the stuff wasn't even hooked up....

Anyway, the DRC has the gear back, but will not set it up all in the same station again. Thanks for the condolences and well wishes you sent anyway. At least a lot of other folks got their gear back as well, and Denver has one less Wierd-O...

73, Alan::WB5RMG.

From: Alan Sieg, WB5RMG
9-JAN-1990 19:00

Well, well, well...
More of the nitty-gritty revealed by Adams County Sheriff's Department.

The deceased wierd-o was also wanted by Italian authorities for: theft, fraud, and performing plastic surgery and dentistry (both without a license)... A warrant for his arrest had been issued last summer in Rome, and he subsequently left the country. He is suspected of burglarizing at least a dozen or so Denver area businesses, including: a restaurant, dry-cleaners, antique gallery, jewelry stores, a ski shop, and several electronics stores. He is suspected of entering this country illegally. His passion for radio equipment was apparently based on a desire to communicate with his friends in Italy.

By the way, the deputy involved received only minor bruises. His large buckle and heavy leather belt absorbed the impact from one of the bullets, and his bullet proof vest stopped another. Lucky guy, what a hero!

=-=

Please don't mail to me, send replies to:

Internet: sieg@snowy.enet.dec.com
UUCP: ...decwrl!snowy.enet!sieg

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

183. Bouvet DXpedition ending soon

Newsgroup: rec.ham-radio
Date: 1990-01-10 15:16:10 UTC
From: reisert@victim.dec.com
Message-ID: <9001101516.AA05965@decwrl.dec.com>
Source record: 14286

From: Trond, LA8XM
10-JAN-1990 02:09

January 14th is the planned date for the return trip. Before this date they have to get all the gear and camp outfit back to Aurora. The weather is a key player here. Yesterday the WX was rough and Jacky's beam fell down. They will probably start disassembling the parts of the camp as soon as the weather permits using the helicopter.

Trond LA8XM

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

184. Re: No Code License

Newsgroup: rec.ham-radio
Date: 1990-01-10 15:36:32 UTC
From: trey@ut-emx.UUCP
Message-ID: <23102@ut-emx.UUCP>
Source record: 14288

In article <1028@gp.govt.nz>, don@gp.govt.nz (Don Stokes, GPO) writes:
> There is a Novice licence in this country, requiring a lousy mark in the
> radio theory exam and a 6wpm code test, and giving access to the
> 3.525-3.625 MHz and 21.1-21.2 MHz bands (also the 27.12 MHz telemetry
> frequency) only, with a power limit of 30 watts PEP (as opposed to the
> 400W PEP limit for limited & general licences).

Don't these guys also get a chunk of ten meters, like 28.5 to 28.6 or
something like that? It seems I recall working the likes of VK8NNN
and such on ten.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

185. Re: Handi-Talkies

Newsgroup: rec.ham-radio
Date: 1990-01-10 15:51:22 UTC
From: amirza@silver.ucs.indiana.edu
Message-ID: <32748@iuvax.cs.indiana.edu>
Source record: 14289

Yes, please post construction plans for the j antenna.

186. Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-10 16:40:14 UTC
From: cyamamot@aludra.usc.edu
Message-ID: <7319@chaph.usc.edu>
Source record: 14280
Cross-posted to: sci.electronics,rec.ham-radio

I ask because I'd like to get one of Heathkit's Most Accurate Clock kits.
I remember listening to WWV back in elementary school so I know its been
here a while. How long has the embedded time format been used in WWV?
What year was WWV started? Does anyone think the NBS has any plans or
reasons to cancel WWV or WWVH transmissions? I hope it stays around for
another 50 years at least.

Just wondering...
Cliff Yamamoto - KA6JRG

187. Re: Looking for a good store

Newsgroup: rec.ham-radio
Date: 1990-01-10 17:16:44 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490004@hprmokg.HP.COM>
Source record: 14298

trent@mips.COM (Trent Fierro) writes:

>I'm looking for a YAESU FT23R or FT411 handheld 2way radio.
>The xceiver works at 140-170Mhz.
>Does anybody know where i can get those in either S.F. or Silicon
>valley?

>Prices would be nice....

Try Ham Radio Outlet (Burlingame) or Quement Electronics (San Jose on
Bascom Ave).

Barry
WB6JZL

188. Re: the dsp in Kenwood TS950

Newsgroup: rec.ham-radio
Date: 1990-01-10 17:16:47 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490083@hpscdc.scd.hp.com>
Source record: 14299

> / hpscdc:rec.ham-radio / bobc@hplsla.HP.COM (Bob Cutler) / 9:16 am Jan 9, 1990 /
> Sampling the IF output does not imply the the IF is operating at
> a low frequency. Almost everyone knows that a signal that is
> bandlimited to some frequency, say F, can be sampled without aliasing
> if the sample frequency is at least 2*F. What many people fail to
> realize is that the sampling process is similar to mixing, and that

I, for one, do realize this.

> aliasing can be avoided provided the signal has a bandwidth of F.
> It is not restricted to the span 0-F.
>
> Consider an IF with a center frequency of 455kHz and a bandwidth of
> 7 kHz. If we sample at a 15 kHz rate, then anything in the span

This is the 6 kHz. (not 7) bandwidth analog filter I mentioned.

> 450 - 457.5 kHz (450kHz = 30*15kHz) will mix (alias if you will)
> into the span 0 - 7.5kHz. Since the original signal didn't contain
> energy at any other frequencies (say 0-7.5kHz), then aliasing really
> hasn't occurred since there wasn't any overlapping of spectra. At
> the input to the digital filter it appears as though the IF was operating
> with a center frequency of 5kHZ, not 455kHZ.

This 5 kHz. is effectively the low fourth IF frequency I was referring to.

>
> The frequenies chosen for this example aren't very good, but you
> get the idea. Although the ADC in this example would be running
> at 15kHz (easy), the ADC's sample-and-hold must accurately sample a
> 460 kHz signal (harder).

The difficulty of building an acceptable sample-and-hold is why Kenwood
probably (just a guess) didn't implement it this way. You would need
an aperture time under 7 picoseconds to get 12 bits of accuracy. In all
likelyhood, they use a simple mixer and a traditional fourth IF feeding
a digital-audio-type A/D. This is based on the fact they shyed away
from a DDS synthesizer, and past Japanese design philosophy.
Anyone know how they implemented this for sure?
>
>
> Bob Cutler
> Hewlett-Packard
> Lake Stevens Instrument Division
> hplsla!bobc
> ----------

Rick N6RK
HP Santa Clara
rkarlqu@hpscd.hp.com

189. Frequencies of Air Fones

Newsgroup: rec.ham-radio
Date: 1990-01-10 17:50:26 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <1896@ultb.isc.rit.edu>
Source record: 14295

Does anyone happen to know what frequencies are allocated to the
(somewhat) new phones that are on most major airlines longer flights?

I am interested in the entire system, where the cells are (assuming it
is cellular) and anything else anyone can tell me.

Lance Ware
Mac Dealer

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

190. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-10 17:57:19 UTC
From: louie@sayshell.umd.edu
Message-ID: <1990Jan10.175719.8720@haven.umd.edu>
Source record: 14282
Cross-posted to: sci.electronics,rec.ham-radio

I suspect that WWV, at least, will be around for a little while yet. I spoke an engineer in Boulder a few weeks ago, and he said that they're in the process of procuring a new time-code generator for the WWV transmitters. It will allow the WWV transmitters to transmit the year, along with the day of the year and time as part of the time code. They recently did a similar upgrade to the WWVB 60kHz transmitter at the first of the year, after the leap second.

As far as the Heathkit "Most Accurate Clock", well, its not. The RS-232 interface has some severe problems which precludes its effective use to those persons that want accuracy in the millisecond regime. If you're looking for somethat that's accurate to within a second, you'll have no problem with it. There are a number of other WWV based radio clocks on the market, though not "consumer priced" like the Heath clock.

If you're a time freak, like me, you'll really want to invest in a WWVB clock. The propagation characteristics at 60kHz are much more predictable than the HF propagate at 5, 10 and 15 MHz. We've got a Spectracom 8170 WWVB clock in use here, and there are a bunch of other scattered around the Internet.

louie

191. Using TV satellite dish to receive ??

Newsgroup: rec.ham-radio
Date: 1990-01-10 17:57:55 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <1897@ultb.isc.rit.edu>
Source record: 14296

I have a TVRO satellite dish and was wondering what interesting things I can receive with it, besides TV? I am interested in scanning and I am working on getting my liscense.

Any info would be appereciated.

Lance Ware
Mac Dealer

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

192. Re: None

Newsgroup: rec.ham-radio
Date: 1990-01-10 18:44:23 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1103@rsiatl.UUCP>
Source record: 14294

In article <9001090515.AA23936@esl.ESL.COM> David_Waters.M1@smtp.ESL.COM (David Waters) writes:
>
>I disagree. They're only well-known to hams that CHOOSE to invest in any of the
>ARRL's material. While I would relinquish the frequency to W1AW because I am
>aware of what it is, many hams choose not to be members of the ARRL and don't
>care what W1AW is. W1AW should operate as any other individual or club station
>has to. Despite W1AW's noble goals, I still don't believe its lofty position
>entitles it to take over a frequency that might be in use.

I agree with this sentiment. It occured to me that the ARRL should do what any other business is required to do if they want to broadcast on HF. They should get a commercial license and broadcast within the commercial allocations. I'm sure that they could find frequencies close enough to the ham bands that ham receivers would cover it. That would resolve the issue AND would make the ARRL conform to the rules everybody else does.

Of course, it's easier just to claim that you are "special" and get an FCC dispensation.

John

--
John De Armond, WD4OQC | The Fano Factor -
Radiation Systems, Inc. Atlanta, GA | Where Theory meets Reality.
emory!rsiatl!jgd **I am the NRA** |

193. Re: Microwave Modules.

Newsgroup: rec.ham-radio
Date: 1990-01-10 19:00:53 UTC
From: henryb@hpspdra.HP.COM
Message-ID: <12280003@hpspdra.HP.COM>
Source record: 14297

PJML@IBMA.NERC-WALLINGFORD.AC.UK ("Pete Lucas, NERC-TLC, Swindon U.K.")
Writes:
>> Mark Bailey wanted address of Microwave Modules: Well here goes!
>Microwave Modules Ltd.
>Brookfield Drive
>Aintree
>Liverpool
>L9 7AN
>England. Phone +51-523-4011 Telex 628608 MICRO G
>(Above information dated Feb. 1987 - they may have moved since!)
Same address in Radio Communication magazine July 1989,
Telephone is more precisely +44 51-523-4011, that's 011 44 51 523 4011 if
calling from USA (I'm assuming AT&T).
FAX number is +44 51-523-8899. Their "RF Amp. and Transverter catalogue"
is free, credit card orders for products accepted, visitors welcome but
advised to telephone ahead.
I have no connection with Microwave Modules (nor AT&T) except as a
satisfied customer.

Henry Black henryb@hpspd.HP.COM G4NOC/W6
These are solely my opinions unless my employer can make money out of them.

194. Re: The Privacy Issue

Newsgroup: rec.ham-radio
Date: 1990-01-10 19:29:54 UTC
From: dalyb@godzilla.UUCP
Message-ID: <47f4ccb1.1423f@godzilla.UUCP>
Source record: 14306
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <6030@alvin.mcnc.org>, spl@mcnc.org (Steve Lamont) writes:
> >I wonder why they think "sophisticated" cellular devices are immune from
> >being intercepted, other than the fact that it is against the law??
>
> Cellular phones frequency hop as the user moves from cell to cell. This makes
> them more difficult to intercept -- at least over the long term.
>
Difficult -- maybe. Impossible -- NO. This is the point I was trying to make. My question was ment to be satirical.

I agree with you --

The only way to ensure privacy is to include some form of encryption device on the cordless or cellular phones.

Brian Daly WB7OML

195. ICOM handheld receiver 100kHz to 1300 mHz ?!

Newsgroup: rec.ham-radio
Date: 1990-01-10 20:28:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9001122251.AA25340@ucbvax.Berkeley.EDU>
Source record: 14290

Did i read the earlier message right? Does anyone have any more information on the 100kHz to 1300 mHz receiver? I think i'd be interested in something like that! Has ICOM released any info, pictures, etc? Bob P., have you seen one?

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

196. New ICOM scanner

Newsgroup: rec.ham-radio
Date: 1990-01-10 20:32:39 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9001122252.AA25426@ucbvax.Berkeley.EDU>
Source record: 14291

I am looking for info/rumors regarding the new ICOM portable scanner. Will it be released soon? I am considering upgrading from my Bearcat 100XLT and would LOVE to have an ICOM scanner.

Any information is appreciated.

"It's never too late to have a happy childhood."
- Unknown

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
316B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

Deliberate misuse by concentration of vapors can be harmful or fatal

197. Need used icom R-7000

Newsgroup: rec.ham-radio
Date: 1990-01-10 21:54:24 UTC
From: dave@gizzmo.UUCP
Message-ID: <120@gizzmo.UUCP>
Source record: 14302

Looking for a used Icom R-7000 receiver. Excellent Condition only.

Dave Schwittek
NW2T
rutgers!rochester!kodak!gizzmo!dave
716-546-5670 (days)
315-986-2719 (nights after 7PM EST)

198. Optical Fiber

Newsgroup: rec.ham-radio
Date: 1990-01-10 22:17:54 UTC
From: ez000999@castor.ucdavis.edu
Message-ID: <6437@ucdavis.ucdavis.edu>
Source record: 14300
Cross-posted to: rec.ham-radio,misc.wanted

Hello there,
Does anyone know where I could get ahold of some large diameter optical fiber? By large, I mean at least 1/8 inch diameter, preferabley larger. I understand that a Japanese firm has made something like this. If anyone has seen any such item, or has any suggestions at all on where to look or what newsgroups I should post to, I would be most appreciative.

I need to find this type of item in order to do some experiments with routing highly concentrated sunlight. Any thoughts on this would be welcomed.

Steve Chafe
ez000999@castor.ucdavis.edu

199. Re: Cordless Telephones & Court Ruling

Newsgroup: rec.ham-radio
Date: 1990-01-10 22:34:55 UTC
From: glens@tekigm2.MEN.TEK.COM
Message-ID: <7805@tekigm2.MEN.TEK.COM>
Source record: 14301

In article <6098@uhccux.uhcc.hawaii.edu> doug@loihi.soest.hig.hawaii (Doug Myhre) writes:
>The US Supreme Court has just ruled that people do NOT have the normal
>constitutional right to privacy (that the get with the regular phone
>system) when they use a cordless telephone. When you talk over a cordless
>telephone, anyone can monitor it without reprecussions - private individuals
>police (w/o a search warrent), gov't, etc...

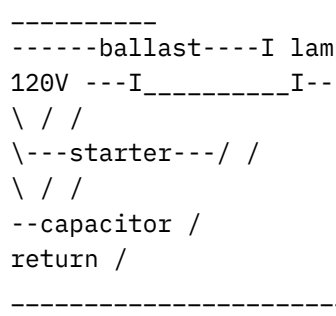
But where does that put *cellular* telephones?? I have only heard of this
relating to cordless...hopefully this is the push down the slippery slope :).

- Glen
--
Glen R. Sands KA7AYF |
Tektronix, Inc. PO Box 3500 M/S C1-925 | glens@tekigm2.MEN.TEK.COM
Vancouver, WA 98668 (206)253-5819 |

200. quieting florescent lamp noise (RFI)

Newsgroup: rec.ham-radio
Date: 1990-01-10 23:37:39 UTC
From: rfc@briar.philips.com
Message-ID: <73295@philabs.Philips.Com>
Source record: 14315
Cross-posted to: rec.ham-radio,rec.radio.shortwave

SB ALL@ALLBBS $923_WA2ISE
Florescent RFI reduction
Here is something to try when confronted with RFI from a florescent
light. I found that connecting a 0.01 to 0.1 uF @ 1.4kV capacitor will help
reduce the RFI in most cases. Connect it like this:



The 2 pins on one end of the bulb are connected to a heater filament,
and likewise on the other end. You should connect the cap so that it
has to go thru one or both filaments before it reaches the ballast
and/or the return side of the power line. This will make the filaments
act like a fuse if the cap shorts out. Be sure to use a capacitor
rated at least 1.4KV. The starter makes a large inductive spike when
it starts the bulb. It's also a good idea to use high rated parts if
you install this cap in a fixture attached to the house, for safety
reasons. And be sure to make sure that, when installed, the leads of
the cap are well insulated and can't short to anything. For florescent
lights that don't have starters, you could try putting the cap across
the bulb like above. In this case, You'll have to depend on the
ballast itself to limit current if the cap shorts. Use a higher
voltage cap like 5KV in 2X40W fixtures. Just be sure that you don't
create a safety hazard when you do this! So, proceed with caution, at
your own risk. Near as I can tell, this has no effect on bulb life.

73 de WA2ISE

201. Re: TV and FM radio DXing

Newsgroup: rec.ham-radio
Date: 1990-01-10 23:51:03 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <1899@ultb.isc.rit.edu>
Source record: 14307
Cross-posted to: rec.radio.shortwave,rec.ham-radio

>> 2.1) How are commercial (broadcast) TV signals polarized and
>> how does this affect the choices?
>
>Most are horizontally polarized. If they are using circular polarization,
>which can reduce ghosts, they make a big deal about it (It costs them more),
>and special antennas are usually available locally.

I have two questions:

- to transmit omni-directional horizontally-polarized,
are they using some kind of 'halo' design?

- What kind of antenna would radiate a circularly-polarized
yet omnidirectional pattern? I've never seen
any circular designs other than twists and dishes.

Chris N2JGW
cep4478@ultb.isc.rit.edu

202. Re: The Privacy Issue

Newsgroup: rec.ham-radio
Date: 1990-01-11 00:12:48 UTC
From: guhsd000@crash.cts.com
Message-ID: <1143@crash.cts.com>
Source record: 14305
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Cellular Phones---

I, for one, think the law against listenibg to them is a bunch of hogwash.

Why shouldn't the age old rule of "Listen, but keep it to yourself" be implemented? I don't see what makes cellular that much different. Just a bunch of whining yuppies arguing over who gets the kid this weekend is all I really ever hear (oops, heard ;) and they should know that if anyone wants to they can and will listen in.

"The Electromagnetic Spectrum belongs to everybody!"

203. Re: The Privacy Issue

Newsgroup: rec.ham-radio
Date: 1990-01-11 00:19:15 UTC
From: guhsd000@crash.cts.com
Message-ID: <1144@crash.cts.com>
Source record: 14304
Cross-posted to: rec.ham-radio,rec.radio.shortwave

> digital encryption

I think this be implemented as an option for cellular...and have the FCC
give us our freqs back....

This would be interesting, you would show us how many people truly valued their
privacy instead of just wanting to hide behind lame laws and whining.

204. Re: Re: voice-activated tape recorders

Newsgroup: rec.ham-radio
Date: 1990-01-11 00:50:40 UTC
From: glennh@hpnmdla.HP.COM
Message-ID: <1250110@hpnmdla.HP.COM>
Source record: 14317

Is this a walkman sized recorder, or a table top one with built-in speaker?

205. Re: None

Newsgroup: rec.ham-radio
Date: 1990-01-11 01:41:18 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500351@ux1.cso.uiuc.edu>
Source record: 14303

> I agree with this sentiment. It occured to me that the ARRL should do what
> any other business is required to do if they want to broadcast on HF. They
> should get a commercial license and broadcast within the commercial
> allocations. I'm sure that they could find frequencies close enough to the
> ham bands that ham receivers would cover it. That would resolve the issue
> AND would make the ARRL conform to the rules everybody else does.
>
> Of course, it's easier just to claim that you are "special" and get an
> FCC dispensation.

FCC rules say that shortwave broadcasters must be broadcasting material
oriented to foreign listeners. The ARRL isn't quite that. However an
exception might be made under some circumstances, or rules changes to
allow certain special "internal" broadcasting. One thing about going
commercial is "commercial". They could actually (legally) put advertising
in the broadcasts.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

206. Re: Grounding for Maritime Mobile antennas?

Newsgroup: rec.ham-radio
Date: 1990-01-11 02:20:17 UTC
From: mikew@hpsad.HP.COM
Message-ID: <1530038@hpsad.HP.COM>
Source record: 14316

> From: dml@esl.com (Denis Lynch):

> he wants to use a vertical (pretty obviously), and is interested
> in knowing what the best grounding approaches for him might be.
>
> Can any of you relate any experience with the tradeoffs to be
> made here? Any wonderful solutions?
>

I used to work in a marine electronics shop, and put a few of
these radios into boats. I might add some disclaimers, though:

1) Putting HF transmitters into nonmetal boats is a lesson in
tradeoffs and tweaks. The best solution is to use a halfwave (or a
loaded halfwave) design similar to the ham verticals now available
from Cushcraft and others. Unfortunately, these only apply to BIG
and/or slow boats like freighters which usually have wonderful steel
grounds already. The bottom line: don't expect world class
performance out of what you are asking for.

2) Sailboats are particularly difficult to work with, in some regards,
because there is not even a metal superstructure such as the flying
bridge found on sport fishing yachts. However, there is hope...

***

Ideally, a vertical antenna should be 1/4 wavelength high and
should have a perfectly conducting sheet extending from the base in
all directions in a plane perpendicular to the vertical, also 1/4
wavelength or a little more. This is 40 feet at 2 MHz, though, an
impossibility on most sport boats, and furthermore it changes with
each new frequency.

Most designs use a vertical radiator 10 ft. long and
inductively load the base, or else use a 20 to 30 ft. radiator with
inductive and capacitive loading. For a sailboat under 100 ft long,
the 10 footer is probably the way to go. In any case, the antenna
loading box is located close to the antenna base and contains some
sort of automatic tuner to optimize the match for each frequency used.

The ground is the touchy part. There are several approaches
depending on the band coverage you want (most people want them all; ya
gotta have 2182 kHz at the least). For high bands, say 15 to 30 MHz,
we usually try to install a screen (brass screen is available; use it)
directly under the match box and extending out however far we can,
usually 3 to 5 feet. The screen is tucked away in the headliner or
even tacked to the ceiling of the space beneath the match box, and is

then very solidly connected to the matchbox ground lug by a VERY SHORT piece of copper strap. For the intermediate frequencies, say 4 to 20 MHz, the best solution is usually to lay out four radials, made of 2 inch wide copper strap, from the ground lug on the matchbox to the four corners of the boat (or as far as you reasonably can go in each direction), with another two laterally laid radials if the vessel is wider than the screen. For the lowest frequencies, as well as for general electrical safety, corrosion protection of the driveline, and interference reduction, the best approach is the use of two or four sacrificial zinc hull plates, with copper strap connecting each one STRAIGHT to the matchbox. The use of the plates really does improve the performance of the system. It is possible to get low profile plates for a smoother hull; although the thinner they are, the faster they will be eaten away by electrolytic action. If they are not used, you run the risk of eating your propeller and rudder (over some time) instead.

The key to the whole system is to keep the ground elements right at the matchbox, or to use the straightest, fattest, and shortest connecting elements available to link everything together. Use any peripheral metal available, too: flying bridges, metal railings, engines, drivelines, and electrical system common busses. Theses steps will reduce the corrosion and interference to other equipment on the boat, as well.

An alternate antenna which I've heard about but have not tried, is the use of the metal mainmast as the vertical radiator. It may or may not work well, according to the particulars, but I'll bet in general they work quite well in comparison to a ten footer. Still another idea, which completely obviates the need for a super ground scheme, is to wrap the fore and aft mast stays with insulated heavy copper wire and feed it from the top of the mast (using coax to wherever the matchbox is) as an inverted vee dipole antenna. I've heard of these being used successfully, but the matching box must be able to accommodate the different impedances this will provide, and a balun is needed at the top of the vee for good broad-banded operation. This antenna will work best near its halfwave resonance point, as well.

Hope the info here is useful to your friend.

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsad.hp.com
mikew%hpsad@hp-sde.sde.hp.com

HP Signal Analysis Div. Volunteer firefighter/EMT
1212 Valley House Dr. Penngrove Fire Prot. Dist.
Rohnert Park, CA 94928 Penngrove, CA
(707)794-4454

****

207. Re: None

Newsgroup: rec.ham-radio
Date: 1990-01-11 09:59:13 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1111@rsiatl.UUCP>
Source record: 14314

In article <30500351@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:

>The ARRL isn't quite that. However an
>exception might be made under some circumstances, or rules changes to
>allow certain special "internal" broadcasting. One thing about going
>commercial is "commercial". They could actually (legally) put advertising
>in the broadcasts.

Oh god, I can see it now. An ad for feminin hygene pads sent via CW!
Can you imagine the response to that? I'll bet that ad rates would
be measured in minutes per dollar. Oh yeah, :-) :-)

John

--
John De Armond, WD4OQC | The Fano Factor -
Radiation Systems, Inc. Atlanta, GA | Where Theory meets Reality.
emory!rsiatl!jgd **I am the NRA** |

208. Re: ICF PRO-80 problems

Newsgroup: rec.ham-radio
Date: 1990-01-11 11:48:13 UTC
From: paul@urbana.mcd.mot.com
Message-ID: <1106@urbana.mcd.mot.com>
Source record: 14308
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <2921@phred.UUCP>, jeffp@phred.UUCP (Jeff Parke) writes:
> Any Sony PRO-80 owners out there experience the following?
>
> When using the 115.15-223 MHz converter module, I get significant problems
> with FM stations creeping into the air band, 118-136 MHz, and even above.
>

Yes! I certainly do get exactly the same behavior on my PRO-80 on
exactly the same frequencies, i.e. I can't go to ORD and listen to
all the tower frequencies without problems on some of them.

I'll bet it's difficult or impossible to fix.

BTW, are there any converters that will shift the PRO-80 into the 400Mhz
and 800-900Mhz bands? I'd hate to have to buy another radio.

PJ
--

Paul Jones, Motorola MCD-UDC paul@urbana.mcd.mot.com
1101 E. University Ave. ...!uiucuxc!udc!paul
Urbana, IL 61801, USA (217) 384-8529

209. Tips for connecting VOX recorder to a receiver

Newsgroup: rec.ham-radio
Date: 1990-01-11 13:06:35 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <12520@cbnewse.ATT.COM>
Source record: 14320
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I think those reporting "hum" problems when the CTR-82 is powered by the AC wall adapter are experiencing a "ground loop" condition. This is not a fault of the recorder itself, rather a system problem that can happen whenever an AC powered recorder is connected to an AC powered radio.

It happened with my CTR-75s until I connected them properly.

Perhaps a repost of this older article will help you interface the CTR-82. Since the time it was last posted, the Uniden 760XLT has been upgraded with a TAPE jack.

x
TIPS ON CONNECTING THE
CTR-75 CASSETTE RECORDER

by Bob Parnass, AJ9S

When available on sale, the Radio Shack CTR-75 voice operated (VOX) cassette tape recorder is a good choice for scanner and shortwave listeners. The CTR-75 has been sold since 1985 and was reviewed in a previous article.1

Another article described a simple modification to shorten the 4 second post recording delay in order to conserve tape.2 Dan Doyle, Tony Sarni, and I applied this modification to our CTR-75s with excellent results.

Since those articles, some readers have reported difficulty in connecting the CTR-75 to their scanners, and I hope the information presented here will help.

As mentioned in the initial review, the CTR-75 has 2 input jacks: AUX and MIC. They are not the same. The MIC input is more sensitive than the AUX input, and performance can vary depending on which jack you connect to your scanner.

Some scanners, like the Radio Shack PRO-2004 and Icom R-7000 have REC or TAPE OUT jacks, which are specifically designed for connection to a tape recorder. The output levels at these jacks are fixed at low levels -- enough to drive a recorder but too weak to drive a speaker. Since the levels are fixed, adjusting the volume control has no effect on the "loudness" of the signal fed to the tape recorder.

Other scanners, like the Uniden/Bearcat 760XLT, lack recording jacks, so audio must be taken from the EXT SP (external speaker) jack. The signal level at this jack is much higher than it would be at a TAPE OUT jack. It is not at a fixed level, and varies with the setting of the volume control.

The CTR-75 won't work if its MIC jack is connected directly to the EXT SP jack of a 760XLT scanner. There are at least two ways to connect the 760XLT to the CTR-75:

1. Connect the 760XLT directly to the CTR-75's AUX input, although the radio's volume control has to be slightly increased.

2. Connect the 760XLT through an attenuator ("signal reducer") to the CTR-75's MIC input. I used an old Radio Shack 51 dB attenuator, model #274-301, which last appeared in the 1983 Radio Shack catalog. The closest Radio Shack substitute is the 40 dB attenuator found in the 1989 catalog, #274-300 priced at $2.79.

Connections to various radios are summarized in the table that follows. In each case, set the VOX SENSITIVITY switch on the CTR-75 to HIGH.

CTR-75 Tape Recorder Connection for Various Scanners			
Scanner	Scanner Jack	CTR-75 Jack	Remarks
PRO-2004	TAPE OUT	AUX	TAPE OUT jack is located on rear of radio
R-7000	REC MIC	REC	REC jack is located on front of radio
R-71A	REC MIC	REC	REC jack is located on front of radio
760XLT	EXT SP	AUX	radio volume control may have to be increased EXT SP MIC attenuator pad must be used between radio and recorder, e.g., Radio Shack #274-301 or #274-300

---

1. See "The Radio Shack CTR-75 VOX Cassette Recorder," by Bob Parnass, AJ9S, in The RCMA Newsletter, April 1988, page 46.

2. See "Technical Topics," in The RCMA Newsletter, July
1988, page 76.
--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

210. Request for inclusion in the mailing list

Newsgroup: rec.ham-radio
Date: 1990-01-11 13:38:17 UTC
From: avip@iilcad.intel.COM
Message-ID: <9001111338.AA01277@iilcad>
Source record: 14309

Keith,

My name is Avi Plotnik (4X6LP). I'd like to get included in the "Info-Hams"
mailing list and get the Info-Hams Digest. My CSNET address is :

avip%iil@sc.intel.com

Thanks in advance, and receive a friendly shalom from the Holy Land.

Avi

211. Info-Hams request for aviation mail digest

Newsgroup: rec.ham-radio
Date: 1990-01-11 14:41:20 UTC
From: dls@genrad.com
Message-ID: <31094@genrad.UUCP>
Source record: 14310

Someone who receives Info-Hams mail digest sent me a mail asking if there was a similar mail digest for aviation. Although I didn't know, I found out that there is. Unfortunately, I cannot mail to this person (the mail daemon keeps bouncing it), so I will attempt to relay the information via the Info-Hams mail digest.

The aviation mail digest is
aviation-request@mc.lcs.mit.edu

-> Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: N1GZS/AA<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

212. Re: Cellular Phone parts on 30 cM?

Newsgroup: rec.ham-radio
Date: 1990-01-11 15:03:26 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250112@hpnmdla.HP.COM>
Source record: 14229

Julian Macassey, n6are writes:

>
> For a few years now we have had a "new band" in the UHF range.
> Manufacturers have ignored it, but by God it has a band plan. The
> band is the 30 cm band (902-928 for those who cheated in their
> Novice test).

Unfortunately for us there is a "newer" band plan allowed by the FCC which provides for some other services. One of these services is "vehicular positioning" or something like that which I believe we have to defer to and apparantly has scared Southern California frequency coordinators off of the band. The other usage which is supposed to be "non-interference" amounts to "computer CB". It allows for a 1W spread spectrum source in every home for digital communication. Given the speeds of interest, such spreading only drops signals in a given narrowband slice 20 dB or so. It doesn't take much vision to see that if every home in the US tries to have a 1W transmitter to communicate that the noise floor in 902-928 will be so high as to be unusable for anything other than antenna testing on Mars.

The amateur 2.4 GHz and 5.7 GHz allocations have similarly been usurped. Recently there has been a lot of emphasis on the 2 MHz in the impending loss of the amateur 220 MHz allocation, but in the last couple of years we have effectively lost 100 times this much spectrum in truly prime regions! Our bands are disappearing fast.

> I would like to run some high baud rate packet up there. I
> notice that Cellular telephone and Trunking radios are between
> 800 and 900 Mhz. I would guess that the most widely manufactured
> radio these days is the cellular phone. This means to me that RF
> parts should be cheap and available. I am assuming that PA stages
> and RX front ends should be tweakable to 30 cm use with little
> grief.
>
> So three questions:
>
> 1. Has anyone done this yet?
>
> 2. Anyone know a good source of data on cellular components?
>
> 3. How about a good source of parts?
>

Yes, I am developing a small quantity of "user" radios to allow access to an amateur digital IP network. The prototypes operate in the

250Kbaud region and run about 10 Watts output. Rather than using US cellular telephone hardware, I found a cheaper source in surplus Japanese personnel radio (essentially CB) hardware. The Japanese have a 903-905 MHz (if I remember correctly) band and there is a ton of surplus. Modular (brick) drivers, PA stages and PIN diode T/R switches are available for under $10 on the Japanese surplus market.

Due to the shared nature of the amateur 900 MHz allocation I intend to put together similar radios for the 1240-1300 MHz. Modular hardware is available there too though not at the same low surplus prices. Still, a 1 mW to 10-20 Watt transmit chain with PIN switching doesn't cost much over $100 for parts. I am currently using such hardware in 1296 MHz SSB transverters.

>>>> Soapbox ON <<<<<<

Even so there have been rumors that amateurs stand to lose another 20 MHz of our 1200 MHz allocation, 1240-1260 MHz at the next WARC. This would be a terrible blow because of the current digital allocations at 1248-1252 MHz.
I believe that amateur radio desparately needs a significant moderate (or better) speed digital network if it is to continue to be relevant in the information age. I'm afraid continuing as we have, while interesting to many of us OTs (I still like the glow of filaments!), offers little incentive to the technology experimenter of the 1990s.
If we are to be competitive and become something other than an anachronism, we must find ways to communicate large amounts of information quickly over a good portion of the earth's surface (at least). It's going to take co-ordination, co-operation and some spectrum to do this. Present amateur allocations of such spectrum doesn't exist below 1 GHz. I'm afraid we may lose what we do have before we make responsible use of it. I don't believe we can afford to leave it to equipment manufacturers or the ARRL to do this for us. We have to become involved if amateur radio is to survive as anything other than an arcane curiousity.

>>>> Soapbox OFF <<<<<<

Sorry about the tirade. Let me know if you want help in identifying and procuring some parts.

73

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@nmd.hpcom

213. AM operation.

Newsgroup: rec.ham-radio
Date: 1990-01-11 15:39:17 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <11.Jan.90.15
Source record: 14311

Someone was asking about usage of AM. Well, it is still allive and well,
try listening on ten meters - i heard someone using an old modified
WWII transmitter and a S27 receiver not that long ago...
Also, theres a fair amount of AM still used for local 'natter nets' on
160 meters, one or two watts from a pair of 2N3053's seems popular,
also some double-sideband! (Demodulate it like SSB, and
dont worry about the 'growl' you get if slightly off-tune).
Also, us Britishers have an allocation from 70 to 70.5MHz (also available
in British areas like Cyprus and Malta). This is conveniently in the middle
of the 66-88MHz 'low-band' for mobile radio, so a large amount of the
operation on 70MHz is using converted AM and FM mobile sets (a few watts
goes quite a way!). Being a 'non-amateur band' for the 'rest of the world'
means that the big Japanese manufacturers do not make any dedicated ham
gear for 70MHz, so you have to 'roll your own' or retune commercial gear.
Theres quite a bit of activity on SSB and CW too, and also, since it is
less populated than 2 meters, a number of packet repeaters use the band.

Frequencies of note are 70.260MHz (mobile calling, AM/FM), 70.450 and
70.475MHz (FM simplex) and the area 70.3 to 70.4 is used for packet.

You often get meteor-enhanced 'Pings' from Radio Gdansk (Poland) around
70.31MHz. 70 to 88MHz is used for FM broadcast in some parts of Eastern
Europe (Poland, Czechoslovakia, Rumania, Bulgaria).

There is also a fair amount of use of converted AM CB sets on ten meters,
this is partly because many of the 'UK spec.' CB sets (FM) are quite hard
to pull onto 28MHz (they use the SANYO LC7137 PLL chip, which has the
division ratios mask-programmed in). Converted CB sets (AM, FM, multimode)
seem quite popular on 28MHz. If only they were all used by licensed hams, it
would make things better. We have a serious 'pirate' problem around the
bottom end of ten meters.

de G6WBJ

214. Re: Multiband (80-10m) vertical antennas

Newsgroup: rec.ham-radio
Date: 1990-01-11 15:41:58 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840024@hpl-opus.HP.COM>
Source record: 14227

/ hpl-opus:rec.ham-radio / perry@hpfcdc.HP.COM (Perry Scott) / 5:21 pm Jan 9, 1990 /
> >I have one of these here in Colorado and it has withstood wind gusts
> >of >99 mph several times. (Thats all the higher my wind guage goes!)
> >Never had any trouble with it. It could use a few more radials though :-).
> >

> Ditto. I live just under the foothills, where the cold air on top gets
> etc.
> Put in as many radials as you can dig. The HF6VX isn't like trapped
> quarter waves - on 10m, it is much longer (full wave ?), and the radiation
> angle is lower. Interesting trap design - I still don't know how it works.
^^^^^
> Perry Scott
> KF0CA
> > ----------

Dont think so! If the vertical is longer than 1/2 wave, the
radiation will be stronger off the end - RAISING the angle.
This is why a 1/4 wave VERTICAL on 80 makes a lousy dx antenna if
tuned for 10.

George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ
----

215. Re: Packet compression, what issue?

Newsgroup: rec.ham-radio
Date: 1990-01-11 16:09:38 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880110@hpfcdc.HP.COM>
Source record: 14238

```
>> Again, I suspect we are dealing
>> with technology artifacts in the rules.
>
>97.307(f)(3)
>
>...., or for frequency-shift keying, the frequency shift
>between mark and space must not exceed 1 khz.

Oops, didn't see that. Thanks for the eyeglasses, Phil. :-)

The problem with this rule is that most telephone modems are 3KHz wide,
so we can't connect them directly to HF without major surgery on the
DSPs. Sometime in the future, it would be nice to get a scrapped-out
USR HST and connect it to the HF rig.

Perry
```

216. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-11 16:19:13 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880111@hpfcdc.HP.COM>
Source record: 14237

If they ever WWV off the air, I'll have to put in a bid for the antenna farm.

Perry Scott
Ft Collins, CO

217. video parts

Newsgroup: rec.ham-radio
Date: 1990-01-11 16:23:00 UTC
From: nelson_p@apollo.HP.COM
Message-ID: <47f92df4.20b6d@apollo.HP.COM>
Source record: 14312
Cross-posted to: sci.electronics,rec.ham-radio

I'm an electronics hobbyist. Recently I thought it might
be fun to build a little stereoscopic video imaging system
that could be mounted on various platforms for experiments
in telepresence. To do this I need two small CCD imagers
or vidicon tubes and their associated optics and electronics,
and two small monitors, one for each eye.

It occured to me that camcorders have all this stuff and
in a compact, low-power form. Of course I don't need
or want the mechanical parts or tape transport mechanism.
Does anyone know where just the optics and electronics
for these things can be bought? Alternatively, does
anyone know where old camcorders go to die when the heads
or transports go and the owner doesn't want to bother with
the cost or trouble of replacing them? Remember, I need
two *matching* units for stereovision. Thanks in advance.

---Peter (N1CHJ)

PS -- I know this has nothing to do with ham radio but
I included that in my distribution list because
there are a lot of electronics hobbyists and
connoisseurs of electronic junk among hams.

218. Re: Frequencies of Air Fones

Newsgroup: rec.ham-radio
Date: 1990-01-11 16:23:00 UTC
From: trd10523@uxa.cso.uiuc.edu
Message-ID: <121900055@uxa.cso.uiuc.edu>
Source record: 14313

The January 1990 issue of Popular Communications has a short article on the GTE Airfone, and the following information comes from that article.

- Channels are 6 kHz apart between 849-851,894-896,899-901, and 944-946 MHz

- When the call is initiated, the phone selects a ground station which offers the best reception. A ground station has a range of 400 miles, and there are approx. 80 of them.

- Cost of a call: $7.50/first 3 min, $1.25 each add'l min for U.S. calls

The headquarters for the system is: GTE Airfone
2809 Butterfield Road
Oak Brook, IL 60522-9000

//
/ Todd Davis INTERNET: trd10523@uxa.cso.uiuc.edu /
/ Computer Engineering Student COORDINATES: 40 06' 47" N / 88 13' 35 W /
/ University of Illinois at Urbana-Champaign /
//

219. Re: Grounding for Maritime Mobile antennas?

Newsgroup: rec.ham-radio
Date: 1990-01-11 16:58:07 UTC
From: greg@uts.amdahl.com
Message-ID: <c6ph020Z7del01@amdahl.uts.amdahl.com>
Source record: 14318

In article <1530038@hpsad.HP.COM> mikew@hpsad.HP.COM (Mike Weihman) writes:
>> From: dml@esl.com (Denis Lynch):
>
>> he wants to use a vertical (pretty obviously), and is interested
>> in knowing what the best grounding approaches for him might be.

As both sailor and ham, I throw out one caution; when considering
foil and such in the bilge, remember that there must be NO WAY that it
can deteriorate or break away and foul the bilge pump!!! Just something
to keep in mind, that might not be obvious at first glance.

Greg

220. Stand Up against Censorship!

Newsgroup: rec.ham-radio
Date: 1990-01-11 17:52:22 UTC
From: owen@euclid.enet.dec.com
Message-ID: <1229@mountn.dec.com>
Source record: 14321
Cross-posted to: rec.ham-radio,rec.music.dementia,soc.misc,talk.politics.misc,rec.arts.tv.uk,rec.music.dylan

****
******* Take a stand against censorship, act now!!! *******
****

I heard a message on the radio this morning urging listeners to
send letters to the FCC. According to the message the FCC is
considering expanding the restriction on broadcasting of objectionable
material (their definition of objectionable) from the current 16 hour
period of 6am to 10pm to 24 hours a day. They urged their listeners to
write the FCC a letter to raise objections to the ruling.

The address to send your letters to is:

Secretary of the FCC
1919 M Street NW
Washington DC 20554

****YOUR LETTERS MUST REACH THE FCC BY JAN 19, 1990.****

When I called the radio station, they also requested that you send
multiple copies of your letter to the FCC, and also send copies to your
congressional representatives and the radio station. The radio station's
address is:

KFCJ
12345 El Monte Road
Los Altos Hills, CA 94022

I'd like people to post generic letters to the FCC for people who
don't feel comfortable with their writing skills. Those people may then
cut and past their names into the letters and send them.

Please act now before it's too late.

Tony Purmal

221. Re: Tips for connecting VOX recorder to a receiver

Newsgroup: rec.ham-radio
Date: 1990-01-11 18:21:40 UTC
From: levin@bbn.com
Message-ID: <50777@bbn.COM>
Source record: 14323
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <12520@cbnewse.ATT.COM> parnass@cbnewse.ATT.COM (Bob Parnass, AJ9S) writes:
|
|I think those reporting "hum" problems when the CTR-82 is
|powered by the AC wall adapter are experiencing a "ground
|loop" condition. This is not a fault of the recorder itself,
|rather a system problem that can happen whenever an AC powered
|recorder is connected to an AC powered radio.
|
|It happened with my CTR-75s until I connected them properly.
|
|Perhaps a repost of this older article will help you
|interface the CTR-82. . . .

I didn't see anything that would say how to correctly eliminate the
ground loop.

Anyhow, I think I'm having a different problem. I saw the note about
the sale on CTR-82s and went out and got one. I get power from an old
Archer (R.Shack) universal adapter set to 6 volts. I connect its AUX
jack (chosen after experimenting) to the earphone jack on my old
Regency scanner (I don't recall the model, it was maybe the first
10-channel programmable they sold, at least 7 years old). So far, so
good. But after recording maybe half a cassette (a C-90 if it
matters), the cutout stopped cutting out; or rather the machine would
sort of half-stop, and run at variable speeds 1/4 to 1/2 normal,
operating normally whenever a real signal from the scanner came in.
This behavior seemed to get worse, and also occurred even with a dummy
plug in the mic jack! I took the machine back to RS the next day and
swapped it for a new one. The new one shows the same behavior.

The design of the think may be half-assed. It seems as if the cut-out
mechanism is analog in some sense -- the machine seems to fade off
instead of being switched off. Before I take this one back, either
for one more exchange or for a refund, I'll make sure my 6 volts is
exactly that, and see if there is anything else obviously wrong. If
anyone knows what's going on please let me know.

/JBL

(Bob, I'd love to get hold of the information about reducing the
cutoff time from ~5 seconds to <2, if there's a convenient way for
that to happen. Thanks)
=
Nets: levin@bbn.com | "There were sweetheart roses on Yancey Wilmerding's
or {...}!bbn!levin | bureau that morning. Wide-eyed and distraught, she

POTS: (617)873-3463 | stood with all her faculties rooted to the floor."

222. Kenwood TM631A

Newsgroup: rec.ham-radio
Date: 1990-01-11 19:21:32 UTC
From: scotto@crash.cts.com
Message-ID: <1153@crash.cts.com>
Source record: 14228

I'm real close to getting my Novice and plan on following up with a tech shortly after. I'm looking at radios, and, because a good friend runs a 220 repeater club, I'm looking at 220 radios. I would also like to have a 2m mobile and recently saw an ad for the Kenwood TM631A dual bander.

Anyone own one? How does it work? What else is available with similar features? What can you buy one for (with tone encode/decode)?

PLEASE RESPOND TO THE NET -- I have never seen this talked about and it might be of general interest.

Thanks
--
Scott O'Connell UUCP: {nosc, ucsd, hplabs!hp-sdd}!crash!ipars!scotto
ARPA: crash!ipars!scotto@nosc.mil
INET: scotto@ipars.cts.com

223. Looking for FT-470 mods

Newsgroup: rec.ham-radio
Date: 1990-01-11 20:06:56 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1418@atha.AthabascaU.CA>
Source record: 14236

Christmas arrived here a few weeks late. None the less, I'm now the proud owner of a FT-470. I'd like to know if there is any way to fix this thing to receive 450-470 MHz. (It already does 148-174.) I seem to remember someone saying pressing both the arrow keys while powering up the rig would do a master-master reset. Am I thinking of the right radio here???

Also, it would be *very* nice if the step rate could be set to 15 KHz ...

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

224. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-11 20:08:19 UTC
From: jsb@hpfinote.HP.COM
Message-ID: <16170010@hpfinote.HP.COM>
Source record: 14319

From one who lives within spit'n distance (in terms of wavelength) of the WWVB antenna array, the service is most useful and should be around for a long time.

Put a call into the Boulder office of what was the National Bureau of Standards, now the National Institute of Standards and Technology. Ask for a copy of the TIME and FREQUENCY HANDBOOK. This will give you all the information to decode WWVB and other services. The phone number for their directory assistance is 303/497-3000.

A number of years ago a group of us designed a 60KHZ receiver and microprocessor to use WWVB as a clock and signal sourse for phase locking a referance oscillator. The decode is easy. Care should be taken when designing the receiver because the forth harmonic of your TV horizontal frequency is strong and only a couple kilohertz away.

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J Volunteer Examiner
ARRL/FCC Field Operations Bureau, Official Observer

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

225. Re: Stand Up against Censorship!

Newsgroup: rec.ham-radio
Date: 1990-01-11 21:05:15 UTC
From: kevin@lindy.Stanford.EDU
Message-ID: <7110@lindy.Stanford.EDU>
Source record: 14232

In article <1229@mountn.dec.com> owen@euclid.enet.dec.com (Steve Owen) writes:
-> KFCJ
That should be KFJC...
-> 12345 El Monte Road
-> Los Altos Hills, CA 94022
--
Kevin Burnett, N6UWS (ex-KC6AOA) AMPR.ORG: 44.4.0.231
"She was an acrobat's daughter, she swung by her teeth from a noose;
but then one day, her dentures gave way, and she flew through the air
like a goose." - Daffy

226. Re: Radio as peripheral card in PC, Mac, etc

Newsgroup: rec.ham-radio
Date: 1990-01-11 21:08:46 UTC
From: rohulich@ncrcam.Cambridge.NCR.COM
Message-ID: <1792@ncrcam.Cambridge.NCR.COM>
Source record: 14235

In article <916@xroads.UUCP> wiz@xroads.UUCP (Mike Carter) writes:
>In article <4349@sbcs.sunysb.edu> root@sbcs.sunysb.edu (Systems Staff) writes
>>Has anyone investigated building a receiver as a plug in peripheral to
>>eg an IBM PC or Mac, etc? I'm curious as to whether the major problem
>>would be noise radiated into the frontend, or if power supply carried
>>noise would be the problem.

I have not investigated building a receiver for a pc. However, I recently
read an atricle in some audio magazine stating that Optronics Technology of
Ashland, Oregon now offers an FM radio designed to fit into, and be
controlled by, PC compatible computers.

"Desktop Stereo" has no controls of it's own but is operated via the PC's
keyboard.

227. *Ground Rod Information*

Newsgroup: rec.ham-radio
Date: 1990-01-11 21:15:41 UTC
From: fletcher@OUTLAW.UWYO.EDU
Message-ID: <900111141541.20202061@UWYO.BITNET>
Source record: 14322

Several days ago I sent a submittal to the discussion about a paper I once read about how to increase your chances of achieving a better ground when installing a ground rod. This method involved bedding a rod in a large diameter hole backfilled with bentonite. Much to my surprise, I received several responses asking various questions, including where to get the bentonite. The source for the bentonite that I used was from a well drilling supply. Crushed benotonite is used by exploration seismograph crews for plugging shot holes. Since it swells up very greatly, it wedges itself in very tightly, and with some regular earth used to fill the hole completely full, usually prevents the shot hole from "blowing out" and venting all the energy from the explosion to the air. The research group I work for does reflection seismology and needed some for last summer's field work. Not looking all that hard turned up 2 sources in my region servicing the oil exploration industry. It was coincidental that one of the uses listed on the sack was for ground rod bedding. Apparently someone in the electric power generation business read the IEEE paper and a new market was born.

Walter Reid Fletcher, WB7CJO Bitnet: FLETCHER@UWYO
Vax Facility Manager Internet: FLETCHER@OUTLAW.UWYO.EDU
Department of Geology and Geophysics
University of Wyoming
Laramie, WY 82071 1-307-766-6227
+---------- Back off buddy. This is science. ----------+

228. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-11 21:58:35 UTC
From: jeffc@ncr-fc.FtCollins.NCR.com
Message-ID: <JEFFC.90Jan11145835@bach.ncr-fc.FtCollins.NCR.com>
Source record: 14324
Cross-posted to: sci.electronics,rec.ham-radio

In article <1990Jan10.175719.8720@haven.umd.edu> louie@sayshell.umd.edu (Louis A. Mamakos) writes:

> If you're a time freak, like me, you'll really want to invest in a
> WWVB clock. The propagation characteristics at 60kHz are much more
> predictable than the HF propagate at 5, 10 and 15 MHz. We've got a
> Spectracom 8170 WWVB clock in use here, and there are a bunch of other
> scattered around the Internet.

Sounds interesting, but expensive. How much would something like this
cost?

--

Jeffrey L. Cook jeffc%ncr-fc@ncr-sd.SanDiego.NCR.com
NCR Microelectronics uunet!ncrlnk!ncr-sd!ncr-fc!jeffc
2001 Danfield Court
Fort Collins, CO 80525 These views are entirely mine, etc...

"I was gratified to be able to answer promptly, and I did.
I said I didn't know." -- Mark Twain
---

229. QSL info Please.

Newsgroup: rec.ham-radio
Date: 1990-01-11 22:19:29 UTC
From: hardie@herald.usask.ca
Message-ID: <1990Jan11.221929.951@dvinci.usask.ca>
Source record: 14325

I started to subcribe to the W6GO list as of issue #110 but need some
QSL from previous issues. Can someone Email me the QSL info for these
calls from the issue # shown?
109 3DA0AH
109 AP2JZB
108 9J2AL
107 UB4JDM/RG
106 UQ0A

TIA + 73
Pete VE5VA
hardie@skyfox.usask.ca

230. Re: None

Newsgroup: rec.ham-radio
Date: 1990-01-11 22:43:40 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9001112253.AA02146@ti.com>
Source record: 14326

>
> In article <9001090515.AA23936@esl.ESL.COM> David_Waters.M1@smtp.ESL.COM (David Waters) writes:
> >
> >I disagree. They're only well-known to hams that CHOOSE to invest in any of the
> >ARRL's material. While I would relinquish the frequency to W1AW because I am
> >aware of what it is, many hams choose not to be members of the ARRL and don't
> >care what W1AW is. W1AW should operate as any other individual or club station
> >has to. Despite W1AW's noble goals, I still don't believe its lofty position
> >entitles it to take over a frequency that might be in use.
>
> I agree with this sentiment. It occured to me that the ARRL should do what
> any other business is required to do if they want to broadcast on HF. They
> should get a commercial license and broadcast within the commercial
> allocations. I'm sure that they could find frequencies close enough to the
> ham bands that ham receivers would cover it. That would resolve the issue
> AND would make the ARRL conform to the rules everybody else does.
>
> Of course, it's easier just to claim that you are "special" and get an
> FCC dispensation.

OBSERVATION: It used to be that W1AW would listen on the air after code and bulletin transmissions and WORK stations there. They haven't done that for quite some time now.

I got my code speed up to 13 by faithfully listening to W1AW and then comparing notes with my buddy the next day at school. At the time I had a Tech (he was an expired Novice) and we did not have HF CW privileges. Also, at that time, it was not as common to find code practice tapes (now they're everywhere!) and NOBODY had a PC.

Maybe it is time for ARRL to reconsider their activity. But if all anyone does is argue about it here on the net, they'll probably keep on doing what they're doing.

How many (NOT How LOUD, How MANY!) people feel that the ARRL should change the way they do Code Practice and Bulletins?

73,
Bob West WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

231. Cable TV monopolies

Newsgroup: rec.ham-radio
Date: 1990-01-12 00:13:01 UTC
From: mrapple@quack.UUCP
Message-ID: <5050@quack.UUCP>
Source record: 14230
Cross-posted to: ba.general,sac.general,ca.general,rec.ham-radio,rec.arts.tv

According to a report today (1/11/90) in CNN's "Moneyline" show, the FCC is considering changes to its rules concerning cable television systems aimed at allowing more than one company to provide service in a given area. If you are tired of the lousy service and high rates that your local company provide, the best way to achieve change is to allow for competition. If you are in favor of this change, I urge you to write the commission and support this move towards a more equitable system.

I heard this news 2 minutes ago, so I don't have the details of who to contact or where (besides, of course, the FCC in D.C.), but If anyone can confirm this story and provide more details, I and others would appreciate it.

Followups please to rec.arts.tv (since I can't think of a better place)

Nick Sayer | quack!mrapple@uop.edu or cheers!quack!mrapple@apple.com
... or { apple!cheers | pacbell!cogent!uop }!quack!mrapple
Packet radio: N6QQQ @ WB6V | (209) 952-5347 300/1200/2400 - login guest
Disclaimer: The BBC would like to appologise for that announcement

232. Digicom cartridge confusion

Newsgroup: rec.ham-radio
Date: 1990-01-12 00:34:37 UTC
From: w2up@ka2qhd.UUCP
Message-ID: <90@ka2qhd.UUCP>
Source record: 14239
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

There has been some confusion about my Digicom cartridge (DIGICART).
The DIGICART replaces the software ONLY. Its advantages include
autobooting and ability to store parameters to the cartridge (both
almost instantaneous). A Digicom modem is still needed for packet
operation. Any questions can be referred to me here or via US mail.
73/Barry, W2UP

233. Re: Tips for connecting VOX recorder to a receiver

Newsgroup: rec.ham-radio
Date: 1990-01-12 01:26:40 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <12541@cbnewse.ATT.COM>
Source record: 14243
Cross-posted to: rec.radio.shortwave,rec.ham-radio

To overcome a ground loop problem with my Panasonic recorder,
I disconnected the shield at one end of the shielded cable
between the recorder and scanner.
--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

234. Re: Cordless Telephones & Court Ruling

Newsgroup: rec.ham-radio
Date: 1990-01-12 01:41:16 UTC
From: tad@ssc.UUCP
Message-ID: <375@ssc.UUCP>
Source record: 14247

In light of recent court decisions exempting cordless phones from
any expectation of privacy, Glen Sands asked if this could apply
to cellular also.

It does not. This is because the ECPA specifically covers cellular
phones, and specifically exempts cordless phones. During the heavy
$lobbying$ for the law, this came up, and the cellular lobbyists
did not want the two services confused, so they claimed that
cellular was some kind of totally different technology, and they
also claimed that cordless phones were so easy to monitor that
it would be ridiculous to pass a law against listening in!

Never mind that I have to be fairly close to the source to pick
up a 46-49 MHz cordless phone, but cellular I can listen to
all over town! Of course, for listening in on a SPECIFIC individual,
cordless is easier with the average scanner than cellular.

Oh well....good thing we have those cellular lobbyists and the ECPA
to keep us from getting 49 MHz stuff confused with cellular's
advanced technology! This must be why, when I asked a cellular
salesman if it was possible to pick up cellular calls on a radio,
he said "NO!"

"Don't cellular phones use radio waves to get the call from the phone
system to the car," I asked?

"NO, they use SATELLITES....or something".

Oh well....

73,
Tad KT7H
tad@ssc.UUCP

235. Re: INFO-HAMS Digest V90 #34 (Privacy)

Newsgroup: rec.ham-radio
Date: 1990-01-12 02:15:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9001130805.AA27480@ucbvax.Berkeley.EDU>
Source record: 14233

>
> The US Supreme Court has just ruled that people do NOT have the normal
> constitutional right to privacy (that the get with the regular phone
> system) when they use a cordless telephone. When you talk over a cordless
> telephone, anyone can monitor it without reprecussions - private individuals
> police (w/o a search warrent), gov't, etc...
>
> * Douglas Myhre <doug@loihi.soest.hawaii.edu> *

Not at all. What they ruled was that people can not claim
the right to privacy when they choose to communicate via a
medium which provides no reasonable expectation of privacy.
I can expect that no one may tap my (landline) phone
conversation, at least not without a court order. However,
if I go out into the front yard and yell, I cannot expect
that no one will listen.

The Canadian Gov't, in what strikes me as a very enlightened
move, made the same determination about cellular phone some
months ago.

236. AZDEN PCS-2000 Help Needed

Newsgroup: rec.ham-radio
Date: 1990-01-12 02:33:19 UTC
From: daveh@compnect.UUCP
Message-ID: <407@compnect.UUCP>
Source record: 14251

I got a good deal on a 1980 vintage AZDEN PCS-2000 rig at a local hamfest. I've repaired the touchtone pad on the mike and the rig is working fine. The rig currently covers 144-147.995 MHz. According to ads I found in old 73 and QST magazines the rig has MARS/CAP capability (142-149.995 MHz) built in. Anyone out there know how I can unlock these frequencies. I would like to monitor the PA CAP repeater here in Central PA. Please email responses to the address below since this info would probably interest most people here. 73.

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!ka3adu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

237. Call to Nomadness!

Newsgroup: rec.ham-radio
Date: 1990-01-12 03:06:15 UTC
From: wordy@cup.portal.com
Message-ID: <25833@cup.portal.com>
Source record: 14249
Cross-posted to: rec.bicycles,rec.ham-radio,rec.travel

FROM: Steven K. Roberts, Nomadic Research Labs (Winnebiko 3)
TO: All restless, creative, and slightly loony denizens of Dataspace

Hello from the Winnebiko lab! Last year, I posted an invitation to a few special people who want to abandon their current lifestyle and hit the road on a human-powered network node, freelancing for a living while traveling full time with a small ad-hocracy of like-spirited nomads. I got some fascinating responses... and some are seriously interested. Now it's time for one more "CQ" before we start firming up the initial community.

I am currently in the Santa Cruz area, building the Winnebiko System 3. It's getting completely out of hand: barely recognizable as a 54-speed recumbent bicycle, it is becoming a mobile satellite earth station, computer network with WAN links, file server, unixycle, robust ham shack, human interface research project, solar power system, and complex real-time control environment with 8 computers (not including the embedded systems). It's all quite insane... and exquisite fun.

But there's something missing. I've been living a wildly stimulating life on the road, made up of beginnings and endings -- first by traveling 10,000 miles solo, and then via another 6,000 miles with Maggie. What I'm trying to do now is reach "intellectual critical mass" by assembling a nomadic community of freelancers, all sharing the fundamental support resources of base office, email systems, account management, and logistical support... and all benefiting from the publicity and energy of the whole group. I foresee many years of open-ended bicycle travel with 4-10 people, each plying a trade, consulting, writing, doing video, or otherwise making a living through the magnificent information tools that are now available. Inevitably, some will drop out after a few months while others will join... there are no contracts or obligations beyond the simple desire to live a life of high-tech nomadic adventure shared with a few special friends.

There's a lot to this idea, and it takes a while to explain. I have thus put together a lengthy document entitled "Call to Nomadness," and this letter is just a feeler to see if you're interested in receiving a copy (level 1 filter, so to speak). During the next six months or so, we will be working more and more closely with the few wild spirits who are ready for major change, and NOW is the time for us to start finding out who they are! There are a staggering number of projects to complete between here and departure.

If you are restless, hungry for adventure, tired of the same old routines, capable of making some kind of freelance living, curious about the world, willing to get a ham license, unfazed by steep learning curves, free of major encumbrances, and intrigued by this crazy idea, please contact me. At this stage, it's all exploratory, so don't worry about committing yourself to anything -- just let me know if you seriously think you might be interested and I'll send you a detailed explanation of the whole concept. I hope to hear from you!

Viva nomadness.....

Steven K. Roberts
P.O. Box 2390
Santa Cruz, CA 95063

408-459-9780
uucp: wordy@cup.portal.com
GEnie: wordy
MCI: wordy

238. Re: None

Newsgroup: rec.ham-radio
Date: 1990-01-12 03:08:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500352@ux1.cso.uiuc.edu>
Source record: 14248

> >The ARRL isn't quite that. However an
> >exception might be made under some circumstances, or rules changes to
> >allow certain special "internal" broadcasting. One thing about going
> >commercial is "commercial". They could actually (legally) put advertising
> >in the broadcasts.
>
>
> Oh god, I can see it now. An ad for feminin hygene pads sent via CW!
> Can you imagine the response to that? I'll bet that ad rates would
> be measured in minutes per dollar. Oh yeah, :-) :-)

The way I am thinking that the ARRL could get a waiver of the rules requiring broadcasting on shortwave to be oriented to foreign audiences is to base it on the fact that its SPECIAL audience happens to be especially involved in shortwave already (e.g. ham radio operators and SWL'ers). To keep with the idea of such a special case audience, the advertising would also be expected to be related. So instead of hearing and seeing ads for feminine hygiene pads, expect ads for radio gear, QSL card printing, supportive ads such as from Eimac, and of course ads for ARRL membership. It can be in CW, RTTY, and even voice.

I would expect if such a "broadcasting" service were allowed, it might be restricted to CW, RTTY, and SSB (i.e. no AM so it does not become "real" broadcasting, which would require certain international "frequency hour" allocations).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

239. Yaesu FT470 UHF Expansion ????

Newsgroup: rec.ham-radio
Date: 1990-01-12 03:37:34 UTC
From: 31002_1650@uwovax.uwo.ca
Message-ID: <4659.25ad0aae@uwovax.uwo.ca>
Source record: 14252

Does anybody have any information on extending the useable UHF range on the Yaesu FT470 dual band hand held radio. The VHF extend is very simple but there appears to be no UHF info.

Thanks,

VE3ZAV Tony

240. Re: W1AW: QRM or Salad?

Newsgroup: rec.ham-radio
Date: 1990-01-12 05:46:00 UTC
From: john@frog.UUCP
Message-ID: <11162@frog.UUCP>
Source record: 14245

In article <9001090515.AA23936@esl.ESL.COM>, David_Waters.M1@smtp.ESL.COM (David Waters) writes:
> Michael Batchelor / KA7ZNZ /uunet!wshb!mikebat!michaelb writes:
> : > that W1AW has been using pretty much the same frequencies for
> : > decades, one might ask if some people are 'volunteering' to be
> : > QRM'ed.
> > I agree. The frequencies are very well known in the ham world. Trying
> > to operate there makes about as much sense as standing on a train
> > track and complaining about the train traffic.
> I disagree. They're only well-known to hams that CHOOSE to invest in any of the
> ARRL's material.

I was *told* of W1AW's frequencies long ago, and didn't have to buy anything to copy their transmissions.

> Despite W1AW's noble goals, I still don't believe its lofty position
> entitles it to take over a frequency that might be in use.

Under the circumstances, I'd like to see this laid to rest until someone comes up with a way for W1AW to make a several times a day schedule with (at least) tens of thousands of listeners who have no way to mutually agree on where the noise is in *their* neighborhood, many of whom may be so new at listening that they wouldn't be able to find W1AW if it went up 15 or 20Kc.

--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

Happiness is Planet Earth in your rear-view mirror. - Sam Hurt

241. Radar-detector detector

Newsgroup: rec.ham-radio
Date: 1990-01-12 05:58:57 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <1907@ultb.isc.rit.edu>
Source record: 14250

I just saw on CNN that the Ontario police have a gadget that detects the local oscillator inside radar detectors, and they pull you over if you have such a beast running. Pretty nasty, huh? (I didn't know they were illegal in Canada - unfortunately, they showed police physically destroying the confiscated detectors. They tried confiscation in Connecticuit, and it didn't work; cops can't take it from you; how do you Canadian citizens stand for this?)

Anyhow, as far as ham-radio is concerned: do you think this gadget is precise, or is there some chance that ham radio gear, portable computers, etc. would set the thing afly? Furthermore, is it the particular design of rf detection built into a radar detector that makes it "detectable" ? I would never have guessed that a local oscillator would be strong enough to be detectable by someone a few meters away, THROUGH the car and at highway speeds. Must be a pretty sensitive device - would love to see what the inside of a microwave oven would do to it.

Chris

242. vhf/uhf receivers

Newsgroup: rec.ham-radio
Date: 1990-01-12 07:33:14 UTC
From: adam@cunixf.cc.columbia.edu
Message-ID: <1990Jan12.073314.13649@cunixf.cc.columbia.edu>
Source record: 14246
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Are there any good VHF/UHF receivers with a wide >full< coverage (like, say, 30-1300 MHz uninterrupted), all modes, that don't cost more than about $500 or $600?

Has anyone had any experience with the Yaesu FRG-9600? At $550 discounted, this looks something like what I'm looking for. I wish its coverage (60-905) were a little greater, just for completeness' sake (for example, I'd like to have the 50Mhz and 1.2GHz bands). If the Yaesu were the best in its class, though, I'd definitely consider it. I like its small size too, since I intend to travel with this.

If you know good or bad things about the Yaesu receiver or about a better one in its price class I'd be very pleased to hear from you.

73's
Cat
====
Adam (Cat) Jacobs Kucznetsov adam@cunixf.cc.columbia.edu
Dept. of Linguistics (now defunct) adam@columbia.edu
Columbia University ajuus@cuvmb.BITNET
---

243. Interesting Snippets

Newsgroup: rec.ham-radio
Date: 1990-01-12 13:05:13 UTC
From: pescatore_jt%ncsd@gte.COM
Message-ID: <9001121305.AA07408@bunny.gte.com>
Source record: 14234

NTIA LAUNCHES REVIEW
OF SPECTRUM MANAGEMENT

STATUS: NTIA has responded to congressional pressure by beginning its first comprehensive review of the use and management of the radio frequency spectrum.

The agency is casting a wide net:

1) It is asking for input on streamlining procedures to accommodate new technologies;
2) The role of private groups in spectrum management;
3) Ways to improve FCC and NTIA spectrum management processes;
4) How to improve U.S. participation in world-wide spectrum allocation;
5) Redefinition of various radio services;
6) How to alter the current system to expedite transition from less efficient technologies;
7) The extent to which frequency property rights should be recognized;
8) Appropriate means of assessing charges for spectrum use and how those revenues should be targeted.

Other issues too numerous to mention are also included.

COMMENTS: This comprehensive inquiry raises many difficult issues that NTIA seems to feel need answers before it decides whether it will identify and release the 200 MHz of government spectrum that Congress is requesting.

Comments are due on Feb. 23, with replies due March 30.

NO COMPROMISE SEEN IN FCC
PRIVATE RADIO PROCEEDING

STATUS: The FCC's proposal to allow private land mobile service (LMS) applicants an easier way to select radio spectrum was met with either love or hate by commenting parties.

The FCC suggested that private LMS applicants be allowed to bypass the existing frequency coordination process by directly applying to the FCC for operating authority.

Since 1986, all applicants were required to obtain approval from an FCC-authorized frequency coordinator before they filed applications with the FCC. Since then, the FCC has experienced increasing service and price complaints.

One group of commentors argues that this new process will destroy the integrity of the nationwide frequency database that is now maintained by

the authorized frequency coordinator. Without that database, they claim that new and potentially dangerous interference will begin to occur.

On the other hand, an equally large group of commentors applauds the FCC proposal as a step toward fewer wasteful, time-consuming processing requirements.

COMMENTS: The FCC wants to move more of the responsibility for frequency coordination back to the applicants. It tried to do that in 1986 by requiring applicants to obtain frequency coordination from an authorized coordinator.

While that process has worked to some extent, it has spawned many complaints. This has led the FCC to propose an easier application procedure in certain circumstances.

Reply comments are due Jan. 12.

THE TIMES (LONDON), 12/12.

THREE DIAL RIGHT NUMBER FOR A LICENCE.
"Three British consortia have been licensed by the Government for the new personal communication networks, the third generation of portable telephones, which give two-way digital personal communications in the 1990s. Mr. Eric Forth, the Trade and industry minister, nominated three successful contenders for PCN licenses -- a consortium led by Mercury, a subsidiary of Cable and Wireless, one led by British Aerospace and another by STC and Thorn EMI."

244. Re: 75 foot tower 30 feet from neighbor

Newsgroup: rec.ham-radio
Date: 1990-01-12 15:20:31 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500009@hpfcso.HP.COM>
Source record: 14259

Re: 75' Tower with 75' ground space

Regardless of what the *truth* of tower failures is, your neighbor will probably make the same assumptions many others would, namely, if the tower "tips over" it will fall from the base.

Convince the adjoining neighbors of the theory of tower collapse and you're on the air. Fail to convince them, and you'll have a war.

"No one has ever gone broke underestimating the intelligence of the American public."

Ron Miller
NW0U

245. Looking for a radio

Newsgroup: rec.ham-radio
Date: 1990-01-12 15:35:29 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001121551.AA12003@ti.com>
Source record: 14270

Scott O'Connel writes "I'm real close to getting my Novice......looking at 220 radios. I would also like to have a 2m mobile....."

Why not go for a HF CW rig, Scott? At least one of those in addition to a repeater rig. While most of the "state-of-the-art" activity currently seems to be on 2m and above, a great deal of fun and enjoyment of Ham radio can be had in trying to dig out that sought-after state on 40M between the commercials; or that New Zealand signal on 15M.

For less than $200, you can get a pretty fair outfit (including antenna and key) with which you can talk literally around the world, day and night. Try it...you'll like it.

73,
Dube Todd N5PDK ** VIVA CW! **

246. Re: quieting florescent lamp noise (RFI)

Newsgroup: rec.ham-radio
Date: 1990-01-12 15:52:33 UTC
From: julian@bongo.UUCP
Message-ID: <292@bongo.UUCP>
Source record: 14265

In article <73295@philabs.Philips.Com>, rfc@briar.philips.com (Robert Casey;6282;3.57;$0201) writes:

> SB ALL@ALLBBS $923_WA2ISE
> Florescent RFI reduction
> Here is something to try when confronted with RFI from a florescent
> light. I found that connecting a 0.01 to 0.1 uF @ 1.4kV capacitor will help
> reduce the RFI in most cases. Connect it like this:

```
> __________
> ------ballast----I lamp I------
> 120V ---I__________I-- /
> \ / /
> \---starter---/ /
> \ / /
> --capacitor /
> return /
> ____________________________/
```

> The 2 pins on one end of the bulb are connected to a heater filament,
> and likewise on the other end. You should connect the cap so that it
> has to go thru one or both filaments before it reaches the ballast
> and/or the return side of the power line. This will make the filaments
> act like a fuse if the cap shorts out. Be sure to use a capacitor
> rated at least 1.4KV. Stuff deleted.

That's funny, I remember when I lived in Europe that my free source of 1KV, 100nF capacitors was from old Philips fluorescent light starters. Does this posting mean that Philips no longer provides RFI protection with its starters and we have to provide our own? Worrying. But to be honest, most U.S. fluorescent lamps don't seem to have starters in them. I know there are several ways to build fluorescent fixtures. The US ones tend to be the "Instant on" type with just a monster ballast, the clicky-click starter seems to be missing on most fixtures. Some of the small lamps have starters - my old Maytag washer had a starter in it's fluorescent panel light.

But I do recall that when the cap died in a starter, radios for blocks around would suffer the effects. So yes, a good tip. Now if we could do something about mopeds and bad power line insulators. But some net members would probably say that a well aimed AK-47 would fix both of those problems.

Your tungsten halogen fan

--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

247. Re: Stand Up against Censorship!

Newsgroup: rec.ham-radio
Date: 1990-01-12 16:50:02 UTC
From: piety@hplred.HP.COM
Message-ID: <7870001@hplred.HP.COM>
Source record: 14240

That's KFJC, not KFCJ.

248. Re: Multiband (80-10m) vertical antennas

Newsgroup: rec.ham-radio
Date: 1990-01-12 17:19:03 UTC
From: chris@hplvli.HP.COM
Message-ID: <4590031@hplvli.HP.COM>
Source record: 14241

Well, here is another Coloradoan with a Butternut HF-6VX, and
I like it, also. I originally bought it for RV/Field Day and
set it up in the yard "temporarily". I normally use 1/2 wave
dipoles at home and have used hustler whip mobile.

The Butternut is light weight, but sturdy, and has withstood
the same high winds as occur frequently here on the Front
Range of Colorado (90+ MPH at least once almost every year).
The traps may look a little funny and large, but read "High Q"
when you look at them. High Q means high efficiency, but also
means narrow bandwidth (hasn't been a problem), and a
requirement for a good ground (or counterpoise).

My ground system I put in before yard or sprinklers, and consists
of many lengths of #6 and #4 solid bare copper wire, with
3 foot ground rods at every end, buried about 18" deep in clay
soil. "Many" means probably 10 lengths of 30-50 feet (to the
edges of my lot). It certainly doesn't mean 45, 90 or 360 radials.
The antenna works well, though I prefer the dipoles on 40 and 80,
as the vertical seems a bit noisier on these bands.
The vertical loads very well on the intended frequencies (SWR
very close to 1:1). Tuneup is straightforward, so long as
you do it in the order listed in directions.

Some friends have and use several other antennas on RV's,
including the Hustler 5BTV, and older Hy Gain 14AVQ and 18AVQ
(I think those are the right designations). These antennas
look sturdier, but have lower Q traps and work OK, though
I have out-performed them on Field Day with my Hustler Mobile
whip (sometimes using HyGain resonators which seem to have
lower loss). The RV situation is highly installation-dependent,
however. I always get excellent 40 meter reports using the
Hustler on my sub-compact car (Gremlin), but others have
poor results with the same antenna on larger trucks (eg Suburban).

Another mobile choice is the ICOM automatic antenna system
which is self-tuning (I forget the number). Of the two
installations in RV's I have seen, one worked extremely well,
the other fairly poorly. Both tuned up (automatic tuneup)
well, but only one seemed to radiate well.

Lesson? Well, do a good job of installing it. That's number
one. A great antenna can do poorly if it is not installed
correctly. Number Two: I recommend the Butternut HF-6VX,
but Hustler 5BTV and HyGain 18AVQ also work well.
.DE WD5IBS.....chris

249. Re: Search for Valves

Newsgroup: rec.ham-radio
Date: 1990-01-12 17:58:28 UTC
From: brown@hpspkla.spk.hp.com
Message-ID: <4630008@hpspkla.spk.hp.com>
Source record: 14253

Enrico Vanni asks about a source for a 6KV6A tube:

try Transleteronic inc
1365 39th street
Brooklyn, N.Y. 11218-3691 212-633-2800 they list 6KV6A in the 1984
catalog at $6.92

Steinmetz Electronics
7519 Maplewood Av
Hammond, Indiana 46324 219-931-9316 they also list 6KV6A

also might try these two , they dont list the tube but may have it:

Unity Electronics
107 Trumbull St
Elizabath, New Jersey 07206 210-351-4200

United Page , Inc
481 Getty Ave
Paterson, New Jersey 07503-9989 201-279-7500

The tube is listed in the 1973 RCA Receiving Tube Manual Book #RC-29

Hope this helps, 73 and good luck de pat N7KRG

Disclaimer: I am in no way connected to any of these companies, just
providing information to a fellow ham. If you can find any opinions here
they are mine and not my employers'.

250. Re: Stand Up against Censorship!

Newsgroup: rec.ham-radio
Date: 1990-01-12 18:55:12 UTC
From: mn@atari.UUCP
Message-ID: <1955@atari.UUCP>
Source record: 14275

In article <1229@mountn.dec.com> owen@euclid.enet.dec.com (Steve Owen) writes:
>
> **
> ******* Take a stand against censorship, act now!!! *******
> **
>
> I heard a message on the radio this morning urging listeners to
> send letters to the FCC. According to the message the FCC is
> considering expanding the restriction on broadcasting of objectionable
> material (their definition of objectionable) from the current 16 hour
> period of 6am to 10pm to 24 hours a day. They urged their listeners to
> write the FCC a letter to raise objections to the ruling.
>

Just what is their definition of objectionable? I find all the prime time
violence and murder much more objectionable than an occasional 4 letter
word or a little T&A.

```
------------------------------------------------------------------------------
| Michael Nowicki N6LUU Atari Corp,Sunnyvale CA /TT/UNIX/X team |
|.....................................................................|
| char *disclaimer=" Views expressed are my own, not my employer's"; |
| char *good_quote=" 'Yes, I never did' - Stan Laurel"; |
------------------------------------------------------------------------------
```

251. naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-12 18:57:01 UTC
From: phil@pepsi.amd.com
Message-ID: <28774@amdcad.AMD.COM>
Source record: 14242
Cross-posted to: sci.electronics,rec.ham-radio

We all know that AM broadcast radio fades when you drive under a bridge
but FM doesn't tend to nearly as much. Why is this? Does RF at the FM
broadcast frequencies propagate better? I thought the higher the frequency,
the more it exhibited "line of sight" behavior. Or is it because AM
shows the signal reduction more directly? Shouldn't AGC take care of
that?

--
Phil Ngai, phil@diablo.amd.com {uunet,decwrl,ucbvax}!amdcad!phil
Peace through strength.

252. Re: AM antenna

Newsgroup: rec.ham-radio
Date: 1990-01-12 18:58:36 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9001130812.AA28001@ucbvax.Berkeley.EDU>
Source record: 14272

The AM BCB antenna the guy was talking about is the old "Select-A-Tenna" that has been around for many years. That's the brown plastic disk-shaped device you position at right angles to your AM radio's loopstick and tune to the desired frequency. I've got one, but use it seldom. (I never seem to have a convenient flat surface to sit all this stuff on. To get the most value out of it you really need to have the radio and antenna on a rotating table top. A tilt capability would help, too.)

It does work, but I always thought they were overpriced for what you got. I think there is nothing inside but a wire coil and a variable cap. Edmund Scientific and various other mailorder places carried them. The Harrington catalog the original poster saw it in is a small-format catalog of various gadgets oriented toward hi-fi, sports, and automotive uses. All their products are priced fairly high.

Regards, Will Martin

253. Re: *Yet Another Ground Rod*

Newsgroup: rec.ham-radio
Date: 1990-01-12 20:06:43 UTC
From: feg@moss.ATT.COM
Message-ID: <3632@cbnewsl.ATT.COM>
Source record: 14255

In article <900105081019.2020126c@UWYO.BITNET>, fletcher@OUTLAW.UWYO.EDU (Walter R Fletcher) writes:

> BENTONITE RODS ASSURE GROUND ROD INSTALLATION IN PROBLEM SOILS
> by Warren R. Jones,
> IEEE Transactions on Power Apparatus and Systems,
> Vol. PAS-99, No. 4 July/Aug 1980.
>
> second rod in the ground installed the conventional way. After the third rod
> is in, I will make some (probably not entirely scientific) measurements to
> determine if the method makes a measurable difference. For now, I can't say
> whether I gained anything from the effort other than some baseless peace of
> mind. I didn't consider it that much extra effort, but I did have help (Thanks,
> guys!).
>

If you put this in for lightning protection your peace of mind isn't baseless. However for your projected tower, this has to be done a little differently. Put the ground rod at the bottom of what will be your concrete base and use very heavy conductor from the tower to this ground. More than one concrete base has been exploded apart by a lightning hit because the connection to ground for the tower wasn't solid enough.

On the other hand, if this ground rod was to take the place of a ground screen for a vertical, you wasted your time.

Forrest Gehrke k2bt feg@clyde.ATT.COM

254. Re: vhf/uhf receivers

Newsgroup: rec.ham-radio
Date: 1990-01-12 20:14:26 UTC
From: mn@atari.UUCP
Message-ID: <1959@atari.UUCP>
Source record: 14276
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1990Jan12.073314.13649@cunixf.cc.columbia.edu> adam@cunixf.cc.columbia.edu (Adam J. Kucznetsov) writes:
>Are there any good VHF/UHF receivers with a wide >full< coverage (like,
>say, 30-1300 MHz uninterrupted), all modes, that don't cost more than
>about $500 or $600?
>
>Has anyone had any experience with the Yaesu FRG-9600? At $550
>discounted, this looks something like what I'm looking for. I wish its
>coverage (60-905) were a little greater, just for completeness' sake
>(for example, I'd like to have the 50Mhz and 1.2GHz bands). If the Yaesu
>were the best in its class, though, I'd definitely consider it. I like
>its small size too, since I intend to travel with this.
>
>If you know good or bad things about the Yaesu receiver or about a
>better one in its price class I'd be very pleased to hear from you.

I've been the happy owner of an FRG-9600 for almost a year. It's a good rig. One of the things that drew me to it was the all mode functions; AM-W, AM-N, FM-W, FM-N, USB and LSB.

Here in SillyCon Valley there are a *lot* of comms out there that are not in FM-N which is the only mode most scanners support. Because of that many services are moving to other modes to avoid eavsdropping.

It might not be fair to call it a scanner because of the way the user interface is set up. It's billed as a communications receiver by the maker which seems more accurate.

I just got the CAT interface and hacked up a simple controller program for my Atari ST. Now I have 10,000 memory channels if I need them. The program also let me tap one key and append the current freq/mode as new log to my interactive logbook which also serves as the memory channel feeder. The CAT interface is essential for doing weird things like defining a custom scan step rate and speeding up the scan rate a bit.

Ah yes, the scan rate. Compared to just about any other receiver for VHF/UHF with scanning, it's pitifully slow, about 3 channels per second scan rate. Kinda slow but you learn to live with it.

The sensitivity is fine but when compared to the Icom it's not as good but it only costs about half as much.

I have still to figure out why the design engineers at Yaseu decided to limit range from 60 Mhz to about 905. Really dumb but I'm working on a mod that may get around this shortcoming.

Having had the chance to try it out alongside of other radios at the same price range (RZ-1) and less, the choice was obvious; the 9600.

Another good reason to CAT it is the fact that when you want to change modes or steps you have to press a button to cycle thru them all to get to the one you want. Another aspect of the poor hardware user interface.

The AF scan is a very nice option that will only stop on a signal if it has audio present. This is great for scanning aero-comms in AM.

The FM broadcast band picks up many stations that my Marantz stereo tuner can't even hear and the audio quality is quite good even though I use an external speaker aimed at my face rather than use the internal speaker that points upward and diffuses the volume and clarity.

The supplied whip antenna works ok and is great for a field trip but for home use in a bottom floor apartment I use a wierd 2 dimensional ground plane vertical I constructed in 10 minutes and thumb-tacked to the wall behind the rig. I'm sure if I could mount an outdoor antenna the performance would be even better. Even still I've logged over 1000 comms without hardly trying.

The bottom line, IMHO, is that in terms of bang-for-the buck it's a pretty good rig.


```
-------------------------------------------------------------------------------
| Michael Nowicki N6LUU Atari Corp,Sunnyvale CA /TT/UNIX/X team |
|.....................................................................|
| char *disclaimer=" Views expressed are my own, not my employer's"; |
| char *good_quote=" 'Yes, I never did' - Stan Laurel"; |
-------------------------------------------------------------------------------
```

255. radio foresale

Newsgroup: rec.ham-radio
Date: 1990-01-12 20:20:35 UTC
From: olsonr@ingr.com
Message-ID: <8326@ingr.com>
Source record: 14267

******** FOR SALE ********

COBRA 2000 CB RADIO

1 YEAR OLD IN EXCELLENT CONDITION
40-CHANNEL, AM/USB/LSB
BUILT IN 6 DIGIT FREQ. COUNTER
NOT USED MUCH, STILL IN ORIGINAL BOX

****

I want to sell this radio for $250.00, it sold originally for $350.00
I'm getting into HAM RADIO and need the money from this sale to buy
some 2-meter gear. It's a good radio for convertion, or even for CB.

Rick Olson (205) 828-6029, or (205) 730-7534

256. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-12 22:04:58 UTC
From: louie@sayshell.umd.edu
Message-ID: <1990Jan12.220458.5088@haven.umd.edu>
Source record: 14244
Cross-posted to: sci.electronics,rec.ham-radio

Well, here's a comment out of the module of ntpd for unix. It seems that
while you can get time samples from the clock, which one do you believe?

Other clocks, like the Spectracom 8170 WWVB clock, provide a seperate
TTL level output which is the on-time pulse. It is driven high for 100 ms,
with the leading edge of the pulse corresponding to the beginning of the
second.

```
/* read_clock_heath() -- Read the Heath Radio Clock.
*
* Strategy Notes:
*
* When the heath clock is set at 9600 baud and is in continuous mode,
* it will output an alternating set of two or three time strings per tenth
* of a second. For instance:
*
* 22:20:04.2 07/26/89<CR>
* 22:20:04.2 07/26/89<CR>
* 22:20:04.3 07/26/89<CR>
* 22:20:04.3 07/26/89<CR>
* 22:20:04.3 07/26/89<CR>
* 22:20:04.4 07/26/89<CR>
* 22:20:04.4 07/26/89<CR>
* 22:20:04.5 07/26/89<CR>
* 22:20:04.5 07/26/89<CR>
* 22:20:04.5 07/26/89<CR>
*
* We assume that the best place to take a time sample is at the start of
* the first string of a 3 string sequence. This is based solely on the
* guess that fitting 3 strings in 1/10th of a second means that the first
* string is closer to "on-time" than if just two strings fit.
*/
```

Some other people have asked about sources of WWV/WWVB synchronized and other
reference clocks. Here's a list of clocks and their sources:

Radio timecode receivers and other sources of synchronization

Following is a list of radio timecode receivers currently on the market.
These devices are attached via a serial asynchronous line, which is used to
send poll messages and receive responses in the following example formats:

Spectracom clock: <cr><lf>q ddd hh:mm:ss tz=zz<cr> (22 chars)
Truetime clock: <cr><lf><ctrl-a>ddd:hh:mm:ssq<cr> (13 chars)
Heath clock: <cr>hh:mm:ss.f dd/mm/yr<cr> (23 chars)

PST clock: hh:mm:ss.fff yy/dd/mm/ddd status<cr> (49 chars)

These formats are exhibited for example only. In some clocks an extensive repitoire of commands and formats are available.

In the Fuzzball implementation the Spectracom and PST clocks are polled, which return the time-code string shown, while the other clocks run continuously. In the Truetime clock the start bit of the last <cr> represents on-time, while in the other clocks the first <cr> represents on-time. In the time code ddd is day of year, hh:mm:ss is time of day, f is fractions of seconds, and dd/mm/yr is conventional (US) date. In the Spectracom clock, q is " " for in-synch or "?" for off-synch and zz is the time zone (always 00 for UT). In the Truetime clock, q is a precision estimate in milliseconds and coded as follows: "?" +-500 msec, "#" +-50 msec, "*" +-5 msec, "." +-1 msec, <sp> less than 1 msec. In the Heath clock, the hh:mm:ss.f field is displayed as 0?:??:??.? before synch is first established and hh:mm:ss.? once synch is established and then lost again.

Model 8170 WWVB Synchronized Clock ($2500)
Spectracom Corporation
101 Despatch Drive
East Rochester, NY 14445
(716) 381-4827

This is a LF receiver and decoder for the WWVB station. It is supported in the Fuzzball operating system. For expected accuracies less than 10 ms, a special one-second on-time signal produced by the clock must be used to fine-tune the indication.

Model 468-DC Satellite Synchronized Clock ($4500)
True Time Division, Kinemetrics
3243 Santa Rosa Avenue, Santa Rosa, CA 95401
(707) 528-1230

This is a UHF receiver and decoder for the GOES satellite. It is supported in the Fuzzball operating system.

Model 1020 Integrated Time Source ($1500)
Precision Standard Time, Inc.
105 Fourier Avenue, Fremont, CA 94539
(415) 656-4447

This is an HF receiver and decoder for the WWV/WWVH stations. A Unix driver is included in the NTP daemon ntpd; however, Version 4.01 of the clock firmware is required. It is supported in the Fuzzball operating system. This receiver is now being marketed by the Traconex Corporation.

Model GC-1000 Most Accurate Clock ($300)
Heath Company
Benton Harbor, MI 49022
(616) 982-3411

This is an HF receiver and decoder for the WWV/WWVH stations. It is supported in the Fuzzball operating system.

8101 Automated Computer Time Service (ACTS)
Time and Frequency Division, National Bureau of Standards
US Department of Commerce, Gaithersburg, MD 20899

This is a package of C software for the IBM Personal Computer. It can be used to call a special NBS number using either 300-Hz or 1200-Hz modem and set the computer clock. The latest version has been adapted to run on Unix workstations.

Model ? MSF Synchronized Clock ($?)
European Electric Systems, Ltd.
Woodham Mortimer Place, Rectory Lane
Woodham Mortimer, Maldon, Essex. CM9 6SW, United Kingdom
+44 24541 5785, (FAX) +44 24541 5785

This is a LF receiver for the MSF (Rugby, UK) station. It is reported they manufacture a US version for the WWVB station.

Model 5061A/B Cesium Clock ($40,000)
Hewlett Packard, Co., Customer Information Center
19310 Pruneridge Avenue, 49A
Cupertino, CA 95014

This is a cesium-stabilized oscillator which produces various outputs, including a 1 pulse-per-second output which can be used to stabilize frequency and provide accurate time when used in conjunction with a radio clock. It is supported in the Fuzzball operating system.

257. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-01-12 22:06:04 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9001130806.AA27577@ucbvax.Berkeley.EDU>
Source record: 14271

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 32
1 20409U 90 2 A 90 11.75347199 .00050215 00000-0 25599-3 0 113
2 20409 28.4992 124.7920 0003074 76.3320 95.8270 15.79898854 354
--
Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

258. Re: Radar-detector detector

Newsgroup: rec.ham-radio
Date: 1990-01-12 22:11:13 UTC
From: rma@mhuxo.ATT.COM
Message-ID: <8518@cbnewsm.ATT.COM>
Source record: 14268

In article <1907@ultb.isc.rit.edu>, cep4478@ultb.isc.rit.edu (C.E. Piggott) writes:
>
> Anyhow, as far as ham-radio is concerned: do you think this gadget
> is precise, or is there some chance that ham radio gear, portable
> computers, etc. would set the thing afly? Furthermore, is it the
> particular design of rf detection built into a radar detector that
> makes it "detectable" ? I would never have guessed that a local
> oscillator would be strong enough to be detectable by someone a few
> meters away, THROUGH the car and at highway speeds. Must be a
> pretty sensitive device - would love to see what the inside of a
> microwave oven would do to it.
>
> Chris

Chris,
Some superheterodyne radar detectors are notoriously bad emitters
of RF. One that comes to mind is the early series of Radio Shack detectors.
If you take a good detector (e.g. Escort or Passport) and point one of these
poor detectors at it from quite a distance (10s to 100s of feet) it will
sound off. The source of RF is poor isolation between the LO source and the
antenna. If you are worried about something else radiating significant amounts
of RF at the 10.525 LO frequency, try pointing a radar detector at it. If it
sounds off, then you have a problem. My guess is that the amount of RF
generated by most ham/computer equipment in the 10 GHz range is too small to
worry about. My major worry would be the police equipment responding to
frequencies other than the 10 GHz LO signal they are looking for. If you are
not using a radar detector I guess you just get the inconvenience of being
pulled over. If you are, them you had better find a local ham with a spectrum
analyser to check out its rf emissions (or obey the law and don't use it!).
Of course if you are running 10 Ghz mobile (and yes, some people have
indeed done this) then you had better make sure you have your ham ticket
with you and be prepared to do some explaining...

Bob Atkins, KA1GT
att!mhuxo!rma

259. Operating in Denmark

Newsgroup: rec.ham-radio
Date: 1990-01-12 22:42:43 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250113@hpnmdla.HP.COM>
Source record: 14262

I'm asking this question for a friend who is going to be in Copenhagen Denmark August 16 to September 9. The question is: how does one get a list of 2 meter repeaters in Denmark? Also, any hints on how to get operating permission? Any other hints? Reply direct to me and I'll forward the info.

Thanks

Al N1AL

260. Re: Stand Up against Censorship!

Newsgroup: rec.ham-radio
Date: 1990-01-12 22:43:42 UTC
From: lgold@bambam.metaphor.com
Message-ID: <961@metaphor.Metaphor.COM>
Source record: 14256
Cross-posted to: rec.ham-radio,rec.music.dementia,soc.misc,talk.politics.misc,rec.arts.tv.uk,rec.music.dylan

In article <1229@mountn.dec.com> owen@euclid.enet.dec.com (Steve Owen) writes:
>
> **********
> ******* Take a stand against censorship, act now!!! *******
> **********
>
>(much of msg deleted for brevity's sake)
>
> When I called the radio station, they also requested that you send
> multiple copies of your letter to the FCC, and also send copies to your
> congressional representatives and the radio station. The radio station's
> address is:
>
> KFCJ
^^^^

WRONG!

It's
KFJC <<-----------
12345 El Monte Road
Los Altos Hills, CA
94022

The "FJC" stand for "Foothill Junior College."

--Lynn Gold

Public Affairs Director Emeritus, KFJC
lgold@bambam.metaphor.com figmo@eris.berkeley.edu

Quote of the month: (said by a co-worker bragging about
"She's in the top 75% for her age her baby)
group!"

NOTE: The opinions expressed here are MINE! ALL MINE!!! So THERE!!!!!

261. Re: Cellular Phone parts on 30 cM?

Newsgroup: rec.ham-radio
Date: 1990-01-12 22:51:46 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250114@hpnmdla.HP.COM>
Source record: 14261

This is in response to a request from Keith Erskine whose mail is bouncing. It may be of interest to others since it relates to this basenote...

>
> What is your source for Japanese Personal Radio Surplus.
> I'm interested in using the 900 MHz band.

Keith
I'm afraid that my only source for *surplus* is in Akihabara district in Tokyo. I manage to find enough people going back and forth, or to get there myself, enough to keep supplied. It may be possible to get some of the stores to ship, they advertise in the JARL publication "CQ Ham Radio" and probably for enough to cover their trouble could be enticed to ship. One Finnish amateur is trying that but he hasn't reported back as to his success yet.
RF Parts has quite a few PA modules, a couple for 900 too but I haven't yet convinced them to get the PIN switches too. They finally did get both the 1200 MHz PA and driver. The driver (for $49 from them) is a pretty good thing too since it will make upwards of 4W for a milliwatt or so input. It's linear too.

Hope this helps.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@nmd.hpcom

262. Re: Cordless Telephones & Court Ruling

Newsgroup: rec.ham-radio
Date: 1990-01-13 01:38:47 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500353@ux1.cso.uiuc.edu>
Source record: 14257

> advanced technology! This must be why, when I asked a cellular
> salesman if it was possible to pick up cellular calls on a radio,
> he said "NO!"
>
> "Don't cellular phones use radio waves to get the call from the phone
> system to the car," I asked?
>
> "NO, they use SATELLITES....or something".

Would you buy a cellular phone from this guy?
Would you buy ANYTHING from him?
Would you buy anything from ANY salesman?

While I really don't expect salesmen to be engineers, I really would
prefer if they are selling something, that they be able to tell the
exact truth about it, and do so.

But we know salesmen will lie to sell a product, **IF** they happen
to know enough about it to know the truth in the first place.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

263. Re: Radar-detector detector

Newsgroup: rec.ham-radio
Date: 1990-01-13 01:38:52 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500354@ux1.cso.uiuc.edu>
Source record: 14258

> I just saw on CNN that the Ontario police have a gadget that detects
> the local oscillator inside radar detectors, and they pull you over
> if you have such a beast running. Pretty nasty, huh? (I didn't know
> they were illegal in Canada - unfortunately, they showed police
> physically destroying the confiscated detectors. They tried
> confiscation in Connecticuit, and it didn't work; cops can't take it
> from you; how do you Canadian citizens stand for this?)

Just what frequency do these LO's operate on?

If something is ILLEGAL for anyone to own, it is normal procedure to
destroy it. They destroy drugs in most cases because they are illegal
to own. I just hope that they don't destroy something they THINK is
a radar detector just because it happens to have the same LO frequency
before that information comes out.

> Anyhow, as far as ham-radio is concerned: do you think this gadget
> is precise, or is there some chance that ham radio gear, portable
> computers, etc. would set the thing afly? Furthermore, is it the
> particular design of rf detection built into a radar detector that
> makes it "detectable" ? I would never have guessed that a local
> oscillator would be strong enough to be detectable by someone a few
> meters away, THROUGH the car and at highway speeds. Must be a
> pretty sensitive device - would love to see what the inside of a
> microwave oven would do to it.

The British "TV police" can detect the LO of a TV set because they
all basically use the same IF frequency, or at least used to. I suppose
some of the wide-band cable-ready systems we see now days will be different
from model to model.

Remember that the sensitivity of the radar itself has to be able to handle
a signal reflected off a non-flat surface. Receivers can be very sensitive
these days.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

264. PS to "Call to Nomadness!"

Newsgroup: rec.ham-radio
Date: 1990-01-13 02:02:39 UTC
From: wordy@cup.portal.com
Message-ID: <25864@cup.portal.com>
Source record: 14178
Cross-posted to: rec.bicycles,rec.ham-radio,rec.travel

The first dozen or so email responses to my Call to Nomadness posting
are encouraging... but they made me realize that I forgot a key point!
If you reply to that, please send me your physical mail address --
sending multiple long documents to multiple people is a bit awkward
with this system (at least until I have my own newsgroup <grin>).
The invitation itself is 11 pages, and there are some other odds and
ends that go with it.

Thanks and cheers!
(and viva nomadness)
Steve Roberts
N4RVE wordy@cup.portal.com

265. Re: AZDEN PCS-2000 Help Needed

Newsgroup: rec.ham-radio
Date: 1990-01-13 02:36:13 UTC
From: erc@khijol.UUCP
Message-ID: <985@khijol.UUCP>
Source record: 14177

In article <407@compnect.UUCP> daveh@compnect.UUCP (Dave Hultberg) writes:

>Please email responses to the address below since this info would probably
>interest most people here. 73.

Please post this information, too. It should be general policy to POST MOD\
INFO to the net, instead of just emailing it to someone. If you don't read
this newsgroup, please specify email AND posting. Thanks!
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf

266. Re: Interception of E-Mail by spies

Newsgroup: rec.ham-radio
Date: 1990-01-13 02:57:25 UTC
From: thomas@mvac23.UUCP
Message-ID: <144.UUL1.3#5131@mvac23.UUCP>
Source record: 14269

> The NSA (or related military security groups) have installations near the
> major COMSAT stations that handle international satellite telephone traffic.
> COMSAT's largest station is in Etam, West Virginia, handling over 50% of
> the international phone traffic in 1982. The NSA has an array of microwave
> receiver dishes at a station in Sugar Grove, WV, about 60 miles away, fine
> for receiving the spillover satellite data. Other major COMSAT stations

Another interesting note is that a major radio observatory in the east
is located in Green Bank, WV which is fairly close to the Sugar Grove
listening station. Both areas are 'radio quiet' zones and any broadcast
equipment for that area goes through much more stringent licensing by
the FCC (ie. cover patterns have to have nulls in the direction of
Sugar Grove/Green Bank. I'm not sure that the folks at Green Bank would
be able to enforce a radio quiet zone, but I'm sure that Sugar Grove
can and does.
- tom
--
internet : mvac23!thomas@udel.edu or thomas%mvac23@udel.edu
uucp : {ucbvax,mcvax,psuvax1,uunet}!udel!mvac23!thomas
Europe Bitnet: THOMAS1@GRATHUN1
Location: Newark, DE, USA
Quote : Virtual Address eXtension. Is that like a 9-digit zip code?

--
The UUCP Mailer

267. oppressive (and corrupt) police states

Newsgroup: rec.ham-radio
Date: 1990-01-13 03:01:36 UTC
From: kjh@pollux.usc.edu
Message-ID: <22288@usc.edu>
Source record: 14263

NJ has very restrictive laws about scanners, so much so that if you have any modern commercially produced rig, you can't legally put it in your car in NJ. I refuse to go to NJ. I encourage all of the rest of you to do the same. The state of NJ is saying to you, "Please don't come here; we don't want your tourist dollars."

Ontario allegedly will stop you, confiscate your amateur 3 cm reciever, and destroy it. If this turns out to be true, I will refuse to go back to Ontario. I encourage all of the rest of you to do the same. The province of Ontario is saying to you, "Please don't come here; we don't want your tourist dollars."

On a related note, there is great corruption in the Illinois State Police dept. They have a habit of stopping out of state cars, and giving speeding tickets, EVEN if the cars weren't speeding! The laws are such that you have to pay immediately, or go to jail and pay later anyway. They won't take your personal check, and they only take a small number of credit cards. They won't take Master Card or Visa! This leaves cash as your only option; the officer promptly puts the cash in his pocket and then goes to stop someone else (from out of state). I have both personal experience, and conversations with people who have had personal experience to back this claim up. About 15 years ago, this happened to my dad in Normal, IL. He tells me that he wasn't speeding. I have had conversations with two people who also got tickets in this way, one was in Indianapolis, and the other was in Rolla, MO. Both told me they weren't speeding. In addition, on my last trip through IL, I saw 7 people stopped by the police. EVERY SINGLE CAR HAD OUT OF STATE PLATES. Now I would expect that in IL, there would be far more cars with IL plates than all other states put together. I would also expect, statistically, to see many more cars with IL plates stopped by the police by virtue of their much greater numbers. I can't imagine that what I saw was just a coincidence. The state of IL has a nice scam going; I was lucky last time - I didn't get stopped. I will never again drive through IL. I hope you don't get stopped and ripped off. I encourage you not to go to IL. The state of IL is saying to you, "Please don't come here; we don't want your tourist dollars."

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

268. Re: vhf/uhf receivers

Newsgroup: rec.ham-radio
Date: 1990-01-13 03:03:55 UTC
From: kjh@pollux.usc.edu
Message-ID: <22289@usc.edu>
Source record: 14264
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1990Jan12.073314.13649@cunixf.cc.columbia.edu> adam@cunixf.cc.columbia.edu (Adam J. Kucznetsov) writes:
>Are there any good VHF/UHF receivers with a wide >full< coverage (like,
>say, 30-1300 MHz uninterrupted), all modes, that don't cost more than
>about $500 or $600?

Check out the Radio Shack scanner, the PRO-2004 or PRO-2005.

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

269. Re: ICOM handheld receiver 100kHz to 1300 mHz ?!

Newsgroup: rec.ham-radio
Date: 1990-01-13 03:17:10 UTC
From: kjh@pollux.usc.edu
Message-ID: <22290@usc.edu>
Source record: 14266

There is a picture of the IC-9000 on page 118 of Jan '90 QST. It is not a handheld. It also costs about 2x my net worth. [I won't be getting one. :-( ]

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

270. Re: The Privacy Issue

Newsgroup: rec.ham-radio
Date: 1990-01-13 03:49:14 UTC
From: gary@sci34hub.UUCP
Message-ID: <558@sci34hub.UUCP>
Source record: 14254
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <6030@alvin.mcnc.org>, spl@mcnc.org (Steve Lamont) writes:
> In article <47eef426.1423f@godzilla.UUCP> dalyb@godzilla.UUCP (Brian Daly) writes:
> >I wonder why they think "sophisticated" cellular devices are immune from
> >being intercepted, other than the fact that it is against the law??

> [...
> ..] So when is some smart cordless phone maker going to start selling a
> phone with a digital encryption chip built in? [...]

It's already available--a couple of ATT models have encryption built
in. I suspect that the higher price is the primary reason we don't
see more of them. I think the price was in the $400 range, which
most people won't consider worthwhile. Even the dope dealers...
(Well, why do you think they call it dope????)

> Steve Lamont, sciViGuy (919) 248-1120 EMail: spl@ncsc.org

--
Gary Heston { uunet!sci34hub!gary } System Mismanager
SCI Technology, Inc. OEM Products Department (i.e., computers)
Hestons' First Law: I qualify virtually everything I say.

271. Re: Radio as peripheral card in PC, Mac, etc

Newsgroup: rec.ham-radio
Date: 1990-01-13 07:24:16 UTC
From: Nagle@cup.portal.com
Message-ID: <25875@cup.portal.com>
Source record: 14260
Cross-posted to: rec.ham-radio,sci.electronics

Both an FM broadcast receiver and a television broadcast receiver
are available as boards for the Mac II. I think it silly. I did see
the "Micro TV" board in action at Computerware today. It's supported
as a desk accessory, and you can watch TV with a 2x2 window devoted
to the TV screen. Supposedly you can do this while doing other things,
but our attempt to watch TV while running Model Shop crashed the machine
immediately.

Incidentally, the on-screen TV image is monochrome, even on color
displays.

John Nagle

272. ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-13 10:38:26 UTC
From: look@uicsrd.csrd.uiuc.edu
Message-ID: <54900008@uicsrd.csrd.uiuc.edu>
Source record: 14273

I am building a all home brew ATV station. I just completed the oscillator chain and have about 70mw on 439.25 . I am now looking to build the power amp and video modulator. From what I have seen and read elsewhere it would appear there are two different ways of adding the modulation.

1) Modulate the low power stage and follow it with a linear amp.

2) Feed the low power stage to a modulated class C amp.

Anyone care to comment on the methode they would choose and why?
Thanks,

Steve Look ka9szw
look@uicsrd.csrd.uiuc.edu

273. Need Theoretical Antenna Info

Newsgroup: rec.ham-radio
Date: 1990-01-13 16:12:34 UTC
From: john@anasaz.UUCP
Message-ID: <1172@anasaz.UUCP>
Source record: 14274
Cross-posted to: sci.electronics,rec.ham-radio

I am interested in finding the following information, either in tables of formulas or, even better, as computer programs. I am on usenet, and not the internet, so cannot access internet archives using ftp. What I would like to see filled in is the following table:

Antenna Type Effective Input Radiation
Aperture Impedance Resistance

Short Dipole ???? ??? ???
Long Dipole ???? ??? ???
Short g-plane qwave ???? ??? ???
Long g-plane qwave ???? ??? ???
Magnetic Dipole ???? ??? ???
--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Freedom and Communism are incompatable.

274. Re: ICOM handheld receiver 100kHz to 1300 mHz ?!

Newsgroup: rec.ham-radio
Date: 1990-01-13 19:12:34 UTC
From: tad@ssc.UUCP
Message-ID: <380@ssc.UUCP>
Source record: 14181

In article <22290@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson N8DGN) writes:
> There is a picture of the IC-9000 on page 118 of Jan '90 QST. It is not
> a handheld. It also costs about 2x my net worth. [I won't be getting
> one. :-( ]
>
> In the rare case that original ideas Kenneth J. Hendrickson N8DGN
> are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
> Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

The IC9000 is NOT the new Icom handheld. The new radio is called the
R-1, and it covers from somewhere below AM broadcast up into the
GHz range. It is about the size and shape of the IC2SAT. The radio
is rumored to be out around time of the Dayton Hamvention. It is
already available in Japan. List price should be under 1K$, and
rumor has it that it may discount to about $600....this is ONLY
a rumor or a guess!

Another rumor: IT DOES NOT HAVE SSB OR CW! It receives ONLY AM and FM
modes. It is targeted to HF SWL/VHF scanner markets.

Should be a neat radio...too bad it only has AM and FM, but for the
size of the radio, waddya want?

73,

Tad Cook
tad@ssc.UUCP
MCI Mail: 328-8544
KT7H @ N7HFZ.WA.USA.NA

275. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-13 20:03:40 UTC
From: erc@khijol.UUCP
Message-ID: <1013@khijol.UUCP>
Source record: 14179
Cross-posted to: sci.electronics,rec.ham-radio

In article <1990Jan12.220458.5088@haven.umd.edu> louie@sayshell.umd.edu (Louis A. Mamakos) writes:

>8101 Automated Computer Time Service (ACTS)
>Time and Frequency Division, National Bureau of Standards
>US Department of Commerce, Gaithersburg, MD 20899

> This is a package of C software for the IBM Personal Computer. It can
> be used to call a special NBS number using either 300-Hz or 1200-Hz
> modem and set the computer clock. The latest version has been adapted
> to run on Unix workstations.

Any ideas on where I can get the software for this? I need the XENIX version (if it's been ported to XENIX) or the UNIX version (I'll port it myself).

Any help would be appreciated!
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf

276. Re: Kenwood TM-631/731

Newsgroup: rec.ham-radio
Date: 1990-01-13 20:21:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9001140805.AA06132@ucbvax.Berkeley.EDU>
Source record: 14182

To the future ham who asked about the 631, in my opinion it is a fine radio -- I was very happy with mine (until it got removed from my car over the holidays by someone with a baseball bat.)

/Chris Thomas - AA6SQ

Internet: csmscst@oac.ucla.edu
Bitnet: csmscst@uclamvs.bitnet

277. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-13 23:27:40 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9001140805.AA06183@ucbvax.Berkeley.EDU>
Source record: 14185

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #627 -
STS 32
1 20409U 90 2 A 90 11.75347199 .00050215 00000-0 25599-3 0 113
2 20409 28.4992 124.7920 0003074 76.3320 95.8270 15.79898854 354
Alouette 1
1 00424U 62B-A 1 90 7.28498582 .00000335 00000-0 39106-3 0 2538
2 00424 80.4644 84.7046 0022917 329.0459 30.9319 13.67277984360705
ATS 1
1 02608U 66110 A 90 8.03592134 -.00000100 00000-0 99999-4 0 929
2 02608 13.4035 14.9801 0006782 350.8874 9.0616 1.00394103 941
ATS 3
1 03029U 67111 A 90 4.06755749 -.00000074 00000-0 99999-4 0 2787
2 03029 13.0003 22.5450 0016099 205.2988 154.6439 1.00272414 81158
Cosmos 398
1 04966U 71 16 A 90 12.14996948 .00065355 16740-4 38122-3 0 4318
2 04966 51.5394 262.4723 2387913 219.2027 120.9393 10.81260322574644
Starlette
1 07646U 75010 A 90 7.41270133 -.00000059 00000-0 16581-5 0 41
2 07646 49.8253 72.8668 0204856 20.4143 340.4794 13.82128033753548
LAGEOS
1 08820U 76039 A 90 10.57774267 .00000004 00000-0 00000 0 0 9711
2 08820 109.8600 301.1329 0044640 271.8521 87.6892 6.38664237 63876
GOES 2
1 10061U 77048 A 90 8.19686400 -.00000015 00000-0 00000 0 0 3467
2 10061 7.6669 65.6697 0005700 229.9122 129.9686 1.00281766 7438
GPS-0001
1 10684U 78020 A 90 7.38411420 .00000009 00000-0 99999-4 0 3065
2 10684 63.6562 94.5319 0115149 198.1785 161.4243 2.00558609 72623
GPS-0002
1 10893U 78 47 A 90 8.34830408 -.00000026 00000-0 00000 0 0 869
2 10893 64.4594 335.3483 0159585 25.8162 334.9656 2.00550198 85460
GOES 3
1 10953U 78062 A 90 4.26292819 .00000090 00000-0 99999-4 0 7977
2 10953 6.5315 68.4284 0005958 241.5834 118.2810 1.00266719 2955
SeaSat 1
1 10967U 78064 A 90 9.92909704 .00001438 00000-0 54417-3 0 2225
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2 10967 108.0173 353.6480 0002756 256.0016 104.0796 14.35328270603746
GPS-0003
1 11054U 78093 A 89365.17478851 -.00000026 00000-0 00000 0 0 1417
2 11054 64.0051 331.9573 0055276 119.3372 241.2239 2.00565252 82315
Nimbus 7
1 11080U 78098 A 90 9.27229785 .00000241 00000-0 24830-3 0 6266
2 11080 99.2045 277.7142 0009311 144.0091 216.1688 13.83385276566065
GPS-0004
1 11141U 78112 A 90 10.24243628 .00000009 00000-0 00000 0 0 2461
2 11141 63.6479 94.3391 0057054 318.2502 41.3493 2.00564120 81212
NOAA 6
1 11416U 79 57 A 90 11.51091427 .00001365 00000-0 58297-3 0 9574
2 11416 98.5154 7.7442 0011133 217.3364 142.6982 14.26399580547595
GPS-0005
1 11690U 80 11 A 90 10.38038298 .00000010 00000-0 00000 0 0 8885
2 11690 64.1290 96.3633 0110556 204.0214 155.4615 2.00558171 87070
GPS-0006
1 11783U 80 32 A 90 9.20092962 -.00000026 00000-0 00000 0 0 237
2 11783 63.7839 331.2825 0145217 60.6751 300.7537 2.00572243 71139
GOES 4
1 11964U 80 74 A 90 8.43933087 -.00000208 00000-0 00000 0 0 1211
2 11964 6.0322 71.1597 0031635 106.1685 254.0435 0.99234261 4060
GOES 5
1 12472U 81049 A 90 7.10388604 -.00000245 00000-0 99999-4 0 8107
2 12472 3.0634 77.9205 0015727 107.8922 251.9553 1.00262312 30634
SME
1 12887U 81100 A 90 10.10181130 .00026274 00000-0 66917-3 0 4438
2 12887 97.6646 49.1589 0001679 196.9230 163.1964 15.39546871456863
Meteor 2-08
1 13113U 82 25 A 90 11.12871985 .00000159 00000-0 13221-3 0 6868
2 13113 82.5384 253.4608 0014736 194.2762 165.7979 13.84122527394006
Salyut 7
1 13138U 82 33 A 90 12.05302919 -.00048916 00000-0 -79674-3 0 9865
2 13138 51.6061 7.6133 0001615 53.2913 306.8195 15.52261553440514
Cosmos 1383
1 13301U 82 66 A 90 8.63534281 .00000201 00000-0 22457-3 0 5283
2 13301 82.9286 57.7147 0025820 239.8017 120.0576 13.67791256375860
LandSat 4
1 13367U 82 72 A 90 11.42681004 -.00002517 00000-0 -55397-3 0 2043
2 13367 98.1875 76.8688 0001823 250.6418 109.2683 14.57116806398472
Meteor 2-09
1 13718U 82116 A 90 11.59498651 .00000512 00000-0 26274-3 0 8470
2 13718 81.2453 77.6496 0056624 125.0897 235.5599 14.13429777364993
IRAS
1 13777U 83 4 A 90 10.55257592 .00000550 00000-0 40619-3 0 7081
2 13777 99.0312 209.7082 0013925 97.9646 262.3118 13.98723323 24909
Cosmos 1447
1 13916U 83 21 A 90 9.08347005 .00000257 00000-0 26002-3 0 6689
2 13916 82.9464 129.6826 0036775 221.6479 138.1870 13.73999846340822
TDRS 1
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1 13969U 83 26 B 90 7.11063075 -.00000208 00000-0 00000 0 0 9053
2 13969 4.0807 67.0402 0007487 251.6432 108.5626 1.00280781 91462
GOES 6
1 14050U 83 41 A 90 8.29982160 .00000120 00000-0 00000 0 0 566
2 14050 1.8400 80.2224 0001109 233.4611 125.8473 1.00275113 8664
OSCAR 10
1 14129U 83 58 B 90 10.47780759 -.00000048 00000-0 00000 0 0 4490
2 14129 25.9120 224.6133 6008232 108.8621 322.1349 2.05881744 21484
GPS-0008
1 14189U 83 72 A 90 3.80829305 .00000008 00000-0 99999-4 0 6927
2 14189 63.2818 93.0483 0141620 216.2495 142.8169 2.00562018 47469
Meteor 2-10
1 14452U 83109 A 90 11.26986047 .00001134 00000-0 48100-3 0 8073
2 14452 81.1652 84.9766 0093466 216.3875 143.0897 14.22542593322120
LandSat 5
1 14780U 84 21 A 90 10.42415567 .00002891 00000-0 65069-3 0 203
2 14780 98.1420 73.3827 0002554 348.8762 10.9865 14.57149948311747
UOSAT 2
1 14781U 84 21 B 90 11.21116973 .00002796 00000-0 53290-3 0 5887
2 14781 97.9772 68.7864 0014102 28.1144 332.0804 14.64741399312982
LDEF
1 14898U 84 34 B 90 10.90068388 .00154490 00000-0 84257-3 0 1085
2 14898 28.4980 131.0410 0003633 93.6724 266.4187 15.78273377323944
GPS-0009
1 15039U 84 59 A 90 10.84908874 .00000007 00000-0 00000 0 0 7862
2 15039 63.0197 92.0470 0017531 240.9989 118.8686 2.00562928 40888
Cosmos 1574
1 15055U 84 62 A 90 10.90870340 .00000199 00000-0 20248-3 0 8129
2 15055 82.9577 178.2279 0029098 42.1118 318.2264 13.73316196278482
Meteor 2-11
1 15099U 84 72 A 90 9.97027267 .00000123 00000-0 10128-3 0 9916
2 15099 82.5278 201.8975 0014198 22.6788 337.5001 13.83775777278715
GPS-0010
1 15271U 84 97 A 90 8.25320518 -.00000026 00000-0 00000 0 0 7364
2 15271 63.2886 330.9606 0105082 323.3681 35.9038 2.00571296 37943
Cosmos 1602
1 15331U 84105 A 90 11.38121398 .00005009 00000-0 70328-3 0 1491
2 15331 82.5403 146.1223 0024742 122.4571 237.8891 14.77065030284934
NOAA 9
1 15427U 84123 A 90 12.21447716 .00000581 00000-0 33602-3 0 4706
2 15427 99.1596 8.4947 0016184 87.0874 273.2148 14.12391602261966
Meteor 2-12
1 15516U 85 13 A 90 6.43767211 .00000339 00000-0 29316-3 0 1420
2 15516 82.5362 143.0939 0015290 267.6412 92.3030 13.84247352249179
Cosmos 1686
1 16095U 85 86 A 90 12.05302164 .00057288 00000-0 92567-3 0 4640
2 16095 51.6008 7.6213 0000772 354.3698 5.6905 15.52296095241619
GPS-0011
1 16129U 85 93 A 90 11.40528438 .00000008 00000-0 00000 0 0 3866
2 16129 63.8146 92.8755 0120918 150.2712 210.4642 2.00560450 31212
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Meteor 3-1
1 16191U 85100 A 90 11.15660561 .00000043 00000-0 99999-4 0 8831
2 16191 82.5533 88.7254 0020512 138.3209 221.9491 13.16891017202892
Meteor 2-13
1 16408U 85119 A 90 2.61303239 .00000306 00000-0 26468-3 0 5580
2 16408 82.5352 60.9939 0017754 99.1111 261.2064 13.84274813203140
Mir
1 16609U 86 17 A 90 12.11710609 -.00126703 00000-0 -15874-2 0 3331
2 16609 51.6184 35.4567 0002534 319.2759 40.8387 15.59916557223740
SPOT 1
1 16613U 86 19 A 90 11.86168799 .00000793 00000-0 39089-3 0 7298
2 16613 98.7192 88.5972 0000072 158.6479 201.4922 14.20010191 41748
Meteor 2-14
1 16735U 86 39 A 90 2.26053102 .00000524 00000-0 46156-3 0 3448
2 16735 82.5379 88.2041 0014150 168.1807 191.9708 13.84027827181998
Cosmos 1766
1 16881U 86 55 A 90 12.00631183 .00002602 00000-0 36708-3 0 8415
2 16881 82.5221 204.7650 0022567 136.2209 224.0787 14.76713978186092
EGP
1 16908U 86 61 A 90 11.22420779 -.00000013 00000-0 20972-3 0 1629
2 16908 50.0098 18.5337 0011684 156.2727 203.8648 12.44384282155319
FO-12
1 16909U 86 61 B 89360.62011888 -.00000025 00000-0 99999-4 0 1760
2 16909 50.0169 66.8000 0011508 115.0472 245.1558 12.44403318153361
NOAA 10
1 16969U 86 73 A 90 10.61958967 .00000892 00000-0 40964-3 0 3276
2 16969 98.6159 41.9852 0014009 12.4779 347.6743 14.23409119172192
Meteor 2-15
1 17290U 87 1 A 90 2.43361163 .00000259 00000-0 22386-3 0 3201
2 17290 82.4666 353.9520 0014623 65.8182 294.4514 13.83833548151176
MOS-1
1 17527U 87 18 A 90 11.84211680 .00000378 00000-0 30699-3 0 3731
2 17527 99.1284 86.2922 0000866 108.5864 251.5409 13.94870487147467
GOES 7
1 17561U 87 22 A 90 3.00000000 -.00000041 00000-0 99999-4 0 3956
2 17561 0.0606 76.7981 0005100 287.3356 350.5714 1.00261026 3761
Kvant-1
1 17845U 87 30 A 90 12.05310598 -.00038792 00000-0 -47428-3 0 9658
2 17845 51.6133 35.7796 0001440 12.8951 347.5550 15.59873103159789
DMSP B5D2-3
1 18123U 87 53 A 90 11.59537447 .00000703 00000-0 39031-3 0 4560
2 18123 98.8173 204.2812 0015467 107.0933 253.1933 14.13816638132270
RS-10/11
1 18129U 87 54 A 90 11.96537545 .00000016 00000-0 11285-4 0 45
2 18129 82.9261 83.9550 0011558 185.4417 174.6635 13.72050715128027
Meteor 2-16
1 18312U 87 68 A 90 9.08964048 .00000218 00000-0 18868-3 0 3608
2 18312 82.5659 56.4137 0011800 348.1570 11.9398 13.83586918120989
Meteor 2-17
1 18820U 88 5 A 90 9.25563697 .00000453 00000-0 39500-3 0 1894
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2 18820 82.5425 116.8023 0017853 53.3879 306.8915 13.84275519 98191
DMSP B5D2-4
1 18822U 88 6 A 90 10.51524195 -.00001005 00000-0 -45294-3 0 3680
2 18822 98.6697 252.6243 0006862 17.7458 342.3960 14.21223869100428
AO-13
1 19216U 88 51 B 90 7.57598932 -.00000128 00000-0 99999-4 0 672
2 19216 57.0842 174.3225 6869728 218.6981 62.9554 2.09702575 12036
OKEAN 1
1 19274U 88 56 A 90 11.93474845 .00003217 00000-0 46109-3 0 6178
2 19274 82.5201 303.4610 0020381 274.3640 85.5236 14.76164151 81868
Meteor 3-2
1 19336U 88 64 A 90 10.99381325 .00000391 00000-0 99999-3 0 3498
2 19336 82.5384 28.6477 0017070 351.7390 8.3447 13.16874672 70267
NOAA 11
1 19531U 88 89 A 90 11.22742000 .00000528 00000-0 31246-3 0 1873
2 19531 98.9639 319.5444 0012334 10.9613 349.1833 14.11395506 66826
TDRS 2
1 19548U 88 91 B 90 8.17638399 .00000131 00000-0 99999-4 0 643
2 19548 0.0431 236.8577 0003067 20.6122 102.5456 1.00275872 3844
Cosmos 2001
1 19796U 89 11 A 90 10.18060550 -.00001034 00000-0 99999-4 0 3145
2 19796 62.9423 113.2825 7162714 319.7114 4.9939 2.00671622 6631
GPS-0014
1 19802U 89 13 A 90 5.43014213 .00000016 00000-0 99999-4 0 642
2 19802 55.0777 203.8309 0061593 156.9692 203.3543 2.00561121 6486
Meteor 2-18
1 19851U 89 18 A 90 11.42713867 .00000117 00000-0 99999-4 0 1360
2 19851 82.5211 353.3534 0016065 87.2568 273.0459 13.83914515 43888
TDRS 3
1 19883U 89 21 B 90 11.80626490 -.00000235 00000-0 99999-4 0 480
2 19883 0.0140 175.6317 0006147 96.9005 87.6948 1.00266634 2320
GPS-0013
1 20061U 89 44 A 90 5.11529977 -.00000031 00000-0 00000 0 0 455
2 20061 54.6931 22.4655 0082137 171.4817 188.6997 2.00564230 4221
Nadezhda
1 20103U 89 50 A 90 6.09479772 .00000218 00000-0 22086-3 0 643
2 20103 82.9598 44.4865 0038512 127.4601 233.0062 13.73551156 25460
GPS-0015
1 20185U 89 64 A 90 6.08245416 .00000016 00000-0 99999-4 0 366
2 20185 54.9405 204.6809 0026796 139.4407 220.8003 2.00567947 7442
Soyuz TM-8
1 20218U 89 71 A 90 12.05301583 .00098782 00000-0 11924-2 0 1259
2 20218 51.6208 35.7654 0002953 335.6994 24.2597 15.59942276 19947
GPS-0016
1 20302U 89360.34546224 -.00000030 10000-3 0 395
2 20302 54.7442 324.1045 0038357 306.7527 52.8901 2.00573713 1284
Meteor 3-3
1 20305U 89 86 A 90 9.07425730 .00000089 00000-0 21698-3 0 400
2 20305 82.5513 330.2217 0016510 10.4024 349.7437 13.15847069 10022
Cosmos 2049
```

```
1 20320U 89 88 A 89361.78807173 .00368920 70080-4 46525-3 0 957
2 20320 64.7745 105.4695 0018172 159.5803 200.6598 16.06893076 6486
COBE
1 20322U 89 89 A 90 10.08238423 .00005040 00000-0 33917-2 0 381
2 20322 99.0244 22.0550 0007317 83.5785 276.6182 14.00899201 7347
1989 089B
1 20323U 89 89 B 89353.35971497 .00001250 00000-0 39099-3 0 191
2 20323 97.0674 356.4643 0080728 196.2669 163.5922 14.40155175 4421
Cosmos 2050
1 20330U 89 91 A 89361.76168135 -.00000970 00000-0 31810-2 0 431
2 20330 63.0184 315.9270 7367361 316.6277 4.6966 2.00561905 698
1989 091B
1 20331U 89 91 B 89351.92213889 .20989483 43434-4 27464-3 0 479
2 20331 62.8215 229.2985 0029633 121.3548 239.4456 16.46351236 3822
1989 091D
1 20333U 89 91 D 89353.86668053 -.00000236 00000-0 10161-2 0 194
2 20333 63.0001 317.0873 7338316 316.4917 4.8230 2.04183202 542
Cosmos 2051
1 20334U 89 92 A 89361.86850778 .00047986 00000-0 78983-3 0 977
2 20334 64.9075 337.2229 0010373 276.6326 83.4145 15.52011863 5113
Kvant-2
1 20335U 89 93 A 90 12.05305991 .00061097 00000-0 74330-3 0 765
2 20335 51.6272 35.7832 0005854 136.5315 223.7552 15.59930568 7387
Molniya3-36
1 20338U 89 94 A 89361.99897702 .00000028 00000-0 -15032-2 0 416
2 20338 62.8475 163.4241 7350042 288.0661 9.5577 2.00598806 600
1989 094B
1 20339U 89 94 B 89360.43949299 -.00011078 00000-0 -28451 0 0 205
2 20339 62.8495 163.6576 7387000 288.0490 9.3117 1.96590183 556
1978 100AV
1 20347U 78100 AV 89360.94889631 .00044516 00000-0 13962-1 0 236
2 20347 82.5762 337.2199 1206985 4.8581 356.8656 12.53902035 9467
Cosmos 2052
1 20350U 89 95 A 90 10.05720713 .00725246 28344-4 29603-3 0 1060
2 20350 67.1355 144.2178 0111226 117.4422 243.7694 16.09621301 6516
Granat
1 20352U 89 96 A 89356.43128488 -.00000853 00000-0 99999-4 0 79
2 20352 52.4940 20.4620 9256063 287.8800 4.9580 0.24372632 67
1989 096B
1 20353U 89 96 B 89363.07065714 .00195181 77400-5 13353-2 0 811
2 20353 51.5443 285.7829 1146076 195.5426 160.7325 13.47665229 3669
1989 096C
1 20354U 89 96 C 89355.93838038 -.00000821 00000-0 99999-4 0 46
2 20354 52.4180 20.7130 9232878 287.7410 359.1260 0.24958007 64
1989 096D
1 20358U 90 4.82145879 0.00139266 58549-5 95388-3 0 670
2 20358 51.5401 261.0178 1139421 214.1555 138.0713 13.49164355 4575
GPS-0017
1 20361U 90 4.11084330 0.00000016 10000-3 0 109
2 20361 54.9482 146.8378 0065519 43.8416 316.6546 2.00550076 438
```

```
1989 097B
1 20362U 89 97 B 90 11.24572425 .00009925 00000-0 12418-2 0 352
2 20362 35.6485 332.5970 0331685 335.1153 23.3871 14.49785306 4423
1989 097C
1 20363U 89 97 C 90 10.52702628 .00257543 76196-5 49069-3 0 407
2 20363 37.6924 122.4912 5996851 226.0168 65.8608 4.17814293 1234
1988 065G
1 20365U 88 65 G 89355.16873724 .00644408 00000-0 55770-2 0 163
2 20365 65.8563 262.4522 0007036 354.3716 5.7366 15.66942667 78474
1988 065H
1 20366U 88 65 H 89354.21119710 .00612218 00000-0 55715-2 0 137
2 20366 65.8025 265.6359 0009862 5.0511 354.9856 15.65762330 78326
Raduga 24
1 20367U 89 98 A 90 9.30943469 .00000167 00000-0 99999-4 0 307
2 20367 1.4568 263.9027 0005564 247.1025 113.7563 1.00259359 262
1989 098D
1 20370U 89 98 D 90 9.79300959 -.00000025 00000-0 99999-4 0 196
2 20370 1.4873 264.1145 0016037 28.0591 332.9297 0.97855577 257
Progress M2
1 20373U 89 99 A 90 12.05304781 .00038620 00000-0 47419-3 0 314
2 20373 51.6200 35.7759 0001580 302.3825 57.7632 15.59906874 3685
Cosmos 2053
1 20389U 89100 A 90 10.73102216 .00010638 00000-0 59713-3 0 348
2 20389 73.5450 70.5828 0011137 218.0935 141.9847 15.13378801 2237
1989 100B
1 20390U 89100 B 90 10.33276986 .00003388 00000-0 19199-3 0 238
2 20390 73.5466 71.4303 0009971 220.1934 139.8520 15.13469494 2176
Cosmos 2054
1 20391U 89101 A 90 10.47939471 -.00000171 00000-0 99999-4 0 291
2 20391 1.4948 274.3864 0018755 172.7762 188.1926 0.99360613 164
1990 001A
1 20401U 90 1 A 90 10.76730435 -.00000088 00000-0 99999-4 0 90
2 20401 3.4051 303.8432 0257963 54.2311 308.5116 1.04146071 89
1990 001B
1 20402U 90 1 B 90 10.26909569 -.00000142 00000-0 99999-4 0 93
2 20402 0.3073 260.8282 0028349 147.1604 312.2359 1.00260176 75
1990 001C
1 20403U 90 1 C 90 8.92823952 .18114791 -35119-4 26145-2 0 241
2 20403 28.5830 228.0160 0098629 211.3663 148.3686 16.20660134 1266
1990 001D
1 20404U 90 1 D 90 9.85111548 .00003215 00000-0 22878-2 0 71
2 20404 21.6717 281.7706 7208292 176.0955 196.9375 2.34433644 216
1990 001F
1 20406U 90 1 F 90 5.76932580 .00007082 00000-0 20812-2 0 45
2 20406 26.7455 281.1483 5865873 181.9955 174.1372 4.21902187 199
--
Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
```

278. Radio Service Question (contd)

Newsgroup: rec.ham-radio
Date: 1990-01-13 23:59:01 UTC
From: harrism@dg-rtp.dg.com
Message-ID: <2200@xyzzy.UUCP>
Source record: 14180
Cross-posted to: rec.ham-radio,sci.electronics

Howdy. I'm working on my ICOM-701 hf transceiver. I've pinned the potential source of the "funny popping noise" to Q37 on the A board. It is a pass transistor for the receive mode +9v. It is running *VERY* hot to the touch - you can't keep your finger on it.

The noise starts up when the transistor gets hot - about 20-30 seconds after power up. It is a tall plastic transistor. The complementary transistor for xmit is a power transistor with a 1sq inch heat sink attached.

The "noise" isn't present on the inputs to the transistor.

Soooo, Questions:

1) Has anybody had similar problems with their IC-701 (or any radio?) Is this a known IC-701 failure mode? BTW, I have found other components in the rig that are being pushed hard.

2) Is it probable that this transistor is shorted and/or bad?, or,

3) Some other circut is being a pig and overloading this transistor. (All circuts seem to be functioning properly excepting this "noise") I haven't had a chance to measure the current this transistor is passing.

4) Anybody have specs on this transistor? It is a 2SD468. How about an xref for substitution?

Thanks, Mike.

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

279. CGA to composite adapter?

Newsgroup: rec.ham-radio
Date: 1990-01-14 04:15:40 UTC
From: elmquist@NIPS.SSESCO.COM
Message-ID: <9001140215.AA01752@nips.ssesco.com>
Source record: 14183

I posted this here...because this is where all the hackers are...

I once saw a circuit (possibly in QST) for adapting the TTL RGB CGA
port on a PC to a composite MONOCHROME monitor. You ended up with 16 gray
levels instead of colors. I can't find the circuit now-- and I
need to do this kind of conversion. Does anyone have such a circuit?
Seems to me it was just a resistor ladder...but I need the values of
said resistors--

Chris N0JCF

280. Radar detectors on 3cm

Newsgroup: rec.ham-radio
Date: 1990-01-14 05:31:34 UTC
From: khendric@pollux.usc.edu
Message-ID: <22304@usc.edu>
Source record: 14184
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1011@khijol.UUCP> erc@khijol.UUCP (Edwin R. Carp) writes:
>>I wonder if amateur radio operators are exempt from this foolishness? I
>>am active on the 3 cm band, and I do in fact use modified radar
>>detectors. I use them both for test equipment and communications
>>transcievers.
>Would you post details? Sounds interesting for point-to-point high-speed
>packet, control links, etc. for next to nothing!

Move the cavity down into the amateur band by changing the setting on
the tuning screw that protrudes into the cavity. An exsiting rig with
an IF strip tuned to a known frequency (or tunable) is useful here.
Remove any wires going to the Gunn diode, and replace them with a
regulated power supply capable of being modulated. Modulating the power
supply voltage to the Gunn diode will both AM and FM the Gunn diode.
Hook up an IF strip (perhaps with preamplifiers) to the mixer diode in
the cavity. Add a good antenna, get a friend on 3cm, point it at him,
and QSO. Wideband FM is exceptionally easy to get going, and provides
very reasonable performance.

281. Re: the dsp in Kenwood TS950

Newsgroup: rec.ham-radio
Date: 1990-01-14 19:17:24 UTC
From: henkp@nikhefh.nikhef.nl
Message-ID: <720@nikhefh.nikhef.nl>
Source record: 14186

CQ DL 12/89 page 750-760 is the first part of a test of the TS-950SD
by DL1BU. He writes an good technical article about any new piece of
HF equipment. He has done a lot of measurments on the TS-950.
CQ DL is the QST of the DARC (german) The TS-950 has only a small
Englisch summary:
The new kenwood tranceiver TS-950 SD is the first to make use
of digital signal processing in amateur radio on the audio
section both for receiving and transmitting. The improvement
in signaL quality is remarkable.
This is an in-depth review of a prototype model with many
sophisticated measurments of receiver and tranmittor specifications
screen photos of morse signal, modulation evaluation,
selectivity curves both at the front-end and in the if and af
stages, sensitivity and large signal capabilities. It wil be the
first evaluation with such data worldwide, one of a later model
might follow. (DL1BU)

Some technical info TS-950SD

Tranceiver:
Pa 150Watt, 50V. The intermodualtion is more the 40db down (SSB).
The PA is capable to run one hour at full power.
Receiver:
first if 73.05Mc, second if 8.83Mc, third if 455kc
15 different bandpas filters before the first mixer.
Intercept point between 20 and 24dbm. Dynamic range 105db.
The phase noise is very low. This the best ham equipment synthesizer
DL1BU has seen on his table. It isn't a DDS.
The dsp has his own low if. The if freq was not in the first article.
Receiver modes SSB, CW, AM, FM, and FSK.
The second receiver can be used 500Kc around the main receiver.
First if 40.055Mc, second if 10.695Mc

There is more information but it is imposible to include the pictures.
I haven't seen the second article. I get the CQ DL in an circulation map.

When you can read german and want your copy of the CQ DL's
DARC e.V, PB 1155, 3507 Baunatal, Germay.
Phone +49 561 492004 Mailbox +49 561 498669, Fax +31 561 4911850

Henk PA0HZP henkp@nikhef.nl

282. Re: INFO-HAMS Digest V90 #41

Newsgroup: rec.ham-radio
Date: 1990-01-14 19:31:35 UTC
From: ATISD-DOOI.XP@GUNTER-ADAM.AF.MIL
Message-ID: <12558221600.17.ATISD-DOOI.XP@GUNTER-ADAM.AF.MIL>
Source record: 14195

**********RUSSIAN AMATEUR SATELLITES**********

Does anybody out there have any info on the "RS" satellites???
Yesterday somebody on the air told me when the orbit would be
available and the freq and beam headings....I used my two-meter all mode
to send on 145.880, pounted my beam south, heard my signal come down on
29.380 MHZ and made a couple of fun contacts ....where can I find the
orbit data, etc???
TNX
Marv, WG4Q
----

283. Re: ICOM handheld receiver 100kHz to 1300 mHz ?!

Newsgroup: rec.ham-radio
Date: 1990-01-14 19:40:21 UTC
From: henkp@nikhefh.nikhef.nl
Message-ID: <721@nikhefh.nikhef.nl>
Source record: 14187

Some new ICOM products:

IC-R1 reciever 150Kc-1300Mc. Size IC2 hanheld.

IC-R100 receiver 500Kc-1800Mc in a box the same size IC-2400/2500

IC-R72 'buget HF receiver' cheaper than the IC-R71. 100db dynamic range

IC-24 dualband handheld tranceiver 2m, 70cm

IC-25 dualband handheld tranceiver 70cm, 23cm

IC-901 daulband mobile tranceiver 2m, 70cm FM, with addon 2m CW and SSB

IC-726 HF set 1.8Mc-50Mc. 100W until 30Mc and 10W above. General receiver.

Henk PA0HZP henkp@nikhef.nl

284. New newsgroup rec.ham-radio.amsat?

Newsgroup: rec.ham-radio
Date: 1990-01-14 21:23:01 UTC
From: brians@sequent.UUCP
Message-ID: <27737@sequent.UUCP>
Source record: 14191
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

With the upcomming launch of the microsats as well as the present
group of oscar/amsat guys in the air is there enough intrest on the net
to warrent a new group for oscar/amsat users?

--
Brian Sheets KA7KDX _ /| "I'll be back"
5544 N Burrage. \`o_O'
Portland Or. 97217 ( ) Aachk! - Arnold Schwarzenegger,
503-526-4091 U Phft! Any movie he's been in.

285. Callsign server (*lots* of new features!)

Newsgroup: rec.ham-radio
Date: 1990-01-14 21:57:41 UTC
From: bowen@cs.buffalo.edu
Message-ID: <15774@eerie.acsu.Buffalo.EDU>
Source record: 14190

I had some spare time this weekend and I made some *really* handy additions to the callsign server on marvin (anyone not familiar with the system see the end of this message for more info). I've still got a little ways to go, but it's far more useful than before. A quick review of new features is:

1) regular expression filters on searching
2) now allows to search multiple keys in one command
3) "more" like functionality as a form of flow control
4) callsign searches search for old calls as well as new
5) ^W (control-w) now erases last word on command line
6) ^X is a synonym for ^U
7) new output format for addressing mailing labels

The biggest addition to the system was in the search capability. I've added regular expression filters to each of the searches. You can now selectively narrow down your search to be very picky. For those of you non-Unix folks (and even some of you Unix folks I'm sure) who aren't familiar with regular expressions, I've attached a portion of the BSD man page on the subject. But suffice it to say they function very much like wildcarding (* and ?). Reading the attached man page should give you a real good start, but here are some examples to get you going right away:

city -f ^d -l ^b -s ny buffalo
Everyone in Buffalo with my initials. "-f ^d" says to allow all entries that start with a D in the first name. "-l ^b" works the same for B in the last name. And "-s ny" narrows the search to only New York State. Note the old syntax that was "city buffalo ny" is now invalid and will result in a search for all in the city of buffalo and the city of ny.

name -f ^w cronkite
A good way to find Walter Cronkite. The "-f ^w" means to only list the Cronkite's that have a W as the first letter of their first name.

city -z ^142 -s ny buffalo
This is how you would go about narrowing down the search on a city to just the first digits of the zip code. This says to allow any zip code that starts with 142 in Buffalo, NY.

city -c 0 -s ny fredonia
If you know your friend has a zero call and he lives in Fredonia, NY, you can search Fredonia and use a zero in the callsign as a search filter.

As you can see, the filters are specified with a minus sign followed by a single letter as the filter name. This is taken from Unix command line option standards. The possible filters are:

-c filter by callsign
-f filter by first name
-l filter by last name
-a filter by street address
-z filter by zip code
-t filter by town
-s filter by state

Note that using regular expressions will slow the searches down a bit. Doing all that filtering is really CPU intensive. So don't expect lightning speed.

Also added was a "more" feature similar to the Unix "more" utility. When the server thinks it's at the bottom of your screen, it prints "-- more --" and waits for you to hit a key before it goes on. At this point you can type a "return" to just list one more line, a "space bar" to get a whole new page of text, or a "q" to quit output for this run. The server assumes your terminal is 24 lines long. If this isn't correct you can tell the system with the new "more" command. If you tell it your terminal has 0 lines, the "more" feature is turned off.

The system also now knows enough to search the "previous call" field if it can't find the call you are looking for as a current ham call. This will help out those that are looking for people from yesteryear who have recently changed callsigns.

Sending the server a control-W now causes it to backup over the last word you typed. This is a standard (at least in my world) that is helpful if you don't want to blow away the whole line with a ^U but would like something a little faster than backspaces. I also made ^X the same as ^U. I was told this is a standard in some systems as well.

And last, but not least, there's a new output format that makes the output look like US Postal Service addresses. This might be used if you want to send out a ham-fest announcement to all the hams in a given city. You can just do a city search and trap the output directly. Then when you get a hard-copy, just tape it on the mailing. Hope this is useful.

Well, that's about it. Now, for those of you who don't know anything about this, the callsign server is a program running on the Internet on the host marvin.cs.buffalo.edu (128.205.32.4) on port 2000. It speaks the telnet protocol (pretty well, anyway) and you can access it if your site is on the Internet. The way you do this is site specific, but the command syntax is probably something like:

telnet 128.205.32.4 2000

If this doesn't work for you, I'd recommend talking to you local system administrator. The "info" and "help" commands can get you started.

For those of you not on the Internet, a mail based server is getting much closer... Have fun.

Devon

REGULAR EXPRESSION SYNTAX
A regular expression is zero or more branches, separated by `|'. It matches anything that matches one of the branches.

A branch is zero or more pieces, concatenated. It matches a match for the first, followed by a match for the second, etc.

A piece is an atom possibly followed by `*', `+', or `?'. An atom followed by `*' matches a sequence of 0 or more matches of the atom. An atom followed by `+' matches a sequence of 1 or more matches of the atom. An atom followed by `?' matches a match of the atom, or the null string.

An atom is a regular expression in parentheses (matching a match for the regular expression), a range (see below), `.' (matching any single character), `^' (matching the null string at the beginning of the input string), `$' (matching the null string at the end of the input string), a `\' followed by a single character (matching that character), or a single character with no other significance (matching that character).

A range is a sequence of characters enclosed in `[]'. It normally matches any single character from the sequence. If the sequence begins with `^', it matches any single character not from the rest of the sequence. If two characters in the sequence are separated by `-', this is shorthand for the full list of ASCII characters between them (e.g. `[0-9]' matches any decimal digit). To include a literal `]' in the sequence, make it the first character (following a possible `^'). To include a literal `-', make it the first or last character.

AMBIGUITY
If a regular expression could match two different parts of the input string, it will match the one which begins earliest. If both begin in the same place but match different lengths, or match the same length in different ways, life gets messier, as follows.

In general, the possibilities in a list of branches are considered in left-to-right order, the possibilities for `*', `+', and `?' are considered longest-first, nested constructs are considered from the outermost in, and concatenated constructs are considered leftmost-first. The match that will be chosen is the one that uses the earliest possibility in the first choice that has to be made. If there is more than

one choice, the next will be made in the same manner (earliest possibility) subject to the decision on the first choice. And so forth.

For example, `(ab|a)b*c' could match `abc' in one of two ways. The first choice is between `ab' and `a'; since `ab' is earlier, and does lead to a successful overall match, it is chosen. Since the `b' is already spoken for, the `b*' must match its last possibility-the empty string-since it must respect the earlier choice.

In the particular case where no `|'s are present and there is only one `*', `+', or `?', the net effect is that the longest possible match will be chosen. So `ab*', presented with `xabbbby', will match `abbbb'. Note that if `ab*' is tried against `xabyabbbz', it will match `ab' just after `x', due to the begins-earliest rule. (In effect, the decision on where to start the match is the first choice to be made, hence subsequent choices must respect it even if this leads them to less-preferred alternatives.)

286. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-15 00:11:32 UTC
From: toto@tank.uchicago.edu
Message-ID: <7192@tank.uchicago.edu>
Source record: 14188
Cross-posted to: sci.electronics,rec.ham-radio

In article <1990Jan12.220458.5088@haven.umd.edu
louie@sayshell.umd.edu writes:

: This is a package of C software for the IBM Personal Computer. It can
: be used to call a special NBS number using either 300-Hz or 1200-Hz
: modem and set the computer clock. The latest version has been adapted
: to run on Unix workstations.

There is also a PD program for the Mac. It call a a 1-804 number,
and if done off peak (from Chicago) costs about 15 cents to set the
Mac clock.

It is small and I can mail it to anyone that has binhex 4.0.

--
Sandra Jessica Smyth Believer in lost causes
toto@tank.uchicago.edu
...!mimsy!oddjob!tank!toto

287. spec.v2 A standard spectrum designator

Newsgroup: rec.ham-radio
Date: 1990-01-15 02:12:43 UTC
From: sampson@attctc.Dallas.TX.US
Message-ID: <10994@attctc.Dallas.TX.US>
Source record: 14194

```
Reference to this table is often made, even in the ARRL handbook.
It only goes up to my current radios limits (oh sure) :-)
Meet you on Mike-10 USB...

================================================================================

ELECTRONIC SPECTRUM DESIGNATIONS

Version 2, Compiled by N5OWK
Public Domain (p) January 1990

================================================================================

Band Frequency (MHz) / Channel Number
---- --------------------------------

0 25 50 75 100 125 150 175 200 225 250
+-----------------------------------------------------------+
A | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

250 275 300 325 350 375 400 425 450 475 500
+-----------------------------------------------------------+
B | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

500 550 600 650 700 750 800 850 900 950 1000
+-----------------------------------------------------------+
C | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
+-----------------------------------------------------------+
D | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000
+-----------------------------------------------------------+
E | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000
+-----------------------------------------------------------+
F | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

4000 4200 4400 4600 4800 5000 5200 5400 5600 5800 6000
+-----------------------------------------------------------+
```

```
G | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

6000 6200 6400 6600 6800 7000 7200 7400 7600 7800 8000
+-----------------------------------------------------------+
H | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

8000 8200 8400 8600 8800 9000 9200 9400 9600 9800 10000
+-----------------------------------------------------------+
I | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

10000 11000 12000 13000 14000 15000 16000 17000 18000 19000 20000
+-----------------------------------------------------------+
J | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

20000 22000 24000 26000 28000 30000 32000 34000 36000 38000 40000
+-----------------------------------------------------------+
K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

40000 42000 44000 46000 48000 50000 52000 54000 56000 58000 60000
+-----------------------------------------------------------+
L | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

60000 64000 68000 72000 76000 80000 84000 88000 92000 96000 100000
+-----------------------------------------------------------+
M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
+-----------------------------------------------------------+

N etc, etc, bands make bigger jumps the higher you go.

For example:

K3 is the designator for 24,000 to 26,000 MHz.
A6 is the designator for 125 to 150 MHz
"Cleared Racket (ECM) on Delta-Three through four"

Former Electronic Spectrum Designations (one version)...

Band Frequencies (MHz)
---- -----------------
I 100 - 150
G 150 - 225
P 225 - 390
L 390 - 1550
S 1550 - 3900
C&S 3900 - 5200
C&X 5200 - 6200
X 6200 - 10900
K 10900 - 36000
```

```
Q 36000 - 46000
V 46000 - 56000

================================================================================
```

288. Clear Lake ARC Novice Class

Newsgroup: rec.ham-radio
Date: 1990-01-15 02:13:56 UTC
From: Jim.Heil@linkit.linkit.wd5efc.ampr.org
Message-ID: <104.25B35B2C@linkit.linkit.wd5efc.ampr.org>
Source record: 14189

To ALL:
The Clear Lake Amateur Radio Club will be conducting a Novice Class
starting February 17, 1990. It is planned to be about 6 weeks. It will
be every Thursday at 7:00 pm. If you have any questions (you do, right?)
please call Bob or Kevin @ 488-2036.

THIS IS YOUR CHANCE! GET THE LICENSE YOU HAVE ALWAYS WANTED!!

73'S and hope to see ya there.
Jim Heil
KB5AWM

--
Jim Heil - via FidoNet node 1:106/7873
UUCP: ...!splut!jantor!linkit!Jim.Heil
serviced via UFGATE 1.0

289. Re: HT for Amateur AND Land Mobile Use

Newsgroup: rec.ham-radio
Date: 1990-01-15 03:33:20 UTC
From: mcross@hpcvck.CV.HP.COM
Message-ID: <5440011@hpcvck.CV.HP.COM>
Source record: 14198

I looked for a type accepted radio for use on ham bands and also
the local search and rescue channel. I got information from an ad
in the back of Popular Comm. from:

AXM Incorporated
11791 Loara St
Garden Grove, CA 92640-2321
(714) 638-8807

The VHF(138 - 174 MHz) unit has 99 channels, sub-tones, 40 watts
(5-20 W lo power), and a list price of $849.

Has anyone seen or used one of these units (or the UHF version, $970
list)?

Until the local emergency services office deceides exactly what the
"ham mission" will be, I'm content to listen on the Kenwood 721!

Insert Standard Disclaimer notice here:

___
/ / Minor Cross KD7YJ
/ / Hewlett-Packard Northwest IC Division [NID]
/ /_____ _________ 1020 NE Circle Blvd.
/ ___ / ____ / ___ / Corvallis, OR 97330
/ / / / /___/ / /__/ / -------------------------
/__/ /__/ / ______/ AT&T: (503) 750-2044
/ / HP telnet 750-2044
/__/ }inhp4!hplabs!hp-pcd!hpcvca!hpcvck!mcross

290. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-15 04:11:50 UTC
From: marks@mgse.UUCP
Message-ID: <1042@mgse.UUCP>
Source record: 14192
Cross-posted to: sci.electronics,rec.ham-radio

In article <1013@khijol.UUCP> erc@khijol.UUCP (Edwin R. Carp) writes:
>In article <1990Jan12.220458.5088@haven.umd.edu> louie@sayshell.umd.edu (Louis A. Mamakos) writes:
>
>>8101 Automated Computer Time Service (ACTS)
>>Time and Frequency Division, National Bureau of Standards
>>US Department of Commerce, Gaithersburg, MD 20899
>
>> This is a package of C software for the IBM Personal Computer. It can
>> be used to call a special NBS number using either 300-Hz or 1200-Hz
>> modem and set the computer clock. The latest version has been adapted
>> to run on Unix workstations.
>
>Any ideas on where I can get the software for this? I need the XENIX version
>(if it's been ported to XENIX) or the UNIX version (I'll port it myself).

This reminded my of something i found on the alphacm bbs a long time ago. I pulled it off of tape and tried it. It is called nbs_time.tar.Z, and includes a C program and a 286 Xenix binary. I tried it, and it works, it dialed into NBS at 1200 baud on port tty1a (the defaults) got the time and set it for me. My system time is now within 4 seconds of that which is displayed on my cable converter box (assuming that is right). If you are interested in getting this program DO NOT reply to this message, instead send the following message to the archive server on my system, archive@mgse, and you will get the uuencoded compressed tar file back along with the system help file.

```
- cut here -------------------------------------------------
set uuencode
set compress
send other/xenix/nbs_time.tar.Z
help
- cut here -------------------------------------------------
```

>Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
>Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf

--
Mark Seiffert, Metairie, LA.
uucp: rex!mgse!marks
bitnet: marks%mgse@REX.CS.TULANE.EDU
internet: marks%mgse@rex.cs.tulane.edu

291. Updated keplerian elements for STS-32

Newsgroup: rec.ham-radio
Date: 1990-01-15 08:09:20 UTC
From: karn@ka9q.bellcore.com
Message-ID: <18958@bellcore.bellcore.com>
Source record: 14193
Cross-posted to: rec.ham-radio,sci.space.shuttle

Here's the element set that WA3NAN has been giving out Sunday night/Monday morning:

```
Satellite: sts-32
Epoch time: 90014.31406333
Sun Jan 14 07:32:15.71 1990 UTC
Inclination: 28.5002 deg
RA of node: 105.9690 deg
Eccentricity: 0.0002746
Arg of perigee: 140.8744 deg
Mean anomaly: 219.4008 deg
Mean motion: 15.79250933 rev/day
Decay rate: 0.00178995 rev/day^2
Epoch rev: 75
Semi major axis: 6715.024 km
Anom period: 91.182469 min
Apogee: 340.662 km
Perigee: 336.974 km
Ref perigee: 4396.33879355
Sun Jan 14 08:07:51.762 1990 UTC
```

292. AMSAT Bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-15 09:17:17 UTC
From: karn@ka9q.bellcore.com
Message-ID: <18959@bellcore.bellcore.com>
Source record: 14196

Posted: Tue, Jan 9, 1990 9:18 PM GMT Msg: NGJA-4136-8338
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS-008

SB ALL @ AMSAT $ANS-008.01
MICROSAT - UOSAT LAUNCH DELAYED

HR AMSAT NEWS SERVICE BULLETIN 008.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

Late word from the Ariane launch complex in Kourou, French Guiana
is that the SPOT 2 - Microsat - UoSat launch will be delayed by
at least two additional weeks. Currently, the earliest possible
launch date is given as 24 January 90.

This delay results from a problem that has been discovered in the
primary SPOT 2 payload. It will be necessary to "de-stack" the
fairing and payload assembly and remove the SPOT 2 spacecraft in
order to replace an onboard magnetic tape recorder.

The Microsats and UoSats will be left attached to the ASAP mounting
structure but the solar panel covers will be remounted and the
structure will be placed under a protective cover while this work is
carried out.

Currently Dave Cowdin, WD0HHU, representing AMSAT-NA; Junior DeCastro,
PY2BJO, representing BRAMSAT; and Maarten Meerman, G7DQE, representing
UoSat are in Kourou closely monitoring mission status and tending
to the six amateur payloads.

/EX
SB ALL @ AMSAT $ANS-008.02
AMSAT LAUNCH INFORMATION NETWORK

HR AMSAT NEWS SERVICE BULLETIN 008.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

The AMSAT Launch Information Network is on hold as is the Microsat -
UoSat launch. The plan is still to carry out the ALINS activity from
0100 to 0230 UTC on the day of launch.

Frequencies of major HF re-transmissions around North America and
around the world will be re-published the week before the next

scheduled launch attempt.

The deadline for obtaining a reservation on the call-in teleconference network bridge has been extended through Sunday January 21 on a first come first served basis. After that date, slots will no longer be available. To reserve a position for your repeater or linked facility call Courtney Duncan, N5BF, at 818-957-8455. Be prepared to leave your name, address, phone number, repeater call, frequency, and coverage area on an answering machine. All participants will be contacted not sooner than two or three days before launch with the telephone number and time to call in to the bridge.

Rich Ensign, N8IWJ, reports that launch video will be carried on Spacenet 1, Transponder 4 (Channel 7). Rich has recently confirmed this through the Arianspace office in Washington, DC.

In addition to the launch audio itself, the ALINS programming will carry information from and commentary by radio amateurs who are involved in the Microsat effort.

/EX
SB ALL @ AMSAT $ANS-008.03
PRE-LAUNCH MICROSAT KEPLERIAN ELEMENT SET

HR AMSAT NEWS SERVICE BULLETIN 008.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

SPOT-2 / MICROSAT / UOSAT KEPLERIAN ELEMENT SET

If the SPOT-2/Microsat/UoSat launch occurs on 26 January 90, the following element set may be used to estimate satellite positions for the first few days. Nominal launch is expected to be around 0135 UTC.

If the launch occurs on another day, simply add 0.98561226 degrees of RAAN per day to the listed value.

Following deployment, all seven satellites will be in close proximity for several days. By the end of the first week, users with high gain antennas will begin to find the cumulative position differences per satellite growing large enough to cause significant pointing errors. All users will begin to notice the changes in AOS and LOS time.

Element sets resulting from on-orbit measurements will be provided ASAP shortly after launch and for the first several days when available until data from the standard sources becomes available.

Satellite: SPOT-2, UO-D, E, Microsat-A, B, C, D
Catalog number: not yet assigned
Epoch time: 90026.0816319
Element set: pre-launch

Inclination: 98.738 deg
RA of node: 101.8983 deg
Eccentricity: 0.00134
Arg of perigee: 110.95 deg
Mean anomaly: 297.18 deg
Mean motion 14.1988896 rev/day
Decay rate: 1.0e-06 rev/day^2
Epoch rev: 0

/EX
SB ALL @ AMSAT $ANS-008.04
MICROSAT AND UOSAT FREQUENCIES

HR AMSAT NEWS SERVICE BULLETIN 008.04 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

MICROSAT AND UOSAT FREQUENCIES AND DEPLOYMENT ORDER

The following are the Microsat and UoSat listening frequencies
and modes listed in order of deployment. The OSCAR numbers
listed are, of course, tentative and assume a succesful
launch ahead of FO-1B.

Spacecraft OSCAR number Frequency, MHz Mode

UoSat D UO-14 435.070 9600 bps AFSK AX.25
UoSAT E UO-15 435.120 9600 bps AFSK AX.25
PACSAT PO-16 437.025 1200 bps PSK AX.25
DOVE DO-17 145.825 1200 bps AFSK AX.25 (FM)
WEBERSAT WO-18 437.075 1200 bps PSK AX.25
LUSAT LO-19 437.150 1200 bps PSK AX.25
LUSAT - CW LUSAT 437.125 12 WPM CW telemetry

Packet transmission from DOVE may be monitored with an unmodified
TNC-2 or clone, using an FM receiver. The other microsats
(PACSAT, WEBERSAT, and LUSAT) require an SSB receiver and TNC
with a 1200 bps PSK demodulator (FO-12 compatible, NOT the 400
bps PSK demodulator used with AO-10 and AO-13). The 9600 bps
modulation scheme used by the UoSats is compatible with K9NG and
other similar 9600 baud modems commonly used in terrestrial
packet applications.

/EX
SB ALL @ AMSAT $ANS-008.05
MICROSAT LAUNCH TIMELINE

HR AMSAT NEWS SERVICE BULLETIN 008.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Vice President for Field Operations Jack Crabtree, AA0P,
recently obtained the following preliminary launch sequence

timeline from Dave Cowdin, WD0HHU, AMSAT's man on the scene in
Kourou, French Guiana. This schedule should be followed, at least
approximately, regardless of the time and day of launch. All
times are Mission Elapsed Time.

00:00 Ignition (Time is minutes:seconds)
00:04 Launch vehicle clears gantry
02:34 1st stage fuel expended
02:39 1st stage separation
02:42 2nd stage ignition
03:40 Fairing separation
04:48 2nd stage fuel expended
04:48 2nd stage separation
04:53 3rd stage ignition
16:44 3rd stage fuel expended
16:49 3rd stage separation
17:06 SPOT II separation
20:06 UOSAT E separation
20:07 UOSAT F separation
21:01 Pacsat separation
21:02 DOVE separation
21:03 WEBERSAT separation
21:04 LUSAT separation

Dave reminds us that with this configuration of the Ariane IV, there
are no solid or liquid strap-on boosters. He also reports that there
was a surprising amount of room left in the payload fairing in-spite of
the seven spacecraft mounted in it. It was necessary to add 800 pounds
of lead ballast because of excess lift capability.

/EX
SB ALL @ AMSAT $ANS-008.06
PACSAT TELEMETRY EXAMPLES

HR AMSAT NEWS SERVICE BULLETIN 008.06 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

The following is an actual frame captured during the final test for
AMSAT-NA at Kourou. This is from a regular TNC in monitor mode
using a PSK demodulator.

PACSAT-1>TIME-1:PHT: uptime is 000/00:02:50. Time is Mon Dec 11 10:30:34 1989

PACSAT-1>TLM:00:FF 01:93 02:FF 03:75 04:FF 05:9D 06:82 07:7F 08:68 09:8E 0A:A4
0B:9A 0C:E8 0D:DB 0E:00 0F:30 10:DA 11:82 12:00 13:54 14:7E 15:7C
16:81 17:7A 18:7D 19:7A 1A:7D 1B:7B 1C:7A 1D:7A 1E:28 1F:5C 20:8B

PACSAT-1>TLM:21:7B 22:74 23:24 24:21 25:29 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:26 2E:00 2F:7C 30:7B 31:7B 32:3E 33:00 34:7D 35:7D 36:7D
37:7D 38:7D 39:9D 3A:01

PACSAT-1>STATUS: 00 00 00 80 B0 18 55 02 00 80 00 00 B0 00 00 00 00 00 00 00

PACSAT-1>WASH:wash addr:26c0:0000, edac=0xac

Explanations:

Telemetry is sent once each 10 seconds. The time message is the first in each cycle, the wash message is the last. Note that the wash message does not contain a trailing CR.

The TLM block entries are in the format CC:NN where CC is the channel number (in hexadecimal) and NN is the telemetry count for that parameter, also in hexadecimal, with a range of 00 to FF (0 to 255 decimal). Equations for converting these values into engineering units have been released and are being included in preliminary telemetry decoding software.

The uptime value is the days/hh:mm:ss since the software was last loaded. Onboard software uses this for timing since it is never changed. The other time value is UTC, and can be corrected for drift from the ground.

There are various other messages that come out in response to uplinked commands, so your telemetry programs should only try to parse packets that are "to" TLM, STATUS, or TIME-1.

This format is designed to give something interesting to watch to the largest number of people possible, even those without additional software. In the future a more compact binary telemetry format will be used for the high-rep rate telemetry, with only occasional frames in the above format. This is to conserve downlink time.

Submitted by Harold Price, NK6K

An IBM compatible diskette with all available relevant information and a decoding program is being mailed to command stations and Command Station Development Program team members at this time. Others may obtain copies from AMSAT HQ.

/EX
SB ALL @ AMSAT $ANS-008.07
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 008.07 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

The following is the schedule for Operations Nets for the next several weeks.

Day UTC Day U.S. Freq. NCS Guest

20 Jan 90 1400 Saturday 435.970 N5BF KO5I
03 Feb 90 1345 Saturday 145.950 N5BF Early Microsat News
10 Feb 90 1545 Saturday 435.970 N5BF TBA
18 Feb 90 0530 Sat/Sun 145.950 N5BF TBA

The 20 January session will feature AMSAT President Doug Loughmiller, KO5I.

/EX
SB ALL @ AMSAT $ANS-008.08
SATELLITE OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 008.08 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

OSCAR Satellite Operating Schedule

AO-13 TRANSPONDER SCHEDULE

MODE B MA 000 TO MA 110
MODE JL MA 110 TO MA 145
OFF MA 145 TO MA 150 BAHN LAT -0.9 deg
S BEACON MA 140 TO MA 145 BAHN LON 179.4 deg
MODE S MA 145 TO MA 160
MODE B MA 150 TO MA 255
OMNI ANT MA 225 TO MA 035

AMSAT OSCAR-10 is currently available for whole orbit operation
via the mode B transponder. Bahn coordinates estimated for AO-10
as of 07 January 90 are: BAHN LAT -17.0 deg BAHN LON 38.0 deg.

/EX
SB ALL @ AMSAT $ANS-008.09
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 001.09 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 1, 1990
TO ALL RADIO AMATEURS BT

ZRO Test Schedule

The following is a schedule of Mode B ZRO test times.

Saturday January 13, 1990 at 12:00 UTC MODE B 145.840 MHz
Saturday January 20, 1990 at 15:30 UTC MODE B 145.840 MHz

ZRO brochures are available from WA5ZIB, Andy MacAllister, AMSAT
V.P. of User Operations, 14714 Knightsway Drive, Houston, TX
77083 for an S.A.S.E. with one unit of postage.

/EX

Posted: Wed, Jan 10, 1990 3:39 AM GMT Msg: BGJA-4137-2472
From: TCLARK
To: is
Subj: TAPR Annual Meeting Announcement

SB TAPR @ USA < W3IWI $31481_W3IWI
TAPR Annual Meeting
R:900110/0052z 31481@W3IWI.MD.USA [Balto/Wash MD/DC/VA/DE] Z:21029

ANNUAL TAPR MEETING - TUCSON AZ - SATURDAY AND SUNDAY - FEBRUARY 24th - 25th

The TAPR annual meeting will be held at the Inn At The Airport, 7060 South Tucson Boulevard, Tucson AZ, 85706. The Inn is a very short distance from the airport terminal, walking distance if you're so inclined. Special rates for the meeting are <cheap> for either one or two in a room. Breakfast is included as well as a late afternoon cocktail hour. Our room block will be released on February 9, 1990 so get your reservations in prior to that date. Call 1-800-772-3847 if outside Arizona, 602 746-0271 if in Arizona, or write the above address. Cite The TAPR Conference to assure rates.

There will be a registration fee of <not much>. This fee will help to defray meeting costs plus lunch and private dinner at the hotel. Since breakfast and cocktail hour are provided to those staying at the hotel the overall cost is quite nominal. The Sunday session should be completed by noon or shortly thereafter for those planning return travel on Sunday afternoon.

Networking, that's the packet radio buzzword for the early '90s. And that will be one of the main topics at the 1990 TAPR annual meeting. Equally exciting will be discussions by members of the Microsat team describing and graphically displaying the construction, pre/launch and launch activity of the Microsats and their UoSAT cousins.

Expect to see many of the manufacturers of packet equipment present with displays and demos. Some have already contacted TAPR for arrangements. All the new TAPR kits will be shown and discussed.

Those wishing to be on the speaking agenda should advise the TAPR office as soon as possible. The Sunday session should be concluded near or shortly after noontime for those planning afternoon departures.

[W3IWI note: Actual <prices> were deleted from the TAPR-provided text to avoid problems with commercialism]

/EX

Posted: Sat, Jan 13, 1990 5:06 AM GMT Msg: GGJA-4140-3157
From: TCLARK
To: is
Subj: Launch Change -- for packet

SB ALL@AMSAT < W3IWI $32146_W3IWI
MICROSAT/UoSAT: Launch now Jan.21
R:900113/0353z 32146@W3IWI.MD.USA [Balto/Wash MD/DC/VA/DE] Z:21029

The following news was received from the crew in Kourou on Jan.12. Note that the Jan.21 UTC date puts the launch at 20:35 EST on Saturday night, Jan.20.

Arianespace announced today that the launch of V35 is now set for January 21, 1990 at 01:35 UTC. The composite will be moved to the launcher on Monday, January 15th.

Arianespace is making special provisions for the MICROSATs and UoSATs so that we don't have to go through another 21.5 hours without battery charging like the last time. The most we will be off is about 12-14 hours.

After we reconnect at the block house, we will charge for 16 hours.

The replacement tape recorder for SPOT-2 was installed yesterday and the SPOT people were pleased with the functional testing. More importantly, NOTHING DROPPED ON THE MICROSATs or UoSATs during this critical repair operation. The work on SPOT has now finished, and we have removed the protective covers from our satellites again.

73's WD0HHU, PY2BJO, G7DQE
/EX

293. AMSAT Microsat launch confusion

Newsgroup: rec.ham-radio
Date: 1990-01-15 09:26:07 UTC
From: karn@ka9q.bellcore.com
Message-ID: <18960@bellcore.bellcore.com>
Source record: 14197

Please note that there has been quite a bit of confusion as to the time of the upcoming AMSAT Microsat launch on Ariane. A variety of problems has caused a series of schedule slips. Because they could not always anticipate how long a given problem would take to fix, Arianespace has sometimes pushed the launch date back by an overly conservative amount only to pull it forward again by a smaller amount when the problem turned out to take less time to fix than that originally estimated.

As of the time of this article, the launch is CURRENTLY scheduled for January 21, 1990 at 01:35 UTC (that's this coming Saturday evening in the USA). Keep watching the bulletins in case there's another change.

Phil

294. Re: Stand Up against Censorship!

Newsgroup: rec.ham-radio
Date: 1990-01-15 15:40:35 UTC
From: TROTH@RICE.EDU
Message-ID: <4007231651.AA01705@rice.edu>
Source record: 14199

On 11 Jan 90 17:52:22 GMT Steve Owen said:
> **********
> ******* Take a stand against censorship, act now!!! *******
> **********

In general, I agree with the idea of censoring censors, BUT ...

> I heard a message on the radio this morning urging listeners to
> send letters to the FCC. According to the message the FCC is
> considering expanding the restriction on broadcasting of objectionable
> material (their definition of objectionable) from the current 16 hour
> period of 6am to 10pm to 24 hours a day. They urged their listeners to
> write the FCC a letter to raise objections to the ruling.

I have the impression that the FCC is extremely lenient on
most producers regarding "objectionable". What exactly are they
threatening to censor? The Playboy Channel? Sorry, but I'd have to
SUPPORT that move.

Thank you for including the name and address of the station:

> KFCJ
> 12345 El Monte Road
> Los Altos Hills, CA 94022

Unfortunately, I didn't find a KFCJ, tho I DID find KFJC
at (415) 941-2500. Maybe it's a typo.

> I'd like people to post generic letters to the FCC for people who
> don't feel comfortable with their writing skills. Those people may then
> cut and past their names into the letters and send them.

Hmmm... generic letters? Why? Why can't people THINK enough
to write their own letter(s)?

> Please act now before it's too late.
>
> Tony Purmal

Are you sure this isn't another 'hoax'?

Something's getting reversed: the burden of censorship ought to
be on the broadcaster, not the listener. The same logic that says some
TV station can transmit in clear air an un-edited Nightmare on Elm Street,
"If you don't like it, turn it off", says that I can't scan 800 MHz,
"It's not meant for you, don't listen". The doctrine of free speach
does not mean that the speaker is free to use foul language or graphic
violence, because someone could be listening who ought not to be

to be subjected to that garbage. Likewise, if someone wants privacy
while discussing a sensitive topic, he better not assume that no one
is listening who "shouldn't be", just because it's illegal.

"What you believe [an act of your will] won't affect reality [facts; truth],
but it will affect your attitudes and actions, which will in turn affect
how reality impacts you."
Rick Troth <TROTH@RICEVM1.RICE.EDU> ------------- Rice ONCS VM Systems Support

295. HELP!! Need Mods for IC-04AT, PLEASE!!

Newsgroup: rec.ham-radio
Date: 1990-01-15 16:14:37 UTC
From: marke@hpscdc.scd.hp.com
Message-ID: <5490084@hpscdc.scd.hp.com>
Source record: 14200

The subject of "mod's" for the IC-04AT have probably been brought up before here on the NET, but for some reason I have managed to miss them all. So, if some kind ol radio amateur could dig in to his or her files one more time, and post them for me, it would be muchly apprieciated. I am specifically looking for the mod's that pertain to out of band operation, and RX audio volume improvement.

Please post or e-mail, and thanks.

Mark Espinosa/WA6RGD

296. RF progagation

Newsgroup: rec.ham-radio
Date: 1990-01-15 16:57:31 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001151726.AA01938@ti.com>
Source record: 14223

Phil Ngai asked about why AM radio fades when you drive under a bridge but FM isn't affected nearly as much.

It's not so much a function of the modulation mode as it is the frequencies in use. In a way, the bridge acts like a capacitor. The longer wavelengths of AM broadcast signals can't get through (into) the opening because the opening is a small fraction of the wavelength (200 meters or longer). On the other hand, broadcast FM signals are shorter wavelengths, on the order of three meters, and can easily pass through most bridge appertures. I have an idea that everyone who has ever owned a radio asks this question, so it's not so naive, Phil.

73,
Dube Todd N5PDK

297. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-15 17:06:47 UTC
From: ridder@elvira.enet.dec.com
Message-ID: <609@shodha.dec.com>
Source record: 14201
Cross-posted to: sci.electronics,rec.ham-radio

In article <JEFFC.90Jan11145835@bach.ncr-fc.FtCollins.NCR.com>
jeffc@ncr-fc.FtCollins.NCR.com (Jeff Cook) writes:
>In article <1990Jan10.175719.8720@haven.umd.edu> louie@sayshell.umd.edu
(Louis A. Mamakos) writes:
>
>> If you're a time freak, like me, you'll really want to invest in a
>> WWVB clock.

If your not as much of a time freak as Louis, and all you want is to
set the time on your computer, you may be satisfied with the dial-up
time service provided by NIST. The number is 303-494-4774, 300 or
1200 baud. It was rumored that they would be adding a 900 number, but
I've never heard about it.

When you connect, it prints a banner then starts dumping time stamps
to you (much like the WWVx synced clocks do). If you echo the time
stamps back, it computes the round trip delay and (assuming the
one-way delay is half) advances it's time stamps to you so they arrive
on time. If you type a question mark when you connect, it will send a
help text documenting the format, etc.

This method doesn't have the long-term accuracy that a WWVx clock has
(since you can't stay connected forever), but it's better than the
local phone company!

>Sounds interesting, but expensive. How much would something like this
>cost?

Dunno. But the NIST time service would probably be a local call for
you (Jeffrey)! It may be what you're looking for.

>Jeffrey L. Cook jeffc%ncr-fc@ncr-sd.SanDiego.NCR.com

-hans
==
Hans-Gabriel Ridder Digital Equipment Corporation
ridder@elvira.enet.dec.com Customer Support Center
...decwrl!elvira.enet!ridder Colorado Springs, CO

298. Buying a used scanner

Newsgroup: rec.ham-radio
Date: 1990-01-15 17:48:34 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <12609@cbnewse.ATT.COM>
Source record: 14209
Cross-posted to: rec.radio.shortwave,rec.ham-radio

x
BUYING A USED SCANNER

by Bob Parnass, AJ9S

Anybody with enough money can buy a brand new scanner, but you can save lots of money if you get a good deal on a used scanner. Hamfests are probably the best place to find used radios, but you must be familiar with the equipment. Hamfests are replete with older radios you won't see in today's catalogs.

At last count, there were over 70 scanners and monitor receivers of various brands in my collection. I purchase most of my receivers at hamfests or horsetrade with other radio hobbyists. This article describes a few of the FM receivers in my collection, and is not meant to be complete.

A Used Scanner May be a Broken Scanner

Getting a bargain is not without some risk. I have had sellers look me square in the eye and tell me their radio worked fine -- when it really didn't.

For this reason, you should have some recourse if the radio you buy turns out to be defective.

If you can't fix the radio yourself, you can pay to have the manufacturer or a service clinic repair it for you. My personal experience with Uniden (the new manufacturer of Bearcat and Regency scanners) has been disappointing. Several people have been pleased with Electronic Repair Center, in Franklin Park, IL, which repairs scanners for a flat fee. Call them at (708)455-5105) to find out their current rates.

Evolution of the Scanner

It helps to understand some scanner history before shopping for a used scanner. You will likely see radios from many vintages at a hamfest, and should to avoid buying early units unless you are a scanner collector.

One of the earliest ancestors to the scanner was the converter. Manufactured by Tompkins (Tuneaverter), Peter-

sen, Bearcat (Lil Tiger), Midland, and others, converters were made to operate in conjunction with AM radios. Then came wide band monitor receivers, in both tunable and crystal control models, like the Radio Shack PRO-2B. Truthfully, converters and tuneable FM receivers are interesting but don't work well by today's standards.

While tuneable receivers were in vogue, solid state technologies supplanted tubes. Better performing, narrow band crystal controlled units, like the Sonar FR-105, followed. These units did not scan, rather channel selection was accomplished using a simple rotary switch. Sonar even made a 24 channel unit in which crystals were held in a rotary "turret."

Perhaps the best known early scanners were the Regency TMR and Bearcat units. The first Bearcat was rather crude, providing no way to lock out channels from the scan. The first scanners came in single band models, followed by multiband models.

The first programmable (crystal-less) scanners were difficult to program. Users had to look up frequencies in a code book and tediously program the information into the scanner in binary form. Some models, like the Bearcat BC-101, Radio Shack COMP 100, and Tennelec MCP-1, resembled Altair or PDP-8 computers, with a row of 16 or so toggle switches. Instead of toggle switches, the Regency WHAMO-10 was programmed by breaking teeth from metal combs. The SBE Optiscan (and its Sears clone) required poking a series of holes in plastic cards which were then inserted into a slot on the front panel.

More Modern Scanners

Both Bearcat and Regency, as well as Radio Shack offer some good models. I would avoid the Bearcat 100, and scanners made by AOR, JIL, Fox, Tennelec, and Robyn.

Scanner features often differ not only by model but by manufacturer. For instance, most Radio Shack and Bearcat programmables allow enable/disable of the delay function on a per-channel basis. Older Regency units permit the delay to be enabled/disabled only globally, that is, for all the channels at one time.

Radio Shack scanners contain a reasonable number of features, but the older models scan a bit slowly and have a higher level of synthesizer noise. Most have too much hysteresis in the operation of the squelch control, but this can be fixed completely by replacing one resistor. Good, detailed shop manuals are available for Radio Shack

units for $5 - $12.

In the name of cost cutting, some models have done away with the concept of a "channel bank", i.e. the ability to select/deselect a group of channels at a time. The bank concept was a good one. It may be inconvenient to operate a 30 channel scanner without banks (e.g. Regency MX3000, HX1000) if you operate the way many scanner hob-byists do.

A few years ago, Regency and Bearcat were purchased by Uniden, a Japanese company.

My two favorite VHF/UHF receivers are the 300 channel Radio Shack PRO-2004 (now replaced by the 400 channel PRO-2005) and the ICOM R7000. The ICOM is more of a "communications receiver" than a conventional scanner.

Other favorites include the Bearcat 300 and 760XLT, Regency M400, and the Regency K500 (predates the M400), all of which include a "service search" feature.

For portable use, I prefer the Uniden/Bearcat 200XLT, although it's the Icom IC-2GAT scanning 138-174 MHz walkie-talkie that goes wherever I do.

ICOM

R-7000: At about $1000, this is the Cadillac of VHF/UHF receivers. 99 channel, multi mode coverage from 25-2000 MHz with a small gap at 1000-1025 MHz. Memory can be expanded to 198 channels by adding simple switch to pin 19 of memory IC8. Tuning knob lets you tune through parts of the spectrum much easier than using the SEARCH mode on conventional scanners. Selectable USB/LSB allows reception of new amplitude compandored sideband (ACSB) stations. S-meter doubles as discriminator meter to aid tuning. Useful search and store feature, reminiscent of the the Bearcat 250, searches between 2 limits and automatically stores new frequencies into channels 80-99. Audio and control interface for tape recorder. Searches and scans slowly but can be sped up to about 12 cps by adding a resistor. Too big for permanent mobile use, but too nice to leave alone in the car. If you don't want to spend $1000, get a Radio Shack PRO-2004 instead for about $400.

UNIDEN/Bearcat

800XLT: 40 channels in two banks. Covers 806-912 MHz, as well as of vhf, uhf, and aircraft bands. Receives 10 meter fm and all of 6 meters, as well as federal portions of vhf and uhf bands. Fewer birdies on vhf-lo band than

other scanners. Scans and searches very fast. Clean, robust audio output. Extremely sensitive, but very prone to overload by strong signals when connected to outdoor antenna. Too much play (hysteresis) in squelch adjustment - can be improved by changing one resistor. Positive terminal in memory backup battery holder installed backwards in early units, allowing memory loss when scanner unplugged from AC outlet. Tunes in increments of 12.5 KHz on 800 MHz band, whereas cellular telephones are on 30 KHz channels.

BC350: 50 channels in 5 banks. Includes aircraft. Used to be Bearcat's top of the line, overpriced scanner but never very popular, now discontinued. Dual use keyboard and display allowed 8 text characters to be associated with each channel, a feature clumsily implemented, and awkward to use. Units plagued with various hardware problems including bad memory ICs and short life power transformers. Firmware bugs without cures. The BC300 is a much better scanner than the BC350, and at a lower price.

BC300: 50 channel top of the line scanner. Service Search feature contains 11 ROM banks of preprogrammed channels. Switching power supply failure noted in early units due to insufficient capacitance - component value was changed in newer units. Schematics show at least 100 components changed between earliest and later units. Preset squelch pot, mounted internally on circuit board, misadjusted in new units - adjustment usually required after burn-in period. Good sensitivity. Built in clock. I leave it on 24 hours a day. This is a favorite.

BC20/20: 40 channels. Reasonable number of features. Service Search for Marine and Aircraft. LED readout. Good scanner, but tinny audio.

BC250: 50 channel discontinued model. Rich in features, but lacks aircraft band and 144-146 MHz. Search and Store feature extremely useful for finding federal frequencies. Clock. High frequency of repair. Power transistors not heat sinked adequately, causing heat damage to surrounding components and circuit board. Failure of Q204 on the feature board known to cause odd display readings. Digital circuitry very sensitive to glitches caused by static and AC line spikes. Avoid 1978 or earlier vintage units. All BC250s use custom ICs (e.g., IC6, a divider chip, mfd. by Exar), which are now discontinued, so factory service is no longer available from Uniden.

BC260: Super heavy duty metal cabinetry and lit controls, aimed at mobile use for firemen, police, etc. Few frills, only 16 channels, no aircraft, but generous coverage of federal bands omitted in the older Bearcat scanners. Good sensitivity. Lots of audio. Good internal construction. Backlit keyboard allows operation in the dark, but the keyboards on some units require high pressure to operate. Brightness control for display and keyboard, but multiplexor circuitry for vacuum fluorescent display produces audible whine which may be annoying in a quiet room. Backlighting may fail in some units due to poor contact on connector used to fasten light panel to front circuit board. Method of connecting an external speaker is awkward.

BC100: First programmable portable. Be prepared for at least one repair in the first year. Early units, with threaded antenna connector, have high frequency of repair, particularly LCD readout, keyboard, and battery holder. No battery backup. Poor case design in early units caused battery to disconnect from radio, resetting microprocessor and clearing memories. No priority channel or aircraft band. Some people swear by the BC100, others swear at them.

BC100XLT: Excellent 100 channel portable with 10 priority channels. Unique feature tells whether a given frequency has already been memorized. Generous coverage of conventional bands, including commercial aircraft, but no 800 MHz. Decent leather-like case. Slide-on 550 mAH NiCd battery pack.

BC101: First Bearcat synthesized unit. 16 channels, no priority. Frequency programmed in binary by setting toggle switches on front panel after looking up code in code book. No frequency readout. Uses custom IC for CPU, now discontinued, so factory authorized service is no longer available. I have four of these units. Three work.

Bearcat_12: One of the last decent crystal controlled scanners. 10 channels. Variable scan speed up to 20 ch/sec. Single delay on/off switch. Front mount speaker sounds good. Manual contains schematic. Selectivity is poorer than programmable models, like the 300, allowing adjacent channel interference. No aircraft band coverage. Crystal positions must be arranged by band.

Regency

TMR_series: First generation crystal scanners. Come in all varieties of band coverage. Models with both UHF and VHF bands must use separate antennas for each band (disadvantage in mobile installations, but can be over-

come by connecting two front ends via a capacitor). Easy to crystal: Radio Shack crystals work well. TMRs usually $2 and up ad hamfests, often in poor condition. Don't pay more than $50, even if mint. Front ends must be tuned for selected portions within the bands for best sensitivity. Wide IF selectivity troublesome in urban/suburban areas. Primitive digital scanning circuitry may become confused at times, but power off/on restores sanity. Not all that bad a deal if cheap. Replaced by Regency ACT units.

WHAMO-10: Regency's first synthesized scanner. Discontinued long ago. Appearance more like a crystal scanner, with a single LED per channel. User has to break off teeth on a metal 'comb' for each channel according to a code book. External frequency control unit DFS-5K optional. UHF VCO reference oscillator drifts on some units. Soldered sheet metal shields around some circuitry make access to some components difficult for servicing. Comb sockets prone to bad connections after moderate use.

K500: Nice wood-like cabinet. Discontinued 40 channel model with every feature Regency could dream of in one scanner, except aircraft band. Idle tone bypass feature for mobile phone stations works about 50% of the time. Weather alert feature. Service Search in several banks. Search and Store facility not implemented as well as BC250, but better than none. Built in clock when radio off or in manual mode. Can be programmed out of band. Reasonable performance, but sensitivity could be better. Spring contacts on membrane keyboard may need soldering after prolonged use.

K100: Bare bones version of the K500. 10 channels, no priority feature. Same wood-like cabinet and reasonable performance as K500. Spring contacts on membrane keyboard may need soldering after prolonged use.

M400: 30 channel replacement for K500, but now discontinued. Service Search, but no aircraft. Easily programmable out of band. Built in clock when radio off or in manual mode. Backlit keyboard good for night viewing and mobile use but generates RFI into nearby SW receivers. A favorite.

MX3000: Discontinued 30 channel replacement for M400, but basic features only. Nice lit keyboard, but may cause RFI into nearby SW receivers. Easily programmable out of band, but no aircraft. All 30 channels are in a single bank, and lack of direct channel access make this model more difficult to operate. Good first scanner.

M100: Discontinued 10 channel unit. Same as MX3000 except different color and fewer channels. Nicely lit keyboard, but may cause RFI into nearby SW receivers.

HX1000: Good, fairly rugged, 30 channel handheld synthesized unit. Generous out of band coverage but no AM aircraft coverage. Built by Azden. Very sensitive on UHF, but annoying audio hiss leaks through speaker when squelched. Belt clip chintzy, but can be directly replaced with better clip from Kenwood TR2600A. Like the MX3000, all 30 channels are in a single bank, and lack of direct channel access make this model more difficult to operate. Low discount price makes this best choice for programmable portable.

HX650/H604: 6 channel crystal portable. Likely made by Sanyo. Same as Fannon and Bearcat Thin Scan units, (except that Bearcat has 10.8 MHz IF frequency, and is harder to get crystals for), but scans faster. Small size and common crystals (available at Radio Shack), make this 1st choice for bare bones portable scanner.

Radio Shack1

PRO2004: Top of the line, wide band scanner for 1987. After a diode is cut, enjoy continuous coverage from 25-520 and 760-1300 MHz, AM, NBFM, and WBFM. Has 300 channels in 10 banks of 30, backed up by conventional 9 volt alkaline battery. Any channel can be designated the priority channel. Scans and searches fast. Lots of well designed features, like 10 pairs of search limits, Lockout Review, default search increment and emission mode. Sound Squelch allows skipping dead carriers during search or scan. Metal cabinet, good internal construction and shielding, but no mobile mounting bracket or DC power cord. Soft touch membrane keyboard. Good sensitivity and selectivity. Very good radio.

PRO2005: Radio Shack's top of the line scanner for 1989 and today's scanner of choice. Essentially a size reduced PRO-2004 with surface mount components and 400 channels. Some people think the small knobs, smaller display, and plastic cabinet are a setback from the 2004. The smaller size, real rubber keyboard, and vertical front panel make it easer to use mobile, although there is no mobile mounting bracket available and the keyboard is not backlit. More sensitive than the PRO-2004 but 800 MHz signals leak through into the commercial aero band.

PRO34: Portable scanner with 200 channels and 800 MHz coverage. Ten "monitor" channels. Operates from AA cells. Slow scanning, low audio output, and chintzy plastic case detract from an otherwise good performance.

No decent leather case available from Radio Shack. If you need a portable with 800 MHz, get a Bearcat 200XLT. If you can't get a 200XLT, get a PRO-34.

PRO2021: Base/mobile scanner. 200 channels in 10 banks, LCD display and raised rubber keys. Lots of memory but scans too slowly and lacks 800 MHz. Ten "monitor" channels. Radio Shack seemed to have an overstock of 2021s as they were on sale for such a long time. Close out price dipped to about $200, which made it a nice scanner for beginners.

PRO2001: Early, discontinued single bank 16 channel programmable. Reasonable coverage of the 3 traditional bands, minus aircraft band. LED digital display as well as an LED per channel. Mechanical lockout switch for each channel. Delay is either on or off for all channels at a time. High synthesizer noise level. Troublesome plated through holes on digital board in some units renders radio virtually unfixable. Could never get mine to work more than a few days in a row; always another bad connection. Some owners have no trouble.

PRO52: Discontinued 8 channel VHF-Lo/Hi base unit. No UHF band or provision for mobile operation. Good little scanner despite limited frequency coverage and Spartan lack of frills. Front mounted, vertical speaker always a win.

PRO2003: Radio Shack's 1986 top of line. 50 channels + 10 FM commercial broadcast band channels. Includes aircraft. Good frequency coverage and functionality, but at a high price. Poor human engineering: difficult to read keyboard makes the PRO2003 hard to operate unless in a well lit room. Keyboard label coloring improved on newer units. Rather slow scan rate and high price. Although there are provisions for 12VDC operation, the cabinet shape and lack of mounting bracket makes mobile operation impractical. Scan rate only 8 channels/sec vs. 15/sec in Regency and Bearcat. Causes RFI: Plastic case permits scanner to radiate signals into nearby receivers.

PRO30: 16 channel programmable portable with aircraft band. Good frequency coverage. Extra controls on top allow control of SCAN, MANUAL, and PRIORITY functions while worn on belt. Good belt clip. Low audio output. Plastic case prone to break at BNC antenna connector under severe use, vs. metal frame in Regency HX1000. High price, no discounts or sales yet. I had 6 or 7 PRO30s, having to return them several times during the 1 year warranty, although other owners have had little or no trouble. Troubles included oscillation in IF stage,

no UHF band reception, case broken around base of antenna connector, etc.

PRO24: Only 4 channels in this crystal controlled portable. Covers the three basic bands, but no aircraft. Easy to obtain batteries and crystals. Characteristic Radio Shack squelch problem, fixable by changing one resistor. All-plastic case larger than Bearcat Thin Scan and clones.

Craig2

4530: Discontinued Japanese 10 channel crystal controlled 3 band unit. Also available under Plectron name but in different cabinet. No aircraft band. Deluxe features like priority, trimmer capacitors for netting each channel, front panel speaker, and rugged metal cabinet make this unit a winner. Channel lockout slide switches have finite life. Replacing burned out incandescent channel lamps not fun. Grab a 4530 if you find one in good condition.

Tennelec

Manufactured the first synthesized scanners. Company went out of business several years ago. Schematics and parts difficult to obtain. Radios reputed to be poor performers. Got my MS-2 and MCP-1 basket cases for free and sometimes regret taking them. Not worth fixing unless you have access to DTL/RTL chips and circuit diagrams.

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1. Radio Shack scanners are manufactured by General Research Electronics of Tokyo (GRE).

2. Craig is a division of Pioneer.

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==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

299. 75 foot tower 30 feet from neighbor

Newsgroup: rec.ham-radio
Date: 1990-01-15 17:51:52 UTC
From: faunt@CISCO.COM
Message-ID: <9001160805.AA07469@ucbvax.Berkeley.EDU>
Source record: 14224

So where do all these numbers for how close towers fall to their base
come from?

300. Re: ICOM handheld receiver 100kHz to 1300 mHz ?!

Newsgroup: rec.ham-radio
Date: 1990-01-15 17:59:26 UTC
From: ewb@raybed2.UUCP
Message-ID: <1443@raybed2.UUCP>
Source record: 14221

In article <9001122251.AA25340@ucbvax.Berkeley.EDU>, BRUCEH@UTKVX3.BITNET writes:
> Did i read the earlier message right? Does anyone have any more information
> on the 100kHz to 1300 mHz receiver? I think i'd be interested in something
> like that! Has ICOM released any info, pictures, etc? Bob P., have you
> seen one?
>
> Bruce Harrison WB4MJG
> Univ. of Tennessee at Martin
> BRUCEH@UTKVX (bitnet)

Yes you read the earlier message right. ICOM will be introducing 3 new receivers in the near future. They are 1) A hand-held receiver, 100KHz to 1300 MHz, 100 channels, in the same case as the IC2SAT. List price around $600.00, discounted around $450.00. 2) Mobile version of the same with upper end frequency coverage to 1800 MHz. Unknown number of channels. Price (discounted) probably around $ 590.00. 3) Stripped down version of R-71. This may just be the ticket for those of you who are interested in SWL'ing, need a good radio, but don't want to spend the farm. Estimated price unknown. All radios will be introduced at DAYTON ! (Be there !)

NOTE: All of this info was available in Monitoring Times Magazine.

73
Gene WA1UXA

P.S. To the individual who posted the info about the R-9000..... Last time I checked the '9000 was not a hand-held radio :-)

301. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-01-15 18:51:48 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9001160805.AA07495@ucbvax.Berkeley.EDU>
Source record: 14225

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 32
1 20409U 90 2 A 90 15.13545784 .00103876 00000-0 53946-3 0 220
2 20409 28.5019 99.9336 0002294 149.3184 210.8985 15.79458337 890
--
Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

302. STS-32 keplerian elements

Newsgroup: rec.ham-radio
Date: 1990-01-15 19:06:45 UTC
From: karn@ka9q.bellcore.com
Message-ID: <18976@bellcore.bellcore.com>
Source record: 14202
Cross-posted to: rec.ham-radio,sci.space.shuttle

Here's a new element set as was just received on 40m from WA3NAN:

```
Satellite: sts-32
Epoch time: 90015.13545784
Mon Jan 15 03:15:03.557 1990 UTC
Inclination: 28.5019 deg
RA of node: 99.9336 deg
Eccentricity: 0.0002294
Arg of perigee: 149.3184 deg
Mean anomaly: 210.8985 deg
Mean motion: 15.79458370 rev/day
Decay rate: 0.00103876 rev/day^2
Epoch rev: 89
Semi major axis: 6714.437 km
Anom period: 91.170494 min
Apogee: 339.100 km
Perigee: 336.020 km
Ref perigee: 4397.16168013
Mon Jan 15 03:52:49.163 1990 UTC
```

303. Re: naive question about RF propagation (anecdote)

Newsgroup: rec.ham-radio
Date: 1990-01-15 19:48:56 UTC
From: jans@tekgvs.LABS.TEK.COM
Message-ID: <6671@tekgvs.LABS.TEK.COM>
Source record: 14203
Cross-posted to: sci.electronics,rec.ham-radio

<We all know that AM broadcast radio fades when you drive under a bridge but FM doesn't tend to nearly as much. Why is this?>

I'll leave the real answer to someone else, but thought readers might enjoy an anecdote on the subject. The following paraphrased letter to the editor appeared in Radio Electronics magazine in the mid-sixties:

"When I drive through a tunnel, FM is okay, but all AM stations suddenly vanish. What should I do?"

The editor at the time (whom I believe was the same guy that edits Popular Communications today) replied:

"Stay away from tunnels! You're a menace to the entire AM broadcast industry!"

(Hope this was helpful, Phil! :-)

Jan Steinman - N7JDB
Tektronix Electronic Systems Laboratory
Box 500, MS 50-370, Beaverton, OR 97077
(w)503/627-5881 (h)503/657-7703

304. *COMPLETE* List of Space Shuttle Frequencies!

Newsgroup: rec.ham-radio
Date: 1990-01-15 21:24:08 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <92@ka2qhd.UUCP>
Source record: 14127

From NASA SPACELINK
Provided by the NASA Educational Affairs Division
Operated by the Marshall Space Flight Center
-=-

Amateur Radio Retransmission of Shuttle Audio/Video

NOTE: This information is unofficial, and its accuracy is not guaranteed.

The Goddard Space Flight Center Amateur Radio Club (GARC) has transmitted,
by Amateur Radio, NASA Select audio on the following frequencies:

75 Meters: 3.860 MHz U.S. and Canada coverage *

40 Meters: 7.185 MHz World wide coverage *

20 Meters: 14.295 MHz World wide coverage *

15 Meters: 21.395 MHz World wide coverage *

10 Meters: 28.650 MHz World wide coverage *

AO-13 (AMSAT OSCAR-13) Satellite; 145.945 MHz. Primary; 145.955 MHz.
Alternate. This Mode B requires a satellite-high gain antenna

* Coverage is dependent on Solar Activity and Ionosphere conditions. With a
good short-wave receiver and outside antenna, reception should be
possible. Due to ionospheric conditions and time of day/night, certain
bands have better reception. A search of each band is recommended.

The GARC plans to re-transmit Shuttle video on Amateur TV for hams and ham
TV watchers in the Washington, DC area. Contacts at GSFC: Russ Jones,
N3EGO, or Frank Bauer, KA3HDO.

The Marshall Center Amateur Radio Club will re-transmit NASA Select audio at
147.100 and 145.100 MHz. These transmissions can be heard only in the local
Huntsville, Alabama area.

People in the greater San Francisco Bay area and Sacremento can view the
mission via the W6NKF Amateur Television repeater on MT.Diablo which operates
on 427.250 MHZ with vertical polarization. Those with cable ready TVs and VCRs
or cable TV converters can tune this equipment to channel 58 in the CATV
format and by hooking up an outside TV antenna should be able to receive the
telecast. This makes the service available to the general public, including
schools, colleges, etc.

Shuttle audio is re-transmitted in the Minneapolis/St. Paul, Minnesota area
on 145.150 MHZ during Shuttle flights. Additionally, during some flights,
the audio is also re-transmitted by the 3M ARC repeater (WB0BQG/R) on

147.120 MHz FM.

In the Los Angeles area, Shuttle air-to-ground audio may sometimes be heard on VHF at 145.460 MHz.

The WB4LA repeater located in Dayton, Ohio on 145.110 MHz, re-transmits Shuttle Select audio.

Shuttle audio is available in the Pheonix, Arizona area on 449.000 MHz FM.

The Coastal Plains Amateur Radio Club provides Shuttle Audio on the WD4EVD Repeater in Ashburn, Georgia on 147.285 MHz FM.

During STS missions, NASA Select audio is available on Amateur Radio repeater WD6BNO/R, transmitting on 52.220 MHz, with coverage in the central San Joaquin Valley, California. Coverage includes Bakersfield to Stockton. ENJOY!!

The Ames Amateur Radio Club re-broadcasts NASA Select Audio on 145.580 MHz. The signal orginates from the NASA-AMES Research Center in the heart of the Silicon Valley, Mountain View, Ca.

NASA Select video is available for those who have a line-of-sight path to Black Mountain via Amateur TV. For ATV details, write:

AMES Amateur Radio Club, P.O. Box 73, Moffett Field, Ca., 94035-0073.

The Johnson Space Center supplies NASA Select Audio on 146.640 MHz FM, via the W5RRR repeater.

From WB4CXD: Shuttle audio can be heard in Birmingham, Alabama, on 145.380 MHz direct, and via the N4AHN repeater on 145.150 MHz.

If visiting the "MILA" (Meritt Island Launch Area) at Cape Canaveral, Fla., you can hear launch and air-to-ground audio on the K4GCC repeater on 146.940 MHz.

NASA Select is on 444.300 (NN0V) and 146.400 MHz in the Cedar Rapids, Iowa area.

=====

From Ron Parise, ASTRO-1 Shuttle Astronaut:

Hi Folks!
This is in response to the question about shuttle frequencies. I tried to reply the other day but apparently it didn't work. The space shuttle transmits on three frequency bands, UHF, S-Band, and Ku-Band.
The UHF frequencies are simple AM voice and very easy to copy. These frequencies are used for launch and landing operations, EVA comunications, (i.e. from the spacesuits back and forth to the shuttle), and as an additional voice downlink when other channels are in use or the current ground station has no S-Band capability. The frequncies in use are:

296.8 MHz - air to ground, or orbiter to suit
259.7 MHz - air to ground, or suit to orbiter

279.0 MHz - suit to orbiter or suit to suit
243.0 MHz - standard Mil aircraft emergency freq.

The S-Band system is one of the primary orbiter downlink bands. The voice channels are digital slope delta modulation and are mux'ed in with the rest of the orbiter telemetry, very difficult to copy. Much of the downlink TV is on S-Band also but it is wideband FM and should be easily copyable. The frequencies are:

2287.5 MHz - primary digital downlink
2250.0 MHz - wideband FM with either main engine analog telemetry during launch, or TV during orbit operations.

The Ku-Band system is used in conjunction with the tracking and data relay satellites and is used much more heavily in Spacelab flights than in others. The data is *very* high rate digital (50 Mbits/sec range) and therefore essentially impossible for you to demodulate and decommutate in your basement. Nevertheless the shuttle transmits on 15.003GHz. You should also note however that these transmissions are directed toward the TDRS satellite with a high gain antenna and would therefore not be copyable on the ground.

The UHF frequencies are fun to listen to but are not heavily used except during EVA's. You will almost always hear some activity on them however sometime during a mission but you just have to be patient.

Happy Listening!
Ron WA4SIR

====

Other Frequencies of interest:

USAF/NASA Frequencies
=====================
4.510 MHz 9.974 MHz
4.760 MHz 10.780 MHz
4.855 MHz 11.104 MHz
4.992 MHz 11.414 MHz
5.350 MHz 11.548 MHz
5.810 MHz 14.615 MHz
6.727 MHz 19.303 MHz
6.740 MHz 19.984 MHz
8.993 MHz 20.191 MHz
9.315 MHz 20.475 MHz

HF USED AT KENNEDY SPACE CENTER : 2.182 MHz 3.023 MHz

Search/Rescue (Aircraft) : 164.800 MHz
(Ships) : 148.500 MHz, 149.100 MHz, 162.000 MHz

S-Band Microwave
================

Air-to-Ground : 2205.0, 2217.5, 2250.0, 2287.5 MHz
Ground-to-Air : 2041.9, 2201.4 MHz

NASA Aeronautical Frequencies VHF/UHF in MHz
==========
KENNEDY SC PATRICK AFB EDWARDS AFB

117.8 118.4 116.4
121.7 121.7 120.7
126.2 125.1 121.8
126.3 126.2 126.1
284.0 128.7 127.8
138.3 236.6
138.45 269.9
149.925 290.3
162.6120 318.1
273.5 390.1
335.8
340.9
348.4
358.3

KSC Ground Support VHF in MHz
==========
148.480 163.510 170.350
149.170 163.560 171.150
162.610 165.190 171.260
163.460 170.150 173.560
163.480 170.170 173.680

NASA Malabar (Palm Bay) HF Networks (in KHz)
==========
2405 Data Buoys 2622 SRB Recovery (Primary)
2664 Backup Mission Audio-Cape/Hou 2678 ETR Range Control
2716 Navy Harbor Cntl-Port Canav. 2764 SRB Recovery Channel
3024 Coast Guard SAR (Primary) 3187 SRB Recovery Ships Channel
4376 Primary Recovery Zone SAR 4510 SRB Recovery Ships Channel
4856 Cape Radio/Leader 4992 Cape Radio/Coast Guard Ships
5180 NASA Tracking Ships 5187 NASA Tracking Ships
5190 ETR Primary Night Channel 5350 Launch Support Aircraft
5680 Launch Support Ships 5810 ETR Secondary Night Channel
6720 SAR Primary Atlantic 6896 Cape Radio
6837 Cape Radio 7412 SAR Communications with Bahamas
7461 Cape Radio/Launch Support A/C 7525 NASA Ground Tracking Net
7676 Launch Support Aircraft 7765 SRB Recovery Ships
7919 Data Channel 7985 Data Channel
9022 Launch Support Aircraft 9043 Launch Support Aircraft
9132 Launch Support Aircraft 10305 Space Missile Tactical Net
10310 Malabar-to-Ascension Is-MUX 10780 ETR Primary Day Channel
11104 Launch Support Ships 11252 Launch Support Ships
11407 SRB Recovery Ships 11414 Cape Radio

11548 Cape Radio 11621 SRB Recovery Ships
13227 Launch Support Aircraft 13237 Data Channel
13495 Data Channel 13600 Malabar-to-Ascension Is-MUX
13878 Launch Support Aircraft 14937 Ascension Is-to-Malabar-MUX
18009 Launch Support Ships 19303 Launch Support Ships
19640 Cape Radio 19966 Ascension Is-to-Malabar-MUX
20186 Launch Tracking Net 20192 Malabar-to-Ascension Is-MUX
20198 OCC Shuttle Mission Audio 20390 ETR-Secondary Day Channel
22755 Ascension Is-to-Malabar-MUX 23413 Cape Radio
27065 NASA CB Radios

73, de John, KD2BD

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

305. Bridges are waveguides, not capacitors.

Newsgroup: rec.ham-radio
Date: 1990-01-15 22:21:36 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9001152221.AA02426@cmr.ncsl.nist.gov>
Source record: 14222

Dube Todd says:
Phil Ngai asked about why AM radio fades when you drive under a bridge but FM isn't affected nearly as much.

It's not so much a function of the modulation mode as it is the frequencies in use. In a way, the bridge acts like a capacitor. The longer wavelengths etc, etc, ^--Don't you mean "wave-
guide below cutoff".

Even a short length of wave-guide (bridge, tunnel, etc.) has extremely high attentuation at frequencies below its cutoff freq. The cutoff freq. is roughly that at which the inside circumference is a wavelength. ie. a guide which is 1/2 wavelength in the width but very narrow in height would be at about its cutoff frequency - or at least very roughly so.

Thus Dube's conclusions were correct, just the detailed reason was not.

Bob, W3OTC

306. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-15 22:59:08 UTC
From: pierson@cimnet.dec.com
Message-ID: <797@ryn.esg.dec.com>
Source record: 14204
Cross-posted to: sci.electronics,rec.ham-radio

In article <28774@amdcad.AMD.COM>, phil@pepsi.amd.com writes...
>We all know that AM broadcast radio fades when you drive under a bridge
>but FM doesn't tend to nearly as much. Why is this?

Think of it as a shielded enclosure. Shielding effectiveness varies
with the size of the opening (road, in this case) with "size"
measured in _wavelengths_ at the _frequency_ of interest. In the
case of the bridge, this makes it a good shield at 0.55-1.6MHz and a
poor one at 88-108MHz. As a useful rule of thumb, any opening with a
single dimension greater 10% of a wavelength will start to leak at
that frequency, and above...

>Does RF at the FM broadcast frequencies propagate better?
I would not have used the word "better". Each does propagates
differently. IF the 88-108MHZ signal were "off axis" to the road
opening and IF there were no random metal around to reflect it, it to
would likely fade...

>I thought the higher the frequency, the more it exhibited "line of sight"
>behavior.
I once lost the base transmissions from a nearby city police
department, while still getting the mobiles. A little mapwork showed
that a new, high level, Interstate bridge was blocking the line of
sight to the (high) base antenna. The mobiles were radiating through
the space UNDER the bridge...

>Or is it because AM shows the signal reduction more directly?
AM does show changes in signal strength more directly. Thats why there
is...

>Shouldn't AGC take care of that?
AGC, however, if the signal strength goes down too far, the AGC can't
bring it back up.

Thanks
dave pierson |the facts, as accurately as i can manage,
Digital Equipment Corporation |the opinions, my own
600 Nickerson Rd
Marlboro, Mass
01752 pierson@cimnet.enet.dec.com

307. Re: Need Theoretical Antenna Info

Newsgroup: rec.ham-radio
Date: 1990-01-15 23:16:32 UTC
From: pierson@cimnet.dec.com
Message-ID: <798@ryn.esg.dec.com>
Source record: 14205
Cross-posted to: sci.electronics,rec.ham-radio

In article <1172@anasaz.UUCP>, john@anasaz.UUCP (John Moore) writes...
>I am interested in finding the following information, either in
>tables of formulas or, even better, as computer programs. I am
>on usenet, and not the internet, so cannot access internet
>archives using ftp. What I would like to see filled in is the
>following table:
>
>Antenna Type Effective Input Radiation
> Aperture Impedance Resistance
>
>Short Dipole ???? ??? ???
>Long Dipole ???? ??? ???
>Short g-plane qwave ???? ??? ???
Is the "qwave" the length of the driven element or the g plane?

>Long g-plane qwave ???? ??? ???
same query. My understanding is that making ground plane elements
longer than 1/4wave (radius) has no effect (after the voltage peak
at 1/4wave, the rest of the wire is "invisible...)

>Magnetic Dipole ???? ??? ???

All this, and more, is available in any good antenna engineering text
or reference (Antenna Engineering Handbook, Jasik, comes to mind.
Graphical representations are in the ARRL handbook, I forget how
many of the formulae (formulas?) they include.)

Numerical values for "short" and "long" will be needed. Off hand,
both the impedance and radiation resistance will get arbitrarily low
for "short" (measured in wavelengths) antennas, rise to a maximum for
half wave, then fall again, then rise, then...

Feed point also needs to be picked (end feed a half wave, high z,
center feed, 75ohm). (Which is just a different way of stating
the last sentence in the prvious para...)

Hopefully, somebody else can supply some program names or sources.

thanks
dave pierson |The facts, as accurately as i can manage,
Digital Equipment Corporation |The opinions, my own.
600 Nickerson Rd
Marlboro, Mass
01752 pierson@cimnet.enet.dec.com

308. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-15 23:29:16 UTC
From: pfluegerm@valley.UUCP
Message-ID: <480ec7fd.15840@valley.UUCP>
Source record: 14206
Cross-posted to: sci.electronics,rec.ham-radio

In article <28774@amdcad.AMD.COM>, phil@pepsi.amd.com writes:
> We all know that AM broadcast radio fades when you drive under a bridge
> but FM doesn't tend to nearly as much. Why is this? Does RF at the FM
> broadcast frequencies propagate better? I thought the higher the frequency,
> the more it exhibited "line of sight" behavior. Or is it because AM
> shows the signal reduction more directly? Shouldn't AGC take care of
> that?
>
> --
> Phil Ngai, phil@diablo.amd.com {uunet,decwrl,ucbvax}!amdcad!phil
> Peace through strength.

Mostly it's due to the frequency. The tunnel (or bridge) can be thought
of as a too-small waveguide - the signal is cut off. FM wavelengths are
much shorter, and the tunnel passes them.

Practically, some signal will get into the tunnel, but you receiver is
not sensitive enough to receive it, so the AGC will still not work running
wide open.

I had a friend who was a DJ for an AM station, and when he rode in my car,
you actually couldn't hear him talk when we drove under a bridge. (This
is an old joke, but I felt it applied here)

Actually, I had this as an EE problem to solve in college - how the tunnel
could be modified to pass signals of a frequency above cutoff. One way
was to modify the u (mu) of the material in the tunnel - such as a special
gas, or styrofoam, obviously impractical. The real way was to run a wire
through it which extended outside the tunnel. The wire would conduct the
RF into the tunnel and allow reception. I forget the exact details on
length of the wire, but this was in a course taught by John Kraus (Mr.
Antenna) himself, so I'm confident of the solution.
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850 Home: 602-439-1978
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

309. W1AW

Newsgroup: rec.ham-radio
Date: 1990-01-15 23:33:59 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001152349.AA08141@ti.com>
Source record: 14226

How much space does WiAW take out of the entire Amateur allotment? OK, so I'll admit that if you happen to be right where they land, it seems like "too much". But other than that, I'd say that the amount of free air available at any given moment is far more than today's Hams are using; and that goes for each band.

So what's wrong with learning W1AW's schedule and trying not to be on the freq during their xmsn times? Where has the spirit of co-existence, temperance, and tolerance gone? Has it been replaced with selfish, "me-first", "gimme-mine" attitudes?

Bob West made a good point when he spoke about the widespread availability and use of code tapes and PC's; but it should not be taken as a world-wide thing. Hams and aspiring Hams are worldwide, and I'll be willing to bet that a huge majority of them can't afford the equipment (if in fact they even know of its existence). When I started out learning Morse Code, there was some very good paper-tape machines available; but there was no way I could afford one. The only way to get practice was to just sit and listen to it on the radio. W1AW was (obviously) the only station that reported sending speeds.

Let's let W1AW continue the way it has always done. It does far more good than bad.

73,
Dube Todd, N5PDK

310. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-15 23:46:50 UTC
From: michaelb@mikebat.UUCP
Message-ID: <229@mikebat.UUCP>
Source record: 14207
Cross-posted to: sci.electronics,rec.ham-radio

> > ... call a special NBS number
> > ..... and set the computer clock. The latest version has been adapted
> > to run on Unix workstations.
> Any ideas on where I can get the software for this? I need the XENIX version
> (if it's been ported to XENIX) or the UNIX version (I'll port it myself).

If you find this don't be selfish with it. I have a clock at work
which does the same thing but I must set the computer's clock by
watching the wall clock. Please let me automate if I can.
I.e. post the source if you can.
Tell me where to buy the binary if I must.

--
Michael Batchelor / KA7ZNZ uunet!wshb!mikebat!michaelb

Ships don't come in; they're built. -- (I don't know who said it.)

311. Re: AUTOMATIC DIGITAL ON HF

Newsgroup: rec.ham-radio
Date: 1990-01-16 01:17:57 UTC
From: <>
Message-ID: <18985@bellcore.bellcore.com>
Source record: 14210

In article <7880105@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>I agree with Phil on this one. Spread Spectrum is a really exciting mode.
>While Bandwidth is a better rule than Speed, what we really want is a way
>to use lotsa bandwidth without QRMing our fellow amateurs. This is going
>to take some thinking - maybe the requirement should be related to power
>versus bandwidth. This is ok for SS - I've heard that a SS transmitter
>requires much less power to get the signal across.

This is not true, at least not in the general case. Ignoring intentional QRM for a moment, spread spectrum does NOT reduce the transmitter power required to support a given data rate. Thermal ("white") noise looks the same before and after despreading, so there is no net benefit or loss to using spread spectrum in this case.

The advantage of spread spectrum comes when the "noise" is not white -- intentional interference, say. In this case, if the jammer doesn't know the spreading sequence you're using, then he will be forced to spread out his jamming power over your entire spreading bandwidth, while your "effective" (despread) bandwidth is much smaller. The ratio of these two bandwidths, known as the "coding gain", is the power penalty you impose on the jammer. If your coding gain is 20 dB, then the jammer will have to increase his jamming power by 20 dB to cause as much trouble as he would to an unspread signal.

Part of the confusion comes from spread spectrum's use of the term "coding gain". The same term is used in forward error correcting (FEC) schemes to denote the power that *is* saved by the use of excess bandwidth when the noise is white. FEC requires excess bandwidth because it adds redundancy to the data stream; spread spectrum requires excess bandwidth because it adds a separate pseudo random "data stream" to the signal which is removed before detection at the receiver. This random data stream (properly called a "chip sequence") contains no information per se.

I am as interested in novel, experimental modes as anyone, but I have a hard time getting excited about the widespread use of amateur spread spectrum. Its main advantages are its low probability of intercept and its resistance to jamming. Although we hams have our share of intentional QRM, these features are clearly much more important to the military. There are some other features of spread spectrum that make it useful for special applications, such as accurate satellite ranging, and I'd like to see it developed to support OSCAR operations. But as a general ham communications technique it is almost always less efficient in the use of spectrum than either frequency division multiplex (i.e., FM or SSB channelization) or time division multiplex (e.g., packet). And

there's also the "near-far" problem which greatly limits the ability of several stations to share the same frequency band when they are at different distances from each other.

Some years ago the FCC commissioned a study by MITRE on civilian uses of spread spectrum. They reached similar conclusions -- about the only situations where it made sense were these:

a) "salvage" use of "garbage" spectrum like ISM bands where communications were otherwise impossible due to QRM (note: 902-928 MHz is an ISM band).

b) transmission of low data rate signals on microwave frequencies where the guard bands required for conventional FDM channelization would result in unusually high overhead.

c) certain mobile applications where multipath was unusually severe.

Phil

312. Re: oppressive (and corrupt) police states

Newsgroup: rec.ham-radio
Date: 1990-01-16 01:20:34 UTC
From: daveh@compnect.UUCP
Message-ID: <411@compnect.UUCP>
Source record: 14218

In article <22288@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson N8DGN) writes:

> On a related note, there is great corruption in the Illinois State
> Police dept. They have a habit of stopping out of state cars, and
> giving speeding tickets, EVEN if the cars weren't speeding! The laws
> are such that you have to pay immediately, or go to jail and pay later
> anyway. They won't take your personal check, and they only take a small
> number of credit cards. They won't take Master Card or Visa! This
> leaves cash as your only option; the officer promptly puts the cash in
> his pocket and then goes to stop someone else (from out of state). I

If this is true it must have started recently. I was stationed in Chicago when Daley was mayor and corruption was supposed to be rampent. For 2 years my wife and I drove our 2 cars with PA plates all around Chicago and its suburbs with no problems. I also made many trips on the interstates in IL as we returned to PA for visits. I never got any tickets from either the State Police or local police.

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!ka3adu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

313. Re: Re: naive question about RF propagation (anecdote)

Newsgroup: rec.ham-radio
Date: 1990-01-16 01:37:42 UTC
From: timb@hpmwtd.HP.COM
Message-ID: <1260018@hpmwtlb.HP.COM>
Source record: 14131

I think this effect can be explained by thinking of the bridge or tunnel as a waveguide. Shorter wavelength signals, such as FM broadcast (approx. 100 MHz), will propagate through the guide assuming typical bridge or tunnel dimensions.

Longer wavelength signals, such as AM broadcast (approx. 1 MHz), are below the cutoff frequency of the guide and thus are evenescent inside the structure.

You should notice that as you enter the bridge, the longer wavelength signal begins to die out gradually (except for leakage through any large openings such as between spans).

de WB9MVP, Tim

314. Re: ICOM handheld receiver 100kHz to 1300 mHz ?!

Newsgroup: rec.ham-radio
Date: 1990-01-16 01:56:30 UTC
From: rps@dtseng.UUCP
Message-ID: <7243@dtseng.UUCP>
Source record: 14217

In article <9001122251.AA25340@ucbvax.Berkeley.EDU>, BRUCEH@UTKVX3.BITNET writes
> Did i read the earlier message right? Does anyone have any more information
> on the 100kHz to 1300 mHz receiver? I think i'd be interested in something
> like that! Has ICOM released any info, pictures, etc? Bob P., have you

One local ham (Manchester, NH) just brought one back from Japan.
I haven't had a chance to look at it yet, but from what I've heard it lacks
an SSB/CW modes. A contact at a not-so-local amateur radio retailer
indicated that they will be going for around $550.

I can't wait to see the sucker either but haven't been able to make a
sked yet!

--
Robert P. Scott | DTS Engineering, Inc. | {decvax,zinn}!dtseng!rps
Nothing could be finer than some green wallet liner....

315. RTTY Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-16 02:08:08 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Jan16.020808.16508@Neon.Stanford.EDU>
Source record: 14213
Cross-posted to: rec.ham-radio,rec.shortwave

Does anyone have a decent list of RTTY service frequencies?

--
-=Paul Flaherty, N9FZX | "Unix could use a more user-friendly interface.
->paulf@shasta.Stanford.EDU | Does anyone have a card punch handy?"

316. Re: Digital Filters

Newsgroup: rec.ham-radio
Date: 1990-01-16 02:08:59 UTC
From: <>
Message-ID: <18986@bellcore.bellcore.com>
Source record: 14211

In article <30500346@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>> Digital filtering would be useful if done AFTER the AGC'd stages
>> so you wouldn't need so much dynamic range.
>
>That would have seemed to me to be the first way to do it. One might
>also try logarithmic conversion ahead of the ADC, if that won't complicate
>the DSP processing too much (but it might). In the AGC route, the DSP
>itself should be doing the determination of the AGC levels, too.

Logarithmic A/D converters have problems of their own. In particular, the quantization noise varies with the total signal power entering the A/D converter, so you can encounter objectionable noise in a quiet part of the band as a result of a strong nearby signal. There's no getting around the requirement for lots of bits/sample if you want a large instantaneous dynamic range, i.e., the ability to pick a small signal out of a collection of more powerful simultaneous signals.

Some years ago, my boss built a set of experimental Ethernet packet telephones. They used standard AT&T 8-bit mu-law PCM encoding, which is logarithmic. The software in the phones generated all the usual call progress tones for the user's benefit, including dial tone. Dave couldn't figure out why his dial tone sounded slightly "fuzzy" in comparison with the "clean" sounding tone on our regular office phones.

It turned out that the "fuzzy" tone was completely normal for dial tone run through mu-law PCM; this was confirmed by calling up a remote PBX on a regular phone using a trunk that was almost certainly T1. The audible "fuzz" was simply the quantizing noise floor that had been raised by the presence of the dial tone. It was audible because it covered the entire voice band, not just the frequencies occupied by the dial tone components. It is not audible on regular voice because it is pretty much "covered up" by the (wider) voice frequency components.

If the sampling technique were linear, the quantizing noise level would have been independent of the input signal level. On the other hand, with only 8 bits of precision, this noise level would be objectionably high on quiet voices. Logarithmic techniques can sound subjectively better in certain cases like telephone speech, but they do not give you something for nothing. It's a bit like how NTSC gives you three video "channels" (RGB) in the space of one; it plays some sleight of hand with human perception.

In the case of a DSP radio, linear sampling would be much more effective. The samples have to be linear to be processed anyway.

Phil

317. Re: Help, static

Newsgroup: rec.ham-radio
Date: 1990-01-16 02:13:14 UTC
From: <>
Message-ID: <18987@bellcore.bellcore.com>
Source record: 14212

In article <010590.075845.enge@ibm.com> ENGE@IBM.COM ("Roy Engehausen") writes:
>You might try the same thing on a smaller scale. Take a portable
>radio to monitor the noise level, and go along the powerline near your
>house banging the pole with something heavy. Once found, your next
>problem might be convincing the power company to fix it.

No! Don't do this! Power line noise is usually caused by loose hardware
up on the pole, and who knows what might happen if you shake it up. I've
heard stories of transformers falling to the ground after somebody hit
the pole with a sledgehammer.

Phil

318. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-16 02:22:45 UTC
From: <>
Message-ID: <18988@bellcore.bellcore.com>
Source record: 14208
Cross-posted to: sci.electronics,rec.ham-radio

In article <28774@amdcad.AMD.COM> phil@pepsi.amd.com () writes:
>We all know that AM broadcast radio fades when you drive under a bridge
>but FM doesn't tend to nearly as much. Why is this? Does RF at the FM
>broadcast frequencies propagate better? I thought the higher the frequency,
>the more it exhibited "line of sight" behavior. Or is it because AM
>shows the signal reduction more directly? Shouldn't AGC take care of
>that?

I might as well take a stab at this one.

The reason has to do with the relative wavelengths of the two signals;
the modulation method isn't nearly as important. Standard AM broadcast
signals have much longer wavelengths than FM. AM signals are "large"
relative to the dimensions of a bridge, while FM signals are "small".

Radio waves have trouble propagating through small (relative to their
wavelength) windows in conducting material. That's why you can easily
see into your operating microwave oven without frying your eyeballs. The
holes in the metal screen in the door are very large compared to the
optical wavelengths you see with, but they're very small compared to the
wavelength used for cooking.

I've noticed that you can see a difference when driving even between
signals at the opposite ends of the AM broadcast band. Stations at the
top end aren't nearly as affected by driving under a bridge as stations
at the low end. (Note that the AM broadcast band covers almost a 3:1
range in frequency and wavelength.)

Phil

319. Re: ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-16 02:31:03 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250115@hpnmdla.HP.COM>
Source record: 14130

Theoretically, an ATV exciter should be followed by a truly linear amplifier. Since linear amps are less efficient than class C, this would argue for using an unmodulated exciter and modulating the PA.

However I think linearity is less important with ATV than other AM modes. The signal is ALREADY wideband, so you don't have to worry (within reason) about splatter. The main effect is to alter the gray scale (contrast and brightness), which can be adjusted for in the modulator.

Al N1AL

320. Best TVRO Satellite dish.

Newsgroup: rec.ham-radio
Date: 1990-01-16 03:21:03 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <1935@ultb.isc.rit.edu>
Source record: 14214

Does anyone have any suggestions as to the best (for the money) TVRO satellite dish on the market? Or any comments on the ones they have? I am looking to buy a good one, I have a cheap one but it really needs replacing. So any and all comments are welcome.
Lance

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

321. Re: Amateur packet radio on space shuttle

Newsgroup: rec.ham-radio
Date: 1990-01-16 05:36:00 UTC
From: john@frog.UUCP
Message-ID: <11229@frog.UUCP>
Source record: 14216

In article <73297@philabs.Philips.Com>, rfc@briar.philips.com (Robert Casey;6282;3.57;$0201) writes:
> Then in late April one of our MDC area astronauts, Ron Parise, WA4SIR
< will fly on the Shuttle Columbia in mission STS-35. Ron will be carrying
> 2M packet radio hardware with him -- a modified HK-21 TNC, a Motorola HT,
< a window-mounted antenna and a Grid lap-top computer.
> The TNC will be carrying special software -- an updated version of the
< SAREX "Robot" that would have flown in 1986 had not the Challenger
> disaster happened.
< The "Robot" software is an automatic QSO machine. You connect to the
> robot, you are given a serial number, and as soon as you ack the number,
< the Robot disconnects and enters the QSO into the log. As many as nine
> simultaneous QSOs can be going on. If the robot hears you, whether or not
< you make a full two-way QSO, that information is entered into a second
> log.

Yes, but will it tell your your signal report is 599? :-)
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

Happiness is Planet Earth in your rear-view mirror. - Sam Hurt

322. Help With NASA Predictions

Newsgroup: rec.ham-radio
Date: 1990-01-16 06:17:05 UTC
From: colonel@oak.circa.ufl.edu
Message-ID: <21783@uflorida.cis.ufl.EDU>
Source record: 14215

Hi I need some help in interpreting the NASA Prediction Bulletins for inputing to my satellite tracking program. I am sure the info is there I just need to know which group of numbers means what. Some of the infomation I need is EPOCH #, Incl of Orbit, Right Ac. of node, Arg of perigee, mean anomaly, mean motion, decay rate, Orbit #, and Semi-major Axis. Thanks in advance.

Bob Thomas

323. Re: Radio Shack CTR-82 VOX

Newsgroup: rec.ham-radio
Date: 1990-01-16 13:37:53 UTC
From: KENDALLG@VTVM1.CC.VT.EDU
Message-ID: <9001170803.AA26747@ucbvax.Berkeley.EDU>
Source record: 14219

Well, I'm on my *second* one so far, myself...

I bought one of these this past Thursday - it was working fine until Sunday evening, when I noticed all of a sudden that the unit's RECORD button would not stay locked down when pressed (real useful, you know? 8)) So I took it back yesterday and exchanged it for another one, which seems to be doing OK so far (I hope it stays that way!)

Overall I like it alot; I, too, have been using it with my scanner at home. For what it's worth my experience so far with it is summarized below:

I have a Uniden/Bearcat 210XLT feeding the CTR-82's AUX input from the 210's EXT SP jack. Audio quality is quite good. I've also noticed (as someone else had mentioned here) that when using an AC power source (I have the 'Shack' AC adapter, too) I've noticed the 'RECORD/BATTERY' LED seems to "flutter" when the unit stops in VOX mode; mine only seems to do it when the VOX is set to HIGH sensitivity. The recorded audio doesn't seem to be affected by it. I tried using the MIC input instead of AUX (by accident) - AUX definitely worked better (better audio and alot less background "hum" from the AC).
Also, I tried using LOW sensitivity on it - it worked, but I had to turn the volume up higher to trigger the VOX, which made me wonder if a low-audio signal coming through would trip it, so I think I'll keep it on HIGH sens.
Finally, I've also noticed some AC "hum" when using the adaptor... again, it doesn't seem to affect the quality of the recording very much (if any).

All in all a nice machine, I think... if this one lives more than 3 days...
Acknowledge-To: <KENDALLG@VTVM1>

324. Other ham journals

Newsgroup: rec.ham-radio
Date: 1990-01-16 14:12:41 UTC
From: zslf0a@apctrc.trc.amoco.com
Message-ID: <1340@apctrc.UUCP>
Source record: 14138

I am interested in receiving the journals produced by the amateur radio societies from other English speaking countries (their versions of QST). Does anyone out there have any info on this? The address of RSGB is pretty easy to come by, but I don't recall ever seeing anything for Australia or New Zealand. Canada must surely have a ham rag or two. The 'English speaking' requirement is due to my lack of ability to read other languages. It would be wonderful if translations were available for journals in other languages, but that might be asking too much.

For any given society, must you be a member of that society to receive the journal?

A (loosely) related question - anyone have any info on obtaining metric sized envelopes for QSL'ing purposes? I'm thrilled when I get a DX QSL back, whatever the shape its in, but it would be nice if the sender didn't have to fold it to fit into my sase.

73's - WA5RPF

325. Pure LO signals and Mixers?

Newsgroup: rec.ham-radio
Date: 1990-01-16 14:33:18 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <16.Jan.90.14
Source record: 14220

I cannot help thinking that much of the current problem with reciprocal mixing of LO noise sidebands is related to poor mixer/frontend design. Admittedly, the oscillator that produces no noise sidebands just does not exist in a form that would be usable in a radio, but having looked at many of the modern rigs, mixer stages clearly are not an area that makes advertising-hype sense. The usage of dual-gate FETs, often in single-ended, unbalanced configurations, seems commonplace. Double-balanced hot-carrier-diode mixers are few and far between. A properly designed mixer should need no RF amplification ahead of it (well, not for the HF bands anyway) and be able to handle VOLTS of input without any harmful overload effects. Conversion gain is the last thing you should expect in a mixer. From the first mixer, you should feed the signal straight into the main selectivity-providing filter without further amplification, so that all the unwanted signals are taken out as soon as possible. *Gain before the filter is the last thing you want* Why oh why do manufacturers have multiple conversions, with the main receiver selectivity provided only after the signals have crossmodulated their way through about 5 or 6 stages of amplification and mixing. If you have 50dB gain before the filter, how can you expect to avoid crossmod?
Anyone remember the RCA 7360 beam-deflection mixer? Low noise, masses of signal-handling capacity, and balanced LO drive. First time i tried one, it could not be balanced - then i discovered it was rather close to the magnetic field from the mains transformer. A permalloy shield between tube and transformer resulted in instant mixing Nirvana! Low noise and linearity in one package. Who could wish for more?

+Pete

326. Re: W1AW

Newsgroup: rec.ham-radio
Date: 1990-01-16 16:20:25 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500010@hpfcso.HP.COM>
Source record: 14150

Re: W1AW schedule

I've thought about this a little more since my last posting which,
like Dube's, asked for tolerance for W1AW's activities.

Some clarification is in order.

W1AW transmits the following items (last time I checked):

Code Practice
ARRL Bulletins via code(supposedly of interest to all hams)
ARRL Bulletins via RTTY
ARRL Bulletins via voice

more? (packet bulletins?)

If this entire package is what is being discussed and some folks object
to, I am in more agreement than I first thought.

This is a helluva lot of redundancy and band occupation.

I heartily support the Code Practice sessions because of the utility
of learning code for beginners and upgrades.
I am not so supportive of the bulletin operations. I think fewer times
and frequencies and, perhaps, fewer modes would accomplish the same
purpose.

I think I'll check into this and write ARRL a letter.

Ron Miller, NW0U

327. Any TM221 mods?

Newsgroup: rec.ham-radio
Date: 1990-01-16 16:44:51 UTC
From: albers@ka3ovk.uucp
Message-ID: <1990Jan16.164451.1079@ka3ovk.uucp>
Source record: 14128

Does anyone have any mods for the Kenwood TM-221A? I've seen a bunch for the 321, but not the 221.

Also -- has anyone hooked up a TNC to it, getting audio from pin 6 of the mic connector? I tried, and it seems the levels are wrong or something. Is there an internal level adjustment for this - I didn't find one in the schematics.

Jon

--
| Jon Albers, IRS, Information Systems Management, Support and Installation. |
| Office Symbols: ISM:S:S:SI voice: (202/FTS)535-3729 Packet: KA3OVK@N4QQ |
| UUCP:(media|teemc|tcsc3b2|ki4pv)!ka3ovk!albers ARPA: JALBERS@SIMTEL20 |
| We are always looking for new Trailblazer news/mail connections... |

328. Re: Re: Those NASA Shuttle frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-16 17:22:24 UTC
From: timb@hpmwtd.HP.COM
Message-ID: <1260019@hpmwtlb.HP.COM>
Source record: 14148

I have also heard WA3NAN on 7.185 in the evening hours but the transmissions seem to be info from mission control or general info from WA3NAN rather than shuttle communications.

Reception is poor due in part to QRM and foreign broadcast. I have not been able to pick up anything on 14.295 or 3.860.

Has anyone tried to pick up the video broadcast on channel 58 in the Bay area?

de WB9MVP, Tim

329. Re: Packet compression, what issue?

Newsgroup: rec.ham-radio
Date: 1990-01-16 17:28:08 UTC
From: ge@kunivv1.sci.kun.nl
Message-ID: <765@kunivv1.sci.kun.nl>
Source record: 14139

koning@koning.dec.com (Paul Koning) writes:

>In article <30500345@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:

>>
>> > to do this. At 300 baud, you need every optimization you can find. It
>> > also isn't clear why 300 baud is maximum, given that 9600 can be done
>> > over telephone (3KHz) channels now. Again, I suspect we are dealing
>> > with technology artifacts in the rules.

>Actually, that wasn't Phil speaking, but it's his note where I saw it,
>so... The thing to observe is that the Feds did things right (for once)
>and talked about Baud, and NOT about bits per second. The two are not
>the same, except in trivial modulation schemes such as FSK.

>For example, I believe there exists a voice-line modem that runs at up
>to 9600 bits per second, but has a symbol rate of 7 Baud. Consequently,
>such a beast would be entirely legal on the HF bands. And indeed, the
>latest edition (red/white/blue cover) of the ARRL's annotated FCC
>rules specifically mentions this sort of modem as being legal and appropriate
>for narrow-band use.

No modem I know of uses a speed of more than 2400 baud (simplex).
Modems like the ones used in faxes use a combination of amplitude and
phase modulation to send 5 bits at once. One bit is used for forward error
correction (fax does not use ARQ) using a so-called "Trellis code".
So you get 4 bits a once. With 2400 baud you get 9600 bits/second.
A similar scheme would using the 300 baud limitation would give you
2400 bits/second for packet radio. More sophisticated schemes are known,
designed for satellite or military communication. If special coding techniques
are used (you need complex circuits for those!) you can get very reliable
transmission without needing ARQ (imagine ARQ with a Voyager probe).
Too expensive for mere mortals? I don't know, a DSP like the Motorola 56000
might be able to do most of the work, as the baud rate is limited to 300 anyway.
It might even be cheap compared to a state-of-the-art transceiver.

Ge' Weijers

Ge' Weijers Internet/UUCP: ge@cs.kun.nl
Faculty of Mathematics and Computer Science, (uunet.uu.net!cs.kun.nl!ge)
University of Nijmegen, Toernooiveld 1
6525 ED Nijmegen, the Netherlands tel. +3180612483 (UTC-2)

330. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-16 17:47:37 UTC
From: ge@kunivv1.sci.kun.nl
Message-ID: <766@kunivv1.sci.kun.nl>
Source record: 14141

remaker@pepsi.amd.com writes:

>My question is: On the shortwave worldwide bands, does any country broadcast
>something like an American "classic rock" broadcast (which can be received in
>Japan)? If no such station exists, what are the obstacles and implications
>of getting licensed to start one? I know that a lot of college radio stations
>are pushed off the air because they cannot get an American FM license, and I
>would bet that some college radio station would love to take to the airwaves
>internationally (the quality would probably be better than carrier current!)

Most US stations on short wave (specifically excluding Voice Of America,
a propaganda transmitter for the US governement) peddle religion, not rock
music. And as rock music is inspired by the devil.....

>Also, what are the implications of licensing a commercial station to rebroadcast
>its signal over shortwave? If WFNX in boston did this, I'd buy a shortwave
>radio tomorrow!!!!!

The implications are worsening the current overcrowding of broadcast bands
by adding canned music broadcasters. I know of just a few really commercial
SW broadcasters (Radio Luxemburg e.g.) but usually there is no point
to broadcast the same music you hear everywhere on SW.

Ge' Weijers
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6525 ED Nijmegen, the Netherlands tel. +3180612483 (UTC-2)

331. Re: Optical Fiber

Newsgroup: rec.ham-radio
Date: 1990-01-16 17:53:30 UTC
From: amirza@silver.ucs.indiana.edu
Message-ID: <33174@iuvax.cs.indiana.edu>
Source record: 14137
Cross-posted to: rec.ham-radio,misc.wanted

I think that fiber is too lossy to effectively transfer sunlight,
but I do remember something in popular science about Light Pipes,
these are supposed tor transfer light with something on the order of
over 99%. The work by the fact that the pipe is hollow, and the
outer edge is prismed, which makes it very good for large amounts
of light transfer, I understand it is a bit expensive, but
not out of reach of the experimenter.
I will look and see if I can find the company name.
Anmar

332. AMSAT Bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-16 18:13:37 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19018@bellcore.bellcore.com>
Source record: 14140

Posted: Tue, Jan 16, 1990 8:44 AM GMT Msg: NGJA-4141-3904
From: CDUNCAN
To: is
CC: W1AW
Subj: ANS$015

SB ALL @ AMSAT $ANS-015.01
CURRENT LAUNCH DATE 21 JANUARY UTC

HR AMSAT NEWS SERVICE BULLETIN 015.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
MICROSAT - UOSAT LAUNCH SET, AGAIN

Arianespace announced January 12 that the launch of V35 is now set
for January 21, 1990 at 01:35 UTC. Note that this launch time is
Saturday evening in the U. S. The payload composite was returned
to the launcher on Monday, January 15th.

Arianespace has made special provisions for the MICROSATs and UoSATs
so that they don't have to go through another 21.5 hour period without
battery charging as they did during the first transfer. This time,
they expect to be off for a maximum of 16 hours.

The replacement tape recorder for SPOT-2 was installed January 11, and
the SPOT people were pleased\Q!the functional testing. More
importantly, NOTHING DROPPED ON THE MICROSATs or UoSATs during this
critical repair operation. The work on SPOT is now finished, and the
protective covers have been removed from our satellites once again.

73's WD0HHU, PY2BJO, G7DQE

/EX
SB ALL @ AMSAT $ANS-015.02
AMSAT LAUNCH INFORMATION NETWORK

HR AMSAT NEWS SERVICE BULLETIN 015.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
TO ALL RADIO AMATEURS BT

Over 35 repeater groups around the U. S. and around the world are
planning to carry the Ariane V-35 launch live this Saturday evening
(21 January 90 at 0135 UTC). Assuming a nominal sequence of events,
transmissions will begin at 0100 UTC and end at 0230 UTC.

Reservations on the telephone bridge providing ALINS audio are
now closed. Those who have registered will be contacted two or
three days before launch with appropriate information.

The following stations will be carrying the event on HF:

Call Location Frequency Beaming

W1AW Connecticut phone bulletin USA
frequencies,
see QST

WA3NAN GSFC, Maryland 14.295 Europe
3.860, 7.185

W5RRR JSC, Texas 14.280 Central, South America,
3.840 and Caribbean

W6VIO JPL, California 21.280 New Zealand / Australia
3.850

ZS6SAT, South Africa 3.718, 7.080, 14.282 (SSB)
3.665, 7.094 (AM)

WA0RCR, Central USA 1.860 Central USA and Canada

In addition, an uplink to AO-13 (over Asia) will be provided by I2KBD near Milan, Italy, and an uplink to AO-10 (over Africa) will be provided by ZS6SAT. Operations downlink frequencies of 435.970 and 145.950 will be used on these satellites.

/EX
SB ALL @ AMSAT $ANS-015.03
JANUARY 21 LAUNCH MICROSAT KEPLERIAN ELEMENT SET

HR AMSAT NEWS SERVICE BULLETIN 015.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
TO ALL RADIO AMATEURS BT

SPOT-2 / MICROSAT / UOSAT KEPLERIAN ELEMENT SET

If the SPOT-2/Microsat/UoSat launch occurs on 21 January 90, the following element set may be used to estimate satellite positions for the first few days. Nominal launch is expected to be around 013545 UTC.

If the launch occurs on another day, simply add 0.98561226 degrees of RAAN per day to the listed value.

Following deployment, all seven satellites will be in close proximity for several days. By the end of the first week, users with high gain antennas will begin to find the cumulative position differences per satellite growing large enough to cause significant pointing errors. All users will begin to notice the changes in AOS and LOS time.

Element sets resulting from on-orbit measurements will be provided ASAP shortly after launch and for the first several days when possible until data from the standard sources becomes available.

Satellite: SPOT-2, UO-D, E, Microsat-A, B, C, D
Catalog number: not yet assigned
Epoch time: 90021.0816319
Element set: pre-launch
Inclination: 98.738 deg
RA of node: 96.9702 deg
Eccentricity: 0.00134
Arg of perigee: 110.95 deg
Mean anomaly: 297.18 deg
Mean motion 14.1988896 rev/day
Decay rate: 1.0e-06 rev/day^2
Epoch rev: 0

/EX
SB ALL @ AMSAT $ANS-015.04
MICROSAT AND UOSAT FREQUENCIES

HR AMSAT NEWS SERVICE BULLETIN 015.04 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
TO ALL RADIO AMATEURS BT

MICROSAT AND UOSAT FREQUENCIES AND DEPLOYMENT ORDER

The following are the Microsat and UoSat listening frequencies,
data rates, and modes for the first few weeks of operation and
check out. Other frequencies and modes are available on each
satellite, but these are not expected to be employed initially.
The OSCAR numbers listed are, of course, tentative and assume
a succesful launch ahead of FO-1B. Please note updates and
corrections from previously released data.

Spacecraft OSCAR number Frequency, MHz Mode

UoSat D UO-14 435.070 1200 bps AFSK (FM)
UoSAT E UO-15 435.120 1200 bps AFSK (FM)
PACSAT AO-16 437.025 1200 bps PSK AX.25
DOVE AO-17 145.825 1200 bps AFSK AX.25 (FM)
WEBERSAT AO-18 437.075 1200 bps PSK AX.25
LUSAT AO-19 437.150 1200 bps PSK AX.25
LUSAT - CW LUSAT 437.125 12 WPM CW telemetry

Packet transmission from DOVE may be monitored with an unmodified
TNC-2 or clone, using an FM receiver. The other microsats
(PACSAT, WEBERSAT, and LUSAT) require an SSB receiver and TNC
with a 1200 bps PSK demodulator (FO-12 compatible, NOT the 400
bps PSK demodulator used with AO-10 and AO-13).

/EX
SB ALL @ AMSAT $ANS-015.05
MICROSAT LAUNCH TIMELINE

HR AMSAT NEWS SERVICE BULLETIN 015.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Vice President for Field Operations Jack Crabtree, AA0P, recently obtained the following preliminary launch sequence timeline from Dave Cowdin, WD0HHU, AMSAT's man on the scene in Kourou, French Guiana. This schedule should be followed, at least approximately, regardless of the time and day of launch. All times are Mission Elapsed Time.

00:00 Ignition (Time is minutes:seconds)
00:04 Launch vehicle clears gantry
02:34 1st stage fuel expended
02:39 1st stage separation
02:42 2nd stage ignition
03:40 Fairing separation
04:48 2nd stage fuel expended
04:48 2nd stage separation
04:53 3rd stage ignition
16:44 3rd stage fuel expended
16:49 3rd stage separation
17:06 SPOT II separation
20:06 UOSAT D separation
20:07 UOSAT E separation
21:01 Pacsat separation
21:02 DOVE separation
21:03 WEBERSAT separation
21:04 LUSAT separation

Dave reminds us that with this configuration of the Ariane IV, there are no solid or liquid strap-on boosters. He also reports that there was a surprising amount of room left in the payload fairing in spite of the seven spacecraft mounted in it. It was necessary to add 800 pounds of lead ballast because of excess lift capability.

/EX
SB ALL @ AMSAT $ANS-015.06
NEW AREA COORDINATOR APPOINTED

HR AMSAT NEWS SERVICE BULLETIN 015.06 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
TO ALL RADIO AMATEURS BT

AMSAT VP of Field Operations, Jack Crabtree, AA0P, along with AMSAT New England Regional Coordinator, Drew Deskur, KA1M, are pleased to announce the appointment of a new Area Coordinator for the state of New Hampshire. Bill Polewarczyk, WA1DMV, will assist in coordinating AMSAT activities in New Hampshire. He is a welcomed addition to the New England AMSAT Field Operations Team.

/EX
SB ALL @ AMSAT $ANS-015.07
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 015.07 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
TO ALL RADIO AMATEURS BT

The following is the schedule for Operations Nets for the next several weeks.

Day UTC Day U.S. Freq. NCS Guest

20 Jan 90 1400 Saturday 435.970 N5BF KO5I
03 Feb 90 1345 Saturday 145.950 N5BF Early Microsat News
10 Feb 90 1545 Saturday 435.970 N5BF TBA
18 Feb 90 0530 Sat/Sun 145.950 N5BF TBA

/EX
SB ALL @ AMSAT $ANS-015.08
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 015.08 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 15, 1990
TO ALL RADIO AMATEURS BT

ZRO Test Schedule

Only one ZRO test remains in the current rotation:

Saturday January 20, 1990 at 15:30 UTC MODE B 145.840 MHz

ZRO brochures are available from WA5ZIB, Andy MacAllister, AMSAT V.P. of User Operations, 14714 Knightsway Drive, Houston, TX 77083 for an S.A.S.E. with one unit of postage.

/EX

333. Getting the time over the phone from NBS

Newsgroup: rec.ham-radio
Date: 1990-01-16 18:59:31 UTC
From: erc@khijol.UUCP
Message-ID: <1043@khijol.UUCP>
Source record: 14129
Cross-posted to: alt.sources,rec.ham-radio

```
Here's the source for nbs_time.c that I scarfed from archive@mgse. I'm
posting the source, rather than the binary+source, because by the time I
wake up tomorrow morning, it'll probably have been ported to the Amiga, the
PC, the Mac, and VMS, not to mention MVS, TSO, VM, and a host of others :-)

Enjoy!
----------------------------- nbs_time.c ----------------------------
/* CHK=0x0603 */
/*+-------------------------------------------------------------------------
SCO XENIX SYSTEM V.2 (Others too?)
nbs_time.c -- call NBS, get time, hangup quickly, set system time,
wait for top of minute, execute /etc/setclock to update cmos clock

Warren H. Tucker, 150 West Lake Drive, Mountain Park, GA 30075
(404)587-5766

Note: must be root to execute

Defined functions:
create_lock_file(lock_file_name)
hangup(sig)
hayes_dial()
hayes_send_cmd(cmd)
lclose()
lgetc(char_rtnd)
lgetc_timeout(timeout_msec)
lgets_timeout(lrwt)
lkill_buf()
lock_tty()
lopen()
lputc(lchar)
lputs_paced(pace_msec,string)
lrdchk()
lset_baud_rate(ioctl_flag)
lset_parity(ioctl_flag)
main(argc,argv,envp)
make_lock_name(ttyname,lock_file_name)
other_lock_name(first_lock_name)
to_lower(ch)
to_upper(ch)
ulcmpb(str1,str2)
ulindex(str1,str2)
unlock_tty()
usage()
```

```
valid_baud_rate(baud)

Sample execution:
% nbs -
nbs_time
Dialing 1(202)653-0351 ... INT to abort ... CONNECT 1200
'47361 201 020050 UTC'
Connect time 1 second(s)
Time retrieved from standard: Mon Jul 18 22:00:50 1988
Waiting for top of minute: Mon Jul 18 22:00:51 1988
Waiting for top of minute: Mon Jul 18 22:00:52 1988
Waiting for top of minute: Mon Jul 18 22:00:53 1988
Waiting for top of minute: Mon Jul 18 22:00:54 1988
Waiting for top of minute: Mon Jul 18 22:00:55 1988
Waiting for top of minute: Mon Jul 18 22:00:56 1988
Waiting for top of minute: Mon Jul 18 22:00:57 1988
Waiting for top of minute: Mon Jul 18 22:00:58 1988
/etc/setclock setting ... result: 0618220188

------------------------------------------------------------------------*/
/*+:EDITS:*/
/*:07-18-1988-22:07-wht-working! */
/*:07-18-1988-17:27-wht-creation */

#include <stdio.h>
#include <signal.h>
#include <ctype.h>
#include <sys/types.h>
#include <sys/stat.h>
#include <sys/ioctl.h>
#include <time.h>
#include <string.h>
#include <fcntl.h>
#include <errno.h>
#include <termio.h>

#ifndef ushort
#define ushort unsigned short
#endif
#ifndef uchar
#define uchar unsigned char
#endif
#ifndef uint
#define uint unsigned int
#endif
#ifndef ulong
#define ulong unsigned long
#endif

char *lgets_timeout(struct lrwt *);
char *other_lock_name(char *);
char to_lower(char );
```

```
char to_upper(char );
int create_lock_file(char *);
int hayes_dial(void);
int hayes_send_cmd(char *);
int lgetc_timeout(unsigned long );
int lock_tty(void);
int lopen(void);
int lrdchk(void);
int lset_baud_rate(int );
int main(int ,char * *,char * *);
int make_lock_name(char *,char *);
int ulcmpb(unsigned char *,unsigned char *);
int ulindex(char *,char *);
int valid_baud_rate(unsigned int );
void hangup(int );
void lclose(void);
void lgetc(char *);
void lkill_buf(void);
void lputc(char );
void lputs_paced(int ,char *);
void lset_parity(int );
void unlock_tty(void);

ushort geteuid();
ushort getuid();
long nap(long);
long time(long *);
char *ctime(long *);

typedef struct lrwt /* param to lgets_timeout in eculine.c */
{
ulong to1; /* timeout for 1st character (granularity 20) */
ulong to2; /* timeout for each next char (granularity 20) */
int raw_flag; /* !=0, rtn full buffer, ==0, rtn filtered hayes result */
char *buffer; /* buffer to fill */
int bufsize; /* size of buffer */
int count; /* from proc, count rcvd */
} LRWT;

#define EPOCH 40587 /* UNIX starts JD 2440587, */
#define leap(y, m) ((y+m-1 - 70%m) / m) /* also known as 1/1/70 */
#define TONE '*'
/* #define TIME "\n%05ld %03d %02d%02d%02d UTC" */
#define TIME "%05ld %03d %02d%02d%02d UTC"

/* for better source line utilization, frequent use of 'fprintf' and 'stderr'
warrants the following */
#define pf printf
#define ff fprintf
#define se stderr
#define so stdout
```

```
/* lopen() and related routines error codes */
#define LOPEN_INVALID -1 /* for invalid tty name */
#define LOPEN_UNKPID -2 /* unknown pid using line */
#define LOPEN_LCKERR -3 /* lock file open error */
#define LOPEN_NODEV -4 /* device does not exist */
#define LOPEN_OPNFAIL -5 /* count not open line */
#define LOPEN_ALREADY -6 /* line already open */

extern char *revision; /* ecurev.c temp file from buildrev */
extern char *numeric_revision; /*ecunumrev.c */

char LLCKname[128]; /* lock file name */
char Ltelno[64]; /* telephone number for remote or null */
char Lline[64]; /* line name */
int Liofd; /* file descriptor for line */
int Lparity; /* 0==NONE, 'e' == even, 'o' == odd */
struct termio Llv; /* attributes for the line to remote */
uint Lbaud; /* baud rate */
ushort euid;
ushort uid;

/*+-------------------------------------------------------------------------
to_upper() / to_lower()
one would think that these were relatively standard
types of thing, but MSC/Xenix specifies toupper() to convert to upper
case if not already and Unix says to adjust without testing,
so, two stupid little routines here
ASCII only -- no EBCDIC gradoo here please
-------------------------------------------------------------------------*/
char to_upper(ch)
register char ch;
{ return( ((ch >= 'a') && (ch <= 'z')) ? ch - 0x20 : ch);
} /* end of to_upper() */

char to_lower(ch)
register char ch;
{ return( ((ch >= 'A') && (ch <= 'Z')) ? ch + 0x20 : ch);
} /* end of to_lower() */

/*+-------------------------------------------------------------------------
ulcmpb(str1,str) -- Upper/Lower [case insensitive] Compare Bytes

Returns -1 if strings are equal, else failing character position
If the second strings terminates with a null and both strings have matched
character for character until that point, then -1 is returned.
NOTE: this is not a test for complete equality of two strings, but allows
discovery of a string as a substring in a larger containing string.
-------------------------------------------------------------------------*/
int
ulcmpb(str1,str2)
register unsigned char *str1;
register unsigned char *str2;
{
```

```
register int istr;

for( istr=0 ; ; ++istr )
{
if(str2[istr] == '\0') /* if second string exhausts, match! */
return(-1);
if((str1[istr] == '\0' ) ||
( to_upper(str1[istr]) != to_upper(str2[istr]) ))
return(istr);
}
/*NOTREACHED*/
} /* end of ulcmpb */

/*+-------------------------------------------------------------------------
ulindex: Upper/Lower [case insensitive] Index functioni

Returns position of 'str2' in 'str1' if found
If 'str2' is null, then 0 is returned (null matches anything)
Returns -1 if not found

uses 'ulcmpb'
-------------------------------------------------------------------------*/
int ulindex(str1,str2)
register char *str1; /* the (target) string to search */
register char *str2; /* the (comparand) string to search for */
{
register int istr1 = 0; /* moving index into str1 */
register char *mstr = str1; /* moving string pointer */

if(str2[0] == '\0') /* null string matches anything */
return(0);
while(1)
{
if(*mstr == '\0') /* if we exhaust target string, flunk */
return(-1);
/* Can we find either case of first comparand char in target? */
if( to_upper(*mstr) == to_upper(str2[0]) )
{
/* we have a first char match... does rest of string match? */
if(ulcmpb(mstr,str2) == -1) /* if the rest matches, ... */
return(istr1); /* ... return match position */
}
/* we did not match this time... increment istr1, mstr and try again */
++istr1;
++mstr;
}
} /* end of ulindex */

/*+-------------------------------------------------------------------------
hangup(sig) -- terminate program (with comm line cleanup)
-------------------------------------------------------------------------*/
void
```

```
hangup(sig)
int sig;
{
void lclose();

ff(se,"\n");
if(Liofd != -1)
lclose(); /* close line */
exit(sig);
} /* end of hangup */

/*+-------------------------------------------------------------------------
make_lock_name(ttyname,lock_file_name)
-------------------------------------------------------------------------*/
make_lock_name(ttyname,lock_file_name)
char *ttyname;
char *lock_file_name;
{
register int itmp;
register char *ttyptr;

if((itmp = ulindex(ttyname,"/dev/tty")) != 0)
return(LOPEN_INVALID);

itmp = ulindex(ttyname,"tty");

ttyptr = &ttyname[itmp];
strcpy(lock_file_name,"/usr/spool/uucp/LCK..");
strcat(lock_file_name,ttyptr);
return(0);

} /* end of make_lock_name */

/*+-------------------------------------------------------------------------
create_lock_file()

Returns 0 if lock file created,else error codes:
LOPEN_ if error
else pid of process currently busy on device
-------------------------------------------------------------------------*/
create_lock_file(lock_file_name)
char *lock_file_name;
{
register int fd_lockf;
int pid;
int old_umask;
int erc = 0;

old_umask = umask(0);

if((fd_lockf = open(lock_file_name,O_CREAT | O_EXCL | O_RDWR,0666)) < 0)
{ /* file already exists */
if((fd_lockf = open(lock_file_name,O_RDWR,0666)) < 0)
```

```
{
erc = LOPEN_LCKERR;
goto RESTORE_UMASK;
}
else if(read(fd_lockf,(char *)&pid,sizeof(pid)))
{
if(kill(pid,0)) /* is owner pid already dead? */
{
if(errno == ESRCH) /* this error sez so */
{
pid = getpid(); /* so we will use it */
lseek(fd_lockf,0L,0);
write(fd_lockf,(char *)&pid,sizeof(pid));
close(fd_lockf);
erc = 0;
goto RESTORE_UMASK;
}
}
/* owner pid still active with lock */
close(fd_lockf);
erc = pid; /* port is busy */
goto RESTORE_UMASK;
}
else
{
close(fd_lockf);
erc = LOPEN_UNKPID;
goto RESTORE_UMASK;
}
}
pid = getpid();
write(fd_lockf,(char *)&pid,sizeof(pid));

close(fd_lockf);
chmod(lock_file_name,0666);

RESTORE_UMASK:
(void)umask(old_umask);
return(erc);

} /* end of create_lock_file */

/*+-------------------------------------------------------------------------
other_lock_name(first_lock_name)
-------------------------------------------------------------------------*/
char *
other_lock_name(first_lock_name)
char *first_lock_name;
{
register int itmp;
static char other_lock_name[64];
```

```
strcpy(other_lock_name,first_lock_name);
itmp = strlen(other_lock_name) - 1;
if(islower(other_lock_name[itmp]))
other_lock_name[itmp] = toupper(other_lock_name[itmp]);
else if(isupper(other_lock_name[itmp]))
other_lock_name[itmp] = tolower(other_lock_name[itmp]);

return(other_lock_name);

} /* end of other_lock_name */

/*+-------------------------------------------------------------------------
lock_tty()
-------------------------------------------------------------------------*/
lock_tty()
{
register int itmp;
struct stat ttystat;

if(itmp = make_lock_name(Lline,LLCKname))
return(itmp);

if(stat(Lline,&ttystat) < 0)
return(LOPEN_NODEV);

if(itmp = create_lock_file(LLCKname))
return(itmp);

if(itmp = create_lock_file(other_lock_name(LLCKname)))
{
unlink(LLCKname);
LLCKname[0] = 0;
return(itmp);
}

} /* end of lock_tty */

/*+-------------------------------------------------------------------------
void unlock_tty()
-------------------------------------------------------------------------*/
void
unlock_tty()
{

if(LLCKname[0] == 0)
return;

unlink(LLCKname);
unlink(other_lock_name(LLCKname));

LLCKname[0] = 0;
} /* end of unlock_tty */

/*+-------------------------------------------------------------------------
valid_baud_rate(baud) -- returns (positive) baud rate selector
```

```
or -1 if invalid baud rate
-------------------------------------------------------------------------*/
valid_baud_rate(baud)
uint baud;
{
switch(baud)
{
case 110: return(B110);
case 300: return(B300);
case 600: return(B600);
case 1200: return(B1200);
case 2400: return(B2400);
case 4800: return(B4800);
case 9600: return(B9600);
case 19200: return(EXTA);
case 38400: return(EXTB);
default: return(-1);
}

} /* end of valid_baud_rate */

/*+-------------------------------------------------------------------------
lset_baud_rate(ioctl_flag)

If 'ioctl_flag' is set,then ioctl(Liofd,TCSETA,&Llv)
is executed after setting baud rate
-------------------------------------------------------------------------*/
lset_baud_rate(ioctl_flag)
int ioctl_flag;
{
int baud_selector = valid_baud_rate(Lbaud);

if(baud_selector < 0)
{
ff(se,"invalid baud rate: %u\n",Lbaud);
ff(se,"valid rates: 110,300,600,1200,2400,4800,9600,19200\n");
return(1);
}
Llv.c_cflag &= ~CBAUD;
Llv.c_cflag |= baud_selector;

if(ioctl_flag)
ioctl(Liofd,(int)TCSETA,(char *)&Llv);
return(1);

} /* end of lset_baud_rate */

/*+-------------------------------------------------------------------------
lset_parity(ioctl_flag)

If 'ioctl_flag' is set,then ioctl(Liofd,TCSETA,&Llv)
is executed after setting parity
-------------------------------------------------------------------------*/
```

```
void
lset_parity(ioctl_flag)
int ioctl_flag;
{
Llv.c_cflag &= ~(CS8 | PARENB | PARODD);
switch(to_lower(Lparity))
{
case 'e':
Llv.c_cflag |= CS7 | PARENB;
Llv.c_iflag |= ISTRIP;
break;
case 'o':
Llv.c_cflag |= PARODD | CS7 | PARENB;
Llv.c_iflag |= ISTRIP;
break;
default:
ff(se,"invalid parity: %c ... defaulting to no parity\n");
case 0:
case 'n':
Llv.c_cflag |= CS8;
Llv.c_iflag &= ~(ISTRIP);
Lparity = 0;
break;
}

if(ioctl_flag)
ioctl(Liofd,(int)TCSETA,(char *)&Llv);

} /* end of lset_parity */

/*+-------------------------------------------------------------------------
lgetc(char_rtnd)
-------------------------------------------------------------------------*/
void
lgetc(char_rtnd)
char *char_rtnd;
{

READ_AGAIN:
errno = 0;
if(read(Liofd,char_rtnd,1) < 1)
{
if(errno == EINTR) /* if signal interrupted, ... */
goto READ_AGAIN;
hangup(254);
}

} /* end of lgetc */

/*+-------------------------------------------------------------------------
lrdchk() -- rdchk(Liofd)
-------------------------------------------------------------------------*/
```

```
int
lrdchk()
{
return(rdchk(Liofd));

} /* end of lrdchk */

/*+-------------------------------------------------------------------------
lputc(lchar) -- write lchar to comm line
-------------------------------------------------------------------------*/
void
lputc(lchar)
char lchar;
{
while(write(Liofd,&lchar,1) != 1)
{
if(errno == EINTR)
continue;
hangup(255);
}
} /* end of lputc */

/*+-------------------------------------------------------------------------
lputs_paced(pace_msec,string) -- write string to comm line
with time between each character
-------------------------------------------------------------------------*/
void
lputs_paced(pace_msec,string)
register int pace_msec;
register char *string;
{
register long msec = (pace_msec) ? (long)pace_msec : (long)20;

while(*string)
{
lputc(*string++);
nap(msec);
}

} /* end of lputs_paced */

/*+-------------------------------------------------------------------------
char *lgets_timeout(LRWT *)

typedef struct lrwt
{
ulong to1;
ulong to2;
int raw_flag;
char *buffer;
int bufsize;
int count;
```

```
} LRWT;

to1 and to2 are unsigned long values in milliseconds (not
currently supported well under BSD4); to1 is the time to wait
for the first character, to2 the time to wait for subsequent
characters.

if raw_flag 0, non-printables are stripped from beginning
and end of received characters (i.e., modem
response reads); NULs discarded, parity stripped
if raw_flag 1, full raw read buffer returned
if raw_flag 2, full buffer, NULs discarded, parity stripped

buffer is address to read chars into

bufsize is buffer max size (allowing room for terminating null)
which should be at least 2 if raw_size includes 0x80 bit,
else at least 12 characters if 0x80 omitted.

count is a int which, at return, receives the actual count read

------------------------------------------------------------------------*/
char *
lgets_timeout(lrwt)
LRWT *lrwt;
{
register int actual_count = 0;
register char *cptr = lrwt->buffer;
int max_count = lrwt->bufsize;
char *rtn_val;
int timeout_counter;
int qc1;
int qc2;
long quantum;
long ltmp;

/* minimum wait is 60 msec */
if(Lbaud < 300)
if(lrwt->to2 < 300L) lrwt->to2 = 300L;
if(Lbaud < 1200)
if(lrwt->to2 < 200L) lrwt->to2 = 200L;
else
if(lrwt->to2 < 60L) lrwt->to2 = 60L;

/* shortest interval */
ltmp = (lrwt->to1 < lrwt->to2) ? lrwt->to1 : lrwt->to2;

/* calculate wait quantum */
quantum = ltmp / 10L; /* try for ten ticks */
if(quantum < 20L)
quantum = 20L;
qc1 = lrwt->to1 / quantum;
if(!qc1) qc1 = 1L;
```

```
qc2 = lrwt->to2 / quantum;
if(!qc2) qc2 = 1L;

/* perform the lrtw function
input: qc1 is first nap count (for first charcters)
qc2 is 2nd nap count (for subsequent characters)
quantum is the nap period in milliseconds
cptr is char* to receive read string
max_count is max number of characters incl null
lrwt->raw_flag as described above

output: lrwt->count is actual count of return result
lrwt->buffer is return read buffer
*/
max_count--; /* leave room for null */

lrwt->raw_flag &= 0x0F; /* get rid of 0xF0 flags */
timeout_counter = qc1; /* first timeout */
*cptr = 0; /* init result string */
while(timeout_counter--)
{
nap(quantum);
while(lrdchk())
{
lgetc(cptr);
if(lrwt->raw_flag != 1)
{
*cptr &= 0x7F;
if(*cptr == 0)
continue;
}

*++cptr = 0;
actual_count++;
if(--max_count == 0)
goto READ_LINE_POST_PROCESS;
timeout_counter = qc2;
}
}

READ_LINE_POST_PROCESS:
if(lrwt->raw_flag)
{
lrwt->count = actual_count;
return(lrwt->buffer);
}
cptr = lrwt->buffer;
while(((*cptr >0) && (*cptr < 0x20)) || (*cptr >= 0x7F))
cptr++;
rtn_val = cptr;
actual_count = 0;
while(((*cptr &= 0x7F) >= 0x20) && (*cptr <= 0x7E))
```

```
{
cptr++;
actual_count++;
}
*cptr = 0;
strcpy(lrwt->buffer,rtn_val);
lrwt->count = actual_count;
return(lrwt->buffer);
} /* end of lgets_timeout */

/*+-------------------------------------------------------------------------
lgetc_timeout(timeout_msec)

reads one character from line unless timeout_msec passes with no receipt.
timeout_msec < 20 msec becomes 20 msec
return char (raw - parity bit preserved) if received, else -1 if timeout
-------------------------------------------------------------------------*/
int
lgetc_timeout(timeout_msec)
ulong timeout_msec;
{
LRWT lr;
char getc_buf[2]; /* room for one char + null */

lr.to1 = timeout_msec;
lr.to2 = timeout_msec;
lr.raw_flag = 1; /* full raw read */
lr.buffer = getc_buf;
lr.bufsize = sizeof(getc_buf);
lgets_timeout(&lr);
return( (lr.count == 1) ? (int)getc_buf[0] : -1 );

} /* end of lgetc_timeout */

/*+-------------------------------------------------------------------------
lkill_buf()
-------------------------------------------------------------------------*/
void
lkill_buf()
{
ioctl(Liofd,(int)TCFLSH,(char *)2); /* flush input and output */
} /* end of lkill_buf */

/*+-------------------------------------------------------------------
lopen()
returns negative LOPEN_ codes if failure else positive pid using line
else 0 if successful open
-------------------------------------------------------------------*/
int
lopen()
{
register int itmp;
```

```
if(Liofd >= 0)
return(LOPEN_ALREADY);
if(itmp = lock_tty()) /* get lock file */
return(itmp);
Liofd = open(Lline,O_RDWR,0777);
if(Liofd < 0)
return(LOPEN_OPNFAIL);
else
{
ioctl(Liofd,(int)TCGETA,(char *)&Llv);
Llv.c_iflag = (IGNPAR | IGNBRK | IXOFF );
Llv.c_cflag |= (CREAD | HUPCL);
Llv.c_lflag = 0;

Llv.c_cc[VMIN] = 1;
Llv.c_cc[VTIME] = 1;

lset_baud_rate(0); /* do not perform ioctl */
lset_parity(1); /* do perform ioctl */
}

return(0);

} /* end of lopen */

/*+-------------------------------------------------------------------------
lclose()
-------------------------------------------------------------------------*/
void
lclose()
{
if(Liofd < 0)
return;
ioctl(Liofd,(int)TCGETA,(char *)&Llv); /* save initial state */
Llv.c_cflag |= HUPCL;
ioctl(Liofd,(int)TCSETA,(char *)&Llv);
close(Liofd);
Liofd = -1;
unlock_tty(); /* kill lock file */

} /* end of lclose */

/*+-------------------------------------------------------------------------
hayes_send_cmd(cmd)
0: success (cmd accepted)
-1: cannot talk to modem
-------------------------------------------------------------------------*/
hayes_send_cmd(cmd)
char *cmd;
{
register char *cptr;
int retry = 0;
```

```
cptr = cmd;
lkill_buf();
while(1)
{
lputc(0x07); /* something random */
if(lgetc_timeout(500L) < 0)
{
if(retry)
return(-1);
retry = 1;
lputs_paced(0,"ATQ0E1V1\r");
nap((long)1500);
lkill_buf();
continue;
}
break;
}
while(*cptr)
{
lputc(*cptr++);
if(lgetc_timeout(500L) < 0)
return(-1);
}
lputc('\r');
if(lgetc_timeout(500L) < 0)
return(-1);
return(0);

} /* end of hayes_send_cmd */

/*+-------------------------------------------------------------------------
hayes_dial()
returns 1 on success (CONNECT),
0 if failure to connect
-1 if cannot talk to modem
-------------------------------------------------------------------------*/
int
hayes_dial()
{
register int itmp;
char s128[128];
int rtn_code = -1; /* assume fail, CONNECT will chg to zero */
int s7;
LRWT lr;

s7 = 30;
strcpy(s128,"ATV1E1S11=45DT" );
strcat(s128,Ltelno);

if(itmp = hayes_send_cmd(s128))
return(itmp);
```

```
/* some modems (ahem, the Hayes 2400) do not accurately honor S7 */
lr.to1 = s7 * 3 * 1000L;
lr.to2 = 100L;
lr.raw_flag = 0;
lr.buffer = s128;
lr.bufsize = sizeof(s128);
ff(se,"Dialing %s ... INT to abort ... ",Ltelno);
fflush(se);
lgets_timeout(&lr);
if(lr.count)
ff(se,"%s\n",s128);
if(strncmp(s128,"CONNECT",7) == 0)
return(1);
return(0);

} /* end of hayes_dial */

/*+-------------------------------------------------------------------------
usage()
-------------------------------------------------------------------------*/
void
usage()
{
ff(se,"Usage: nbs_time [-][-e][-o][-n][-b#][-t#]\n");
ff(se,"Defaults 1200-N %s %s\n",Ltelno,Lline);
ff(se," - use defaults\n");
ff(se," -e even parity\n");
ff(se," -o odd parity\n");
ff(se," -n no parity\n");
ff(se," -b# baud rate\n");
ff(se," -t# telephone number\n");
ff(se," -l<name> line (/dev/tty??)\n");
exit(253);

} /* end of usage */

/*+-------------------------------------------------------------------------
main(argc,argv,envp)

main() program forks to create rcvr process; then main()
becomes the xmtr process
-------------------------------------------------------------------------*/
main(argc,argv,envp)
int argc;
char **argv;
char **envp;
{
char *cptr;
int iargv;
int swchar;
int itmp;
LRWT lr;
char rd_buf[64];
```

```
long now;
long julian;
long connect_time;
int day_of_year;
int hour;
int min;
int sec;
struct tm *lt;

setbuf(stderr,NULL);
setbuf(stdout,NULL);

ff(se,"nbs_time\n");

/* init line variables */
strcpy(Lline,"/dev/tty1a");
strcpy(Ltelno,"1(202)653-0351");
Liofd = -1;
Lbaud = 1200;
Lparity = 0;

if(argc < 2)
usage();

if((argc == 2) && (!strcmp(argv[1],"-")))
;
else
{
for(iargv = 1; iargv < argc; iargv++)
{
if(*argv[iargv] != '-')
continue;
switch(*(argv[iargv] + 1))
{
case 'e': Lparity = 'e'; break;
case 'o': Lparity = 'o'; break;
case 'n': Lparity = 0 ; break;
case 'b': Lbaud = atoi(argv[iargv] + 2); break;
case 't': strcpy(Ltelno,argv[iargv] + 2); break;
case 'l': strcpy(Lline,argv[iargv] + 2); break;
default: usage();
}
}
}

uid = getuid();
euid = geteuid();
if((euid == 0) || (uid == 0)) /* if root running or prog text ... */
nice(-40);
else
{
ff(se,"must be root\n");
```

```
exit(252);
}

signal(SIGHUP,hangup);
signal(SIGQUIT,hangup);
signal(SIGINT,hangup);
signal(SIGTERM,hangup);

if(itmp = lopen())
{
switch(itmp)
{
case LOPEN_INVALID:
ff(se,"invalid line name\n"); break;
case LOPEN_UNKPID:
ff(se,"unknown pid is using line\n"); break;
case LOPEN_LCKERR:
ff(se,"lock file error\n"); break;
case LOPEN_NODEV:
ff(se,"line does not exist\n"); break;
case LOPEN_ALREADY:
ff(se,"line already open\n"); break;
case LOPEN_OPNFAIL:
ff(se,"line open error\n"); break;
default:
ff(se,"pid %d using line\n",itmp); break;
}
exit(250);
}

if(!hayes_dial())
hangup(1);
connect_time = time((long *)0);

for(itmp = 0; itmp < 30; itmp++)
{
if(lgetc_timeout(500L) == TONE)
break;
}

lr.to1 = 1100L;
lr.to2 = 100L;
lr.raw_flag = 0; /* full raw read */
lr.buffer = rd_buf;
lr.bufsize = sizeof(rd_buf);

lgets_timeout(&lr);

fputs("'",stdout);
fwrite(lr.buffer,1,lr.count,stdout);
fputs("'\n",stdout);
```

```
lclose();
fprintf(stdout,"Connect time %ld second(s)\n",
time((long *)0) - connect_time);

if(sscanf(lr.buffer,TIME, &julian, &day_of_year, &hour, &min, &sec) != 5)
{
ff(se,"garbled result: '%s'\n",lr.buffer);
exit(240);
}
else
{
now = (((julian - EPOCH) * 24 + hour) * 60 + min) * 60 + sec;
if(stime(&now) < 0)
perror("stime");
fputs("Time retrieved from standard: ",stdout);
fputs(ctime(&now), stdout);
lt = localtime(&now);
while(lt->tm_sec != 58)
{
nap(960L);
now = time((long *)0);
fputs("Waiting for top of minute: ",stdout);
fputs(ctime(&now), stdout);
lt = localtime(&now);
}
now += 60L; /* get top of next minute */
lt = localtime(&now);
/* mmddhhmmyy */
/* 0718213488 */

/* The following statement was added because of a bug in the original code */
lt->tm_mon++;

sprintf(rd_buf,"/etc/setclock %02d%02d%02d%02d%02d",
lt->tm_mon,lt->tm_mday,lt->tm_hour,lt->tm_min,lt->tm_year);
fputs("/etc/setclock setting ... ",stdout);
system(rd_buf);
fputs("result: ",stdout);
system("/etc/setclock");
}
exit(0);

} /* end of main */

/* end of nbs_time.c */
```

--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf

334. IC-2N mod?

Newsgroup: rec.ham-radio
Date: 1990-01-16 19:24:16 UTC
From: john@ispace.UUCP
Message-ID: <102@ispace.UUCP>
Source record: 14132

I'm looking for the mod to allow the IC-2N HT to work in the
146-148 Mhz range (it's sold in Japan for use on 144-146)

de john@ispace.UUCP (ka1tb)

335. Re: Theoritical Equations for Antennas

Newsgroup: rec.ham-radio
Date: 1990-01-16 19:41:18 UTC
From: dalyb@godzilla.UUCP
Message-ID: <481303aa.1423f@godzilla.UUCP>
Source record: 14133
Cross-posted to: rec.ham-radio,sci.electronics

Subject: Re: Need Theoritical Antenna Info
Newsgroups: rec.ham-radio,sci.electronics
Keywords: Antennas

John Moore (NJ7E) posted a request for information on theoritical formulas
for effective aperture, input impedance, and radiation resistance for short/
long dipoles, short and long quarter wave ground planes, and magnetic dipole
antennas. Here's a brief summary of equations:

Reference: Balanis, "Antenna Theory: Analysis and Design", Harper and Row.
This text is available from the Arizona State University
bookstore.

Kraus, "Antennas", McGraw Hill

Short Dipole: (wavelength/50) <= length <= (wavelength/10)

Effective Aperture Ae = 3(wavelength)**2 / (8 * pi)

Radiation Resistance: Rr = (20 * pi**2) * (length/wavelength)

Input Impedance: For a small dipole of length l and wire radius a:

Reactance: Xin = -120 [ln(l/a)-1] / tan(kl)

where k = (2 * pi) / wavelength

Resistance: Rin = Rr as given above

Note that if the antenna length is slightly less than 1/2 wavelength,
the reactance will go to zero. For l of a halfwavelength, the reactance
is approximately zero and the resistance is close to 50 ohms. (42.5 ohms
for wire of small radius).

Long Dipole:

The analysis for a finite length dipole gets a little complicated.
Balanis (reference above) provides a FORTRAN program in his text
to compute radiation resistance, directivity, and input resistance
for a finite length dipole based on the following equations:

Radiation resistance Rr = 60 { C + ln(kl) - Ci(kl) + (1/2)sin(kl)

* [Si(2kl) - 2Si(kl)] + (1/2)cos(kl)

* [C + ln(kl/2) + Ci(2kl) - 2Ci(kl)] }

where Ci,Si are cosine and sine integrals
C = Euler's constant = 0.5772

Input resistance: Rin = Rr / (sin (kl/2) **2)

Input reactance: Xin = Xm / (sin(kl/2) **2)

where Xm = 30 { 2Si(kl) + cos(kl)[2Si(kl) - Si(2kl)]
- sin(kl)[2Ci(kl) - Ci(2kl) - Ci((2k * {a**2})/l)]}

Effective Aperture (maximum):

Aem = {(wavelength **2) / (4 * pi)} * (directivity)

Balanis figure 4.8 plots directivity versus dipole length for
0 to 3 wavelengths. The calculation for the directivity is
rather complicated; refer to the reference for details of the
calculations.

Magnetic Dipole:

By applying the principle of duality, a magnetic dipole of magnetic
moment Iml is equivalent to a small electrical loop of radius a and
constant electric current Io provided that:

Iml = jSwuIo where S = area of the loop = pi * a**2
w = radian frequency
u = permeability

For a small electric loop of radius a:

Radiation resistance: Rr = 20 * (pi)**2 * {C/wavelength}**4
where C = circumference of the loop

Effective Aperture (maximum) Aem = 3 * (wavelength)**2 / (8 * pi)

Short/Long (what is a short or long??) Quarter Wave Ground Plane:

The analysis of a quarter wave ground plane antenna is essentially
a vertical electrical dipole above a ground plane.

When the length of the antenna is a quarter wave, and the height above
the ground plane is zero, then:

Input impedance = 36.5 + j21.25 (note that this is one half the input
impedance of a half wave dipole)

Effective aperture (maximum) Aem = 0.13 * (wavelength)**2

I hope this helps answer some of your questions. I refer you to the
references I mentioned for more detailed information. The Balanis
text does contain many FORTRAN programs, which may be of some use.

Brian K. Daly WB7OML
AG Communication Systems, P.O. Box 52179, Phoenix, Az. 85072-2179
UUCP: {...!ames!ncar!noao!asuvax|uunet!zardoz!hrc|att}!gtephx!dalyb
Phone: (602) 582-7644 FAX: (602) 582-7111

336. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-16 20:58:46 UTC
From: turner@ics.uci.edu
Message-ID: <25B38B07.3681@paris.ics.uci.edu>
Source record: 14142

Hi all:

I wonder if anyone out there can briefly explain what a duplexer really is and what it does. If its not easy, I'll do a little research and see what I can find.

Clark, WA3JPG

337. 10 meter pirates (was = Re: AM operation.)

Newsgroup: rec.ham-radio
Date: 1990-01-16 22:33:19 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <9075@ttidca.TTI.COM>
Source record: 14134

In article <11.Jan.90.15:42:42.GMT.#1875@UK.AC.NWL.IA> PJML@IBMA.NERC-WALLINGFORD.AC.UK ("Pete Lucas, NCS-TLC, Swindon U.K.") writes:
+
+There is also a fair amount of use of converted AM CB sets on ten meters,
+this is partly because many of the 'UK spec.' CB sets (FM) are quite hard
+to pull onto 28MHz (they use the SANYO LC7137 PLL chip, which has the
+division ratios mask-programmed in). Converted CB sets (AM, FM, multimode)
+seem quite popular on 28MHz. If only they were all used by licensed hams, it
+would make things better. We have a serious 'pirate' problem around the
+bottom end of ten meters.
+
Well..it looks to me like the problem is spreading..10 meters is supposed to be an exclusive, worldwide Amateur band. Here in the states, the pirates tend to be mostly Hispanics and a fair number of illegals, handling traffic into and out of Mexico and S.America. Sigh. Does the UK (or anyone else?) have a CB band between 26 and 28 MHz.? I wonder about this because of the ever increasing number of 'world market' or 'export-only' CB's that are showing up here. 90% of these rigs are multimode (AM-FM-SSB, some with CW!) and seem to cover, variously, the 26-28.3 or 30 MHz area. What excuse exists for building these damn things is beyond me..the manufacturers seem hell-bent to create products for the bootleggers..I say the FCC/ITU should clampdown on them..make them build CB gear that CANNOT be modified to operate above 27.995, this *might* slow the bastards down a little. Grrrr!

Anybody got an anti-acid? ;-)
--
-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **

338. Re: Radar-detector detector

Newsgroup: rec.ham-radio
Date: 1990-01-16 22:39:43 UTC
From: rusty@cadnetix.COM
Message-ID: <10980@cadnetix.COM>
Source record: 14135

In article <30500354@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
<lots of stuff about rdd's (radar-detector detectors :-)) >
>
>--Phil Howard, KA9WGN--
><phil@ux1.cso.uiuc.edu>

Well, I've been wondering recently, what with spread spectrum and all,
how hard it would be to make a spread spectrum IF. Yep, you read right,
a spread spectrum IF. THAT would be hard to detect, I bet. Also
pretty hard to build, but I'll bet SOMEONE on the net can get around
the problem....

(Uh-oh, here it comes now! :-))

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

339. 'metric' envelopes

Newsgroup: rec.ham-radio
Date: 1990-01-16 22:40:38 UTC
From: oo7@utastro.UUCP
Message-ID: <4732@utastro.UUCP>
Source record: 14146

zslf0a@apctrc.trc.amoco.com (Steven L. Farmer, WA5RPF) says:

>>A (loosely) related question - anyone have any info on obtaining metric
>>sized envelopes for QSL'ing purposes? I'm thrilled when I get a DX
>>QSL back, whatever the shape its in, but it would be nice if the sender
>>didn't have to fold it to fit into my sase.

One such source is DX QSL Associates at 434 Blair Road NW, Vienna VA 22180.
They sell (mint) foreign stamps, and various other stuff that might be of
help in getting QSL cards from overseas. They sell 11x16 cm "European- sized"
airmail envelopes for 25c each. I'd suggest sending a SASE and asking for
more details. Some of the other stamp services might be able to help too.

[Thanks to Patty Winter N6BIS for remembering that the above info was in a
recent DX Magazine (Jan 90 issue).]

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

"Hold this feedline", said Tom, coaxingly
---

340. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-16 22:49:27 UTC
From: wrf@mab.ecse.rpi.edu
Message-ID: <*BR#`|@rpi.edu>
Source record: 14136
Cross-posted to: sci.electronics,rec.ham-radio

In article <480ec7fd.15840@valley.UUCP> pfluegerm@valley.UUCP (Mike Pflueger) writes:
>
>Actually, I had this as an EE problem to solve in college - how the tunnel
>could be modified to pass signals of a frequency above cutoff. One way
>was to modify the u (mu) of the material in the tunnel - such as a special
>gas, or styrofoam, obviously impractical. The real way was to run a wire
>through it which extended outside the tunnel. The wire would conduct the
>RF into the tunnel and allow reception. I forget the exact details on
>length of the wire, but this was in a course taught by John Kraus (Mr.
>Antenna) himself, so I'm confident of the solution.

Don't (some) subway systems use this so the crew can use radios?
--
Wm. Randolph Franklin
Internet: wrf@ecse.rpi.edu (or @cs.rpi.edu) Bitnet: Wrfrankl@Rpitsmts
Telephone: (518) 276-6077; Telex: 6716050 RPI TROU; Fax: (518) 276-6261
Paper: ECSE Dept., 6026 JEC, Rensselaer Polytechnic Inst, Troy NY, 12180

341. Amateur Radio Gear 4 sale

Newsgroup: rec.ham-radio
Date: 1990-01-16 23:34:02 UTC
From: mark@linqdev.UUCP
Message-ID: <368@linqdev.UUCP>
Source record: 14170
Cross-posted to: rec.ham-radio,rec.ham-radio.swap,misc.forsale

Hi netlanders!

I have the following HAM gear forsale:

ICOM 27A 2 meter transceiver - $250
25W out, PLL synth tuning
VFO A & B, 10 memories,
PL tones with DTMF mic.

The rig is in excellent shape. Manual included.

Will throw in a Telex 5 element 2 meter beam
that has never been out of the box.

Spectrum SCR 2000 X 440 Mhz repeater - $850
This is a great deal! A working full featured
repeater complete with duplexers, and a BRAND NEW...
(*READ NEVER OUT OF THE BOX*). Hustler G6-440 base
antenna. Repeater features touch-tone remote programming
of various features, 40W output, auto-patch, 110V power supply,
terminals for 12V backup power, 8 aux inputs (for patching
to other repeaters, westlink, etc). I also have
manuals that describe in detail the transmitter, receiver,
duplexer, and control circuitry.

NOTE!!! this repeater has the callsign of the original
owner - W7SRZ - burned into the CPU along with the
access codes. You can turn the CW ID volume completely
down and patch in your own CW IDer very easily. Spectrum
no longer makes the CPUs.

I have tested the repeater to see if it would handle
packet transmissions and it will.

The prices on both of these are firm but I do have to move both
pieces of equipment rapidly. I will pay shipping within
the continental US based on the prices above.

Mark R. Holbrook - WS7M
13327 251st SE
Issaquah, WA 98027
206-827-1112 day
206-392-9672 eve

uw-beaver!sumax!ole!linqdev!mark
or

uw-beaver!sumax!ole!linqdev!ws7m!ws7m

342. Re: ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-17 01:38:59 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500355@ux1.cso.uiuc.edu>
Source record: 14149

> Theoretically, an ATV exciter should be followed by a truly linear
> amplifier. Since linear amps are less efficient than class C, this would
> argue for using an unmodulated exciter and modulating the PA.
>
> However I think linearity is less important with ATV than other AM modes.
> The signal is ALREADY wideband, so you don't have to worry (within reason)
> about splatter. The main effect is to alter the gray scale (contrast and
> brightness), which can be adjusted for in the modulator.
>
> Al N1AL

ATV is ALREADY wideband, that's for sure. What is needed is Vestigial
Side Band which is what the broadcasters already use to keep their signal
within 6 Mhz (carrier +1.25 Mhz from the bottom).

However, non-linearity in the amplification of a VSB ATV signal can reintroduce
the removed sideband (and maybe some harmonics and wider splatter as well) and
prevent the ATV signal from being as narrow as it can be.

With increasing pressure on our spectrum due to the probably loss of 220-222
Mhz, the increasing use of AVM systems on 902-928 Mhz, and many other things,
all uses of the spectrum need to consider their efficiency so we can operate
things with closer frequency spacing. ATV users need to seriously take a
close look at VSB to help fit in better, especially in the complexly tight
70cm band. VSB is absolutely needed in some cases. For instance ATV
repeaters (as well as ANY repeater) may NOT operate on 431-433 or 435-438
Mhz (FCC rules). That means an ATV repeater with output at 439.25 Mhz *MUST*
use VSB to be legal.

Kudos to AEA for putting VSB in their new ATV transmitter (but can someone
tell me how well it really works?).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

343. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-17 02:03:36 UTC
From: pierson@cimnet.dec.com
Message-ID: <799@ryn.esg.dec.com>
Source record: 14143
Cross-posted to: sci.electronics,rec.ham-radio

writes, in part:
..
>
>Don't (some) subway systems use this so the crew can use radios?
>--
(this should probably be dragged over to rec.radio.shortwave, or rec.railroad
8)>>)

The two systems i know of involve:
Using wilfully leaky coax. An open weave braid allows noticeable
amounts of signal out, and in. Some amplifiers and mixers and away
you go...

A system in NY City, allows the police to take their standard HT's
into subway stations, while staying on the same channel. They found
there was enough loss between topside and underground that they could
equip each station with an above ground antenna, directional couplers,
amplifiers, antenna(s) below ground. The loss "down the stairs"
was enough to keep the underground transmitter from getting into
the above ground receiver on the same frequency, and vice-versa...
thanks
dave pierson |The facts, as accurately as I can manage
Digital Equipment Corporation |The opinions, my own...
600 Nickerson Rd
Marlboro, Mass
01752 pierson@cimnet.enet.dec.com

344. IC Info Needed

Newsgroup: rec.ham-radio
Date: 1990-01-17 02:18:37 UTC
From: jim@cbnewsl.ATT.COM
Message-ID: <3678@cbnewsl.ATT.COM>
Source record: 14144
Cross-posted to: rec.ham-radio,sci.electronics

I am going to build a PLL based Subsidary Carrier Authorization (SCA)
detector based on the NE565 PLL. When I went to buy the IC, all
the dealer had was an LM565CN. I don't have, and haven't been able
to find, the data sheet for this chip. Could someone look it up
and tell me if it has the same pinouts as the NE565?

Thanks
Jim Malcolm
...!att!whuts!jim

PS. I plan on using the circuit that appears in the Radio Amateurs
Handbook (Chapter 18 in the latest version). The alternative is
the circuit in the Signetics data book. Has anybody built and
used either of these circuits?

345. Your chance to help spend someone else's tax refund!!

Newsgroup: rec.ham-radio
Date: 1990-01-17 05:16:29 UTC
From: chguest@pioneer.arc.nasa.gov
Message-ID: <5985@eos.UUCP>
Source record: 14171
Cross-posted to: rec.radio.shortwave,rec.ham-radio

BEFORE I START: Thanks to Gordon Vickers for the frequencies.
To the person I promised a copy of the SX62 manual, Brian, I am still working on it. To Ralph Brandi, Was that what you wanted for an r.r.sw intro?

Okay, on with the REAL topic....

Well.... If all goes well this year I will get a small tax refund. Being that I have not treated myself to something *expensive* in the last several years, I am considering buying myself a scanner.

I will be happy with a tabletop model as long as I can keep the cost as far under 500 dollars as possible. I have already read Bob Parnass' review of the Realistic PRO 2005 and his used scanner selection article. (Both very well written documents by the way.) If this comes to pass I want to make certain that I spend my hard earned money wisely as this will probably be the last radio I will be able to afford for quite some time. (Getting married drains the budget, so I hear. Not to mention my fiancee seems to think we are going to need useless luxuries like sofas and refrigerators more than we will need necessities like a radio to listen in to the neighbors baby monitor or the city street sweeper. :-)

Would you like to help me with my plight? I need to find a scanner that meets the following criteria:

1) Continuous Coverage or as close as possible, from 30 mcs up to AT LEAST 950 megs or so.
2) Ability to operate in all covered bands in AM, and FM mode. SSB would also be nice, but I expect it would get too expensive.
3) LOTS of memory available. Certainly 100 frequencies or more is not too much to expect.
4) A good search capacity allowing for variable search increments. ie: 12.5 khs 5 khz etc.

In addition The following features would be considered a great plus:

1) More than one antenna jack.
2) A (good quality) backlight.
3) The ability to run off of 12 volts. (For automobile use.)
4) An S-meter.
5) A built in recording jack.
6) A built in clock/timer.
7) A built in micro-wave oven. (so I don't have to get up all the time :-)
8) Anything else you reccomend?

So far I am considering the Realistic 2005, however,except for one
well known poster, I have heard nothing first hand from people who own
one. I want to know what quirks you have found to be annoying or whether
or not you would buy one again. Also any other comments you might have.

I have heard good things about the Realistic 2004 as well. Has
anyone out there contrasted the 2004 and 2005? Which is better for you
which does more after the standard modifications have been made?

Are there any other scanners available (That are not made by
AOR -- heard too many bad things about them) that fit the first several
criteria I mentioned? Is there anything upcomming for release in 1990
that would be better to wait for?

Along a different vein:

I am going to want to purchase a good listening antenna for
whatever scanner I choose. It will have to be compatable with
frequencies from 50 to 900 or so and will have to be omni-directional
for standard reception. Any choices available? I know painfully little
about this as I have been using Radio Shack's (ugh theres that word
again), bottom of the line for about 4 years now.
What will this run $$$?

Lastly, what is the best cable for an application such as the
one I have described above? I know that good quality RG8U is the best
for the bucks for shortwave, how about for VHF UHF and borederline
microwave?

Any help on any of these subjects would be appreciated.
Charles

I have directed followups to rec.radio.shortwave
++
+ *READ* ---> The opinions expressed above are to the best of my knowledge, +
+ however all options should be discussed with persons who have professional+
+ training with the subjects covered here. * ALL POSSIBLE DISCLAIMERS APPLY!+
+ ____FROM: chguest@pioneer.arc.nasa.gov =>or<= sun!ames!pioneer!chguest____+
++
+ A new Soviet/American truism - KGB does NOT stand for Kinder Gentler Boys +
++

346. Banging on the power pole

Newsgroup: rec.ham-radio
Date: 1990-01-17 05:51:06 UTC
From: erc@khijol.UUCP
Message-ID: <1048@khijol.UUCP>
Source record: 14173

In article <18987@bellcore.bellcore.com> karn@jupiter.bellcore.com (Phil R. Karn) writes:

>No! Don't do this! Power line noise is usually caused by loose hardware
>up on the pole, and who knows what might happen if you shake it up. I've

Why not, Phil? I've seen linemen in San Antonio do exactly the same thing
after I've called them to complain about power line noise.
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf

347. Re: Getting the time over the phone from NBS

Newsgroup: rec.ham-radio
Date: 1990-01-17 06:58:58 UTC
From: wht@tridom.uucp
Message-ID: <899@tridom.uucp>
Source record: 14145
Cross-posted to: alt.sources,rec.ham-radio

I just posted to alt.sources cmostime3, a two-part shar, which was an expansion on my previous program, nbs_time.c. The whole business was inspired by comp.sources.misc v03i079. The original author did all the hard work. For nbs_time.c, I just put a bunch of async junk around it to autodial and otherwise make it a standalone program. cmostime built on this to avoid using the inexact /etc/setclock and a few other goodies.

v03i079 contains a GREAT program utc.c which allows your system to mimic NBS and provide esentially the same service via a local call. Only the most ultimate time freaks who've replaced their PC's crystal with an atomic clock can tell the difference (I'm pretty bad, but not that bad) :-).

--

Warren Tucker, Tridom Corporation ...!gatech!emory!tridom!wht
home address: ...!gatech!kd4nc!n4hgf!wht

348. latest STS-32 keplerian elements

Newsgroup: rec.ham-radio
Date: 1990-01-17 07:24:07 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19025@bellcore.bellcore.com>
Source record: 14147
Cross-posted to: rec.ham-radio,sci.space.shuttle

```
Satellite: sts-32
Epoch time: 90015.91666667
Mon Jan 15 22:00:00.0 1990 UTC
Inclination: 28.5003 deg
RA of node: 94.1902 deg
Eccentricity: 0.0002283
Arg of perigee: 142.9628 deg
Mean anomaly: 348.8765 deg
Mean motion: 15.79692406 rev/day
Decay rate: 0.00049735 rev/day^2
Epoch rev: 101
Semi major axis: 6713.775 km
Anom period: 91.156987 min
Apogee: 338.929 km
Perigee: 335.864 km
Ref perigee: 4397.91862266
Mon Jan 15 22:02:48.997 1990 UTC

Comparing this set with the last one gives a predicted position difference
of 8.54 km and a velocity difference of 10 meters/sec. This is a lot better
than a few days ago when they were constantly making orbital maneuvers!

Phil
```

349. Re: duplexers

Newsgroup: rec.ham-radio
Date: 1990-01-17 09:11:37 UTC
From: khendric@pollux.usc.edu
Message-ID: <22363@usc.edu>
Source record: 14172

In article <25B38B07.3681@paris.ics.uci.edu> turner@ics.uci.edu (Clark Turner) writes:
>Hi all:
>I wonder if anyone out there can briefly explain what a duplexer really is
>and what it does. If its not easy, I'll do a little research and see what I
>can find.
>Clark, WA3JPG

For a repeater, it is a series of filters that go between the antenna,
the receiver, and the transmitter. The filters between the transmitter
and the antenna are tuned to the transmitter frequency (bandpass) or
tuned to reject the receiver (bandstop); vice-versa for the filters
between the receiver and the antenna.

For the dual band radios and/or the dual band antennas, just filters to
make sure the RF goes where it is supposed to go. I'm sure you can
figure it out for your particular configuration.

350. Radio in tunnels?

Newsgroup: rec.ham-radio
Date: 1990-01-17 09:48:00 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <17.Jan.90.09
Source record: 14151

One reason you can receive FM better in tunnels/bridges is that in some instances, there is provision made for radiating the FM signal INSIDE the tunnel. Special 'leaky feeder' (typically a length of Andrew 'RADIAX') is run along the tunnel. Slots are cut in the screening, to allow the signal inside to 'leak out' in a controlled fashion. Signals are fed into the coax from an external antenna. The coax acts as a long, lossy feeder. This can, of course, work in both directions - construction crews etc. can transmit back to their 'base' by pickup on the leaky feeder and reradiation back down the tunnel.
The same practice is used in mines where the ground conductivity is high - they use a network of cross-connected leaky feeders, sometimes with amplifiers between 'domains'. Watching somebody talking to his crew (who are a couple of miles underground) on a handheld, is somewhat surreal!
I am also told that there are FM radio stations that broadcast specifically to people in tunnels....?
++Pete

351. Miniature FM receivers - what chips to use?

Newsgroup: rec.ham-radio
Date: 1990-01-17 12:19:21 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <17.Jan.90.12
Source record: 14152

Somebody was wanting any info on miniature FM receivers. I dug out some relevant info last night. Look up the Mullard/Philips/Signetics NE602 and NE604 chips (602 is RF frontend, 604 is FM IF subsystem). If you have access to a local friendly Signetics/Mullard semiconductor stockist, ask for the following application notes::

'Product specification SA/NE604 Low-power FM IF system (12 pages)'

'Application note AN199 - Designing with SA/NE604'

'Application note AN198 - SA/NE602 double balanced mixer/oscillator'

'Designing with the NE/SA602 Application note AN1982'

NE602 is a fun chip - balanced mixer to 500MHz, oscillator to 200MHz, 18dB conversion gain at 45MHz, total current consumption 2.4mA at 6 volts. It is not exactly 'state of the art' as far as mixing is concerned, but it is far cheaper than Plessey SL600-series chips (and smaller and uses less power...) It comes in an 8-pin DIP outline.
NE604 is the IF processing chip: 2 limiting amplifiers, quadrature FM detector, muting, logarithmic signal-strength indicator and voltage regulator all in one 16-pin DIP. It was originally designed for cellular phones.

++Pete

352. More on Furren QSL Envelopes

Newsgroup: rec.ham-radio
Date: 1990-01-17 13:14:33 UTC
From: pescatore_jt%ncsd@gte.COM
Message-ID: <9001171314.AA19664@bunny.gte.com>
Source record: 14153

zslf0a@apctrc.trc.amoco.com (Steven L. Farmer, WA5RPF) says:

>>A (loosely) related question - anyone have any info on obtaining metric
>>sized envelopes for QSL'ing purposes? I'm thrilled when I get a DX
>>QSL back, whatever the shape its in, but it would be nice if the sender
>>didn't have to fold it to fit into my sase.

Just about any stationery (or is that stationary?) store will have what
they call European Air Mail envelopes. If you buy an entire box of 120,
they will cost about 15 cents each or so. If they'll sell you a little package
of 10, they'll probably cost 25 cents each. They are blue with red trim,
and AIR MAIL and AIREAU MAILEAU, or however you say Air Mail in French,
(I think it is actually Par Avion) is imprinted on the envelope.

I started using these a number of years ago when I noticed that the business
size SASEs I sent to DX stations were either not coming back, or were coming
back folded or cut and taped. It turns out that our business size envelopes
cost more for furreners to air mail than their "metric" size. I would estimate
that 3 out of 10 of my business size SASEs were used by the DX station,
and 7 out of 10 of the European Size Air Mail envelopes come back.

By the way, if you still want to use the standard Amurrican size business
envelopes as SASEs, make sure you get some of those little Air Mail stickers
(the Post Office will give them to you free) and place them on there. If
you don't and the DX station doesn't, the return will go via surface mail,
usuallly dragged behind a yak until it reaches France or England where it
is dragged behind a small truck.

73 John WB2EKK @N4QQ PESCATORE_JT%NCSD@GTE.COM

353. Re: naive question about RF propogation (anecdote)

Newsgroup: rec.ham-radio
Date: 1990-01-17 13:20:34 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9001180805.AA20337@ucbvax.Berkeley.EDU>
Source record: 14154

>Date: 16 Jan 90 01:37:42 GMT
>From: hpl-opus!hpnmdla!hpmwtd!timb@hplabs.hpl.hp.com (Tim Bagwell)
>Subject: Re: naive question about RF propagation (anecdote)
>Message-ID: <1260018@hpmwtlb.HP.COM>
>
>I think this effect can be explained by thinking of the bridge or tunnel as
>a waveguide. Shorter wavelength signals, such as FM broadcast (approx. 100 MHz)
>will propagate through the guide assuming typical bridge or tunnel dimensions.
>
>de WB9MVP, Tim

I have also attributed this phenomenon to waveguide effect. Another reason
I assumed this is because I noticed that the signal level of the FM station
does not stay constant. It increases and decreases as you drive thru the
tunnel. Most people probably don't notice this as they drive thru the tunnels
at a pretty good clip and it is not as noticable on strong local stations as
it is on fringe area stations. I haven't actually measured the distance, but
my guess is that the peaks in signal level are located at some multiples of
the wave length of the signal.
This is based on a lot of "research . :-) I drove thru this small tunnel on
my way to work every day for about 5 years.

bill gunshannon KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

354. SW B'cast stations

Newsgroup: rec.ham-radio
Date: 1990-01-17 13:30:20 UTC
From: pescatore_jt%ncsd@gte.COM
Message-ID: <9001171330.AA20139@bunny.gte.com>
Source record: 14155

remaker@pepsi.amd.com writes:

>My question is: On the shortwave worldwide bands, does any country broadcast
>something like an American "classic rock" broadcast (which can be received in
>Japan)? If no such station exists, what are the obstacles and implications
>of getting licensed to start one?

>Also, what are the implications of licensing a commercial station to rebroadcast
>its signal over shortwave? If WFNX in boston did this, I'd buy a shortwave
>radio tomorrow!!!!!

WRNO in New Orleans, LA answers both of the above questions. I don't know
what the definition of Classic Rock is anymore, but they play hard drugs
rock and roll (I'm into folk music, so there is a lot of stuff that sounds
like HDRR to me). They used to just simulcast their FM station but I believe
they may now have seperate programming. They used to have a strapping signal
on something like 7455 here in the evenings.

THere also used to be a station KYOI on Saipan that used to broadcast rocka
nd roll into Japan, and was audible here. Radio Australia used to have some
good Amurrican music programs. In fact, Radio Australia alone would be enough
to justify buying a SW receiver.

My all band xcvr was stolen a few years ago and I'm not current on the SWBC
bands anymore. Bob Horvitz is on here, I think, and is a good source
for what is still on the air. By the way, its not a popular stance, but
I used to do a lot of overseas travel and found VOA to be one of the best
SW stations around, after the BBC. They had a pretty good "Good Morning,
America" kind of show and good newscasts. I think their political slant
is less distorted than a lot of people like to make out. Most people seem
to start calling VOA a "propaganda" station once they find out that VOA's
policy is not to send QSLs or program quides to U.S. listeners. I think
that is a pretty good policy, myself.

73 John WB2EKK @N4QQ PESCATORE_JT%NCSD@GTE.COM

355. Re: IC Info Needed

Newsgroup: rec.ham-radio
Date: 1990-01-17 13:41:42 UTC
From: grr@cbmvax.commodore.com
Message-ID: <9362@cbmvax.commodore.com>
Source record: 14156
Cross-posted to: rec.ham-radio,sci.electronics

In article <3678@cbnewsl.ATT.COM> jim@cbnewsl.ATT.COM (james.a.malcolm) writes:
>
> I am going to build a PLL based Subsidary Carrier Authorization (SCA)
> detector based on the NE565 PLL. When I went to buy the IC, all
> the dealer had was an LM565CN. I don't have, and haven't been able
> to find, the data sheet for this chip. Could someone look it up
> and tell me if it has the same pinouts as the NE565?

As the next 100 people will say...it's the same chip, just a different
manufacturers designation (NE=Signetics,LM=National).

> PS. I plan on using the circuit that appears in the Radio Amateurs
> Handbook (Chapter 18 in the latest version). The alternative is
> the circuit in the Signetics data book. Has anybody built and
> used either of these circuits?

I've built the Signetics one. It works, but unless you live in NYC
or somewhere similar, you'll only find a few stations running SCA and
most of them really aren't very intersting...

Also, you need to get into the pre-decode audio in your FM reciever,
which may or may not be easy...unless you have a truely ancient reciever
with a composite out jack...

--
George Robbins - now working for, uucp: {uunet|pyramid|rutgers}!cbmvax!grr
but no way officially representing arpa: cbmvax!grr@uunet.uu.net
Commodore, Engineering Department fone: 215-431-9255 (only by moonlite)

356. Re: naive question about RF propagation (anecdote)

Newsgroup: rec.ham-radio
Date: 1990-01-17 14:37:26 UTC
From: wilson@ccop1.ocpt.ccur.com
Message-ID: <279@ccop1.ocpt.ccur.com>
Source record: 14028

In article <1260018@hpmwtlb.HP.COM>, timb@hpmwtd.HP.COM (Tim Bagwell) writes:
> I think this effect can be explained by thinking of the bridge or tunnel as
> a waveguide. Shorter wavelength signals, such as FM broadcast (approx. 100 MHz),
> will propagate through the guide assuming typical bridge or tunnel dimensions.
> You should notice that as you enter the bridge, the longer wavelength signal
> begins to die out gradually (except for leakage through any large openings such
> as between spans).
>

When I go through the Holland tunnel under the Hudson River, I notice
that VHF FM broadcast signals fade out to below the noise threshold about 100 meters in.
The Signal reappears twice during the mile long travel when you
pass by the escape tunnels going up to shoreline. This seems to be an exception to the
explanations previously posted on the net.

Any ideas why? The Holland tunnel entrances are at 90 degree bends to the axis of the
tunnel and it is about a mile long under water. Diameter of the tubes is
about 10 meters.

Gary, WB2BOO

Gary, WB2BOO

357. Re: Other ham journals

Newsgroup: rec.ham-radio
Date: 1990-01-17 15:14:42 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490085@hpscdc.scd.hp.com>
Source record: 14157

>/ hpscdc:rec.ham-radio / zslf0a@apctrc.trc.amoco.com (Steven L. Farmer) / 6:12 am Jan 16, 1990 /
>I am interested in receiving the journals produced by the amateur radio
>societies from other English speaking countries (their versions of QST).
>Does anyone out there have any info on this? The address of RSGB is
>
>73's - WA5RPF
>----------

Don't forget the English language edition of "VHF Engineering" an
excellent technical magazine from Germany. It's like Ham Radio
used to be about 10 years ago before it got watered down. It is
available in this country thru Timekit, which also sells kits
for many of the construction articles appearing in VHF Engineering.

Rick N6RK

358. Time and Freq. Handbook

Newsgroup: rec.ham-radio
Date: 1990-01-17 15:18:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9001180807.AA20491@ucbvax.Berkeley.EDU>
Source record: 14158

I called NBS to get a copy of the Time and Frequency Handbook. It is currently out of print, but they are revising it for publication this summer or fall. To get on a mailing list for a copy, call Mike Lombardi at 1-303-497-3212.

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

359. NATION OF ISLAM ON ARF

Newsgroup: rec.ham-radio
Date: 1990-01-17 15:20:16 UTC
From: arf@jolnet.ORPK.IL.US
Message-ID: <2868@jolnet.ORPK.IL.US>
Source record: 14159
Cross-posted to: talk.politics.misc,rec.ham-radio,rec.radio.shortwave,misc.headlines

abdul/e15

NATION OF ISLAM TO ADDRESS ARF

Farrakhan's Number One Man to be guest on ARF

Abdul Walim Mohamad, assistant to Louis Farrakhan and Editor in Chief of the Final Call, will be our guest on the Amateur Radio Forum this Thrusday evening.

For everything you always wanted to know about the Nation of Islam and its controversial leader, tune in to ARF.

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> / * \ <
/ | | \
| A |
| R | THE LIGHTHOUSE OF
| F | WISDOM AND TRUTH
____| |____
| Amateur | arf@jolnet
____| Radio Forum|____ arf@chinet
/ Thurs 09:PM 3950 KHZ \ arf@lopez
| Sat 10:AM 14313 KHZ |
|______ N R 9 Q ________|
```

NEVER VOTE FOR THE INCUMBENT!!!!!

360. Re: Theoritical Equations for Antennas

Newsgroup: rec.ham-radio
Date: 1990-01-17 16:12:53 UTC
From: feg@bonnie.ATT.COM
Message-ID: <3693@cbnewsl.ATT.COM>
Source record: 14160
Cross-posted to: rec.ham-radio,sci.electronics

In article <481303aa.1423f@godzilla.UUCP> dalyb@godzilla.UUCP (Brian Daly) writes:
>
>Subject: Re: Need Theoritical Antenna Info
>Newsgroups: rec.ham-radio,sci.electronics
>Keywords: Antennas
>
> Note that if the antenna length is slightly less than 1/2 wavelength,
> the reactance will go to zero. For l of a halfwavelength, the reactance
> is approximately zero and the resistance is close to 50 ohms. (42.5 ohms
> for wire of small radius).
>

I think this statement is a bit mixed up. The resistance is
going to be more like 72 ohms.

For an electrical 1/2 wavelength the reactance will be 42.5 ohms and the
resistance will be 73 ohms.

>
> The analysis of a quarter wave ground plane antenna is essentially
> a vertical electrical dipole above a ground plane.
>
> When the length of the antenna is a quarter wave, and the height above
> the ground plane is zero, then:
>
> Input impedance = 36.5 + j21.25 (note that this is one half the input
> impedance of a half wave dipole)
>
As I noted above for a halfwave, your parenthetic comment now agrees
with the halfwave case. Again, if the monopole is slightly less than
an electrical 1/4 wavelength the reactance will go to zero.

BTW, I think most of these cases assume the current loop
location, e.g. for the half wave dipole we are looking at the
impedance at the dipole's center. If we were looking at the
current node the impedance would be quite different.

Forrest Gehrke feg@clyde.ATT.COM
k2bt

361. Kenwood TW4000A Crystal X3

Newsgroup: rec.ham-radio
Date: 1990-01-17 16:28:21 UTC
From: jcp@cgch.UUCP
Message-ID: <9001171618.AA04337@zit.cigy.>
Source record: 14161

>Mailer: Elm [revision: 64.9]

I'm looking for the European version of crystal X3 in the Kenwood TW4000A transceiver. I have an American spec version, which transmits on 440-450 Mhz, and need to get the European crystal to switch to 430-440 Mhz. The frequency is 32.8something rather than 33.something Mhz. I have tried ordering one from Kenwood, but that was six months ago. Anyone HAVE one they'd be willing to part with (having moved a radio from Europe to the States), or know of a reasonably good source?

==========
Joseph C. Pistritto HB9NBB, N3CKF
'Think of it as Evolution in Action' (J.Pournelle)
Ciba Geigy AG, R1241.1.01, Postfach CH4002 Basel, Switzerland
Internet: bpistr@cgch.uucp Phone: (+41) 61 697 6155
Bitnet: bpistr%cgch.uucp@cernvax.bitnet Fax: (+41) 61 697 2435
From US: cgch!bpistr@mcsun.eu.net

362. subscribe

Newsgroup: rec.ham-radio
Date: 1990-01-17 16:34:54 UTC
From: 3R6DXT5@CMUVM.BITNET
Message-ID: <9001180807.AA20513@ucbvax.Berkeley.EDU>
Source record: 14162

```
Please subscribe me to the info-hams list.
Thank you.

Nancy Grant N6ERT
3R6DXT5 @ CMUVM.BITNET
Acknowledge-To: <3R6DXT5@CMUVM>
```

363. [Peter J. Stopa: SLINKIES]

Newsgroup: rec.ham-radio
Date: 1990-01-17 16:37:50 UTC
From: pjstopa@CRDEC4.APGEA.ARMY.MIL
Message-ID: <9001171137.aa17305@crdec4.apgea.army.mil>
Source record: 14163

To grosen@amadeus.ucsb.edu-

Tried to get you direct, but was told by the little man in the
machine that I couldn't.

/s/ Peter J. Stopa

----- Forwarded message # 1:

Received: from crdec3.apgea.army.mil by crdec4.apgea.army.mil id ab17248;
17 Jan 90 11:35 EST
Date: Wed, 17 Jan 90 11:27:56 EST
From: Peter J. Stopa <pjstopa@crdec3.apgea.army.mil>
To: pjstopa@crdec3.apgea.army
cc: pjstopa@crdec3.apgea.army.mil
Subject: SLINKIES
Message-ID: <9001171127.aa10870@crdec3.apgea.army.mil>

Saw your posting in INFO-HAMS. A slinky antenna was available several
years ago for about $70. It consisted of two slinkies (Helical coiled
steel wire) with a coaxial balun. Probably cost all of $5.00 to make.
I have the same problem- need an indoor antenna. I posted the use of a
slinky vertical on the net which I saw in 73 magazine a few back.

Go to a toy store and get a large slinky (about $3.50 for the metal
variety. Elongate it vertical over a 1x3, a dowel, etc., to about 6
feet. Tack it in place and feed it from a tuner as if it were a long
wire. I live in MD and the first station I worked was CA while sitting
in my bedroom (20 m on a Saturday) using about 50 watts. You can try feeding it
with coax, with the braid going to a quasi radial system in your attic.

I have also built a dipole using two slinkies and fed each side directly with
coax although a balun would help. I strung this mess across the attic and
use it routinely from 40 to 10 meters with decent bandwith. The thing is real
finicky on 75/80, though, and won't load on 160. (The vertical did!)

Here are two CHEAP solutions to your problem- and they work okay. You won't
get a 5-9
+20 report from a submarine under the ice cap, but it will keep you on the
air. I have 80 worked towards DXCC with this mess, which isn't bad.

When I posted it to the net, a guy sent me a private reply where he took
the flexible clothes dryer hose (vinyl with steel wire inside, helically
wound) and used as an SWL antenna. I may go out and buy some, and try
it with the rig.

If all else fails, just get some wire and through it around.
Load it. But the slinky isn't as messy and keeps the XYL off your back.

73's and Good Luck.

de Peter J. Stopa KA3LKQ
reply via email to pjstopa@apgea.army.mil

CUL.

----- End of forwarded messages

364. Re: Packet compression (Actually, MODEM techniques)

Newsgroup: rec.ham-radio
Date: 1990-01-17 16:42:37 UTC
From: mhorne@ka7axd.WV.TEK.COM
Message-ID: <5881@orca.wv.tek.com>
Source record: 14029

In a recent article about a recent article about a...
>
> koning@koning.dec.com (Paul Koning) writes:
> >In article <30500345@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> >> > to do this. At 300 baud, you need every optimization you can find. It
> >> > also isn't clear why 300 baud is maximum, given that 9600 can be done
> >> > over telephone (3KHz) channels now. Again, I suspect we are dealing
> >> > with technology artifacts in the rules.
>
> >For example, I believe there exists a voice-line modem that runs at up
> >to 9600 bits per second, but has a symbol rate of 7 Baud. Consequently,
> >such a beast would be entirely legal on the HF bands. And indeed, the
> >latest edition (red/white/blue cover) of the ARRL's annotated FCC
> >rules specifically mentions this sort of modem as being legal and
appropriate
> >for narrow-band use.
>
> ...A similar scheme would using the 300 baud limitation would give you
> 2400 bits/second for packet radio...
> I don't know, a DSP like the Motorola 56000 might be able to do most of
> the work, as the baud rate is limited to 300 anyway. It might even be
> cheap compared to a state-of-the-art transceiver.
>
> Ge' Weijers

Under the assumption that you are trying to use this over HF links, your
ability to use QAM techniques in a modem for this type of use are rather
limited. There are two main problems with HF when attempting to set up a
data link:

1) You can think of the ionosphere as an adaptive (rather, random)
filter, with its phase and amplitude characteristics changing
over time. It's characteristics are relatively unpredictable
and vary over time, frequency, and a host of other variables.

2) Multipath, though usually not noticeable to the human ear, is
a major concern. It is not uncommon to have multipath delays of
a few milliseconds, which is deadly to high(er) speed modems with
narrow sampling windows, and is generally a nuisance for low speed
modems (due to inter-symbol interference).

In short, encoding bits in the amplitude or phase of a signal to be used over
an HF link is generally not a Good Idea. The remaining variable, frequency,
is often used to convey the information. One technique commonly used is to
parse up the available spectrum (e.g. 3kHz) into several subbands, each of

which carries a sub-carrier. Each sub-carrier encodes a single bit, or if a pilot (reference) carrier is also available, potentially several bits through amplitude modulation (the latter is dependent upon the passband characteristics of the transmitting and receiving systems, and typically requires the systems to exchange training sequences). The baud rate is typically quite low, but the number of bits available per baud can be relatively high (>600 bps throughput). Often a DSP chip is used to do the encoding and decoding. One additional problem with this technique when driving an amateur-class transmitter is how much power is delivered to the modulator; some (most?) modulators begin to distort a signal of this type due to overloading. Most transmitters are not meant to be modulated with a signal that occupies a sizable chunk of the audio band (300Hz - 3kHz), relative to a typical speech signal.

The Telebit Trailblazer is a good example of a commercial product capable of achieving high data throughput using this technique. I believe the (now defunct?) AMSAT DSP project was to use this technique for its `high speed' HF communications protocol.

Mike

365. Legalities of Multiple Call Signs

Newsgroup: rec.ham-radio
Date: 1990-01-17 16:56:20 UTC
From: jcp@cgch.UUCP
Message-ID: <9001171628.AA04357@zit.cigy.>
Source record: 14164

>Mailer: Elm [revision: 64.9]

Does anyone know what the rules are if you are licensed in
more than one country? I know that in each country you hold a license
in, you must use the privleges and callsign assigned by that country,
but what happens if you go to a third country to operate?

In particular, I hold a Technician license in the US, and the
equivalent license in Swizterland. The licenses differ, however in
the assignment of powers and frequency allocations (for instance, Tech
class in Switzerland has no 50Mhz band privleges, and only 200 watts
maximum power). What happens if operate in Germany (which is 400
meters away for me). What happens if I operate MOBILE in Germany, etc?

By the way, would contacts made under both callsigns count as
one person for DXCC purposes?

==========
Joseph C. Pistritto HB9NBB, N3CKF
'Think of it as Evolution in Action' (J.Pournelle)
Ciba Geigy AG, R1241.1.01, Postfach CH4002 Basel, Switzerland
Internet: bpistr@cgch.uucp Phone: (+41) 61 697 6155
Bitnet: bpistr%cgch.uucp@cernvax.bitnet Fax: (+41) 61 697 2435
From US: cgch!bpistr@mcsun.eu.net

366. Re: Radio Shack CTR-82 VOX

Newsgroup: rec.ham-radio
Date: 1990-01-17 17:28:58 UTC
From: flash@lopez.UUCP
Message-ID: <1108@lopez.UUCP>
Source record: 14031

I have one, and also the older CTR-75. After using both, I have the following observations.

I do NOT have the hum problem at all, using the proper 6v adaptor. Everyone I know has had problems using the MULTI VOLTAGE adaptor, although if you flip it to 4.5v this cuts the problem down a lot.

The recorder works perfectly with my pro 2005, sony ICF-2010 (on timer recording) and my kenwood TS-440 (using the squelch control). HOWEVER, I generally do not connect the radios directly to the recorder, but am running them through a radio shack four channel mixer, which also feeds an audio amplifier for listening through better speakers (through out my entire house). I also use a radio shack parametric equalizer to enhance the quality of the shortwave audio, and get really fine recordings.

Tell you the truth though, the 82 is not as good a machine as the 75 is, IMHO.

It seems "klunkier" The feel of the buttons is a LOT cheaper than the sturdier feel of the 75. I was not surprised when a poster said his first machine messed up mechanically and his record button would not stay down. The auto stop is on a hair trigger.

My machine ran too fast when I got it home, but I fixed that myself by removing the four screws on the bottom, (making note of which goes where, because there are two different sizes of screws) and removing the unit from the case, you will see clearly the phillips screw pot near the voltage regulator, which adjusts the speed. If you do not care about exchanging tapes, you can crank the speed down, and get five extra minutes per tape of recording time.

I also noticed that the audio quality is not as good on the 82 as it is on the 75. The 75 is definately LOUDER, and brighter sounding.

There are a couple of improvements on the new unit though. The 75 would allow you to hit record and rewind at the same time, and since they were right next to one another, I often did this, destroying my recordings!

The microphone has been moved a bit farther from the motor, but the motor on the 82 seems to be noisier. With the lower sensitivity of the audio amplifier, though, there IS less mic pick up (and less pick up of everything else)

All in all, the unit is definately worth the $30 sale price. It is not worth the 60 or 70 bucks that they normally get for it though. Not by a long shot.

Does the job for condensing the scanner stuff though. Great when searching new channels that I get from the dude that washes the police cars, and always checks out their digital readouts when dusting the radios off.
--
== 14.313 == Amateur Radio Forum Daily @ 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

367. Re: Getting the time over the phone from NBS

Newsgroup: rec.ham-radio
Date: 1990-01-17 17:30:08 UTC
From: bob@MorningStar.Com
Message-ID: <BOB.90Jan17123008@volitans.MorningStar.Com>
Source record: 14165
Cross-posted to: alt.sources,rec.ham-radio

In article <899@tridom.uucp> wht@tridom.uucp (Warren Tucker) writes:
v03i079 contains a GREAT program utc.c which allows your system to
mimic NBS and provide esentially the same service via a local call.
Only the most ultimate time freaks who've replaced their PC's
crystal with an atomic clock can tell the difference (I'm pretty
bad, but not that bad) :-).

I'd hope that only folks either running a local radio clock, or a low-stratum NTP peer, would offer their system's time as a community standard. However, this would be a really nice service for Internet-connected folks to offer to their UUCP-only neighbors.

368. Re: IC Info Needed

Newsgroup: rec.ham-radio
Date: 1990-01-17 18:44:54 UTC
From: jthorne@53iss6.Waterloo.NCR.COM
Message-ID: <184@53iss6.Waterloo.NCR.COM>
Source record: 14166
Cross-posted to: rec.ham-radio,sci.electronics

```
In article <3678@cbnewsl.ATT.COM> jim@cbnewsl.ATT.COM (james.a.malcolm) writes:
>
>the dealer had was an LM565CN. I don't have, and haven't been able
>to find, the data sheet for this chip. Could someone look it up
>and tell me if it has the same pinouts as the NE565?
>
The pinouts are the same and it looks like the circuit should work. I have
not built an SCA detector so can not say for sure.
```

369. Re: Underground music

Newsgroup: rec.ham-radio
Date: 1990-01-17 19:25:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9001180810.AA20677@ucbvax.Berkeley.EDU>
Source record: 14167

> I am also told that there are FM radio stations that broadcast
> specifically to people in tunnels....?

Obviously a prime audience for rock music.

(sorry - I couldn't resist)

/Chris Thomas - AA6SQ

Internet: csmscst@oac.ucla.edu
Bitnet: csmscst@uclamvs.bitnet

370. Sony ICF SW1 Mods

Newsgroup: rec.ham-radio
Date: 1990-01-17 19:51:51 UTC
From: tadams@tadams.austin.ibm.COM
Message-ID: <9001171951.AA00326@tadams.austin.ibm.com>
Source record: 14168

Has anyone seen any mods or add-ons for this receiver for SSB or
smaller tuning steps?

Thanks Tom 512-838-7094 WA5QZM 11608 Broad Oaks Austin 78759

371. NATION OF ISLAM TO ADDRESS ARF

Newsgroup: rec.ham-radio
Date: 1990-01-17 20:21:43 UTC
From: arf@jolnet.ORPK.IL.US
Message-ID: <2869@jolnet.ORPK.IL.US>
Source record: 14169
Cross-posted to: talk.politics.misc,rec.ham-radio,rec.radio.shortwave,misc.headlines

bdul/e15

NATION OF ISLAM TO ADDRESS ARF

Farrakhan's Number One Man to be guest on ARF

Abdul Walim Mohamad, assistant to Louis Farrakhan and Editor in Chief of the Final Call, will be our guest on the Amateur Radio Forum this Thrusday evening.

For everything you always wanted to know about the Nation of Islam and its controversial leader, tune in to ARF.

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^
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> / * \ <
/ | | \
| A |
| R | THE LIGHTHOUSE OF
| F | WISDOM AND TRUTH
____| |____
| Amateur | arf@jolnet
____| Radio Forum|____ arf@chinet
/ Thurs 09:PM 3950 KHZ \ arf@lopez
| Sat 10:AM 14313 KHZ |
|______ N R 9 Q ________|
```

NEVER VOTE FOR THE INCUMBENT!!!!!

372. voice-activated tape record

Newsgroup: rec.ham-radio
Date: 1990-01-17 22:55:28 UTC
From: David_Waters.M1@smtp.ESL.COM
Message-ID: <9001172327.AA14671@esl.ESL.COM>
Source record: 14174

voice-activated tape recorders
shlump.nac.dec.com!leaf.enet.dec.com@decwrl.dec.com (Steve Dowman)
writes:

> I purchased a CTR-82 recently and found it activates only from the
> built-in microphone and the mic input jack, but not the auxillary
> jack. This is using a Sony 2010 from the recorder jack and a Bearcat
> 200XLT from the earphone jack.
I bought one of these RS recorders and use it by tapping the AF OUT on a Yaesu FT767GX and the TAPE jack on a Bearcat BC-600. Everything works fine. What I am wondering, is if the level coming out of the Sony is adequate. Noise levels on the Yaesu that I would expect to trigger the VOX don't, however, so maybe that's the problem. Seems like their quality control is a little wide, judging by the varying reports...

"A little ambiguity never hurt anyone."
Dave Waters WA6AWZ
Internet: David_Waters.M1@SMTP.ESL.COM
Compuserve: 73277,311
GEnie: DRWATERS
ESL Inc. (408) 738-2888 x4611

373. Re: IC Info Needed

Newsgroup: rec.ham-radio
Date: 1990-01-17 23:06:17 UTC
From: bill@videovax.tv.tek.com
Message-ID: <5684@videovax.tv.tek.com>
Source record: 14175
Cross-posted to: rec.ham-radio,sci.electronics

In article <3678@cbnewsl.ATT.COM> jim@cbnewsl.ATT.COM (james.a.malcolm) writes:
>
>I am going to build a PLL based Subsidary Carrier Authorization (SCA)
>detector based on the NE565 PLL. When I went to buy the IC, all
>the dealer had was an LM565CN.

You're in luck. Both chips are identical. You see, the generic number of the chip is 565. But manufacturers like to add their own prefixes and suffixes. Signetics starts a lot of their linear part numbers with NE or SE, depending on whether the part is usable over the commercial or military temperature ranges, respectively. Signetics also attaches a suffix: N = plastic DIP, F = ceramic DIP, D = surface mount, etc. The LM565CN number is from National Semiconductor. The LM means 'linear monolithic.' Other prefixes are: LF = linear FET, LH = linear hybrid, ADC = A/D converter, etc. The suffix C means commercial temperature range; no C means military range. N means plastic DIP, H means metal can, etc.

So, both the NE565N and the LM565CN are the same chip, made by different manufacturers.
--
Bill McFadden Tektronix, Inc. P.O. Box 500 MS 58-639 Beaverton, OR 97077
UUCP: bill@videovax.Tek.com, {hplabs,uw-beaver,decvax}!tektronix!videovax!bill
GTE: (503) 627-6920 "The biggest difference between developing a missle component and a toy is the 'cost constraint.'" -- John Anderson, Engineer, TI

374. PRO-2005 comments & questions

Newsgroup: rec.ham-radio
Date: 1990-01-17 23:49:17 UTC
From: jchristy@hpspcoi.HP.COM
Message-ID: <860001@hpspcoi.HP.COM>
Source record: 14176

I have just bought a PRO-2005 scanner unit from RS. So far, I find the reception and scanning rate quite good. However, I find the user interface to be very "modal" and non-intuitive. As with most consumer manuals, we are presented with a "cookbook" approach to operation rather than a solid presentation or flowchart-style template of the machine's user interface state diagram, memory organization (like just how much extra info is stored with each channel such as delay setting, lockout, etc.). Has anyone attempted a state diagram of this machine? Has anyone else found the UI to be frustrating?

Finally, I am also quite interested in modifying the 2005 to recieve the gaps in its frequency band. I'm suspect this has been posted before but I don't see it anymore. Any pointers to articles, what-have-you are appreciated.

Jim H. Christy
Hewlett-Packard, PCG
974 E. Arques Ave. MS 72UT
Sunnyvale, CA 94086

jchristy@hpspcoi.hp.com

375. RS-10/11

Newsgroup: rec.ham-radio
Date: 1990-01-18 00:51:49 UTC
From: price@MARLIN.NOSC.MIL
Message-ID: <9001180051.AA15276@marlin.nosc.mil>
Source record: 14044

Terry--

I played with RS-10/11 quite a bit for the first few months it was up. I worked the robot a couple of times, but it's been a while. And I don't have a QSL yet, but that's not surprising.

As I recall the plan is to go to the input frequency (-400 kHz (?) from the robot freq) and send close to the same speed as the robot. I think you send "RS-11 de your call K" and if it locks onto you, it will send "your call de RS-11 R QSO NR xxx 73" or something like that. If you're using 2 receivers, you can hear yourself on the robot freq is which is kinda wild.

I've completely lost the bubble on RS-10/11 today. Is it still active? Can you or someone give me times of good North American passes for the next 10 days or so (no long printout, just a couple of AOS, LOS times and lat/long will suffice).

Good luck--Jim, K6ZH
---

376. new

Newsgroup: rec.ham-radio
Date: 1990-01-18 03:53:38 UTC
From: gws@n8emr.UUCP
Message-ID: <1405@n8emr.UUCP>
Source record: 14042

The N8EMR ham bbs is now back online after a short move across town..
system is at a new phone number, but functions as before..

I will again start reposting the ARRL bulletins and announcements
sorry for the delay took me a few more days to get things
running than first though...

73
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM/SWL/SCANNER BBS (1200/2400/PEP) 614-895-2552
Voice: 614-895-2553 (eves/weekends)

377. ARRL Letter 29-Dec-89 P 1 of 3

Newsgroup: rec.ham-radio
Date: 1990-01-18 04:01:08 UTC
From: gws@n8emr.UUCP
Message-ID: <1407@n8emr.UUCP>
Source record: 14027

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================
```

ARRL LETTER - Volume 8 - Number 26 - December 29, 1989 - Part 1 of 3

ARRL FILES PROPOSAL FOR AUTOMATIC HF OPERATION
OF RTTY AND DATA TRANSMISSIONS

On December 12, ARRL Counsel Chris Imlay, N3AKD filed a petition for rule making with FCC seeking the adoption of rules to permit limited HF RTTY and data communication under automatic control.

The 24 page petition draws on the experience gained during the past 2 1/2 years under the STA granted to the League in mid- 1987 permitting a limited number of packet radio stations (known as SKIPNET) to operate under automatic control on specific HF frequencies forming an organized "long haul" message forwarding network. The League's conclusion based on this experience is that the desirability of automatic operation on the HF bands has been firmly established and, in fact, it is now an integral part of the normal amateur radio activity in all ITU Regions.

The League's proposal seeks inclusion of automatically controlled AMTOR and Baudot as well as data modes. In the petition, ARRL says "The feasibility of automatically controlled operation on AMTOR has been demonstrated by US amateurs operating under special temporary authority. ..AMTOR is more robust than is packet radio and is used to bridge difficult radio paths. ..Thus, its operations under automatic control is not only feasible but necessary for the development and efficient operation of amateur networks. ..manually controlled Baudot RTTY `mailboxes' (or MSOs) have been active in the Amateur Radio Service since the early 1980s. ..the software controlling the mailboxes has provisions which allow the interrogating station to ask for repeats. Manual control of these mailboxes... is an unnecessary burden on the mailbox system operators. ...The technology and operational experience using each of these modes has matured to the point that this is now possible. ...the benefits of automatic operation are shared by amateur operators worldwide and are instantly available to provide public service during disasters."

The petition seeks designation of the following band segments as being available (not exclusively) for automatic control of RTTY and data transmissions:

- 3.605 to 3.615 MHz
- 7.035 to 7.045 MHz,

- 10.140 to 10.150 MHz
- 14.090 to 14.100 MHz
- 18.100 to 18.110 MHz
- 21.090 to 21.100 MHz
- 24.920 to 24.930 MHz
- 28.100 to 28.120 MHz.

In a separate letter to SKIPNET members, ARRL Executive Vice President Dave Sumner, K1ZZ, explained why these particular frequencies are suggested in ARRL's petition. Dave said that the ranges chosen in most bands are probably self-evident except for those in the 20 and 40 meter bands.

"The specific frequencies used by SKIPNET stations have shown that it's possible to shoehorn in with other U.S. users. But, we have received complaints from societies in other countries about HF packet frequencies, particularly in the 20 and 40 meter bands.

"On 20 meters, nearly every other country operates phone in the 14.100-14.150 MHz range, and packet operations in the lower part of that range have been a continual cause of concern to them. This has been the case in all ITU/IARU Regions including Region II--the Americas. The fact that some of their own packet operators use frequencies above 14.100 has not convinced the societies in other countries that this is a good place for packet. The worldwide consensus (with some reluctance on our part) is that packet should operate below 14.100. Of course, that puts pressure on the Baudot RTTYers and AMTOR RTTYers just below them in frequency and ultimately on the CW operations.

"On 40 meters, most countries have a narrower band--only 7.0 to 7.1 MHz--into which they must squeeze CW, RTTY, packet, phone and image communications. Around 7.040, or even as low as 7.030, is where their phone band starts. So, you can understand why there might be contention over packet and RTTY around 7.090.

"The frequency segments for each band were chosen after careful review of domestic and international implications. While we knew to begin with that there was no such thing as a "perfect fit," we had to try for a "best fit" solution. Please bear in mind that we now have a viable packet network that is worldwide in scope. As such, we need to use frequencies that are compatible with the rest of the world. Even with the frequency segments chosen, there may still be the need for future adjustments, both by us and in other countries to finally arrive at common segments for automatic operation.

"We anticipate that individuals may wish to suggest some changes in the frequency segments proposed by the League. We believe such inputs to be helpful in cases where commenters take the time to consider the domestic and international implications of their proposals."

At press time, the FCC has not yet assigned an RM number.

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CHUCK BENDER, W1WPR, W1AW CHIEF OPERATOR EMERITUS

W1AW Chief Operator Chuck Bender, W1WPR, completed his final shift Saturday night local time, December 23. With 38 continuous years of service to ARRL, Chuck has the distinction of holding the record for longest term as a W1AW operator. The final transmission from W1AW with W1WPR at the controls was the 0545 December 24 UTC phone bulletin.

Hundreds of amateurs, worldwide have sent well wishes to Chuck through the mail and by Amateur Radio using the National Traffic System (NTS). Chuck's retirement was announced in the December, 1989 QST, Happenings column.

AMSAT CSDP VOLUNTEERS SOUGHT

With the upcoming launch of the four AMSAT Microsats, AMSAT- NA is looking for additional satellite enthusiasts willing to volunteer their time to become part of the Command Station Development Program (CSDP). The CSDP is designed to train amateur satellite enthusiasts to become competent spacecraft controllers including telemetry collection techniques and analysis for the purposes of determining the condition of a spacecraft in orbit.

There are various levels of participation for interested volunteers; the first levels develop proficiency in telemetry collection and analysis. The highest level involves actual control of one of the OSCAR satellites. Applicants must be currently capable of operation on Mode A, B, or J.

If you would like more information about the CSDP and the various levels of participation, send a SASE to Bruce Rahn, WB9ANQ, Technical Coordinator for the CSDP, 410 Coronado Trail, Enon, Ohio, 45323.

FCC PROPOSES HIKERS' LOCATOR IN 220 MHZ

The Commission on Tuesday December 12 proposed the establishment of a Personal Emergency Locator Transmitter Service (PELTS), that would provide individuals in remote areas with a means of alerting others of an emergency situation and to help search and rescue personnel locate those in distress.

The Commission pointed out that a growing number of persons are participating in outdoor activities resulting in an increased number of situations requiring immediate emergency assistance. For example, nine teenage climbers were caught in a severe unexpected storm on Oregon's Mt Hood and lost their lives. Four skiers died under an avalanche at Breckenridge, CO. These individuals might have been saved if they had a means of signaling to rescuers.

The Commission says it has two objectives in establishing the PELTS. The first is to provide for an areawide, centrally coordinated radio communications system for use by the general public in remote areas thereby reducing response time in emergency situations. The second objective is to reduce the illegal use of Emergency Locator Transmitters (ELTs) and Emergency Position Indicating Radio Beacons (EPIRBs) as personal locating beacons. ELTs and EPIRBs are emergency radiobeacons used to assist search and rescue units in locating downed aircraft and vessels in distress.

PELTS would consist of a base station and associated portable units. Only governmental agencies or private search and rescue organizations would be eligible for base station licensing, to assure that use will be limited to distress and assistance communications, but portables would not be restricted.

The FCC proposed to use 50 kHz of the reallocated 220-222 MHz band for PELTS, in five frequency pairs. To offer the public some assurance that the equipment is safe and likely to perform its intended function, the Commission proposed technical standards and design specifications for PELTS equipment. The actual text of PR Docket 89-599 has not yet been released; comment deadlines are not available at this time.

The ARRL will seek a stay of this Docket and PR Docket 89- 552, FCC's proposed service rules for land mobile operation on 220-222 MHz, if the rulemaking process reaches the Report and Order stage before the US Court of Appeals for the DC Circuit has made a decision on the ARRL request for review of FCC's reallocation decision in Docket 87-14.

FCC FIELD OFFICE ADDRESS CHANGES

The FCC San Francisco Regional Office has moved. The new address is: FCC Regional Office, 211 Main St, Room 537, San Francisco, CA 94105 Tel: 415-744-2722. The FCC San Francisco Field Office has new phone numbers but they remain on Battery Street in San Francisco.

The FCC Chicago Field Office reports that they have new phone numbers. The new numbers are 312-353-0195 and 708-298-5171. The address is: FCC Chicago Field Office, Park Ridge Office Center, Room 306. 1550 Northwest Highway, Park Ridge, IL 60068.

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PUBLIC INVITED TO COMMENT ON WARC-92

The Federal Communications Commission on December 13 released a Notice of Inquiry, General Docket 89-554, relating to preparation for the ITU World Administrative Radio Conference (WARC-92) dealing with frequency allocations in certain parts of the spectrum. The proceeding is intended to generate public comment regarding Commission preparations for the conference. The International Telecommunication Union has scheduled the conference for the first quarter of 1992 in Spain. The Notice of Inquiry sets forth a number of questions, many quite detailed and technical, on which it would like comments by a deadline of February 16, 1990; reply comments can be filed until March 16. As usual, formal participation calls for an original and five copies of all papers. This docket will be considered by the ARRL Board at its January meeting.

The agenda for WARC-92 will be set by the ITU Administrative Council, probably at its meeting in the spring of 1990. However, the following areas for possible WARC-92 study and action have been identified during specialized WARCs held in the past few years:

* International broadcasting allocations, particularly between 5950 and 26,100 kHz

* Mobile satellite and other mobile services between 1 and 3 GHz

* A proposed broadcasting sound satellite system between 500 MHz and 3 GHz

* High definition TV satellite service in 12.7-23 GHz

* Other proposed space services above 20 GHz

The Commission intends to establish a joint industry government advisory committee to assist it in preparing for WARC- 92, as has been done in the past. The advisory committee will be governed by the provisions of the Federal Advisory Committee Act of 1972 as amended. The ARRL has served on FCC advisory committees preparing for earlier WARCs and intends to do so again.

The ARRL staff committee for WARC-92 has already begun studying the spectrum management process, the issues likely to come before WARC-92, the ways in which amateurs can help determine US positions for the WARC, technical issues such as the criteria for successful band sharing.

PLAQUE PRESENTED HONORING 1921 TRANSATLANTIC TEST SITE

In a joint venture, both the ARRL and the Radio Society of Great Britain (RSGB) have been instrumental in placing a bronze plaque at the site of Paul Godley's first successful receiving station used in the famous 1921 transatlantic tests. Although an ARRL representative had planned to attend the dedication, an unfortunate set of circumstances prevented it.

In a letter which was read at the December 11 dedication, Dave Sumner, K1ZZ, noted that it was at that site in Ardrossan, Scotland where the first Amateur Radio signals were heard from across the Atlantic and the intercontinental dimension of our beloved avocation was born. Like so much in Amateur Radio, the plaque owes its existence to one individual. Ian Elliot, W7JMX, of Bozeman, Montana, first conceived the idea of the plaque and it is through his generosity which made it possible.

PACKET RADIO MANUAL AVAILABLE IN BRAILLE

Northern Nevada Braille Transcribers, a volunteer, nonprofit, tax-exempt group, now has the MFJ-1270 TNC 2 Packet Radio Owners Manual available in braille. It is contained in six volumes of various lengths. It is also available on an Apple computer floppy disk.

This braille manuscript is available without charge to anyone who can use it. However, contributions in any amount are gratefully accepted. Interested parties can write for additional information to: Northern Nevada Braille Transcribers, 1015 Oxford Avenue, Sparks, NV. 89431.

FCC UPHOLDS BUREAU IMPOSED FORFEITURE AGAINST AMATEUR

On December 12 the FCC upheld the Private Radio Bureau's action which imposed a $1200 forfeiture against amateur radio operator David B. Hodges, N3DTH, for malicious interference and for failure to identify, in violation

of FCC rules.

The FCC had received a number of complaints of interference to the Baltimore Radio Amateur Television Society amateur repeater. Subsequently, FCC engineers observed interference which they determined came from Hodges' amateur station.

Although Hodges said he did not recall whether he made transmissions on any specific date he admitted that on occasion he made such transmissions to cause interference when provoked by others. In his defense, Hodges noted his public service activities and that he had not previously been cited for any violation. He also promised he would not commit violations in the future.

FCC noted that such transmissions serve no legitimate purpose and were clearly intended to cause harmful interference. Hodges' failure to identify his transmissions was obviously intended to make detection difficult. The Commission concluded that none of his arguments excused or mitigated the violations.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM/SWL/SCANNER BBS (1200/2400/PEP) 614-895-2552
Voice: 614-895-2553 (eves/weekends)

378. (none)

Newsgroup: rec.ham-radio
Date: 1990-01-18 04:18:19 UTC
From: JUDICE@SULACO.enet.dec.com
Message-ID: <9001180418.AA07437@decpa.pa.dec.com>
Source record: 14045

ate: Wed, 17 Jan 90 20:18:24 PST
From: Louis J. Judice 17-Jan-1990 2251 <JUDICE@SULACO.enet>
X-To: DECPA::"info-hams@wsmr-simtel20.army.mil"
Subject: re: ICOM Handheld receiver
To: info-hams@wsmr-simtel20.army.mil

The IC-R9000 has been available for several months and is definitely
not handheld.

ICOM has released (in Japan but not in the US yet):

- handheld, 150 khz to 1300 mhz, 100 memories, 11 search step
increments (.5,1,5,9,10,12.5,15,20,25,30 khz), s-meter,
and tuning knob. Expected price is around $600

- Mobile version of above (I believe like the Kenwood RZ-1)

- A lower cost version of the R71-A with 99 memories.

This is all from the January "Monitoring Times", page 37.

If anyone hears more about these, let us know!

Lou Judice
Digital Equipment Corp.
Piscataway, NJ
(201/908) 781-6230

379. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-18 07:25:10 UTC
From: carroll@bcsaic.UUCP
Message-ID: <19106@bcsaic.UUCP>
Source record: 14030
Cross-posted to: sci.electronics,rec.ham-radio

<Mike Pflueger tells about Professor Kraus' solution to carrying
broadcast signals in tunnels using a wire extending beyond the end of
the tunnel...>

Yup. Never thought about it myself, but that's a great idea.
It'd be topologically equivalent to a coaxial cable, which has no cutoff
frequency for the TEM mode.

Now *here's* an interesting question, particularly for anyone
like me who has spent half an hour in a tunnel during a traffic jam:
Why do we allow tunnels to be built without such gizmos installed in
them?

Jeff Carroll
carroll@atc.boeing.com

380. Minature FM Receivers--what chips to use?

Newsgroup: rec.ham-radio
Date: 1990-01-18 08:11:42 UTC
From: nfunamura%mis2.decnet@NUWES-LLL.NAVY.MIL
Message-ID: <9001180811.AA20728@ucbvax.Berkeley.EDU>
Source record: 14043

In response to an inquiry, Pete Lucas provided info on the SA/NE602 and SA/NE604 chips. It could also be added that the SA/NE605 combines both in a single 20 pin DIP configuration.....May be useful in a single conversion receiver. Good luck.

Norman, KH6R

381. Re: Re: Those NASA Shuttle frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-18 09:07:23 UTC
From: McTAG@cup.portal.com
Message-ID: <26072@cup.portal.com>
Source record: 14032

A friend of mine has a ham liscense... I heard the shuttle was being rebroad-
cast by the Moffit Field Ham Club?? It came in pretty clear - we watched it
land on tv - they went to a commercial, we kept on listening... It was neat!

What was that frequency?? I would like to tune it in on my scanner, my ham
friend has since moved - unfortunately.

Tim McT

382. Re: Other ham journals

Newsgroup: rec.ham-radio
Date: 1990-01-18 10:35:18 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500356@ux1.cso.uiuc.edu>
Source record: 14052

What about NON-English magazines about amateur radio. I can basically handle any European language that I have a dictionary for.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

383. Jammer caught in AZ

Newsgroup: rec.ham-radio
Date: 1990-01-18 14:43:36 UTC
From: john@anasaz.UUCP
Message-ID: <1184@anasaz.UUCP>
Source record: 14033

Recently we caught a jammer here who paid a fine. There was an FCC
press release about this from Washington within the last few weeks.
Does anyone have text of it?

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Freedom and Communism are incompatable.

384. Re: naive question about RF propagation (anecdote)

Newsgroup: rec.ham-radio
Date: 1990-01-18 14:56:15 UTC
From: pfluegerm@valley.UUCP
Message-ID: <481c13af.15840@valley.UUCP>
Source record: 14054

In article <279@ccop1.ocpt.ccur.com>, wilson@ccop1.ocpt.ccur.com (<wilson>) writes:
> In article <1260018@hpmwtlb.HP.COM>, timb@hpmwtd.HP.COM (Tim Bagwell) writes:
> > I think this effect can be explained by thinking of the bridge or tunnel as
> > a waveguide. Shorter wavelength signals, such as FM broadcast (approx. 100 MHz),
> > will propagate through the guide assuming typical bridge or tunnel dimensions.
> > You should notice that as you enter the bridge, the longer wavelength signal
>
> When I go through the Holland tunnel under the Hudson River, I notice
> that VHF FM broadcast signals fade out to below the noise threshold about
> 100 meters in. The Signal reappears twice during the mile long travel when
> you pass by the escape tunnels going up to shoreline. This seems to be an
> exception to the explanations previously posted on the net.
>
> Any ideas why? The Holland tunnel entrances are at 90 degree bends to the axis of the
tunnel and it is about a mile long under water. Diameter of the tubes is
> about 10 meters.
>
> Gary, WB2BOO

The Holland tunnel is an imperfect waveguide - the sides do not have
infinite conductivity, hence there is not total internal reflection.
There is absorption inside the tunnel. But, it's a good enough waveguide
to cutoff the AM freqs, which have wavelengths >> (much greater than)
cutoff.

Also, the signal is not very well coupled. And there is an abrupt impedance
change at the entrance (and exit) of the tunnel.

Excuses, excuses, excuses.
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850 Home: 602-439-1978
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

385. I-75 scanning Detroit-Daytona

Newsgroup: rec.ham-radio
Date: 1990-01-18 16:10:55 UTC
From: johnb@uwovax.uwo.ca
Message-ID: <4723.25b5a43f@uwovax.uwo.ca>
Source record: 14053

I will be going to Florida in February and would like
to have some scanner frequencies to listen to while
cruising Interstate I-75 from Detroit to Daytona and
New Smyrna Beach.

Does anyone have any State Police, city police,
Highway Patrol or anything else of interest that
they could send me.

Please E-MAIL to: JOHNB@UWOVAX.UWO.CA

tqvm

386. Re: *COMPLETE* List of Space Shuttle Frequencies!

Newsgroup: rec.ham-radio
Date: 1990-01-18 17:00:56 UTC
From: gordon@prls.UUCP
Message-ID: <30574@prls.UUCP>
Source record: 14034

In article <3389@mmsac.UUCP> jim@mmsac.UUCP (Jim Lips Earl) writes:
->Just a note; I live in the Sacramento/CA area, and tried putting my
->vcr switch in the CABLE position, and all I get on ch.58 is snow. How
->much power is this ATV repeater on Mt. Diablo running? I don't have a
->super-high gain UHF antenna, just a $25 Radio Shack model.
->--
-> Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim

100 Watts. You'll need a high gain Yagi (if you aren't already too
far away) and according to my notes, they are using verticle polarization.

387. antennas vs dishes

Newsgroup: rec.ham-radio
Date: 1990-01-18 17:46:18 UTC
From: bobm@qip.UUCP
Message-ID: <1784@qip.UUCP>
Source record: 14035

I'm looking to pick up the GOES satellites signals and am wondering
whether it's better to build a small dish (2-4 ft) or use a yagi antenna.

Does anyone know it a small dish would pick up the signal any better
than a yagi ?? (the yagi will be around 110 inches long).

I plan to build my own LNA either way and if anyone has seen any articles
on this I'd appriciate the leads.

Currently I receive WEFAX's on the shortwave band, but the frequency and
map types aren't enough to plot storm travel (I use the SanFran site).

thanks
bob

388. Re: New House Wiring

Newsgroup: rec.ham-radio
Date: 1990-01-18 18:07:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500357@ux1.cso.uiuc.edu>
Source record: 14036

> Does anyone on the net have wiring/grounding recommendations?

I recommend 1-5/8 inch heliax.

389. Re: PRO-2005 comments & questions

Newsgroup: rec.ham-radio
Date: 1990-01-18 20:21:07 UTC
From: stan@hprpcd.HP.COM
Message-ID: <10500001@hprpcd.HP.COM>
Source record: 14037

Included is a copy of a posting on how to access the mods database server. They have mods for a good number of amateur radios and scanners. I hope this will help (Hi Jim!)

~~~~~~
~ Stan Witherspoon ~ Disclaimer ~
~ Systems Technology Division ~~~~~~~~~~~~~~~~~~~~~~~~
~ Hewlett Packard Company ~ These are my ~
~ 8020 Foothills Blvd. ~ personal opinions ~
~ Roseville Ca. 95678 ~ and do not represent ~
~ Phone: (916) 785-5071 ~ the views of anyone ~
~ RF: N6SCE ~ or anything else ~
~ Email: ucbvax!hplabs!hprpcd!stan ~
~~~~~~

---------- <-- Cut Here --> ----------

This file is: INTRO MODS

MODS database
---- --------

This database was setup to archive files containing information on how to modify radio equipement to either improve its performance, or add new functions or capabilities to the radio.

*** AS of Nov 1, 1989 FTP access from the internet is available
HAMSTER.business.uwo.ca [129.100.22.100]

To access a file from the archive via mail, send a message to the server running under userid -> BITLIB@UWO.CA
Also you may try the userid -> BITLIB@UWO.CDN

The subject of the message MUST be -> MODS
If your mailer does not ask for the subject; make the first line of your message look like this:

SUBJECT: MODS

The server ignores all messages that do not have MODS in the subject field. All bad requests get re-routed to my userid ,and I eventually read them, fix them, and re-submit them.

The text of your message descibes what files you want. For example:
sendme intro mods
sendme radio mods
sendme TH215 mods

You can have as many requests in the same message as required.
INTRO MODS is the file you are reading now.
RADIO MODS is a list of files available.
TH-215 MODS is a file that can be requested.

Below is an example of a file request message:

```
.................................................................
.
. Date: Friday, April 5, 1989
. From: MBRAMWEL@BUSINESS.UWO.CA (Mark Bramwell)
. Subject: MODS
. To: bitlib@uwo.ca
.
. from: mbramwel@uwo.ca
. sendme radio mods
. sendme pro2004 mods
. sendme tm721 mods
.
.................................................................
```

In the above example I have a 'from:' line in my message. That will
tell the server to send to an id other than the id listed in the
header. The userid should be reachable from bitnet. That means
UUCP users should include a gateway in their id.

To submit a file for the database, send me the message and I will
add your entry to the database.

**Note: If you don't seem to be getting a reply to your requests, it is
probally due to the fact that your header doesn't show a reachable
address. You must be reachable from UWO. You can place your return
address in the first line of your message. Example:
FROM: someuser@somenode

UUCP users have had some success by stating their address as:
userx!usery!userz@julian.uucp
Julian can usually find most gateways.

Any questions or concerns can be directed to:

Mark Bramwell VE3PZR
University of Western Ontario
School of Business Administration
London, Ontario

Bitnet: MBRAMWEL@UWO.CA Packet: VE3PZR @ VE3GYQ

FTP Server: HAMSTER.business.uwo.ca [129.100.22.100]

390. Re: Time and Freq. Handbook

Newsgroup: rec.ham-radio
Date: 1990-01-18 20:24:55 UTC
From: tedk@cbnewsc.ATT.COM
Message-ID: <12938@cbnewsc.ATT.COM>
Source record: 14038

In article <9001180807.AA20491@ucbvax.Berkeley.EDU> BRUCEH@UTKVX3.BITNET writes:
|I called NBS to get a copy of the Time and Frequency Handbook. It is
|currently out of print, but they are revising it for publication this
|summer or fall. To get on a mailing list for a copy, call Mike Lombardi
|at 1-303-497-3212.
|

What is the cost for this book? Is it free for the asking?

Ted G. Kekatos N9IXE
UUCP: ..!att!ihuxv!tedk (312) 979-0804
AT&T Bell Laboratories, Indian Hill South, IX-1F-415
Naperville & Wheaton Roads - Naperville, Illinois. 60566 USA

391. Book on Satellite TV

Newsgroup: rec.ham-radio
Date: 1990-01-18 20:38:01 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <1953@ultb.isc.rit.edu>
Source record: 14039

A while back I asked for information on hidden signals on Satellite Freqs. and I got a few responses, unfortunatly they got deleted, could those of you who sent me information please resend it? And those of you who didn't but know something interesting are welcome to send me info too!

Lance

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

392. Re: *COMPLETE* List of Space Shuttle Fr

Newsgroup: rec.ham-radio
Date: 1990-01-18 22:28:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500358@ux1.cso.uiuc.edu>
Source record: 14040

> In article <3389@mmsac.UUCP> jim@mmsac.UUCP (Jim Lips Earl) writes:
> ->Just a note; I live in the Sacramento/CA area, and tried putting my
> ->vcr switch in the CABLE position, and all I get on ch.58 is snow. How
> ->much power is this ATV repeater on Mt. Diablo running? I don't have a
> ->super-high gain UHF antenna, just a $25 Radio Shack model.
> ->--
> -> Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
>
> 100 Watts. You'll need a high gain Yagi (if you aren't already too
> far away) and according to my notes, they are using verticle polarization.

It depends on where you live. Just like band plans have local variations, so does the polarization of ATV. Call some "CQ ATV"'s on 144.340 Mhz FM and ask around your area. 144.340 is the frequency most ATV'ers contact each other on for voice communication. Here in Illinois, and also in Ohio, the polarization in use is horizontal. An ATV repeater in Indianapolis is reported going to switch from vertical to horizontal.

Personally, I think horizontal should be used for ATV DX work, just as it is for UHF CW/SSB DX work. For purposes of widening the coverage of small ATV stations, that's subjective. Vertical is easier to do omnidirectional, especially for portable station (just stick on a 1/4 wave or 1/2 wave whip and you are in business). Sometimes repeaters would be used to give DX access to stations for which that would be hopeless, and serve other purposes as well. What such stations might consider doing is dual polarization for the repeater. If the signal comes in stronger on the vertical, transmit vertical. Same for the horizontal. Maybe circular could be included.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

393. Re: New House Wiring

Newsgroup: rec.ham-radio
Date: 1990-01-18 22:28:15 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120105@hpcupt1.HP.COM>
Source record: 14041

If you don't want to run all the conduit, (which by the way is an
excellent idea), at least wire up the 220v for a amplifier, and
make some provision for the two or three coax cables that will
be run. By the way, you can get a good dc ground on the 2nd
story, but forget a rf ground. To achieve the rf ground you will
need something like the MFJ artificial (virtural?) ground - an
antenna tunner for your ground. Or at least some counterpoise
wires for each band. Those work fine, I used them in apartments.
You might give some thought to were the tower will be (or is) and
how to get the cables to that in a nice neat fashion. Boy what
an opportunity to blue sky about your future shack and what you
could put in !!!!
73's
Jim
jholly@hpcupt1.hp.com
WA6SDM@WB6SDM

394. Wanted used Motorola Equipment

Newsgroup: rec.ham-radio
Date: 1990-01-18 23:34:30 UTC
From: denning@chirpa.dec.com
Message-ID: <806@ryn.esg.dec.com>
Source record: 14046
Cross-posted to: rec.ham-radio,misc.wanted

Looking for used Motorola MX3nn Series portable radios.
VHF or UHF and used Motorola mobiles.

Please contact

Don Denning Jr.
DAY 508-264-5488
Night 617-643-0007

395. Re: More on Furren QSL Envelopes

Newsgroup: rec.ham-radio
Date: 1990-01-18 23:47:11 UTC
From: winter@Apple.COM
Message-ID: <37938@apple.Apple.COM>
Source record: 14047

In article <9001171314.AA19664@bunny.gte.com> pescatore_jt%ncsd@gte.COM writes:
>zslf0a@apctrc.trc.amoco.com (Steven L. Farmer, WA5RPF) says:
>>A (loosely) related question - anyone have any info on obtaining metric
>>sized envelopes for QSL'ing purposes? I'm thrilled when I get a DX
>>QSL back, whatever the shape its in, but it would be nice if the sender
>>didn't have to fold it to fit into my sase.
>
>Just about any stationery (or is that stationary?) store will have what
>they call European Air Mail envelopes. If you buy an entire box of 120,
>they will cost about 15 cents each or so. If they'll sell you a little package
>of 10, they'll probably cost 25 cents each. They are blue with red trim,
>and AIR MAIL and AIREAU MAILEAU, or however you say Air Mail in French,
>(I think it is actually Par Avion) is imprinted on the envelope.

I have a bunch of envelopes that fit John's description and which I
use as SAEs for overseas QSLing, but they are *not* European sized.
They only hold US-sized QSL cards, so like Steven, I occasionally
receive a QSL card that had to be folded to fit into the envelope.
(Actually, what usually happens is that the nice ham on the other end
keeps my SAE and makes out a new, larger envelope for me.)

Perhaps some stationery stores call these (mine are 4 x 7.5 inches)
"European Air Mail" envelopes, but I'm sure they aren't the ones
Steven was referring to.

So if you go looking for envelopes to prevent the folded-QSL problem,
make sure they are the 11 x 16cm ones and not the smaller U.S. ones
that say "Air Mail". It sounds like DX QSL Associates (mentioned in
Derek's posting) have the right ones.

Speaking of QSLs, I got my U4MIR card yesterday!!!

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

396. Re: PRO-2005 comments & questions

Newsgroup: rec.ham-radio
Date: 1990-01-19 00:02:16 UTC
From: bmp@hpcupt1.HP.COM
Message-ID: <7120106@hpcupt1.HP.COM>
Source record: 14048

Re MODS

Depending on how your mail gets routed, sometimes the addresses
are case sensitive. In my case all attempts failed until I
capitalized the "ca" in the address.

Brian

P.S. Don't ask my why, if I knew, I would just be aggrivated.

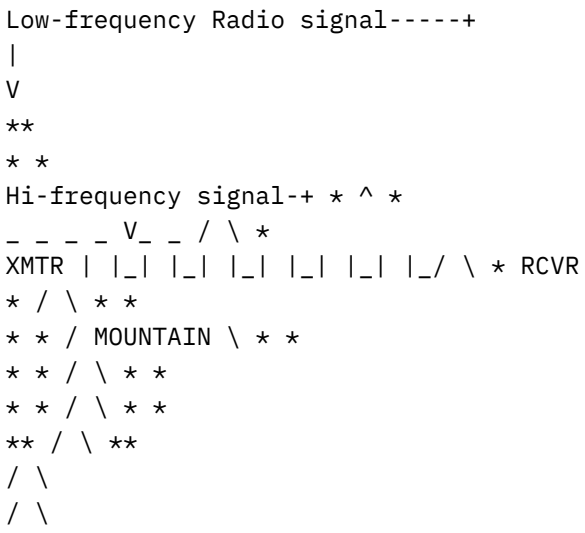
397. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-19 01:17:32 UTC
From: keithe@tekgvs.LABS.TEK.COM
Message-ID: <6699@tekgvs.LABS.TEK.COM>
Source record: 14049
Cross-posted to: sci.electronics,rec.ham-radio

In article <28774@amdcad.AMD.COM> phil@pepsi.amd.com () writes:
>We all know that AM broadcast radio fades when you drive under a bridge
>but FM doesn't tend to nearly as much. Why is this? Does RF at the FM
>broadcast frequencies propagate better? I thought the higher the frequency,
>the more it exhibited "line of sight" behavior. Or is it because AM
>shows the signal reduction more directly? Shouldn't AGC take care of
>that?

It's because the AM signals are low frequency = long wavelength and
those long waves can't fit into the opening of the tunnel like the
hi-frequency FM signals can.

Similar reason FM/high-frequency signals don't propogate as far as
AM//low-frequency:



kEITHe
Standard Smileys Apply :-)

398. Sony ICF-2010

Newsgroup: rec.ham-radio
Date: 1990-01-19 03:32:00 UTC
From: IZZYH79@OAC.UCLA.EDU
Message-ID: <9001190820.AA12830@ucbvax.Berkeley.EDU>
Source record: 14050

Well, its just about time for me to get a SW receiver,
and I'm seriously considering the Sony ICF-2010. I
have heard good things about these radios, but then again,
I haven't really heard much about them. So... if any of
you own a 2010, I would really appreciate any remarks about
performance, features, etc. good & bad. Thanks!
Arun WC6V

399. Re: 10 meter pirates (was = Re: AM oper

Newsgroup: rec.ham-radio
Date: 1990-01-19 06:05:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500359@ux1.cso.uiuc.edu>
Source record: 14051

One way to START to deal with the problem is to ABSOLUTELY refuse to buy
ANY radio from the company that makes the ones you don't want on the market.

Remember, the companies operate for two reasons: profit and more profit.

You have to hit them where it hurts, in the pocketbook and on the bottom line.

If that tactic doesn't work, then the NEXT step after that is to (after a
short warning period) refuse to buy ANYTHING from ANY dealer that even
CARRIES the brands that make that equipment. Thus you would be threatening
to hurt (financially) even those who helping the bad companies make money.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

400. Re: Getting the time over the phone from NBS

Newsgroup: rec.ham-radio
Date: 1990-01-19 11:35:01 UTC
From: thad@cup.portal.com
Message-ID: <26101@cup.portal.com>
Source record: 14055
Cross-posted to: alt.sources,rec.ham-radio,comp.sys.att,unix-pc.general

In article <BOB.90Jan17123008@volitans.MorningStar.Com> by
bob@MorningStar.Com (Bob Sutterfield) to alt.sources,rec.ham-radio, he writes:

" In article <899@tridom.uucp> wht@tridom.uucp (Warren Tucker) writes:
v03i079 contains a GREAT program utc.c which allows your system to
mimic NBS and provide esentially the same service via a local call.
Only the most ultimate time freaks who've replaced their PC's
crystal with an atomic clock can tell the difference (I'm pretty
bad, but not that bad) :-).

I'd hope that only folks either running a local radio clock, or a low-
stratum NTP peer, would offer their system's time as a community
standard. However, this would be a really nice service for Internet-
connected folks to offer to their UUCP-only neighbors.
"

Is there some ESP going on here? :-)

I've put together a prototype system that does just what Karl describes. My
time reference is a HeathKit GC-1000 "Most Accurate Clock" which locks onto
NIST's (formerly NBS') WWV at 5, 10 or 15 MHz to provide +/- 10 mSec Universal
Time Coordinated on its RS-232c port. I've been testing the setup since:

```
$ loglook utc
Login ID First Last Name
-------- -------------------- -------------------- --------------------
utc Sat 14-Oct-89 17:59:07 Thu 18-Jan-90 23:12:28 UTC time service
^^^^^^^^^
```

Note that date; 3 days later my antenna snapped during the earthquake, and I
haven't repaired it ... I'm in Silicon Valley, and the antenna is a huge
inverted "V" whose apex WAS at the top of a 40' tower. :-(

At the moment, one of my systems calls the US Naval Observatory service in
Washington DC every 2 days to maintain time-sync locally, but once I repair
the antenna AND get some more phone lines installed, this service will be
publicly online and I'll post its availability along with all the software.

I use the service to coordinate time for all my LAN-based systems. The server
provides a time reference identical to the USNO per:

```
*
jjjjj ddd hhmmss UTC
```

where: jjjjj Julian date modulo 2400000
ddd days since beginning of year
hhmmss time of day in Universal Time Coordinated

based on a program by Michael Scott Baldwin of AT&T Bell Labs.

If you'd like to install and provide such a service on your system, you need an accurate time reference (the Heath clock is my recommendation: kit price from their Winter 1990 Catalog No. 219 is $249.95 for the clock and $49.95 for the RS-232 interface (see page 28)), and:

```
$ ls -l /usr/local/bin/utcs*
-rwxr-xr-x 1 thad users 3156 Oct 14 17:22 /usr/local/bin/utcservice

$ file /usr/local/bin/utcs*
/usr/local/bin/utcservice: mc68k executable (shared demand paged with \
shared library) -F (0413 demand paged)
```

and entries for /etc/passwd:

```
utc::50:50:UTC time service:/usr/local/bin:/usr/local/bin/utcservice
```

and /etc/group:

```
utcpub::50:utc
```

All a client system(s) need do is install the "capture" program and execute it per:

```
# must run this as super-user
#
echo "\nutc" | cu thadlabs | /usr/local/bin/utcset -s
exit 0
```

from a crontab entry like the following:

```
#Mn Hr Da Mo Da (0=SUN, 1=MON, 2=TUE, 3=WED, 4=THU, 5=FRI, 6=SAT)
#of of of of of
#Hr Da Mo Yr Wk Command
#
03 3 * * * /bin/su root -c "/usr/local/bin/utcset.sh >/dev/null"
```

assuming one has a /usr/lib/uucp/Systems (or L.sys) entry for the server.

The above is how I've configured the service to date. Because some "cu" don't seem to respond to SIGPIPE properly, I'm planning on generalizing the client program to itself connect and retrieve the server info, and will post the whole package when it's complete. If someone would like to help (my time is VERY limited) and/or you'd like some more info, feel welcome to contact me:

Thad Floryan [thad@cup.portal.com (OR) ..!sun!portal!cup.portal.com!thad]

401. Interesting Snippets

Newsgroup: rec.ham-radio
Date: 1990-01-19 13:10:03 UTC
From: pescatore_jt%ncsd@gte.COM
Message-ID: <9001191310.AA08903@bunny.gte.com>
Source record: 14056

AGENCY ENTERTAINS YET ANOTHER
PERSONAL COMMUNICATIONS REQUEST

STATUS: PCN America has filed with the FCC the third experimental application that agency has received for a personal communications network (PCN). A subsidiary of the British concern Millicom, PCN America asked the Commission for the license to provide PCN services in the Washington, D.C., area.

The company asked for use of radio spectrum in the 1850-1990 MHz band, which is currently used for operational fixed microwave service. PCN America's experimental application proposes to share the spectrum through spread spectrum technology.

COMMENTS: The FCC has granted authority to the first two applicants, Cellular 21 and Cellular General, to run trials in New York and Florida.

Several other companies, including International Mobile Marine in Philadelphia and American Telezone in Houston, plan to experiment with various microcell communications systems in 1990.

American Telezone is planning a system similar to the United Kingdom's Telepoint system and says that it will be available to subscribers by third quarter 1990. It plans to operate under Part 15 of the FCC's rules which do not require licensed radio spectrum.

PCN America has also asked the FCC to permanently allocate radio spectrum for the provision of a PCN. Reply comments are due on that proposal on Jan. 16.

SOFTWARE GLITCH AT AT&T CUTS OFF PHONE SERVICE FOR MILLIONS, p.B1.
"New York-A software glitch shut down American Telephone & Telegraph Co.'s long-distance phone network, cutting off service to tens of millions of customers nationwide. Computers in AT&T's network center in Bedminster, N.J., detected the cut off of calls around 2:30 p.m. EST, according to an AT&T spokesman. The massive shutdown was the first to hit the company nationwide and continued into the evening as tens of millions of callers got busy signals when they tried to dial beyond their local calling areas."

THE WALL STREET JOURNAL, 1/17.

ADVERTISING: US SPRINT TRIES TO REACH OUT AND THUMP AT&T OVER SNAFU, p.B1.
"American Telephone & Telegraph had a disaster on its hands when its long-distance telephone network crashed Monday. For AT&T's competitors, though, the celebration is just beginning. The embarrassing glitch for AT&T was like a late Christmas gift for its long-distance competitors. And at least one competitor hopes to milk it, in advertising terms anyway, for all

it's worth. By Monday night, major competitor US Sprint and its ad agency, J. Walter Thompson Co., were already huddling to consider an ad playing on the AT&T system collapse. By yesterday afternoon, Sprint an WPP Group's Thompson had come up with a dozen possible newspaper ads, one of which makes its debut today."

THE NEW YORK TIMES, 1/17.

A.T.&T. PINPOINTS CAUSE OF PHONE DISRUPTION, p.A1.
"The American Telephone and Telegraph Company said yesterday that it had traced the huge disruption in long-distance service that occurred Monday to a single computer program that malfunctioned and caused a chain reaction in the network. Company executives said the malfunction occurred in a program at a giant computer switching station in the New York metropolitan area, causing the computer to send out alarm messages to other switching stations."

A SUPER HUMAN COLLAPSE, p.B7.
"The failure of American Telephone and Telegraph Company's long distance switching system on Monday is a warning of the troubling vulnerability of the nation's complex computer networks to unpredictable breakdowns, either accidental or deliberate, computer scientists said yesterday. The computer systems that increasingly control telephones, bank cash machines, electric power and other routine daily necessities are growing so complex that they defy human understanding, thus making it all but impossible to predict all the ways they might fail."

USA TODAY, 1/17.

CBS BENCHES RIVAL ANNOUNCERS, p.1A.
"CBS -- trying to protect its turf -- told Nike to 'just do it.' CBS, which televises the Super Bowl Jan. 28, had Nike cut NBC's Marv Albert and Dick Enberg, ABC's Al Michaels and ABC/ESPN's Dick Vitale from its new commercial, debuting during The Big Game...CBS requested that Enberg be dropped from the Nike ad while a commercial where he's spokesperson for GTE will run during the Super Bowl."

402. Re: SW B'cast stations

Newsgroup: rec.ham-radio
Date: 1990-01-19 14:18:19 UTC
From: wilson@ccop1.ocpt.ccur.com
Message-ID: <280@ccop1.ocpt.ccur.com>
Source record: 14068

In article <9001171330.AA20139@bunny.gte.com>, pescatore_jt%ncsd@gte.COM writes:
> I used to do a lot of overseas travel and found VOA to be one of the best
> SW stations around, after the BBC. They had a pretty good "Good Morning,
> America" kind of show and good newscasts. I think their political slant
> is less distorted than a lot of people like to make out. Most people seem
> to start calling VOA a "propaganda" station once they find out that VOA's
> policy is not to send QSLs or program quides to U.S. listeners. I think
> that is a pretty good policy, myself.
>

I agree that VOA is pretty good and tries to be fair in its news. It routinely includes unfavorable stories about the US that a propaganda (in the common, incorrect use of the word) station wouldn't carry.

Of course, this in itself might be considered propaganda in that it demonstrates one of the basic princples of American Democracy which is freedom of expression and dissent!

By the way, VOA is prohibited by Congress from orienting its programs toward Americans, hence the policy on program guides and QSL's. They used to QSL to Americans until they were told to stop.

Gary, WB2BOO

403. Re: Pure LO signals and Mixers?

Newsgroup: rec.ham-radio
Date: 1990-01-19 14:29:54 UTC
From: gb@sunpix.East.Sun.COM
Message-ID: <1090@dixie.East.Sun.COM>
Source record: 14057

I believe that double-balanced hot-carrier-diode mixers are often followed by a stage of amplification to allow proper termination of the mixer. If these mixers are not terminated in a resistive load of near 50 ohms at all frequencies, their strong signal handling characteristics can be significantly compromised. It is not hard to build a post mixer amplifier that can handle larger signal levels than the mixer is capable of delivering without distortion.

Another reason for post mixer amplification is system noise figure. Without the amplifier a typical front-end may have 1dB of loss in the input filters, 6dB loss in the mixer, 3dB loss in a pad for terminating the mixer, 4dB loss in the crystal filter, and finally an IF stage with 2dB noise figure resulting in a system noise figure of about 16dB, a little high for 10 meters.

With a post-mixer amplifier having a 2dB noise figure, the system noise figure can be held to 9dB which is more reasonable. This is with no degradation in strong signal handling ability since the post-mixer amplifier has been (hopefully) designed to have a larger input intercept than the output intercept of the mixer.

404. NSA & the internet & usenet

Newsgroup: rec.ham-radio
Date: 1990-01-19 14:51:46 UTC
From: eli@spdcc.COM
Message-ID: <1293@ursa-major.SPDCC.COM>
Source record: 14058
Cross-posted to: sci.crypt,misc.legal,rec.ham-radio,alt.conspiracy

```
if you are interested in reading about a first hand experience with the
NSA, as well as most of the other spy agencies, buy a copy of
Clifford Stoll's _The Cuckoos Nest_. he has some very insightful words
about spying and freedom of information. and the book is fun to read.

--
/* eli@spdcc.com ; 617-932-5598 */
```

405. Re: Pure LO signals and Mixer

Newsgroup: rec.ham-radio
Date: 1990-01-19 15:50:00 UTC
From: greg.trice@canremote.uucp
Message-ID: <90012003501612@masnet.uucp>
Source record: 14059

I have used the 7360 and totally agree with your comments. Properly used it is superior to almost anything else. Even better is the 6JH8, a similar tuble that has greater linearity and will handle 60 VOLTS of input signal with the signal applied to the deflection plates. This type of mixer is well worth incorporating even in a receiver that is otherwise all semiconductor.
---
* Via ProDoor 3.1R

406. Re: Pure LO signals and Mixer

Newsgroup: rec.ham-radio
Date: 1990-01-19 15:50:00 UTC
From: greg.trice@canremote.uucp
Message-ID: <90012421252895@masnet.uucp>
Source record: 14060

I have used the 7360 and totally agree with your comments. Properly used it is superior to almost anything else. Even better is the 6JH8, a similar tuble that has greater linearity and will handle 60 VOLTS of input signal with the signal applied to the deflection plates. This type of mixer is well worth incorporating even in a receiver that is otherwise all semiconductor.
---
* Via ProDoor 3.1R

407. Re: Miniature FM receivers - what chips to use?

Newsgroup: rec.ham-radio
Date: 1990-01-19 16:00:15 UTC
From: jdg@hpqtdla.HP.COM
Message-ID: <3430001@hpqtdla.HP.COM>
Source record: 14074

r.e. Minature FM receivers.

Have a look at TDA7000. Its a one chip FM radio, with RF, mixer, LO
IF amp and phase demod, simply put the output into a single chip
P.A. like the LM386. Sensitivity 1.5uV for -3dB limiting, supply 2.7
to 10 volts @ about 8mA. Frequency range is 1.5MHz to 110MHz but it will
work up to 148MHz :-). The 18 pin chip uses the FM equivilent of direct
conversion, with a very low frequency IF. The data sheet gives details
how to use it for broadcast reception. For NBFM it is possible to re-
configure the IF filters to suit. There was an article published this
side of the pond in RSGB Radio Communications Jan 1989 about the mods
needed for NBFM and also to modify the LC oscillator for crystal control/
stability. Its hardly a state of the art receiver but its a nice and simple
project. I can post more info if anyones interested. I found at
least one error in the published schematic, C14 should go across pins
10 and 11.

James Gentles @hpqtdla GM4WZP
Hewlett Packard, Queensferry Telecommunications Division, Scotland, UK

408. Noise under 530khz

Newsgroup: rec.ham-radio
Date: 1990-01-19 17:10:05 UTC
From: tsf@druhi.ATT.COM
Message-ID: <4621@druhi.ATT.COM>
Source record: 14061

From a novice LF'er -
When I listen to the frequencies from 100-530Khz I always hear
a lot of "noise". Not the crashing static from lightning, or
a hiss or burbles from the receiver, but a very loud S9 buzz.
It makes me think that I'm picking up my flourescent lights, or
an arc of some kind. I can hear a lot of beacons, id'ing in CW, and
these stations, if they're strong enough, quiet the buzz even
without moving the S meter above S9 (not an AGC effect, then?).
I'm new to this area of the radio spectrum. Can anyone tell me
what this buzz is? It also shows up to a lesser degree in the
low end of the BC band (below about 600Khz), and it doesn't
seem to be sensitive to location. It sounds the same within the
20 mile radius of my normal travels. I've tried turning off
everything electrical in the house except the radio just to see
if it could be a local effect with no luck. The noise limiter on
my IC-751 helps a little.

Tom Fisher N0GOS att!druhi!tsf

409. Re: Getting the time over the phone from NBS

Newsgroup: rec.ham-radio
Date: 1990-01-19 18:19:39 UTC
From: jwp@cupcake.sal.wisc.edu
Message-ID: <810@cupcake.sal.wisc.edu>
Source record: 14062
Cross-posted to: rec.ham-radio,sci.electronics

(Previous posting cancelled... shouldn't have gone to alt.sources...)

In article <26101@cup.portal.com> thad@cup.portal.com (Thad P Floryan) writes:
>I've put together a prototype system that does just what Karl describes. My
>time reference is a HeathKit GC-1000 "Most Accurate Clock" which locks onto
>NIST's (formerly NBS') WWV at 5, 10 or 15 MHz to provide +/- 10 mSec Universal
>Time Coordinated on its RS-232c port. I've been testing the setup since:
>
>If you'd like to install and provide such a service on your system, you need
>an accurate time reference (the Heath clock is my recommendation: kit price
>from their Winter 1990 Catalog No. 219 is $249.95 for the clock and $49.95 for
>the RS-232 interface (see page 28)), and:

I just finished building this kit, and the clock is very neat. But imagine
my surprise when I plug it in and find the digits in the display are all
messed up! After a bit of debugging, imagine my astonishment in finding
an error in the printed circuit board layout!!! Two of the digit anodes
were shorted together, not by any impurity or solder bridge, but by
a neat, straight, designed-in board trace.

A flash of the exacto knife, a severed trace, and now the clock works fine.

Anybody from Heath on the net?
--
Jeffrey W Percival (jwp@larry.sal.wisc.edu) (608)262-8686

410. Re: Getting the time over the phone from NBS

Newsgroup: rec.ham-radio
Date: 1990-01-19 18:37:14 UTC
From: barton@holston.UUCP
Message-ID: <5667@holston.UUCP>
Source record: 14063
Cross-posted to: alt.sources,rec.ham-radio

Hey, this program is really spiffy, but what exactly is NBS?
I am assuming it's a standard time sort of system, could some-
one expound a bit for me and others who don't know?

Thanks for the program...

--
Barton A. Fisk | UUCP: {attctc,texbell}vector!holston!barton
PO Box 1781 | (PSEUDO) DOMAIN: barton@holston.UUCP
Lake Charles, La. 70602 | ----------
318-439-5984 | "Let him who is without sin cast the first stone"-JC

411. Re: NOAA Frequencies mod for Icom 02AT?

Newsgroup: rec.ham-radio
Date: 1990-01-19 18:52:47 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880112@hpfcdc.HP.COM>
Source record: 14070

Just some friendly advice:

When you mod the 02AT, make sure you program the transmit offset so that you transmit somewhere in the ham band, rather than QRMing NOAA, just in case you bump the transmit key.

Perry Scott
KF0CA

412. Re: Other ham journals

Newsgroup: rec.ham-radio
Date: 1990-01-19 19:36:36 UTC
From: koning@koning.dec.com
Message-ID: <7611@shlump.nac.dec.com>
Source record: 14069

In article <30500356@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:

> What about NON-English magazines about amateur radio. I can basically handle
> any European language that I have a dictionary for.

You might consider Electron, published by the VERON (Dutch amateur radio
society). It's been a while since I've seen it, unfortunately. It has
(or had when I read it) a monthly column by PAoSE ("Reflections") which
is generally excellent.

paul, NI1D, ex-PA0PKG

413. Re: ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-19 19:37:19 UTC
From: timb@hpmwtd.HP.COM
Message-ID: <1260020@hpmwtlb.HP.COM>
Source record: 14071

/ hpmwtlb:rec.ham-radio / alanb@hpnmdla.HP.COM (Alan Bloom) / 6:31 pm Jan 15, 1990 /
Theoretically, an ATV exciter should be followed by a truly linear
amplifier. Since linear amps are less efficient than class C, this would
argue for using an unmodulated exciter and modulating the PA.

However I think linearity is less important with ATV than other AM modes.
The signal is ALREADY wideband, so you don't have to worry (within reason)
about splatter. The main effect is to alter the gray scale (contrast and
brightness), which can be adjusted for in the modulator.

Al N1AL

---

414. Re: ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-19 19:38:04 UTC
From: timb@hpmwtd.HP.COM
Message-ID: <1260021@hpmwtlb.HP.COM>
Source record: 14072

/ hpmwtlb:rec.ham-radio / look@uicsrd.csrd.uiuc.edu / 2:38 am Jan 13, 1990 /

I am building a all home brew ATV station. I just completed the oscillator chain and have about 70mw on 439.25 . I am now looking to build the power amp and video modulator. From what I have seen and read elsewhere it would appear there are two different ways of adding the modulation.

1) Modulate the low power stage and follow it with a linear amp.

2) Feed the low power stage to a modulated class C amp.

Anyone care to comment on the methode they would choose and why?
Thanks,

Steve Look ka9szw
look@uicsrd.csrd.uiuc.edu
----

415. posting from N2JUX

Newsgroup: rec.ham-radio
Date: 1990-01-19 19:48:00 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001192003.AA25507@ti.com>
Source record: 14064

Sorry to be posting this to the net, replies and directs to n2jux@tsdiag.
ocpt.ccur.com bounced. Yeah, John, I seem to recall the QTH. Will check
the log to verify and let you know. Do i have the correct address to get
back to you? -73, Dube Todd N5PDK

416. Re: W1AW

Newsgroup: rec.ham-radio
Date: 1990-01-19 20:34:56 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880113@hpfcdc.HP.COM>
Source record: 14076

>Re: W1AW schedule
>Re: Redundancy and band occupation

Yes, this is my point. Sorry for not being clear. While not technically a violation, W1AW seems to be using more power than necessary to maintain communications by employing redundant bands.

Maybe I miss the point - maybe the point of W1AW is to showcase all the modes available to ham operators. Maybe W1AW is used for testing receivers because it is always there.

Some other observations:
* Not everyone can receive a CW bulletin at the blistering speed W1AW uses.
* Some redundant band examples: daytime local 2m/80m gnd wave. Nite DX on 20/40/80.
* Usage of 10/15 at nite.
* Numerous digital modes - packet/RTTY/Amtor/CW. It might make sense for W1AW to send RTTY, with local converters to 2m packet.

A group of bright folks like ARRL should be able to optimize their band usage by using flux data, time of day, beam orientation, etc. Maybe they could save money on their power bill, to boot. :v)

As far as CW practice, I think it is a useful service.

Perry Scott
KF0CA

417. Re: NOAA Frequencies mod for Icom 02AT?

Newsgroup: rec.ham-radio
Date: 1990-01-19 21:16:46 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500011@hpfcso.HP.COM>
Source record: 14073

>
> Just some friendly advice:
>
> When you mod the 02AT, make sure you program the transmit offset so that
> you transmit somewhere in the ham band, rather than QRMing NOAA, just in
> case you bump the transmit key.
>
> Perry Scott
> KF0CA

Hi Perry!

I did this to my 02AT and I can't transmit across the room on the
Sherriff's frequency. Dunno why. But I think it's a good thing. :-)

Ron Miller
NW0U

418. Re: Shortwave commercial radio

Newsgroup: rec.ham-radio
Date: 1990-01-19 23:49:18 UTC
From: johnh@hpubvwa.NSR.HP.COM
Message-ID: <2880005@hpubvwa.NSR.HP.COM>
Source record: 14065

/ hpubvwa:rec.ham-radio / bill@videovax.tv.tek.com (William K. McFadden) / 2:02 pm Jan 17, 1990 /
In article <766@kunivv1.sci.kun.nl> ge@kunivv1.sci.kun.nl (Ge' Weijers) writes:
>Actually, last weekend I heard a shortwave station playing religious programs AND rock music. And it wasn't religious rock music either-- they were playing the Rolling Stones and James Taylor, to name two, in blocks of three songs per artist or group. They'd play an hour or two of rock followed by an hour or two of religious programs, and back to rock, and so forth. Quite unusual for a religious station. Anyway, the station's name is KUSW from Salt Lake City, Utah, USA. Sorry, but I don't remember the frequency. Perhaps someone in the know could post the schedule.

I think during the week the station KUSW is primarily Rock ... weekends may have some religious programming.

John Hays KD7UW --- in UTAH

419. Re: 75 foot tower 30 feet from neighbor

Newsgroup: rec.ham-radio
Date: 1990-01-20 01:06:49 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490086@hpscdc.scd.hp.com>
Source record: 14066

> In article <1136@rsiatl.UUCP> jgd@rsiatl.UUCP (John G. De Armond) writes:
> Specifically, the SF earthquake and the hurricane. What
> I'm interested in hearing from some hams from the area is: Did your towner
> survive? Did your tower survive even if your house was damaged?

I live in Cupertino 3 miles from the San Andreas fault. My Tristao 55 foot pipe tower was cranked all the way up and suffered *no* damage whatsoever. It's entirely self supporting (no house bracket or guy wires) on a tilt over/rotating base. It has a KT-34A (4 elements on 16 foot boom) on top.

Bookshelves on a solid concrete slab fell over in the quake. Equipment on casters moved several feet on the slab. My linear slid off the shelf and broke. And it doesn't slide easily.

The house suffered "cosmetic" damage to the sheetrock. Some new cracks appeared in sidewalks and existing ones widened noticably. Some gas mains broke. Some doors in the house don't work as well as before the quake. One of the doors that fit poorly works better!

So my conclusion is that a ham tower is probably more of an advantage in a quake (for post quake communications) than a liability.

Rick N6RK

420. Re: 10 meter pirates (was = Re: AM operation.)

Newsgroup: rec.ham-radio
Date: 1990-01-20 01:29:00 UTC
From: john@frog.UUCP
Message-ID: <11320@frog.UUCP>
Source record: 14067

In article <9075@ttidca.TTI.COM>, sorgatz@ttidca.TTI.COM (Avatar) writes:
> In article <11.Jan.90.15:42:42.GMT.#1875@UK.AC.NWL.IA> PJML@IBMA.NERC-WALLINGFORD.AC.UK ("Pete Lucas, NCS-TLC, Swindon U.K.") writes:
> +There is also a fair amount of use of converted AM CB sets on ten meters,
> +this is partly because many of the 'UK spec.'
> Well..it looks to me like the problem is spreading..10 meters is supposed
> to be an exclusive, worldwide Amateur band. Here in the states, the
> pirates tend to be mostly Hispanics and a fair number of illegals,
> handling traffic into and out of Mexico and S.America.

You forgot $%^&%&*#%$ taxi drivers.

> Sigh. Does the UK
> (or anyone else?) have a CB band between 26 and 28 MHz.?

Britain's CB range is 27.60125Mc to 27.99125Mc. I gather (from a not terribly helpful text) that the range of CB bands stretches from 26 to 28 in various pieces in different countries.

> the manufacturers seem hell-bent to create products for the
> bootleggers..I say the FCC/ITU should clampdown on them..make them build
> CB gear that CANNOT be modified to operate above 27.995, this *might* slow
> the bastards down a little. Grrrr!

They have tried this. In most countries, you can't design new radios which are easily modified (the FCC, in particular, won't give type acceptance to new rigs unless the PLL/divider will reject illegal channel numbers). The problem is in banning the sale of old rigs which still have type acceptance (if UPS could buy 2MHz of ham band, what chances the FCC would irritate the CB manufacturers?).

This information comes from "The CB PLL Data Book", by Lou Franklin. I am planning to modify a CB rig for 10m (don't worry, I *am* a licensed ham), but the book isn't as helpful as it could be, since it is more oriented toward helping you select the right CB rig for modification to illegal CB frequencies using commonly-available modification kits...
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

Happiness is Planet Earth in your rear-view mirror. - Sam Hurt

421. Re: Time and Freq. Handbook

Newsgroup: rec.ham-radio
Date: 1990-01-20 03:33:21 UTC
From: bowen@cs.Buffalo.EDU
Message-ID: <16016@eerie.acsu.Buffalo.EDU>
Source record: 14077

In article <9001180807.AA20491@ucbvax.Berkeley.EDU>,
BRUCEH@UTKVX3.BITNET writes:
> I called NBS to get a copy of the Time and Frequency Handbook. It is
> currently out of print, but they are revising it for publication this
> summer or fall. To get on a mailing list for a copy, call Mike Lombardi
> at 1-303-497-3212.

Funny, I just got something from them today called NBS Time & Frequency.
It's special publication 432. Maybe it's something different than a hand-
book. This is just a bunch of photocopies (about 16 pages) on all the time
services they broadcast. I ordered it by calling a number that was posted
last week here.

Devon

422. Re: oppressive (and corrupt) police states

Newsgroup: rec.ham-radio
Date: 1990-01-20 07:51:25 UTC
From: kelly@uts.amdahl.com
Message-ID: <b9=702ID80CH01@amdahl.uts.amdahl.com>
Source record: 14082

In article <411@compnect.UUCP> daveh@compnect.UUCP (Dave Hultberg) writes:
>In article <22288@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson N8DGN)
> writes:
>>
>> On a related note, there is great corruption in the Illinois State
>> Police dept. They have a habit of stopping out of state cars, and
>> giving speeding tickets, EVEN if the cars weren't speeding! The laws
>> are such that you have to pay immediately, or go to jail and pay later
>> anyway. They won't take your personal check, and they only take a small
>> number of credit cards. They won't take Master Card or Visa! This
>> leaves cash as your only option; the officer promptly puts the cash in
>> his pocket and then goes to stop someone else (from out of state). I
>
>If this is true it must have started recently. I was stationed in Chicago
>when Daley was mayor and corruption was supposed to be rampent. For 2 years
>my wife and I drove our 2 cars with PA plates all around Chicago and its
>suburbs with no problems. I also made many trips on the interstates in IL
>as we returned to PA for visits. I never got any tickets from either the
>State Police or local police.
>
>
>--
>==
>Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!ka3adu!compnect!daveh
>CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

This is BULLS___ I too live and consulted in CHITOWN while daley was mayor...
I was stopped over 20 times in 5 years... In all cases the "HONEST" officer
solicited a bribe...making the threat that to go down to the station house
would be far more expensive for me and I would not be able to prove that the
officer was soliciting a bribe...CHICAGO police were COMPLETELY corrupt
during this period... anything else said is strictly BULLS___
please dont try and tell me about police in Chicago or Illinois... I
have direct personal experience(BTW they were no where to be found when
I experienced 6 attempted muggings during the same period(I carried a handgun
quite illegally.. the bribe system works for those also... this was in the period
from 1975 to 1981.....) BTW My car HAD Illinois plates... MY experience
in NORMAL I was dating a coed at the college there was exactly the same
as the previous poster cop solicits money it goes in his pocket...
Thats WHY I moved out of that hellhole and came to POLICE STATE California
Here the cops seem to be honest and the politicians are corrupt...
unhappily and angrily yours...\
kelly
DISCLAIMER: I have no Authority to make any representations concerning

my employers ALL fact opinions and information are mine and mine alone....

423. Re: ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-20 12:10:53 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500361@ux1.cso.uiuc.edu>
Source record: 14089

> Theoretically, an ATV exciter should be followed by a truly linear
> amplifier. Since linear amps are less efficient than class C, this would
> argue for using an unmodulated exciter and modulating the PA.
>
> However I think linearity is less important with ATV than other AM modes.
> The signal is ALREADY wideband, so you don't have to worry (within reason)
> about splatter. The main effect is to alter the gray scale (contrast and
> brightness), which can be adjusted for in the modulator.

However, for VSB, that "true linearity" is essential. Any compression of the waveform envelope due to non-linearity constitutes some negative amplitude modulation without any corresponding phase modulation, which will generate sidebands on BOTH sides of the carrier. Since this will represent (non-linear) negative video, the upper sideband of VSB will be reduced somewhat, as will the low 1 Mhz or so of the lower sideband (which is part of VSB), but the rub is that a significant amount of RF will be generated in the remainder of the lower sideband, including a redundant audio subcarrier at -4.5 Mhz if the + one was used. Also, due to the non-linearity, additional splatter at a lower level will be seen outside of the expected AM bandpass. Listen to +9 Mhz above the carrier frequency for a duplicate of the audio subcarrier.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

424. Re: 10 meter pirates (was = Re: AM operation.)

Newsgroup: rec.ham-radio
Date: 1990-01-20 17:20:23 UTC
From: erc@khijol.UUCP
Message-ID: <1081@khijol.UUCP>
Source record: 14078

In article <9075@ttidca.TTI.COM> sorgatz@ttidcb.tti.com (Erik Sorgatz - Avatar) writes:

>'export-only' CB's that are showing up here. 90% of these rigs are
>multimode (AM-FM-SSB, some with CW!) and seem to cover, variously, the
>26-28.3 or 30 MHz area. What excuse exists for building these damn things

How much do they go for? Are they cheaper than the Rat-Shack HTX-100? I'm
looking for something to replace my stolen HTX-100 (GRRR!!), so I'm in the
market...
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf
"The best diplomat I know of is a fully activated phaser bank." -- Scotty

425. WANTED: TM-321 Mods

Newsgroup: rec.ham-radio
Date: 1990-01-20 18:19:43 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <96@ka2qhd.UUCP>
Source record: 14075

I just saw a message looking for TM-221 mods. In that message, the gentleman
mentions seeing mods posted for the 321, could someone post them for me
and others with the Kenwood 321 radio. I have never seen anything posted for it
Thanks in advance, 73 de Chris

426. Cleaning old radio's.

Newsgroup: rec.ham-radio
Date: 1990-01-20 20:29:17 UTC
From: kranenbu@rulcs.uucp
Message-ID: <378@rulcs.cs.rul.nl>
Source record: 14079

I recently acquired a pair of Murphy B-40 and B-41 general coverage
receivers (0.5 - 30 Mc and 15 - 500 Kc, resp.). Both radios are
still in working order.

However, the chassis of both show heavy signs of corrosion, and, what's
worse, various switches such as the coil-drum and mode-select also
seem to have been affected to the point that the contacts become
unreliable (the long wave receiver in particular).

So, I am in need of advice about the best way to go about cleaning
these devices and getting the switches to function reliable again.

Also, what kind of antenna will be most suitable for reception
of very low frequency bands (< 100Kc). I have been experimenting
with a long wire of about 30 meters length, without much succes.

Thank you,

Paul Kranenburg, Dept. C. Sc., Leiden, NL.

427. Cleaning old radio's.

Newsgroup: rec.ham-radio
Date: 1990-01-20 20:29:17 UTC
From: rulcs!kranenbu@nluug.nl
Message-ID: <376@rulcs.cs.rul.nl>
Source record: 14098

I recently acquired a pair of Murphy B-40 and B-41 general coverage
receivers (0.5 - 30 Mc and 15 - 500 Kc, resp.). Both radios are
still in working order.

However, the chassis of both show heavy signs of corrosion, and, what's
worse, various switches such as the coil-drum and mode-select also
seem to have been affected to the point that the contacts become
unreliable (the long wave receiver in particular).

So, I am in need of advice about the best way to go about cleaning
these devices and getting the switches to function reliable again.

Also, what kind of antenna will be most suitable for reception
of very low frequency bands (< 100Kc). I have been experimenting
with a long wire of about 30 meters length, without much succes.

Thank you,

Paul Kranenburg, Dept. C. Sc., Leiden, NL.

428. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-20 20:53:47 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <10987.25B8D14C@stjhmc.fidonet.org>
Source record: 14093

> From: wrf@mab.ecse.rpi.edu (Wm Randolph Franklin)
>
> In article <480ec7fd.15840@valley.UUCP> pfluegerm@valley.UUCP (Mike
> Pflueger) writes:
> >
> >Actually, I had this as an EE problem to solve in college - how the tunnel
> >could be modified to pass signals of a frequency above cutoff. One way
>
> Don't (some) subway systems use this so the crew can use radios?

If the walls of the tunnel/subway involved large amounts of metallic
conductors, it would behave like a humongous waveguide, wouldn't it?

As for the subway, the rails would be a dandy parallel conductor transmission
line. I had some friends who were at Ohio University in the 50's. Their campus
carrier current station could not be heard off campus except in close proximity
to the tracks of the university's freight spur line. You could hear the station
briefly (5 seconds or so) as you passed the line's rail crossing of the highway
about four miles out of town.

I wonder if anyone has tried using office building ventilation ducts as
waveguides for wireless LAN's?

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

429. Re: duplexers

Newsgroup: rec.ham-radio
Date: 1990-01-20 20:53:55 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <10988.25B8D14D@stjhmc.fidonet.org>
Source record: 14099

> From: khendric@pollux.usc.edu (Kenneth J. Hendrickson N8DGN)
>
> In article <25B38B07.3681@paris.ics.uci.edu> turner@ics.uci.edu (Clark
> Turner) writes:
> >Hi all:
> >I wonder if anyone out there can briefly explain what a duplexer really is
> >and what it does. If its not easy, I'll do a little research and see what
> I
> >can find.
> >Clark, WA3JPG
>
> For a repeater, it is a series of filters that go between the antenna,
> the receiver, and the transmitter. The filters between the transmitter
> and the antenna are tuned to the transmitter frequency (bandpass) or
> tuned to reject the receiver (bandstop); vice-versa for the filters
> between the receiver and the antenna.

The more sophisticated duplexers are arranged in a bridge configuration with the resonant cavities acting as phasing sections to provide isolation considerably enhanced over simple brute force filtering. Tricky to align but well worth the effort.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

430. Is N6NKF (Franklin Antonio) on this net?

Newsgroup: rec.ham-radio
Date: 1990-01-20 21:29:20 UTC
From: elmquist@NIPS.SSESCO.COM
Message-ID: <9001201929.AA12565@nips.ssesco.com>
Source record: 14080

I have a small bug (I think) to report in Instant Track 1.0...
Nothing critical...does not affect calculations... but should be
reported if hasn't been already--
If anyone knows Franklin's email address...please forward it.

Thank You.

Chris N0JCF elmquist@nips.ssesco.com

431. AMSAT Microsat launch bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-20 22:14:56 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19228@bellcore.bellcore.com>
Source record: 14100

Posted: Thu, Jan 18, 1990 12:16 PM GMT Msg: AGJA-4143-3901
From: DCOWDIN
To: AMSAT
CC: LAUNCH, ANS, NCS, PACLIST
Subj: STATUS REPORT

GREETINGS FROM THE MICROSAT & UoSAT TEAMS IN KOUROU:

Last night the AMSAT, UoSAT, and BRAMSAT teams went through a complete launch rehersal so that we could check all communication lines and so that we would know what to expect. During the rehersal we had a simulated problem, the count was held, but we launched on time moments before the window closed! How is that for realism. We were also given a complete set of orbital elements and amazingly, they were exactly NOMINAL. Imagaine that.

We are now charging the batteries on the MICROSATs and UoSATs twelve hours a day. All the MICROSAT batteries are around 11 volts after at the end of day and when we come in morning, the batteries are about 10 volts for each of the MICROSATs. The UoSATs fly cold and their batteries are in excellent condition.

Events are moving quite quickly here. People are arriving, launch computers are constantly running tests on the launcher, and the pace has certainly picked up here. I liken the situation to a freight train starting up and hitting maximum speed around the morning of launch. So far the weather does not appear to be a problem. The weather constraints for launch are the following:

1) No lighting in the immediate area
2) To move the gantry back, the wind speed has to be less than 38 mph
3) For launch, the wind speed limits can be between 20 mph and 31 mph, depending on the direction. The high limit (31 mph) is the restriction if the wind is blowing out of the south; the lower limit (20 mph) is the limit if the wind is coming from the north. We are not exactly sure of why this is the case and we will investigate this and report back later.
4) Horiztonal visibility has to be 600 meters or about 0.4 miles.
5) The cloud ceiling higher than 250 meters or about 820 ft. This constraint is because the Range Safety people have to be able to see the launcher immediately after launch and before the radars can start to track.

On launch day we will be posting status reports about every hour or so. So please monitor T-MAIL.

73's de WD0HHU, PY2BJO, & G7DQE

Posted: Fri, Jan 19, 1990 5:25 PM GMT Msg: HGJA-4144-6664
From: RENSIGN

To: AMSAT
CC: DLOUGHMILLER
Subj: Launch TV coverage

Arianespace informs us that if the launch slips by 1 day (yes it can..not 2 as previously) the launch coverage will be on Spacenet 1 Transponder 4 Sunday night. Saturday nights coverage will be from 8PM to 9:30PM EST exactly coinciding with the ALINS Net. Saturday watch Spacenet 3, Transponder 6, CH.11.
Rich

Posted: Sat, Jan 20, 1990 12:01 PM GMT Msg: LGJA-4145-3586
From: DCOWDIN
To: AMSAT
CC: LAUNCH, ANS, NCS, WEBER, PACLIST, BOD
Subj: LAUNCH DAY STATUS RPT #1

Lauch Stautus Report at 11:45 UTC

Greetings From Kourou:

According to Arianespace officials, everything is moving along very well. Last night there was a problem fueling the first stage with UDMH but that problem was resolved. Right now I am charging the MICROSAT & UoSat batteries. At 15:30 UTC I will shut off the battery chargers and go to the press conference. After the press conference I will come back and charge until 22:00 UTC. The weather looks good outside at the present time, but the weather is so changable here. Two nights ago it was raining extremely hard at launch time. Last night we could have launched.

The next MAJOR milestone we have to get passed is the fueling of the 3rd stage. That is an extremely delicate and difficult operation. That will happen at about T-6 hours.

I will be posting several bulletins here on T-MAIL throughout the day. So far it looks like we might have a launch tonight!!!!!

73's Dave Cowdin, WD0HHU

Posted: Sat, Jan 20, 1990 3:35 PM GMT Msg: NGJA-4145-3784
From: DCOWDIN
To: AMSAT
CC: ANS, LAUNCH, PACLIST
Subj: LAUNCH DAY STATUS RPT #2

Launch Status at 15:30 UTC

I talked with several Operations personel here in the block house and they say everything is proceeding well at this point in the launch chronology. Also they say that the weather people say that the forcast looks good for this evening. Right now I can see sunshine but there are quite a few clouds in the sky. Jean Grau, Inspector General of CNES and I think his ham radio call is F8ZS or something like that, came by to pay me a visit. Jean told me that the French ham radio satellite should be ready to fly by

1992. So I am off to the press conference now and I will report back
later.

Everything still looks good for launch.

73's Dave Cowdin

Posted: Sat, Jan 20, 1990 5:15 PM GMT Msg: HGJA-4145-3932
From: HPRICE
To: paclist
Subj: Launch

Anyone else nervous?
hp

Posted: Sat, Jan 20, 1990 5:43 PM GMT Msg: KGJA-4145-3991
From: WEBER
To: HPRICE
CC: PACLIST
Subj: CONFESSION

AROLD,

DO HEREBY CONFESS TO BEING NERVOUS.

CHRIS

Posted: Sat, Jan 20, 1990 6:51 PM GMT Msg: AGJA-4145-4135
From: DCOWDIN
To: amsat
CC: launch, ans, ncs, paclist
Subj: LAUNCH DAY STATUS REPORT #4

LAUNCH DAY STATUS REPORT #3 at 18:30 UTC

Greetings From Kourou:

The weather has deteriorated a little here. There are clouds almost all
around the launcher and the wind is blowing about 11 meters/second. But
the launcher is still ready to go and the current weather condition would
not stop us from launching. They will start to move the gantry away in
about 15 minutes at 18:45 UTC. I will be allowed to go out and take pictures.
I will start to put status reports on every hour until I leave for the
Jupiter Mission Control room.

73's Dave Cowdin, WD0HHU

Posted: Sat, Jan 20, 1990 7:18 PM GMT Msg: EGJA-4145-4167
From: DCOWDIN
To: AMSAT
CC: LAUNCH
Subj: LAUNCH DAY STATUS #3.5

TIME = 19:10 utc

They have just rolled the gantry back and talk about a skinny rocket! There are no strap on boosters. But the weather is holding and things are really rolling here. Guys are marking off milestones on blue print looking bar charts. I will charge until 20:30 UTC as Bob was kind enough to remind me. Sorry about that Bob. Besides, I need to be at the mission control room at 20:30 UTC. Folks, this is really exciting!!!

Every thing is still a go for launch.

73's DAve Cowdin, WD0HHU

Posted: Sat, Jan 20, 1990 8:47 PM GMT Msg: FGJA-4145-4322
From: DCOWDIN
To: AMSAT
CC: LAUNCH, NCS, ANS, PACLIST
Subj: LAUNCH,ANS,NCS,PACLIST

GREETINGS FROM KOUROU:

I was taken out to within 0.5 km of the launcher and I was able to take plenty of pictures. One thing I can say is that our MICROSAT logo really stood out in the crowd!

I have shut down the battery chargers per Bob McGwier's instructions. The following are the voltages and currents at 2030 UTC:

AMSAT-NA 10.90 V 140 mA
DOVE 10.80 V 145 mA
WEBER 10.95 V 150 mA
LUSAT 10.89 V 130 mA

So this is the status of the batteries.

The weather is very strange right now. It is cloudy, extremely humid outside. But so far there are no constraints to launch. According to the launch chronology we start 3rd stage fueling at T-04 hrs 5 minutes from launch. The show of security is very evident here right now. Lots of armed soldiers with automatic weapons running around outside right now.

73's WD0HHU

P.S. I will dump a status report before I run to the Jupiter Mission Control room.

Posted: Sat, Jan 20, 1990 9:38 PM GMT Msg: CGJA-4145-4417
From: DCOWDIN
To: AMSAT
CC: LAUNCH, ANS, NCS, PACLIST
Subj: 3RD STAGE FUELING BEGINS

GREETINGS:

The fueling of the 3rd stage has begun at t-4 hrs 5 minutes which was two minutes ago. It was raining a short time ago but it has stopped now.

They just gave a weather forcast and said that it still good for a launch and was certainly good to fuel the 3rd stage. So I will go to dinner in a short while and then it is off to Jupiter Mission Control Room.

73's Dave Cowdin, WD0HHU

432. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-21 02:03:55 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9001211056.AA18346@ucbvax.Berkeley.EDU>
Source record: 14081

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #633 -
Alouette 1
1 00424U 62B-A 1 90 14.67576560 .00000283 00000-0 33050-3 0 2547
2 00424 80.4649 77.4202 0022648 309.6442 50.2703 13.67281151361715
ATS 1
1 02608U 66110 A 90 16.00444824 -.00000115 00000-0 99999-4 0 945
2 02608 13.4099 14.8379 0104406 355.7920 3.1695 1.00392970 1020
ATS 3
1 03029U 67111 A 90 15.03732122 -.00000074 00000-0 99999-4 0 2797
2 03029 13.0137 22.4543 0016457 205.6692 154.2953 1.00272527 81266
Cosmos 398
1 04966U 71 16 A 90 17.04729833 .00063618 16773-4 37045-3 0 4497
2 04966 51.5408 250.6610 2385206 228.0683 109.1199 10.81849241575178
Starlette
1 07646U 75010 A 90 7.41270133 -.00000059 00000-0 16581-5 0 41
2 07646 49.8253 72.8668 0204856 20.4143 340.4794 13.82128033753548
LAGEOS
1 08820U 76039 A 90 13.23978591 .00000004 00000-0 00000 0 0 9735
2 08820 109.8618 302.0437 0044702 271.2537 88.2689 6.38664368 64041
GOES 2
1 10061U 77048 A 90 15.17703256 -.00000018 00000-0 00000 0 0 3476
2 10061 7.6844 65.5943 0007070 199.6239 160.3762 1.00282739 7503
GPS-0001
1 10684U 78020 A 90 12.37022406 .00000009 00000-0 99999-4 0 3073
2 10684 63.6575 94.3772 0115426 198.3533 161.2640 2.00558048 72726
GPS-0002
1 10893U 78 47 A 90 13.33460634 -.00000026 00000-0 00000 0 0 875
2 10893 64.4550 335.1961 0159356 25.8471 334.9245 2.00549924 85560
GOES 3
1 10953U 78062 A 90 15.23323432 .00000090 00000-0 99999-4 0 8007
2 10953 6.5666 68.3375 0005712 243.1550 116.7778 1.00269856 3069
SeaSat 1
1 10967U 78064 A 90 15.01674908 .00001123 00000-0 43428-3 0 2240
2 10967 108.0176 4.1408 0002766 257.2208 102.8599 14.35337759604474
GPS-0003
1 11054U 78093 A 90 16.12978295 -.00000025 00000-0 00000 0 0 1480
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2 11054 64.0052 331.4603 0055092 119.1349 241.4764 2.00566155 82636
Nimbus 7
1 11080U 78098 A 90 15.27529620 .00000170 00000-0 18345-3 0 6281
2 11080 99.2055 283.5874 0009379 127.7901 232.4101 13.83386414566892
GPS-0004
1 11141U 78112 A 90 10.24243628 .00000009 00000-0 00000 0 0 2461
2 11141 63.6479 94.3391 0057054 318.2502 41.3493 2.00564120 81212
NOAA 6
1 11416U 79 57 A 90 15.43912412 .00001162 00000-0 49868-3 0 9608
2 11416 98.5176 11.5688 0010850 206.4571 153.5965 14.26405843548153
GPS-0005
1 11690U 80 11 A 90 15.36657890 .00000010 00000-0 00000 0 0 8928
2 11690 64.0617 96.1673 0111578 202.0441 157.5312 2.00557221 87172
GPS-0006
1 11783U 80 32 A 90 14.68526747 -.00000026 00000-0 00000 0 0 249
2 11783 63.7825 331.1083 0145796 60.6594 300.7821 2.00572369 71243
GOES 4
1 11964U 80 74 A 90 9.44701467 -.00000218 00000-0 00000 0 0 1220
2 11964 6.0348 71.1471 0031636 106.2046 254.0158 0.99234307 4076
GOES 5
1 12472U 81049 A 90 16.08014024 -.00000245 00000-0 99999-4 0 8151
2 12472 3.0855 77.7025 0003935 212.0738 147.8807 1.00261056 30728
DE 1
1 12624U 81 70 A 90 15.91504008 .00000137 00000-0 39764-3 0 3147
2 12624 89.1072 149.2830 6237610 332.9633 4.9722 3.51031937256778
SME
1 12887U 81100 A 90 16.60073015 .00025713 00000-0 64790-3 0 4468
2 12887 97.6625 55.9593 0001844 177.5097 182.6096 15.39876827457860
Meteor 2-08
1 13113U 82 25 A 90 13.08051601 .00000169 00000-0 14164-3 0 6879
2 13113 82.5382 251.9089 0014821 188.6816 171.4099 13.84123269394272
Salyut 7
1 13138U 82 33 A 90 16.75225469 .00030503 00000-0 49359-3 0 9947
2 13138 51.6086 344.2307 0002045 73.9978 286.1419 15.52546879441249
Cosmos 1383
1 13301U 82 66 A 90 14.12171527 .00000122 00000-0 13216-3 0 5290
2 13301 82.9283 53.6917 0026050 223.7001 136.2087 13.67791818376612
LandSat 4
1 13367U 82 72 A 90 14.99765244 .00045387 00000-0 10008-1 0 2089
2 13367 98.1866 80.3752 0001771 228.7275 131.3460 14.57137159398993
Meteor 2-09
1 13718U 82116 A 90 14.21421060 .00000432 00000-0 22056-3 0 8499
2 13718 81.2451 75.0863 0056807 117.8343 242.8563 14.13429992365362
IRAS
1 13777U 83 4 A 90 14.34381325 .00000497 00000-0 36983-3 0 7094
2 13777 99.0340 213.4445 0013505 89.0031 271.2707 13.98727108 25436
Cosmos 1447
1 13916U 83 21 A 90 14.32661647 .00000201 00000-0 20215-3 0 6693
2 13916 82.9470 125.8092 0037049 206.5110 153.4145 13.74000854341549
TDRS 1
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1 13969U 83 26 B 90 15.08727170 -.00000208 00000-0 00000 0 0 9084
2 13969 4.1100 67.1245 0006140 236.8528 122.9498 1.00277645 91542
GOES 6
1 14050U 83 41 A 90 15.28141205 .00000119 00000-0 00000 0 0 580
2 14050 1.8593 80.1353 0001197 244.5287 115.2224 1.00277419 8734
OSCAR 10
1 14129U 83 58 B 90 10.47821533 -.00000048 00000-0 00000 0 0 4508
2 14129 25.8605 224.5390 6010040 108.9372 322.4356 2.05882232 21483
GPS-0008
1 14189U 83 72 A 90 15.77467186 .00000008 00000-0 99999-4 0 6932
2 14189 63.2842 92.6721 0141709 216.3478 142.7348 2.00561805 47704
Meteor 2-10
1 14452U 83109 A 90 13.23929925 .00000656 00000-0 27624-3 0 8081
2 14452 81.1646 83.0013 0093735 210.7261 148.8412 14.22541419322407
LandSat 5
1 14780U 84 21 A 90 17.08482807 .00006077 00000-0 13567-2 0 253
2 14780 98.1387 79.8924 0002015 320.1374 38.8856 14.57147074312717
UOSAT 2
1 14781U 84 21 B 90 15.65147316 .00002224 00000-0 42550-3 0 5922
2 14781 97.9761 73.0876 0013678 13.5324 346.6157 14.64752281313634
GPS-0009
1 15039U 84 59 A 90 14.33928099 .00000007 00000-0 00000 0 0 7872
2 15039 63.0293 91.9320 0018312 242.7907 117.0919 2.00562932 40958
Cosmos 1574
1 15055U 84 62 A 90 14.91585324 .00000174 00000-0 17676-3 0 8156
2 15055 82.9580 175.2755 0028908 31.5519 328.7360 13.73316983279037
Meteor 2-11
1 15099U 84 72 A 90 9.97027267 .00000123 00000-0 10128-3 0 9916
2 15099 82.5278 201.8975 0014198 22.6788 337.5001 13.83775777278715
GPS-0010
1 15271U 84 97 A 90 8.25320518 -.00000026 00000-0 00000 0 0 7364
2 15271 63.2886 330.9606 0105082 323.3681 35.9038 2.00571296 37943
Cosmos 1602
1 15331U 84105 A 90 13.07480495 .00003319 00000-0 46510-3 0 1516
2 15331 82.5404 144.5538 0024539 116.8672 243.4502 14.77066246285189
NOAA 9
1 15427U 84123 A 90 17.24418010 .00000541 00000-0 31445-3 0 4720
2 15427 99.1607 13.6351 0016070 73.6828 286.6111 14.12396351262673
Meteor 2-12
1 15516U 85 13 A 90 16.77399257 .00000325 00000-0 28178-3 0 1463
2 15516 82.5362 134.8717 0015463 234.8943 125.0768 13.84254164250609
Cosmos 1686
1 16095U 85 86 A 90 16.88099444 .00014452 00000-0 23832-3 0 4699
2 16095 51.6054 343.5890 0001713 80.5281 279.6343 15.52540170242363
GPS-0011
1 16129U 85 93 A 90 16.39138488 .00000008 00000-0 00000 0 0 3894
2 16129 63.8177 92.7365 0121618 149.7981 210.9682 2.00559125 31318
Meteor 3-1
1 16191U 85100 A 90 15.10738787 .00000043 00000-0 99999-4 0 8869
2 16191 82.5487 85.9255 0020870 127.9128 232.3863 13.16891115203418
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Meteor 2-13
1 16408U 85119 A 90 17.06913692 .00000226 00000-0 19318-3 0 5616
2 16408 82.5340 49.4891 0017949 61.6725 298.6238 13.84280456205146
Mir
1 16609U 86 17 A 90 17.17780684 .00077287 00000-0 98267-3 0 3453
2 16609 51.6211 9.9939 0007892 48.7236 311.4707 15.58651860224539
SPOT 1
1 16613U 86 19 A 90 16.72353177 -.00000367 00000-0 -16384-3 0 7342
2 16613 98.7174 93.3876 0000186 304.5177 55.5882 14.20012467 42436
Meteor 2-14
1 16735U 86 39 A 90 17.15296741 .00000295 00000-0 25609-3 0 3478
2 16735 82.5364 76.3631 0015341 127.4614 232.7933 13.84037278184057
Cosmos 1766
1 16881U 90 16.47842528 .00002257 00000-0 31788-3 0 8423
2 16881 82.5223 200.6220 0022989 122.2585 238.0858 14.76731329186759
EGP
1 16908U 86 61 A 90 11.22420779 -.00000013 00000-0 20972-3 0 1629
2 16908 50.0098 18.5337 0011684 156.2727 203.8648 12.44384282155319
FO-12
1 16909U 86 61 B 90 15.37738921 -.00000025 00000-0 99999-4 0 1776
2 16909 50.0168 6.0689 0011450 163.7287 196.3906 12.44403445155827
NOAA 10
1 16969U 86 73 A 90 15.54014284 .00000673 00000-0 31316-3 0 3298
2 16969 98.6160 46.8021 0013881 358.0454 2.0668 14.23413137172892
Meteor 2-15
1 17290U 87 1 A 90 16.96659778 .00000186 00000-0 15819-3 0 3231
2 17290 82.4665 342.2875 0014219 29.0593 331.1352 13.83839131153184
MOS-1
1 17527U 87 18 A 90 16.79149019 .00000283 00000-0 23654-3 0 3789
2 17527 99.1267 91.1866 0000936 100.6315 259.4964 13.94875402148154
GOES 7
1 17561U 87 22 A 90 11.99097568 -.00000042 00000-0 99999-4 0 3960
2 17561 0.0637 91.6281 0008039 258.8009 9.7349 1.00268161 3850
Kvant-1
1 17845U 87 30 A 90 16.72905726 -.00039374 00000-0 -47428-3 0 9690
2 17845 51.6225 12.2539 0003732 303.1973 57.2683 15.60258693160510
DMSP B5D2-3
1 18123U 87 53 A 90 17.04465954 .00000603 00000-0 33798-3 0 4607
2 18123 98.8180 209.6567 0015560 92.6009 267.6943 14.13822657133046
RS-10/11
1 18129U 87 54 A 90 16.92424741 .00000317 00000-0 33809-3 0 116
2 18129 82.9245 80.2904 0012034 171.9041 188.2332 13.72052810128703
Meteor 2-16
1 18312U 87 68 A 90 17.11675614 .00000219 00000-0 18868-3 0 3633
2 18312 82.5608 50.0371 0011662 322.6612 37.3727 13.83591028122093
Meteor 2-17
1 18820U 88 5 A 90 17.06193450 .00000321 00000-0 27775-3 0 1927
2 18820 82.5441 110.6007 0017768 32.2265 327.9978 13.84278690 99279
DMSP B5D2-4
1 18822U 88 6 A 90 17.20344257 .00000199 00000-0 99999-4 0 3731
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2 18822 98.6667 259.1899 0006741 356.1337 3.9742 14.21216775101377
AO-13
1 19216U 88 51 B 90 10.43708607 -.00000070 00000-0 99999-4 0 680
2 19216 57.0789 173.9344 6869964 218.8527 62.8820 2.09700807 12090
OKEAN 1
1 19274U 88 56 A 90 16.88298867 .00002324 00000-0 33211-3 0 6229
2 19274 82.5196 298.8782 0020257 256.3504 103.5487 14.76190179 82598
Meteor 3-2
1 19336U 88 64 A 90 16.38820678 .00000391 00000-0 99999-3 0 3531
2 19336 82.5494 24.8274 0018629 337.4971 22.5151 13.16876665 70971
NOAA 11
1 19531U 88 89 A 90 14.77197031 .00000603 00000-0 35356-3 0 1896
2 19531 98.9647 323.0845 0012157 0.5406 359.5802 14.11399517 67321
TDRS 2
1 19548U 88 91 B 90 12.16547070 .00000131 00000-0 99999-4 0 653
2 19548 0.0723 123.7770 0004161 114.1394 122.0160 1.00274990 3886
Cosmos 2001
1 19796U 89 11 A 90 17.15733759 -.00001015 00000-0 99999-3 0 3235
2 19796 62.9686 112.3261 7156016 319.8227 5.0536 2.00658773 6772
GPS BII-01
1 19802U 89 13 A 90 5.43014213 .00000016 00000-0 99999-4 0 642
2 19802 55.0777 203.8309 0061593 156.9692 203.3543 2.00561121 6486
Akebono
1 19822U 89 16 A 90 14.73879930 .00028990 00000-0 16535-2 0 3923
2 19822 75.1325 313.1791 4231444 318.7580 16.0002 7.02709843 22582
Meteor 2-18
1 19851U 89 18 A 90 17.06648738 .00000117 00000-0 99999-4 0 1405
2 19851 82.5207 348.8537 0016075 68.8286 291.4597 13.83916380 44664
TDRS 3
1 19883U 89 21 B 90 13.79998613 -.00000235 00000-0 99999-4 0 490
2 19883 0.0813 17.4424 0006666 250.6893 91.7847 1.00267179 2340
GPS BII-02
1 20061U 89 44 A 90 5.11529977 -.00000031 00000-0 00000 0 0 455
2 20061 54.6931 22.4655 0082137 171.4817 188.6997 2.00564230 4221
Nadezhda
1 20103U 89 50 A 90 6.09479772 .00000218 00000-0 22086-3 0 643
2 20103 82.9598 44.4865 0038512 127.4601 233.0062 13.73551156 25460
GPS BII-03
1 20185U 89 64 A 90 6.08245416 .00000016 00000-0 99999-4 0 366
2 20185 54.9405 204.6809 0026796 139.4407 220.8003 2.00567947 7442
Soyuz TM-8
1 20218U 89 71 A 90 12.05301583 .00098782 00000-0 11924-2 0 1259
2 20218 51.6208 35.7654 0002953 335.6994 24.2597 15.59942276 19947
Activnyi
1 20261U 89 80 A 90 11.85401631 .00024335 00000-0 77083-2 0 2194
2 20261 82.6009 327.7682 1260842 331.6908 22.0823 12.43060871 13166
Activnyi RB
1 20262U 89 80 C 90 10.88687854 .00002482 00000-0 78071-3 0 1096
2 20262 82.5988 328.3798 1262353 333.8450 20.2204 12.42875609 13044
Magion 2
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1 20281U 89 80 B 90 11.92801749 -.00017066 00000-0 -53939-2 0 2322
2 20281 82.5979 327.6990 1261585 331.5022 22.2202 12.43165839 13179
GPS BII-04
1 20302U 89360.34546224 -.00000030 10000-3 0 395
2 20302 54.7442 324.1045 0038357 306.7527 52.8901 2.00573713 1284
Meteor 3-3
1 20305U 89 86 A 90 9.07425730 .00000089 00000-0 21698-3 0 400
2 20305 82.5513 330.2217 0016510 10.4024 349.7437 13.15847069 10022
Cosmos 2049
1 20320U 89 88 A 89361.78807173 .00368920 70080-4 46525-3 0 957
2 20320 64.7745 105.4695 0018172 159.5803 200.6598 16.06893076 6486
COBE
1 20322U 89 89 A 90 10.08238423 .00005040 00000-0 33917-2 0 381
2 20322 99.0244 22.0550 0007317 83.5785 276.6182 14.00899201 7347
Cosmos 2050
1 20330U 89 91 A 89361.76168135 -.00000970 00000-0 31810-2 0 431
2 20330 63.0184 315.9270 7367361 316.6277 4.6966 2.00561905 698
Cosmos 2051
1 20334U 89 92 A 89361.86850778 .00047986 00000-0 78983-3 0 977
2 20334 64.9075 337.2229 0010373 276.6326 83.4145 15.52011863 5113
Kvant-2
1 20335U 89 93 A 90 12.05305991 .00061097 00000-0 74330-3 0 765
2 20335 51.6272 35.7832 0005854 136.5315 223.7552 15.59930568 7387
Molniya3-36
1 20338U 89 94 A 89361.99897702 .00000028 00000-0 -15032-2 0 416
2 20338 62.8475 163.4241 7350042 288.0661 9.5577 2.00598806 600
1989 094B
1 20339U 89 94 B 89360.43949299 -.00011078 00000-0 -28451 0 0 205
2 20339 62.8495 163.6576 7387000 288.0490 9.3117 1.96590183 556
1978 100AV
1 20347U 78100 AV 89360.94889631 .00044516 00000-0 13962-1 0 236
2 20347 82.5762 337.2199 1206985 4.8581 356.8656 12.53902035 9467
Cosmos 2052
1 20350U 89 95 A 90 10.05720713 .00725246 28344-4 29603-3 0 1060
2 20350 67.1355 144.2178 0111226 117.4422 243.7694 16.09621301 6516
Granat
1 20352U 89 96 A 89356.43128488 -.00000853 00000-0 99999-4 0 79
2 20352 52.4940 20.4620 9256063 287.8800 4.9580 0.24372632 67
1989 096B
1 20353U 89 96 B 89363.07065714 .00195181 77400-5 13353-2 0 811
2 20353 51.5443 285.7829 1146076 195.5426 160.7325 13.47665229 3669
1989 096C
1 20354U 89 96 C 89355.93838038 -.00000821 00000-0 99999-4 0 46
2 20354 52.4180 20.7130 9232878 287.7410 359.1260 0.24958007 64
1989 096D
1 20358U 90 4.82145879 0.00139266 58549-5 95388-3 0 670
2 20358 51.5401 261.0178 1139421 214.1555 138.0713 13.49164355 4575
GPS BII-05
1 20361U 90 4.11084330 0.00000016 10000-3 0 109
2 20361 54.9482 146.8378 0065519 43.8416 316.6546 2.00550076 438
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1989 097B
1 20362U 89 97 B 90 11.24572425 .00009925 00000-0 12418-2 0 352
2 20362 35.6485 332.5970 0331685 335.1153 23.3871 14.49785306 4423
1989 097C
1 20363U 90 11.48271584 0.00267323 74325-5 14861-2 0 413
2 20363 37.6015 121.8649 5985300 226.7072 64.2719 4.18339324 1271
Raduga 24
1 20367U 90 13.29792244 0.00000168 10000-3 0 348
2 20367 1.4473 263.8368 0005421 247.6782 112.8617 1.00261065 303
1989 098D
1 20370U 89 98 D 90 9.79300959 -.00000025 00000-0 99999-4 0 196
2 20370 1.4873 264.1145 0016037 28.0591 332.9297 0.97855577 257
Progress M2
1 20373U 90 16.72901987 -.00000337 -89861-6 0 368
2 20373 51.6197 12.2452 0004277 228.0850 132.2243 15.60287964 4411
Cosmos 2053
1 20389U 90 17.20912482 -.00066803 -37996-2 0 459
2 20389 73.5414 56.7358 0010395 201.0254 159.0110 15.13415516 3219
1989 100B
1 20390U 90 14.69540171 0.00002930 16647-3 0 251
2 20390 73.5448 62.1071 0009440 210.0325 150.0326 15.13491845 2835
Cosmos 2054
1 20391U 90 16.48748009 -.00000103 10000-3 0 439
2 20391 1.4353 274.1719 0017713 184.8046 175.5251 1.00270526 227
1989 101D
1 20394U 90 10.49235374 -.00000115 10000-3 0 100
2 20394 1.4671 274.9801 0011245 45.1602 315.8993 0.98248837 154
Skynet 4A
1 20401U 90 16.64864012 -.00000036 10000-3 0 112
2 20401 3.3936 303.8216 0080615 53.3684 310.3536 1.01409018 33
JCSAT
1 20402U 90 13.21612508 -.00000142 10000-3 0 112
2 20402 0.3183 261.3200 0028303 146.7896 312.1063 1.00261797 106
1990 001D
1 20404U 90 13.67644865 0.00002569 18655-2 0 112
2 20404 21.6484 280.2823 7207624 178.7320 185.4935 2.34453905 301
1990 001F
1 20406U 90 14.75098482 0.00006806 20133-2 0 91
2 20406 26.7357 273.9943 5864765 193.9630 137.8563 4.22024173 573
1990 002B
1 20410U 90 17.08062320 0.00000063 10000-3 0 44
2 20410 3.2676 321.5958 0123566 186.4105 175.2641 1.00271192 14
1990 002C
1 20411U 90 14.43229832 0.00009952 24059-2 0 59
2 20411 27.2052 129.4241 5240508 4.8976 358.6627 5.19964522 199
1983 070F
1 20412U 89365.73874852 -.00000368 10000-3 0 19
2 20412 67.4971 261.5083 6494076 270.8143 21.0044 2.04025373 1234
1983 020D
1 20413U 90 14.00000000 -.00000405 10000-3 0 22
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2 20413 47.2860 301.7870 8845447 7.9480 324.3400 0.24727963 21
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Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

433. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-21 02:50:33 UTC
From: wb2hbz@ka2qhd.UUCP
Message-ID: <97@ka2qhd.UUCP>
Source record: 14091

If we're really talking tax money here, maybe not!!!

73, Jim

434. Re: WANTED: TM-321 Mods

Newsgroup: rec.ham-radio
Date: 1990-01-21 04:39:49 UTC
From: rfc@briar.philips.com
Message-ID: <75205@philabs.Philips.Com>
Source record: 14083

from the files that I have:
(note: is the tm221 a 2M rig or a 220 rig? The first file makes it seem a 2M rig. So, this info may be defective!)

copied from packet:
From: N2EYR@WA2SNA
To: ALL@KD6TH
Subject: TM221.MOD

The following is a simple modification for the TM-221 rig:

1- Locate the control unit board (X53-3040-XX)
located behind the front panel.

2- Right below the channel select rotary switch and opposite the M.IN
Sw. you will find R24 and R25.(foil side)

3- Remove R25 for 142.00 thru 151.995 Mhz RX TX

4- Move R25 to space for R24 for 138.00 thru 154.000 Mhz TX RX
(Range will vary slightly from set to set)

Info provided by N2EYR @ WA2SNA-1 / Eddy Salvador
Note: I haven't tried this, proceed at your own risk! WA2ISE
cmd:
copied from packet:
Msg# TSP Size #Rd Date/Time MsgID From To
1740 BF 824 0 0827/0533 4206_WA2SNA WM8J ALL@ALLBBS
Sb: TM231/WEAK MIC AUDIO FIX

A QUICK AND DIRTY FIX FOR THE KNWD TM231A LOW MIC OUTPUT TILL (IF) KNWD COMES OUT WITH A FIX IS TO BYPASS R 63 (3.3K). R 63 AND R64 FORM A VOLTAGE DIVIDER AT THE INPUT TO THE MIC AMP. R63 IS ON THE BOTTOM OF THE RIG. WITH THE BOTTOM COVER OFF AND THE FRONT OF THE RIG FACING YOU, LOCATE THE MIC AMP BOARD 3610 WHICH STANDS VERTICALLY OFF THE MOTHER BOARD. FOLLOW THE 3RD PIN FROM THE LEFT TO R63. A JUMPER HERE GIVES THE TX AUDIO A NICE BOOST. BE SURE TO READJUST THE DTMF OUTPUT IN THE MIC (THE ONLY POT IN THE MIC). 73 AND GOOD LUCK. GREG.

1951z, 473 msgs, #1786 last @KD6TH-4 MailBox>

TM321A Mars/cap mod
from WM8J msgID 2846_wa2rkn

To give the TM321 tx coverage from (142 0r 143, don't remember which) to 151.995 mhz, remove the top cover. Look for a loop of wire comming from the display area (the board with the CPU) and going right back. Cutting this wire and then doing a CPU reset is all you need to do. Takes about 2 minutes.

Be sure that the ends of the wire don't short to something.

73s

Note: I haven't tried this, proceed at your own risk! WA2ISE

435. Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-21 04:58:11 UTC
From: liebchen@cs.utah.edu
Message-ID: <1990Jan20.215811.18908@hellgate.utah.edu>
Source record: 14084
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Does anyone know about the frequencies of online stock-market quote transmissions in the air. They're supposed to transmit on FM, but in order to cover some appreciable range I wouldn't expect them to go higher than 60MHz. The other question would be the signal modulation: I was wondering, if a 300/2400 modem with FSK-decoding might be able to pick up a usable signal from the audio-output of a tuned in scanner.

Armin.

Armin Liebchen Dept. of Computer Science MEB-4160
University of Utah
.^. Salt Lake City, UT 84112
(v) liebchen@cs.utah.edu
~
---

436. ts430 mods

Newsgroup: rec.ham-radio
Date: 1990-01-21 05:32:19 UTC
From: rfc@briar.philips.com
Message-ID: <75209@philabs.Philips.Com>
Source record: 14085

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
15381 BF 1335 1 0116/0307 1680_KA2MSL KA2MSL ALL@NYNET
Sb: TS 430 MODS

TS 430 TRANSMIT AUDIO MOD
Add more treble to your TS430S by removing c96 (.015 MFD) on the if unit board. The removal of C96 adds about 3DB of precense to your transmit audio..
.....From Kenwood Net...

INADEQUATE VOX GAIN
Simply increase your VOX gain in your 430 by changing R23 (located next to the vox gain control) from a 10K 1/2 watt resistor to a 3.3 K 1/2 watt resistor.

VARIABLE MICROPHONE GAIN IN FM MODE Remove the pins from the plastic housing of plug 19 (located next to the VOX gain control) and carefully insert them with pins 3 & 4 of plug 5 on the if unit. Mt to the VOX gain control) and carefully insert them with pins _ & 4 of plug 5 on the if unit. Make sure the shielded leads correspond with each other. This will also give you the ability to use your speech processor on FM.

ALL INFO COURTESY OF THE
KENWOOD NET........

Note: I haven't tried or verified any of this, proceed at your own risk.
WA2ISE

437. Re: Insurance coverage

Newsgroup: rec.ham-radio
Date: 1990-01-21 05:44:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9001211119.AA19441@ucbvax.Berkeley.EDU>
Source record: 14086

> and they hit the whole alley! The broken into over 20 cars in a short

I know the feeling...

> period of time. But anyways, I called to make a claim, and I got called
> back stating that they can not cover my equipment! Why, because of a
> lousy claus about something about external radio equipment left on/in
> the car. Well, I can see that it might not cover CB equipment, because
> of the problems with that stuff, but Amatuer Radio equipment is MUCH
> different in my eyes! It's used for volunteer work, of which I do a lot
> of! It helps people if they are stranded! A serious accident can be
> reported that much earlier, if you are equiped. I think this claus is
> wrong! I am now fighting it, but will most likely fail. I can not under-

I hate to add to your misery, but I don't see much
justification for your fight. Your insurance policy is a
contract between you and your insurance company, and is
undoubtedly very specific about what losses are not covered
(all policies are). The time to read your policy is when
you obtain it, not when you need to make a claim.

Virtually all auto insurance policies today exclude losses
of scanners, two-way radios (CB, ham, or commerical) and
after-market sterios. The basic radio is usually excluded.
The reason is simply the extremely high losses on these
items, virtually everywhere in the country. Renters /
Homeowners policies vary, but I believe most exclude any of
the above which is permanently installed and/or runs off the
auto's batery (mine does). A Renter's may cover your
handheld if taken from your car, but I'd be prepared to
argue about what "runs off the battery" means -- does the
item have a 12V jack?

Another issue to be aware of is whether your policy pays
replacement cost, or purchase cost minus depriciation. If
it is replacement cost, it will be stated explicitly, and
will cost more. For example, if you bought a radio a few
years back for $500, it might cost $700 to repurchase today.
But if the insurance co decides that you had the radio for
half or 2/3 of its useful life, you will receive $250 or
$166 instead of the $700 you might be expecting. Know your
policy! Buy what you need, not what the insurance salesman
happens to be selling.

You can get coverage of amateur radio and similar gear by
either getting a rider (supplimental insurance) on an

existing policy (obviously for an incleased premium), or by getting insurance through the ARRL's program. The ARRL's insurance is quite attractive -- $1.25/yr per $100 of replacement cost coverage, $20 minimum. (Remember that you are trying to cover something which is unfortunately a prime theft target.) You state the replacement cost. You fill our a minimal form to obtain coverage, and send a check for the first year. You have to be an ARRL member, $20/yr, which also gets you QST. I understand they are very good about paying with little hassle. One issue to be aware of is that they require that you insure ALL your equiptment. Presumably, this is to average the risk between high risk mobile eqpt and much lower risk home eqpt, hence providing a more attractive cost/$100. They have no way of checking, but if you insure only your mobile station and then make a claim, they might question it. They do cover lightening damage, for those of you in areas where that's a consideration. They will optionally cover computers, another item which your Renter's or Homeowner's may short you on (look for a low maximum loss coverage on "office equitment".)

I'd like to hear comments from anyone who's had experience with ARRL claim payments -- were you happy? Also, my impression is that their rate is very competitive -- much better than I could get on a rider; has anyone found the opposite?

438. Microsat launch scrubbed

Newsgroup: rec.ham-radio
Date: 1990-01-21 06:39:40 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19230@bellcore.bellcore.com>
Source record: 14087

Saturday night's Microsat launch was scrubbed because of bad weather. A thunderstorm moved into the launch area and did not move out until after the 10 minute launch window closed.

The next attempt is scheduled for exactly 24 hours later, at 01:35 UTC Monday (Sunday evening US time).

The Arianespace TV coverage for Sunday evening will be on Spacenet 1, transponder 4. This is a change from what was used Saturday evening.

Phil

439. Re: New House Wiring

Newsgroup: rec.ham-radio
Date: 1990-01-21 07:36:41 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490005@hprmokg.HP.COM>
Source record: 14088

I had 1" conduit installed from my shack to the attic for fishing
wires in to the attic.

On my next house, I will have 1 1/2" or 2" conduit installed from the
shack to a roof vent so I can pull later-added cables from the shack to the
roof without having to battle the attic temperatures/crud ever again.

A varmint seal and an "inverted J" should keep out unwanted critters/moisture.

Barry M. Fowler Hewlett Packard Company

Networked Computer Manufacturing Operation - Roseville, California

e-mail: barry@hprmokg.rose.hp.com
Verbal: Hey Barry!
R.F. : WB6JZL

440. Re: Getting the time over the phone from NBS

Newsgroup: rec.ham-radio
Date: 1990-01-21 08:30:54 UTC
From: grr@cbmvax.commodore.com
Message-ID: <9411@cbmvax.commodore.com>
Source record: 14090
Cross-posted to: rec.ham-radio,sci.electronics

In article <810@cupcake.sal.wisc.edu> jwp@cupcake.UUCP (Jeffrey W Percival) writes:
>
> I just finished building this kit, and the clock is very neat. But imagine
> my surprise when I plug it in and find the digits in the display are all
> messed up! After a bit of debugging, imagine my astonishment in finding
> an error in the printed circuit board layout!!! Two of the digit anodes
> were shorted together, not by any impurity or solder bridge, but by
> a neat, straight, designed-in board trace.

Mine didn't have this feature, but it was maybe 2-3 years ago. Give them
a call and ask to talk to their QA department and let them know about it.

The only problem I had was I missed the part about it taking 5-10 minutes
before it would display any time. I though I needed a better antenna to
get any action and ended up setting it aside for a few months...

--
George Robbins - now working for, uucp: {uunet|pyramid|rutgers}!cbmvax!grr
but no way officially representing arpa: cbmvax!grr@uunet.uu.net
Commodore, Engineering Department fone: 215-431-9255 (only by moonlite)

441. Re: Will WWV/WWVH always be here?

Newsgroup: rec.ham-radio
Date: 1990-01-21 08:31:23 UTC
From: w2vy@ka2qhd.UUCP
Message-ID: <98@ka2qhd.UUCP>
Source record: 14092

Yes the audio on the Mic jack to too low for most tnc's, if you look it comes right off the DISC. I usually just run a wire back to the EXT SPK jack... besides it then kills the local audio as well...

I wonder if the TM-x31's have enough audio on the mic jack...
We have a bunch of them that have been in operation for 1-2 years at tower sites, and so far the only thing that has happened is that the pannel lights have burned out... they have moved lots of data...

ps. they are running ROSE X.25 Packet Switches, not digis...

442. Re: Is N6NKF (Franklin Antonio) on this net?

Newsgroup: rec.ham-radio
Date: 1990-01-21 11:54:25 UTC
From: fpa@qualcom.qualcomm.com
Message-ID: <1293@qualcom.qualcomm.com>
Source record: 14094

In article <9001201929.AA12565@nips.ssesco.com> elmquist@NIPS.SSESCO.COM writes:
>I have a small bug (I think) to report in Instant Track 1.0...
>If anyone knows Franklin's email address...please forward it.

No! A bug? Yes, I'm on internet. You can send InstantTrack questions
to me at antonio@drzeus.qualcomm.com .

443. LUSAT

Newsgroup: rec.ham-radio
Date: 1990-01-21 13:47:54 UTC
From: avip@iilcad.intel.COM
Message-ID: <9001211347.AA17433@iilcad>
Source record: 14095

I would like to get in touch with hams involved on the developement/launching
of the LU-SAT.

I can be reached (english/spanish as well...) at:

avip%iil@sc.intel.com

Thanks and regards,

Avi Plotnik - 4X6LP

444. Re: ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-21 14:29:52 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <3483@kd4nc.UUCP>
Source record: 14096

In article <1260021@hpmwtlb.HP.COM> timb@hpmwtd.HP.COM (Tim Bagwell) writes:
>/ hpmwtlb:rec.ham-radio / look@uicsrd.csrd.uiuc.edu / 2:38 am Jan 13, 1990 /
>
>I am building a all home brew ATV station. I just completed the oscillator
>chain and have about 70mw on 439.25 . I am now looking to build the power
>amp and video modulator. From what I have seen and read elsewhere it would
>appear there are two different ways of adding the modulation.
>
>1) Modulate the low power stage and follow it with a linear amp.
>
>2) Feed the low power stage to a modulated class C amp.
>
>Anyone care to comment on the methode they would choose and why?
>Thanks,
>
>Steve Look ka9szw
>look@uicsrd.csrd.uiuc.edu
>----------

Current commercial practice is to insert the modulation at a low level
(milliwatt range) just after the rf exciter. A diode ring modulator is
generally used followed by a SAW filter for vestigal sideband filtering
and carrier is reinserted after the SAW filter. Remember that TV transmits
the full upper sideband+carrier and the first .2Mhz of the lower sideband.
This technique allows bandwidth conservation while allowing simple
envelope detectors to reliably recover sync.

High level modulators suffer from incidental phase modulation which is
very difficult to tame and the need for large water cooled filterplexers
to remove the lower sideband. Also it is much more difficult to get
good linearity and chroma to luminance delay characteristics with a
high level modulator. A box called a predistorter is needed. A predistorter
shapes the video waveform to compensate for the transfer characteristics
of the high level modulator and modulated rf stage. These boxes are both
difficult to build and tempermental to adjust.

If a cruddy mono bandwidth hog is your goal, use high level modulation
without a filterplexer as is done in certain commercially made equipment
sold for amateur tv. On the other hand, if you want high quality color
transmission using socially exceptable bandwidth, use low level modulation
with good filtering and a good linear amp.

73 Gary KE4ZV
WXIA-TV Atlanta

445. Re: Insurance coverage

Newsgroup: rec.ham-radio
Date: 1990-01-21 14:59:12 UTC
From: tim@lakesys.lakesys.com
Message-ID: <1595@lakesys.lakesys.com>
Source record: 14097

In article <9001211119.AA19441@ucbvax.Berkeley.EDU> CSMSCST@OAC.UCLA.EDU (Chris Thomas) writes:
>I hate to add to your misery, but I don't see much
>justification for your fight. Your insurance policy is a
>contract between you and your insurance company, and is
>undoubtedly very specific about what losses are not covered
>(all policies are). The time to read your policy is when
>you obtain it, not when you need to make a claim.
>
I am a little happier to report: Comprehensive Insurance on your car (theft, fire damage, acts of God, etc) should cover the expense of the equipment lost!

I talked to an independent insurance agent friend of mine, and he handles over 60 insurance companies, and of these 60, only 3 would NOT cover it in the Comprehesive part. But then they STATE OUTRIGHT that it is not covered. He used to work with the insurance company I am with, and he states that the reason the company is trying to push this through the renters, is so that they can say no! They get bigger bonuses for saying no! But they can't say no to the Comprehensive! But, I was unaware of this at the time. I have a $100 deductable on renters (with REPLACEMENT COST - INCLUDING COST OF LIVING INCREASES (yes I finally read it!)), whereas I have a $0.00 deductable on the Comprehensive! They don't want to send me the $507.93, they will send me the $407.93 a bit easier!!!! So, I am gonna push them a bit!

Also: NOTICE: Anything "STORED" in your vehicle (not used) IS COVERED! All my stuff was either in the back bed (station wagon), or stored in a container in the front (a seperate container I keep for putting items in while I am not using them.) The reason the antennas aren't put in the storage area, is they are to large to fit. So, I have them on that technicallity also.

Also, I told them my equipment is not run off the battery (antennas run off the radio, along with the battery pack I had), so a lot of this is all technicallities that you can work around! So, keep your ears/eyes out on how to go around this, and get thing done right!

>I'd like to hear comments from anyone who's had experience
>with ARRL claim payments -- were you happy? Also, my
>impression is that their rate is very competitive -- much
>better than I could get on a rider; has anyone found the
>opposite?

I also would like to know more about this! So, anyone, please!

--
Timothy Winslow/N9ICD Philosophy in life:
tim@lakesys.lakesys.com Have fun in

or: uunet!marque!lakesys!tim Whatever
or: csd4.csd.uwm.edu!lakesys.lakesys.com!tim you do!!

446. Half wave verticals

Newsgroup: rec.ham-radio
Date: 1990-01-21 16:20:49 UTC
From: avip@iilcad.intel.COM
Message-ID: <9001211620.AA22258@iilcad>
Source record: 14101

With the 10m band really "hot" these days and due to space/budget limitations, I'd like to install a half wave vertical in my QTH. I'm consider three alternatives for feeding the vertical, and for each them of I have some questions and doubts I'd like to ask for some advice on:

1)A coaxial half-wave.

This antenna seems to be quite popular on 2m and above, although I've seen some CB models too. Basically its a half wave dipole built out of aluminum tubing with the coax line passing through the lower section and connecting in the middle of the dipole.

I actually built one, but I'm not so convinced with the results. First, the feedpoint impedance is expected to be closer to 75 ohm rather than 50, so SWR is expected to be 1.4-1.5 at best. I measured 1.7/1.8 at resonance (lower SWR frequency), enough to get the SWR limiter of my TS130S starting to limiting the output power. Of course I can use my antenna tuner and get a 1:1 SWR, but I would prefer a better "natural" match and avoid tuner losses and bandwidth compromises.

Questions:
1.1)Is it correct to connect the coax to the INNER face of the two dipole halves? I use aluminum tubing, 3/4" OD, split in the middle, with a PVC jacket covering the feed point +/- 3 feet above and below. This makes the dipole a single mechanical entity. The coax is then secured with flat-head screws and nuts to the inner face of each dipole half, ground braid to the lower half, central conductor to the upper half. The inner face connection allowed me to keep the PVC jacket unbroken).

Since the antenna seems to be too "silent" when compared with my half wave horizontal dipole, I started to fear that due to skin effect, the inner face of the tubing could actually be "shielded" by the outer face, much in the fashion of antenna currents induced on the outer face of a coax line feeding a balanced load.

1.2)An article on HAM RADIO about coax verticals pointed that the optimum height for a coax vertical is 1/2 wavelength, since then the antenna and its image are 1 full wavelength apart. How much is performance decreased by having the lower end of the antenna only a couple of feet above the roof, that is, the feedpoint slightly above 1/4 wavelength from the roof? (The article points out how much gain is ADDED by rising the feedpoint 1/2 wavelength, but it's not clear if I get LOSSES if the antenna is too low. I mean gain or loss referring a 1/4 wave vertical with an ideal ground system).

2)A 1/2 wave vertical, voltage fed with a tapped parallel tuned circuit at the bottom.

This method of feeding is recommended by Bill Orr in a past number of "Ham Radio". He describes a kind of coaxial tuned circuit, with a sort of "gamma match" for getting the low impedance tap for the coax. My question is:
To what extent is this antenna "ground independent"? I assume you need an RF low impedance point to connect the coax braid and the lower end of the tapped parallel tuned circuit. Does it means you need 1/4 wave radials? There are no radials nor other form of grounding in Bill's design? What am I missing?

3)A J-pole 1/2 wave vertical.

J-pole verticals are quite popular at VHF, and seems to me mechanically feasible at 10 meters. My questions are:

Is the current distribution in the J pole antenna different that in a coax or voltage fed vertical? Since the J-pole's lower end is at low Z, I expect to have the current maxima at both extremes, and the voltage maximum at the middle. Is that correct or am I missing something? If my assumption is correct, how do the elevation directivity and gain of this antenna compare with the other verticals I mentioned above? How sensitive is the J-Pole to height? (If you have a current maximum at the top, and the fed point is at ground level, then this current maximum and its image are 1 full wavelength apart, which is what we are looking for, right?)

I will very appreciate any comments, and thanks in advance.

Avi Plotnik - 4X6LP < avip%iil@sc.intel.com >

447. Manual for old Collins Radio

Newsgroup: rec.ham-radio
Date: 1990-01-21 16:21:38 UTC
From: rusty@EUR.DCA.MIL
Message-ID: <9001220804.AA20538@ucbvax.Berkeley.EDU>
Source record: 14102

I am looking for a tech or operators manual for a Collins Radio
R540/ARN14C. It is an "aircraft band" receiver covering VHF 108 - 136 Mhz.

Can anyone help?

Rusty, W3US/DL rusty@eur.dca.mil

448. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-21 16:45:51 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <103@ka2qhd.UUCP>
Source record: 14103
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I believe Stock-Market Quote Transmissions are broadcast via FM broadcast station SCA subcarriers. The two popular SCA frequencies currently in use are 67 KHz and 92 KHz, and frequency modulation (+/- 7.5 KHz deviation) is used.

The digital information is transmitted using 9600 bps PSK (I think).
Regency Electronics produces commercial "Quo-Trek" (?) receivers specifically for receiving these signals, demodulating them, and providing some sort of visual output of stock prices.

And all that (and MORE) information is safely tucked away in your FM radio!

...John...

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

449. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-21 17:39:24 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Jan21.173924.21135@Neon.Stanford.EDU>
Source record: 14104
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jan20.215811.18908@hellgate.utah.edu> liebchen@cs.utah.edu (Armin Liebchen) writes:
>Does anyone know about the frequencies of online stock-market quote
>transmissions in the air....

In my area, Stock Quotations are sent as 4800 baud FSK data on an SCA subcarrier of a regular FM station. You will need to build an SCA detector, which in turn needs access to a wide-band (before de-emphasis) output from your HiFi FM tuner. [Alternate method: listen to the IF with a general coverage receiver. You can hear the SCA carriers at 10.7 + 62 KHz, +73 KHz, etc. I don't know exactly what SCA subcarrier frequency your station will use.]

>I was wondering, if a 300/2400 modem with FSK-decoding might be able
>to pick up a usable signal from the audio-output of a tuned in
>scanner.

No. The signal format is entirely different.
Also, the Stock Quotes are NOT transmitted in plain text here. You might need to figure out the coding scheme.

Marc Kaufman (kaufman@Neon.stanford.edu)

450. Re: 10 meter pirates (was = Re: AM oper

Newsgroup: rec.ham-radio
Date: 1990-01-21 18:19:28 UTC
From: jack@swlabs.uucp
Message-ID: <1990Jan21.181928.215@swlabs.uucp>
Source record: 14105

In article <30500359@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>If that tactic doesn't work, then the NEXT step after that is to (after a
>short warning period) refuse to buy ANYTHING from ANY dealer that even
>CARRIES the brands that make that equipment. Thus you would be threatening
>to hurt (financially) even those who helping the bad companies make money.

Does this include Amateur Electronic Supply? I notice that their catalog
lists a Hustler RM-11S. This is a 2 kw PEP resonator which is intended
for operation on 11 meters. I can't think of a legitimate purpose for this,
at least in this country. [They also list a 400 Watt one that I could
imagine using if I _needed_ 11 meter coverage.]

Of course, most CBers would think that it was not applicable, since they
don't put out PEP Watts. :-)

-Jack
--
Jack Bonn, KA1SMW, <> Software Labs, Ltd, Box 451, Easton CT 06612
uunet!swlabs!jack (UUCP) jack%swlabs.uucp@uunet.uu.net (INTERNET)

451. Re: W1AW

Newsgroup: rec.ham-radio
Date: 1990-01-21 18:54:38 UTC
From: tad@ssc.UUCP
Message-ID: <394@ssc.UUCP>
Source record: 14106

Perry Scott suggested restricting W1AW's digital mode bulletin transmissions
to "send RTTY, with local converters to 2mtr packet".

I assume he wants to restrict it to just Baudot only.

I am one of the packet OBS stations who gets the bulletins from W1AW and
puts them out on the packet network. There are problems with restricting
it to Baudot. When I started doing this, all I had was a C64 with
various AEA components. The bulletins come out during the day while I
am at work, so I need automatic means to receive them. I started using
my C64 on AMTOR FEC, because of the error correction and the fact that
noise between transmissions would not be copied to the small buffer
in my computer. This worked pretty well.

Now I am using a second computer, an AT clone with a PK232. The 232
has a squelch circuit, so I can copy the Baudot bulletins, and the
hard drive on the AT has plenty of room to copy noise all day. Now
the C64 serves as a backup copy.

The times that this really becomes useful is on Tuesday afternoons
(3:30pm local Seattle time, 2330 UTC) when they send the satellite
Keplerian elements. AMSAT sat users use feed this data into their
tracking programs, and it HAS to be right! So having the redundant
capability really helps in de-trashing these bulletins. Also for
other bulletins there are the times when someone is tuning up
on top of part of the Baudot transmission, but are gone by the time
that the FEC is transmitted. The ASCII bulletins are nice for when
I am here, because they are in mixed case, which looks nice on packet.

A few times I have received bulletins so trashed that I have tuned
into the CW bulletin to fill in the blanks!

73,
Tad Cook
KT7H @ N7HFZ.WA.USA.NA
tad@ssc.UUCP

452. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-21 22:02:02 UTC
From: rfc@briar.philips.com
Message-ID: <75299@philabs.Philips.Com>
Source record: 14107
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I suspect that some stock-market quote services use SCA subcarriers on broadcast FM radio stations. These subcarriers use an FMed carrier at 67khz, which is added to the main program audio of the FM station, and this is then fed to the main FM excitor of the station. I guess you could try building a SCA demodulator, and connecting the output to a modem, or TNC? Being a pay service, it's probably scrambled.

73 de WA2ISE

453. Re: Insurance coverage

Newsgroup: rec.ham-radio
Date: 1990-01-21 23:12:39 UTC
From: tad@ssc.UUCP
Message-ID: <395@ssc.UUCP>
Source record: 14108

N9ICD posted something about comprehensive auto insurance covering stolen radios STORED in the car.

I recently was told by my agent that I could not claim a loss for my IC2AT, HR2510, AEA keyer, paddle and VHF wattmeter stored under the seats of my car. I had comprehensive insurance. They said that if I had it mounted in the car, and had paid for having it covered, then I would have a claim. They told me to look into renter's household insurance, which I don't have. I wish I had the ARRL insurance.

Should I have pursued this further?

73,
Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

454. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-22 00:07:56 UTC
From: markz@ssc.UUCP
Message-ID: <397@ssc.UUCP>
Source record: 14109
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jan20.215811.18908@hellgate.utah.edu>, liebchen@cs.utah.edu (Armin Liebchen) writes:
> Does anyone know about the frequencies of online stock-market quote
> transmissions in the air. They're supposed to transmit on FM, but in
> order to cover some appreciable range I wouldn't expect them to go
> higher than 60MHz. The other question would be the signal modulation:
> I was wondering, if a 300/2400 modem with FSK-decoding might be able
> to pick up a usable signal from the audio-output of a tuned in
> scanner.

They are sent as a SCA subcarrier on an FM broadcast station. 88-108 Mhz.
Since it's a subscription system, there is probably some level of protection
in the form of custom modulation or encipherment.

My favorite method of listening to SCA signals is to take the cover off an
FM tuner, hook my Heathkit VLF converter into the input of the multiplex
stereo decoder chip, and tune around on the receiver fed by the VLF converter.
All sorts of stuff is out there, including some digital signals. This is in
the range of 57 to 95 Khz, for each FM station.

Warning, the #$%^& Electronics Communications Privacy Act has some restrictions
on listening to SCA signals.

markz@ssc.uucp

455. Best Satellite Dish

Newsgroup: rec.ham-radio
Date: 1990-01-22 00:14:24 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <1982@ultb.isc.rit.edu>
Source record: 14110

I am looking for suggestions/opinions/comments on satellite dishes, I have a small, 4' one but I want to upgrade my complete system, I am looking for people comments on dishes that they like or don't like, and any other info.

Also I heard something about flat TVRO antennas, does anyone know anything about theses?

Lance

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

456. Re: Radar-detector detector

Newsgroup: rec.ham-radio
Date: 1990-01-22 01:49:13 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500362@ux1.cso.uiuc.edu>
Source record: 14111

The only type acceptance rules in Part 97 apply to LINEAR AMPLIFIERS.
There are some Part 15 rules that might apply regarding RFI radiation
from equipment. Those rules apply to commercially marketed equipment,
and do not restrict how the equipment may be used.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

457. Re: More on Furren QSL Envelopes

Newsgroup: rec.ham-radio
Date: 1990-01-22 01:49:18 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500363@ux1.cso.uiuc.edu>
Source record: 14112

I disagree with the policy of sending program guides. While VOA may not be oriented to American listeners, listening to VOA by Americans is still an important enough concept; though of us who are interested in understanding the foreign perspective of America need to listen to VOA among other things. A program guide is essential to this. I will call them up this week and ask for a program guide, offering to pay for legitimate costs. If they refuse, I will invoke "Freedom of Information"!

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

458. Re: ATV spectrum usage

Newsgroup: rec.ham-radio
Date: 1990-01-22 01:49:22 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500364@ux1.cso.uiuc.edu>
Source record: 14113

Unfortunately, Illinois has NO spectrum planning group. I've been thinking about trying to start one. It would be nice if the Illinois Repeater Association could do this, but they cannot fulfill the function as long as their constitution restricts membership to repeater owners. While I personally feel a repeater coordination group should consist of NON-owners as well as owners of repeaters, traditionally only repeater owners have shown the interest level. As to spectrum planning, however, the mere diversity of issues that must be addressed cannot allow for one group to dictate the matter.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

459. * SpaceNews 22-Jan-90 *

Newsgroup: rec.ham-radio
Date: 1990-01-22 03:41:15 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <102@ka2qhd.UUCP>
Source record: 14114

Bulletin ID: SPC00122

=========
SpaceNews
=========

MONDAY JANUARY 22, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly
around the world. It is available for UNLIMITED distribution.

* SAREX NEWS *
==============
1990 is going to be a vintage year for amateur packet radio in space.
This month will see the launch of the four AMSAT Microsats plus two
UoSATs.

In late April one of our MDC area astronauts, Ron Parise, WA4SIR will
fly on the Shuttle Columbia in mission STS-35. Ron will be carrying
2-meter packet radio hardware with him -- a modified HK-21 TNC, a Motorola
hand-held transciever, a window-mounted antenna and a Grid lap-top computer.

The TNC will be carrying special software -- an updated version of the
SAREX "Robot" that would have flown in 1986 had the Challenger
disaster not occured.

The "Robot" software is an automatic QSO machine. After connecting to the
robot, you are given a serial number, and as soon as you acknowledge the
number, the Robot disconnects and enters the QSO into the log. As many as nine
simultaneous QSOs can be going on. If the robot hears you, whether or not
you make a full two-way QSO, that information is entered into a second log.

You and the world know immediately if you had a QSO or were heard, because
periodically the robot sends out beacons. A beacon addressed to QSL> lists
the two-way QSO's and the serial number, and a beacon adddressed to QRZ>
lists the stations heard.

In addition, the robot has an additional beacon (called the Metabeacon)
addressed to QST> which has up to 7 frames of up to 255 characters/frame
(i.e. about 1.7 kbytes). This is intended to serve as a longer general
information beacon into which Ron can put mission status information.

N2WX and I have worked hard to get a "beta" version of the flight TNC
software working, and we are ready to test it. The SAREX goodies are now
operating from here under the call W3IWI-5 (alias SAREX) on 145.050 MHz
using the same radio as the 145.05 W3IWI BBS port. The QST, QSL and QRZ
beacons fire every 5 minutes.

Please give the software a shot. Try to crash it! It is a lot better to make it die now than in flight!

73, Tom W3IWI

* VOYAGER NEWS *
==========
Voyager Mission Status Report
January 16, 1990

Voyager 1:

The spacecraft collected routine cruise science data throughout this period. A TLC test was performed on 01Jan90 and the X-band TWT was switched to the high-power mode on 02Jan. A high-rate UVS observation of omicron Andromedae on 03Jan and playback of Uranus photometric images on 04Jan were lost due to the continuing non-availability of DSS 63 (failed elevation bearing).

On 02Jan, the Bay 1 Heater was turned off and the X-Band TWT commanded to the high power mode in preparation for Playback #6.

Activities for this period included the collection on low-rate UVS data from the source omicron Andromedae, and low-rate F&P&W data throughout the week.

Voyager 2:

Routine cruise science data were collected throughout this period, although substantial amounts were lost or severely degraded due to the spacecraft's passage through superior conjunction. The minimum Sun-Earth-Probe angle (0.75 degrees) was attained on 02Jan90.

The collection of low-rate F&P&W data continued throughout this reporting period and two frames of PWS were recorded, one each on 21Dec89 and 27Dec89, for later playback. In addition, the scan-platform was slewed to the target plate on 15Dec89 and the UVS read-out mode was inhibited through 21Dec89. On 21Dec89 the read-out mode was enabled for a successful readout. Shortly thereafter, the read-out was inhibited again through 27Dec89 at which time the read-out was enabled for a second successful read-out.

The Scan Platform was pointed to a UVS dark sky position. Data were of poor quality from 01Jan through 03Jan. This was not unexpected, due to the low SEP angle of less than 2 degrees. There was a PRA POR on 04Jan90.

[From Ron Baalke - Jet Propulsion Lab - Pasadena, California]

* MUSES-A LAUNCH *
==========
On 16-Jan90, NASDA postponed the launch of MOS-1b until February 7, due to a needed replacement of an electronic device used to control the launcher's second stage.

[From: Yoshiro Yamada of the Yokohama Science Center, Japan]

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any
of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

460. Microsats in orbit!

Newsgroup: rec.ham-radio
Date: 1990-01-22 04:35:44 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19248@bellcore.bellcore.com>
Source record: 14115

The launch went off tonight as planned, and everything was on the money.
Successful separation of all seven payloads was confirmed. On the first
orbit, the ground station in Argentina successfully commanded on
the 437.125 MHz CW beacon on LUSAT; I heard it a few minutes later when
the spacecraft came above my horizon. At that time N4HY (also in New Jersey)
attempted to command on the main beacons but without success. Chances are
that the problem is on the ground, not on the satellites, so we're not
too worried. Other ground stations will have their turns on the next few
orbits.

Here's an initial element set derived from tracking during the first orbit:

Satellite: spot-2
Epoch time: 90022.07785880
Mon Jan 22 01:52:07.0 1990 UTC
Element set: postlaunch
Inclination: 98.7300 deg
RA of node: 97.9558 deg
Eccentricity: 0.0013000
Arg of perigee: 93.9000 deg
Mean anomaly: 302.3100 deg
Mean motion: 14.25471380 rev/day
Decay rate: 1e-05 rev/day^2
Epoch rev: 1
Semi major axis: 7182.197 km
Anom period: 101.019215 min
Apogee: 834.185 km
Perigee: 815.511 km
Ref perigee: 4404.08910070
Mon Jan 22 02:08:18.300 1990 UTC
Beacon: 437.1250 MHz

461. Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-01-22 06:50:50 UTC
From: lawrence@smcnet.UUCP
Message-ID: <533@smcnet.UUCP>
Source record: 14116

Does anybody have a sugesstion for a repeater controller that they have used in construction of a system. Our group currently has a limited budget of around $1000 or so to spend on a controller/autopatch, however if there is a suggestion for an exceptionaly good unit, we might dig a little deeper and spring for it.

Thanks.

Lawrence Roney KC6HQR
Mail: uunet!ucla-cs!smcnet!lawrence

462. Pure LO Signals and Mixers

Newsgroup: rec.ham-radio
Date: 1990-01-22 06:57:09 UTC
From: FTPAM1@ALASKA.BITNET
Message-ID: <9001220805.AA20616@ucbvax.Berkeley.EDU>
Source record: 14117

> I believe that double-balanced hot-carrier-diode mixers are often
>followed by a stage of amplification to allow proper termination of
>the mixer. If these mixers are not terminated in a resistive load of
>near 50 ohms at all frequencies, their strong signal handling
>characteristics can be significantly compromised. It is not hard to
>build a post mixer amplifier that can handle larger signal levels than
>the mixer is capable of delivering without distortion.

Mini-Circuits sells a hybrid mixer module called the UNCL that contains a doubly-balanced diode mixer and low noise post amp in the same package. The post amp provides an output capable of driving the frequency dependant reactance of a crystal filter without upsetting the mixer. Mini-Circuits has a version of the UNCL that can take about +20 dBm without overloading, as I recall.

The reason manufacturers don't use them is cost: about $20.00 each for small quantities. This doesn't sound like much for a kilobuck radio but thats the way life is. I work occasionally for a consumer electronics manufacturer and I have given all the arguments for using exotic components and heard all the reasons why I can't: basically cost and availability.

I have often thought it would be an interesting project to build a single conversion receiver with a 9 MHz IF with these mixers and the Plessey IF chips that require no tuned circuits. With one of the new 50 MHz direct digital synthesizer IC's from Qualcomm or Stanford Telecom, a very simple and robust HF receiver could be built. I have most of the parts...but not the time, it seems.

These mixers and synthesizers are advertised in "RF Design" and "Microwave Journal", a couple of excellent trade journals for radio designers. They're free, too.

Philip Munts, N7AHL
University of Alaska, Fairbanks
FTPAM1@ALASKA

463. All Microsats transmitting!

Newsgroup: rec.ham-radio
Date: 1990-01-22 08:11:47 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19250@bellcore.bellcore.com>
Source record: 14118

The central and western USA command stations were successful in commanding on all four Microsat satellites! Here's a sampling of the messages on the AMSAT Telemail system this AM, starting with the last pre-launch status bulletins:

Posted: Sun, Jan 21, 1990 9:53 PM GMT Msg: HGJA-4145-6004
From: DCOWDIN
To: AMSAT
CC: LAUNCH, PACLIST
Subj: LAUNCH DAY STATUS RPT #4

LAUNCH DAY STATUS REPORT #4, SECOND ATTEMPT! 21:35 UTC

Greetings from Kourou:

The fueling of the 3rd stage has stared and that is proceeding well. The count down clock is ticking away and things are once again getting busy here right now. Now for the weather. It looks a hell of lot better tonight at this point than it did last night. High altitude clouds with some lower ceiling clouds around. From the TV monitor in the blockhouse it doesn't appear to be raining. But it is not just pure rain that will stop a launch. It is big thunderstorms that will do it. I can see the sun in a few places and it would almost be a nice sunset. But we still have to consider that this is the rainy season for Fr. Guiana. I talked with one of the Arianespace payload managers and he says that for launches with such small windows, they may schedule them for the summer when the weather is not such a problem.

The battery chargers were switch off about an hour ago and here are the values:

AMSAT DOVE WEBER LUSAT
10.87 V 10.82 V 10.87 V 10.87
140 mA 135 mA 160 mA 120 mA

I will stick around the blockhouse to see how the operations are going because it is really in the blockhouse that you get the straight information. These people know what is happening long before the Jupiter Mission Control people.

73's de WD0HHU

Posted: Mon, Jan 22, 1990 2:41 AM GMT Msg: FGJA-4145-6562
From: AMSATI
To: PACLIST, AMSAT
Subj: Congratulations from AMSAT-I!

Wow!
We made it!
Best congratulations to all of you guys (infact for all of US ;-) for the new b
birds which will soon be chirping!
Hear you soon on the ALINS!
Alberto I2KBD & Luca IW2ECL

Posted: Mon, Jan 22, 1990 5:04 AM GMT Msg: BGJA-4145-6838
From: BRAHN
To: cduncan, msatcmd
Subj: DOVE

Courtney, None of the people I talked to copied anything from DOVE. So
no joy on this. Almost all of them did copy the LUSAT beacon and had
basically the same report as I gave you--good signal, slow fades, etc.
Good luck to all on the West Coast command efforts!

73-- Bruce

Posted: Mon, Jan 22, 1990 5:56 AM GMT Msg: BGJA-4145-6950
From: HPRICE
To: amsat
CC: paclist
Subj: LUSAT psk turned on !

The LUSAT PSK beacon was commanded by by NK6K @ W6TRW at around 5:13 utc.

More info later... We were interviewed by the local CBS AM affiliate,
so that's why this message is late.

More later.

ps, weber turned on webersat, we got lusat. I'll try pacsat next pass.

NK6K.

Posted: Mon, Jan 22, 1990 6:10 AM GMT Msg: MGJA-4145-6961
From: BRAHN
To: msatcmd
Subj: Report

Congratulations on successfully commanding LUSAT, WEBERSAT, and
PACSAT (we didn't get a chance to listen for DOVE)!

General observations:

LOS occurred at this QTH at 05:20:19 UTC about 9 seconds BEFORE
the predicted LOS of 05:20:28

Signal strengths were excellent. Was able to get a good psk
modem lock on all signals. Polarization changes between RHCP and
LHCP were very noticeable. Rate of change was "relatively" slow
(sorry I don't have better data, but I had my hands "full"!).

Did anyone get Bob's decoding program to work? I had NO JOY with
it (either version). Two other individuals who I spoke with

after orbit #2 also had the same problem. I did check to see if the TNC/PSK modem was working and the data, using PROCOMM, looked good. Thus, it appears to me the computer was receiving the "proper" data. Unfortunate, all three of us were running at 4800 bps between the TNC and computers (yes, we did execute the program using TLMDC COM1:4800,8,1 :-)). Will try the default 9600 setting tomorrow. Would appreciate reports on this.

Again, congratulations to all--the satellite design team, software development team, fabrication team, launch team, command station team, and anyone else I forgot for a job WELL DONE!

73 -- Bruce WB9ANQ

P.S. I'm beginning to wonder if I've lost my mind! Was PACSAT finally commanded on on orbit 2. I could have staked my soul on having heard it! Was I excited?

Posted: Mon, Jan 22, 1990 6:22 AM GMT Msg: GGJA-4145-6983
From: JWHITE
To: msatcmd
Subj: passdata

Had good strong signals here on WEBER, LUSAT and PACSAT PSK. Were only able to get a lock on LUSAT for about the last minute of the pas, but thanks to K0RZ, we have about 15 good TLM block from each bird for
that pass. Have a small
but in the Mac TLM decode program, so we only have partial blocks decoded, but expect to have that fixed by tomorrow night. Will record what we can of PACSAT during the third pass, though we have only a 5 degree elevation, and the mountains take up about 3 of that. Congradulations to all. The Boulder gang that was hear hosted the bubbly when we heard the LU beacon and there were whoops of joy with the first PSK signal that blew the speaker off the shelf! 73 Jim

Posted: Mon, Jan 22, 1990 6:49 AM GMT Msg: DGJA-4145-7036
From: RENSIGN
To: paclist
Subj: TLM in Detroit

Tim, N8DUY has a 790 and reports that its doppler correction feature made copying LUSAT & WEBER a breeze here in Detroit. I too look forward to DOVE and will be capturing TLM tomorrow if it is commanded on. I'll be monitoring all passes.
Rich

Posted: Mon, Jan 22, 1990 3:54 AM GMT Msg: NGJA-4145-6724
From: BRAHN
To: msatcmd
CC: amsat
Subj: LUSAT CW Beacon LOS time

FYI. LOS time for the LUSAT CW beacon at my qth was 03:41:55 UTC. Predicted time, based on the element set was 03:41:56. Agree with N4HY's comments; looks like the element set is right on the money!

73 -- Bruce WB9ANQ

Posted: Mon, Jan 22, 1990 4:23 AM GMT Msg: EGJA-4145-6771
From: BMCGWIER
To: amsat
Subj: After launch elements, Microsat

Microsat elements derived from numbers provided by Arianespace.

Epoch: 22JAN90 015207
incli: 98.73
RAAN: 97.9558
ecce: 0.0013
ARGP: 93.9
Mean Anom: 302.31
Mean Mot: 14.2547138
Drag.: 0.000005
Apo.: 816.0 km
Peri: 798.1 km

73 Bob

Posted: Mon, Jan 22, 1990 4:34 AM GMT Msg: GGJA-4145-6787
From: TCLARK
To: amsat
Subj: Greetings from USSR

The following 2 packet messages arrived at the W3IWI BBS recently from the USSR. The first is from UA3CR to PY2BJO and the second is from RA3AT to all the AMSAT folks. It's a bit confusing since both are named Leo!

[30396] PN
Path: W3IWI!N4QQ!N4QQ!4X1RU!EK3AZO
Date: 05 Jan 90 10:13:02 Z
From: EK3AZO@EK3AZO
To: PY2BJO@LU8DYF
Subject: Greetings from SU.

Posted : 89/12/30 14:46 MSK
Subject: py2bjo @ lu8dyf

Dear Junior,
Let me say best wishes good helth to you and yours in 1990!
Here in Moscow we are getting ready for Microsats and UoSAT receive. Many schoolboys are interesting DOVE bird. I think it will most popular in USSR. All satellite people held "crossed fingers".
RS-14 is in progress. Also Rudak-2 system. Next month we are going to integrate all equipment and bring to the S/C.
Hope to meet you in Guildford. 73, Leo "CR".

[34326] PY
Path: W3IWI!N4QQ!N4QQ!4X1RU!EK3AZO
Date: 21 Jan 90 07:43:12 Z
From: EK3AZO@EK3AZO
To: W3IWI@W3IWI
Subject: Greetings.

To: W3IWI K8OCL N4BF N4HY KO5I ... AMSAT ....

Hello AMSAT-NA friends,
10 hours to launch V-35 now. We are waiting for this exiting event with great iterest. I try taking part in HFnet WA3NAN. We hope all new OSCARs will be OK. I'm sorry, I'm leaving Moscow 21 January and coming back 26 January.I can't hear them directly this days.We going to small town Molodechno about 800km west from Moscow. We are installing and testing RUDAK-2 module with RS14 transponder And other news is PR permission in USSR starting 1 march 1990 for all first class licenced HAMs.
Thomas, please pass my great thank to Dr. John Champa, K8OCL for pleasant parsel and greetings from AMSAT-U people.
Our regards to all ANSAT-NA people from Moscow friends.
73 de Leo RA3AT @EK3AZO

Posted: Mon, Jan 22, 1990 4:55 AM GMT Msg: LGJA-4145-6820
From: EOGRADY
To: DCOWDIN
CC: AMSAT
Subj: THANKS

Hi Dave.

Obviously, hearty congratulations are in order to all the Amsat people who made the launch a reality and for the superb presentation of the Amsat Launch Information Network last night by Doug and the whole team. But I just wanted to tell you that I thouroughly enjoyed and appreciated your Launch Day Status Reports. Aside from providing necessary operational data, you truly succeeded in providing the "color" and feeling of excitement that was in the air at Kourou. Thanks for all your efforts.

Best 73
ED KC2ZF

Posted: Mon, Jan 22, 1990 5:22 AM GMT Msg: AGJA-4145-6879
From: TOKAMOTO
To: amsat
Subj: Congratulations

Congratulation for the successful launch of MICROSAT and UOSAT to all you made this happen. We are looking forward to monitoring LTMs.

All at JAMSAT

Posted: Mon, Jan 22, 1990 5:22 AM GMT Msg: CGJA-4145-6881
From: TOKAMOTO
To: AMSAT
Subj: Congratulations

This is great. I was at my office and was monitoring the launch
with reading messages on CIS posted by Eric WB1HBU. Congratulation
to all you made this happen. I will be monitoring TLM at my station
tonight.

Tak JA2PKI / Tokyo Japan

Posted: Mon, Jan 22, 1990 5:39 AM GMT Msg: FGJA-4145-6926
From: VITA
To: amsat
Subj: Sudierb job

What a superb job everybody did...the launch was flawless and for
me personally quite an experience as it was the first time..

Congrats to AMSAT for hanging in there. It was truly an inspirational
moment.

73,
Gary

Posted: Mon, Jan 22, 1990 5:39 AM GMT Msg: HGJA-4145-6928
From: DLOUGHMILLER
To: AMSAT
CC: Dcowdin
Subj: Microsat progress

On the pass at 05:05 UTC over the western US we were able to
get Webersat turned on. We now have to satellites active,
LUSAT in the CW beacon mode and Weber. N4HY was able to
capture a few telemetry frames from his QTH. The command team
will continue to work the issue. Harold will have one more
pass this evening...We're getting there. 73 Doug

Posted: Mon, Jan 22, 1990 5:40 AM GMT Msg: IGJA-4145-6929
From: TCLARK
To: amsat
Subj: Webersat works!

Looks like Webersat survived the launch. In the brief 3 degree elevation pass
I was able to copy a few frames after Harold kicked it. I find it amazing to
note that the time-of-day clock was within a few seconds given it was set
38 days ago!

I observed some fairly deep fades here -- fading rate seemed to be about
30 seconds. The fades played havoc with my trying to keep in lock! -- Tom

---

WEBER-1>TIME-1:PHT: uptime is 038/15:45:20. Time is Mon Jan 22 05:15:50 1990

WEBER-1>TLM:21:88 22:75 23:2A 24:2C 25:2E 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2A 2E:00 2F:98 30:98 31:9A 32:5D 33:32 34:A2 35:A4 36:AE
37:A1 38:CF 39:B3 3A:98 3B:94 3C:BF 3D:FF 3E:47 3F:D0 40:99 41:99
42:CF

WEBER-1>STATUS: 00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH:wash addr:3e80:0000, edac=0x24
WEBER-1>TIME-1:PHT: uptime is 038/15:45:50. Time is Mon Jan 22 05:16:20 1990

WEBER-1>TIME-1:PHT: uptime is 038/15:46:30. Time is Mon Jan 22 05:17:00 1990

WEBER-1>TIME-1:PHT: uptime is 038/15:46:40. Time is Mon Jan 22 05:17:10 1990

WEBER-1>STATUS: 00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

Posted: Mon, Jan 22, 1990 5:42 AM GMT Msg: MGJA-4145-6933
From: JWALLACH
To: amsat
CC: dloughmiller
Subj: Congratulations!

The members of the Dallas Remote Imaging Group, and the local Dallas AMSAT
groupcongratulate the entire team for an outstanding laun
ch effort.

Frank Perkins WB5IPM and I copied the PSK telemetry and we will distribute it
on Datalink RBBS and Compuserve tomorrow. The local Dallas group had a great
evening, enjoyed the ALINS net, and have nothing but praise for the project
team, Doug, and all the supporting AMSAT members.

73s, and good late evening....

Jeff Wallach N5ITU
Dallas Remote Imaging Group

Posted: Mon, Jan 22, 1990 5:51 AM GMT Msg: LGJA-4145-6946
From: TCLARK
To: amsat
Subj: Some more Webersat TLM

Whoops -- because I had two different capture buffers running, my earlier
message missed a few frames I grabbed. These should be appended to the
START of the TLM I just posted. It's good to see that the batteries are in
such good shape and that the temp is stabilizing.

WEBER-1>TLM:21:8A 22:75 23:2E 24:2C 25:2E 26:00 27:00 28:00 29:00 2A:00 2B:0
0
2C:00 2D:2B 2E:00 2F:98 30:96 31:98 32:60 33:35 34:9E 35:A0 36:AA
37:9E 38:CE 39:9F 3A:96 3B:94 3C:CB 3D:FF 3E:46 3F:CE 40:98 41:98
42:CF

WEBER-1>STATUS: 00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH:wash addr:3440:0000, edac=0x24
WEBER-1>BCRXMT:vbat= 11.055 vlo1= 10.507 vlo2= 10.007 vmax= 11.507 temp= 8.041

WEBER-1>TIME-1:PHT: uptime is 038/15:45:20. Time is Mon Jan 22 05:15:50 1990

Posted: Mon, Jan 22, 1990 5:54 AM GMT Msg: NGJA-4145-6948
From: BMCGWIER
To: AMSAT
Subj: LUSAT and WEBER are on

I couldn't copy the LUSAT telemetry but Harold got it on. Chris Williams
and the folks at Weber State sucessfully command WEBER on. They could
not copy frames (had trouble tuning the PSK in, sound familiar to your
first time?). Tom Clark and I got several frames and here are the ones
I copied

WEBER -1>TLM -0 Mon Jan 22 05:16:20 1990
00:64 01:74 02:6B 03:82 04:73 05:92 06:72 07:85 08:7D 09:32 0A:9E
0B:A4 0C:CA 0D:B6 0E:08 0F:6C 10:AA 11:8B 12:05 13:64 14:A0 15:99
16:77 17:78 18:75 19:7C 1A:74 1B:79 1C:76 1D:80 1E:2C 1F:60 20:9A

WEBER -1>TLM -0 Mon Jan 22 05:16:20 1990
21:89 22:74 23:2C 24:2C 25:2D 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2A 2E:00 2F:99 30:98 31:99 32:62 33:37 34:A2 35:A4 36:AE
37:A1 38:CF 39:B3 3A:98 3B:94 3C:AF 3D:FF 3E:47 3F:CF 40:99 41:99
42:CF

WEBER -1>TLM -0 Mon Jan 22 05:16:37 1990
00:75 01:76 02:6D 03:84 04:76 05:93 06:74 07:86 08:70 09:34 0A:A0
0B:A3 0C:CA 0D:B6 0E:08 0F:6C 10:AA 11:8C 12:05 13:64 14:A1 15:99
16:79 17:78 18:75 19:7C 1A:74 1B:6F 1C:76 1D:80 1E:2C 1F:60 20:98

WEBER -1>TLM -0 Mon Jan 22 05:16:37 1990
00:75 01:76 02:6D 03:84 04:76 05:93 06:74 07:86 08:70 09:34 0A:A0
0B:A3 0C:CA 0D:B6 0E:08 0F:6C 10:AA 11:8C 12:05 13:64 14:A1 15:99
16:79 17:78 18:75 19:7C 1A:74 1B:6F 1C:76 1D:80 1E:2C 1F:60 20:98

WEBER -1>WASH -0 Mon Jan 22 05:16:39 1990
wash addr:0540:0000, edac=0x2

WEBER -1>TIME -1 Mon Jan 22 05:16:43 1990
PHT: uptime is 038/15:46:00. Time is Mon Jan 22 05:16:30 1990

WEBER -1>TLM -0 Mon Jan 22 05:16:47 1990
00:68 01:74 02:6D 03:81 04:74 05:90 06:71 07:85 08:7C 09:31 0A:9E
0B:A4 0C:CA 0D:B6 0E:08 0F:6C 10:AA 11:8B 12:05 13:64 14:A1 15:99
16:7C 17:79 18:75 19:7C 1A:74 1B:75 1C:76 1D:80 1E:2C 1F:60 20:98

WEBER -1>TLM -0 Mon Jan 22 05:16:47 1990
00:68 01:74 02:6D 03:81 04:74 05:90 06:71 07:85 08:7C 09:31 0A:9E
0B:A4 0C:CA 0D:B6 0E:08 0F:6C 10:AA 11:8B 12:05 13:64 14:A1 15:99
16:7C 17:79 18:75 19:7C 1A:74 1B:75 1C:76 1D:80 1E:2C 1F:60 20:98

WEBER -1>TLM -0 Mon Jan 22 05:16:48 1990
21:87 22:75 23:2A 24:2B 25:2F 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2A 2E:00 2F:98 30:98 31:99 32:5E 33:32 34:A2 35:A3 36:AE
37:A1 38:CF 39:A7 3A:99 3B:94 3C:BB 3D:FF 3E:47 3F:CF 40:9A 41:99
42:CF

WEBER -1>STATUS-0 Mon Jan 22 05:16:49 1990
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER -1>STATUS-0 Mon Jan 22 05:16:49 1990
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

THis was a ONE degree pass. Can't wait to take another stab at DOVE
in the morning, if it hasn't turned itself on autmagically to keep from
over charging the batteries.

CHEERS!

Bob

Posted: Mon, Jan 22, 1990 6:07 AM GMT Msg: GGJA-4145-6955
From: ONG
To: AMSAT
Subj: More Webersat data

I have some overlap w/TCLARK, but here's what I got:

WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:43:10. Time is Mon Jan 22 05:13:40 1990

WEBER-1>TLM <UI>:
00:75 01:74 02:6C 03:82 04:74 05:92 06:72 07:85 08:76 09:33 0A:A0
0B:A2 0C:CA 0D:B5 0E:08 0F:6C 10:A8 11:8B 12:05 13:64 14:A0 15:99
16:7C 17:78 18:74 19:7B 1A:73 1B:73 1C:75 1D:80 1E:2C 1F:60 20:9A

WEBER-1>TLM <UI>:
21:88 22:75 23:2C 24:2C 25:2C 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2A 2E:00 2F:98 30:98 31:99 32:63 33:38 34:A1 35:A2 36:AD
37:A0 38:CF 39:B7 3A:98 3B:93 3C:BB 3D:FF 3E:47 3F:CF 40:98 41:98
42:CF

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:2380:0000, edac=0x24
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:43:30. Time is Mon Jan 22 05:14:00 1990

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:25c0:0000, edac=0x24
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:43:40. Time is Mon Jan 22 05:14:10 1990

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>BCRXMT <UI>:
vbat= 11.070 vlo1= 10.507 vlo2= 10.007 vmax= 11.507 temp= 8.041

```
WEBER-1>WASH <UI>:
wash addr:2800:0000, edac=0x24
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:43:50. Time is Mon Jan 22 05:14:20 1990

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:2a40:0000, edac=0x24
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:44:00. Time is Mon Jan 22 05:14:30 1990

WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:44:10. Time is Mon Jan 22 05:14:40 1990

WEBER-1>TLM <UI>:
00:6F 01:76 02:6C 03:84 04:78 05:94 06:70 07:86 08:7A 09:34 0A:A0
0B:A4 0C:CA 0D:B5 0E:08 0F:6C 10:AA 11:8C 12:05 13:64 14:A0 15:99
16:7C 17:78 18:75 19:7C 1A:74 1B:76 1C:75 1D:80 1E:2C 1F:60 20:9A

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:2ec0:0000, edac=0x24
WEBER-1>TLM <UI>:
00:68 01:73 02:5C 03:82 04:6F 05:90 06:6F 07:89 08:83 09:34 0A:A0
0B:A4 0C:C9 0D:B6 0E:08 0F:6C 10:AA 11:8B 12:05 13:64 14:A0 15:99
16:7C 17:78 18:74 19:7C 1A:74 1B:76 1C:75 1D:80 1E:2C 1F:60 20:99

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:3100:0000, edac=0x24
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:44:30. Time is Mon Jan 22 05:15:00 1990

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:3340:0000, edac=0x24
WEBER-1>TLM <UI>:
21:88 22:75 23:2A 24:2A 25:2F 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2B 2E:00 2F:98 30:98 31:9A 32:5E 33:32 34:A2 35:A2 36:AE
37:A1 38:CF 39:B7 3A:98 3B:94 3C:BF 3D:FE 3E:47 3F:D0 40:9A 41:99
42:CF

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>BCRXMT <UI>:
vbat= 11.050 vlo1= 10.507 vlo2= 10.007 vmax= 11.507 temp= 8.041
```

```
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:44:50. Time is Mon Jan 22 05:15:20 1990

WEBER-1>WASH <UI>:
wash addr:3a00:0000, edac=0x24
WEBER-1>WASH <UI>:
wash addr:3c40:0000, edac=0x24
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:45:20. Time is Mon Jan 22 05:15:50 1990

WEBER-1>TLM <UI>:
21:88 22:75 23:2A 24:2C 25:2E 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2A 2E:00 2F:98 30:98 31:9A 32:5D 33:32 34:A2 35:A4 36:AE
37:A1 38:CF 39:B3 3A:98 3B:94 3C:BF 3D:FF 3E:47 3F:D0 40:99 41:99
42:CF

WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:3e80:0000, edac=0x24
WEBER-1>STATUS <UI>:
00 00 00 80 B0 18 55 02 00 FB EF FF B0 00 00 00 00 00 00 00

WEBER-1>WASH <UI>:
wash addr:0780:0000, edac=0x24
WEBER-1>TIME-1 <UI>:
PHT: uptime is 038/15:46:10. Time is Mon Jan 22 05:16:40 1990

Due to a trip I had to make today, I was not fully prepared, I
loosely coupled the signal to the TAPR PSK modem for tuning
indication, while recording with a walkman, no mike, headphones stuck
in the mike jack, laid on top of the radio! I carried walkman and
modem back to my shop, and connected it all together with a TNC and
computer, played the tape back and that's what I got! What a modem!
I'd have gotten much more if I'd been more ready! I wasn't too smooth
on the freq knob!

Even at 1 and 2 degrees up, signals were great! What a satellite!
Great job, congrats to all involved!

73 Jim (ONG)

Posted: Mon, Jan 22, 1990 6:33 AM GMT Msg: CGJA-4145-7021
From: RFORBES
To: AMSAT, BRAMSAT, UOSAT
Subj: Well Done!

Congratulations to everyone for a job well done adding the Microsats to
the Amateur Radio Space program. Everyone here at Project OSCAR is pleased
to see the progress being made by the latest addition to the OSCAR line!
73, Ross W. Forbes, WB6GFJ
President, Project OSCAR
```

Posted: Mon, Jan 22, 1990 7:23 AM GMT Msg: EGJA-4145-7079
From: BMCGWIER
To: amsat, dcowdin, bramsat, amarg
Subj: ALL ON

The algorithms turned on the remainder of the satellites by saying that the battery voltage was above the trip level and turned them all on.

Both DOVE and PACSAT came on. All birds are alive and well!!!!!!!!!

Bob

464. SAREX 1990

Newsgroup: rec.ham-radio
Date: 1990-01-22 09:14:57 UTC
From: jlulejia@jarthur.Claremont.EDU
Message-ID: <3887@jarthur.Claremont.EDU>
Source record: 14119

I am curious what the latest information on SAREX is.
Primarily, I am concerned with the type of orbit the Shuttle
will be flying. Is it going to be a low orbit, which will
restrict most of us in the higher latitudes, or will it be a
higher orbit, similiar to the last one we worked with
back in 1985? Also, will there be any SSTV on this
flight or just packet?

Thanks you very much!

John Lulejian, KA6TCY
President, Claremont Colleges ARC

465. VOA Available in the US

Newsgroup: rec.ham-radio
Date: 1990-01-22 13:14:05 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9001221314.AA02704@cmr.ncsl.nist.gov>
Source record: 14120

It seems to me that I recently saw that someone has added the VOA to their cable audio services. I think it was C-Span. If I also remember correctly, they used some version of Freedom of Information to get access.

As background info, C-Span, now offers two audio-only services in addition to the US House and Senate proceedings. The first is a composite of selections from various international broadcasting stations - non-US, but this might also include VOA, and the second which is the BBC World Service, intact. They require that cable systems use either both services, or only the first, prohibiting use of ONLY BBC!

The local phone book lists C-Span's phone number as 202-737-3220 - or contact your local cable system. Dish owners can doubtless find these as extra audio subcarriers on the C-Span transponders.

Bob, W3OTC

466. Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-22 13:41:44 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9001221341.AB00038@adam.DG.COM>
Source record: 14121

CEO summary:
I've done a bit of research on this subject & Have discovered that in Boston, at least, they're on a SCA-like subcarrier of about 90 Khz on WROR, which is at 98.5 Mhz (I may have the call letters wrong but the frequency's correct). There's a company called DataRX which advertises in "Nuts and Volts" (free at most hamfests) which sells software and basic hardware to decode the transmissions. Not too hard, really, since the data is simple FSK at 4800 baud & can be detected with a PLL set to the subcarrier frequency attached to the detector of a standard FM radio. DataRX sells a board & software for $270 which includes a TDA7000 FM receiver, filters & a XR2211 FSK decoder chip. They're at (303)-223-2120,
DataRX
111 E. Drake Rd. Suite 7041
Fort Collins, CO 80525
They make all kinds of disclaimers about how their stuff is for educational use only and what you do with it is up to you, etc. You will have to "descramble" the transmissions, since the way the quote companies keep non-paying (former) customers from getting the information is to XOR the characters with some constant or scramble the bit ordering or something else like that.

467. Mixers (cont's...)

Newsgroup: rec.ham-radio
Date: 1990-01-22 14:47:53 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <22.Jan.90.14
Source record: 14122

Yes i agree with the comment that the diode mixer needs accurately
matched source and sink loads for proper operation. If an active device
is used as an impedance-matcher between the mixer and the filter, then it
should have the widest possible dynamic range (and the lowest possible
noise figure). I favor the use of a power-FET in grounded-gate configuration.
Something like a CP651, passing 20 or 30mA drain current, will have a
reasonable chance of avoiding non-linearity.
As in all these things, design depends on what you want to do with the
finished article. Low noise-figure is essential on 10 meters, but
less important than good dynamic range/intermod. resistance is on 7MHz
(where us Europeans often have the megawatts-and-rhombics of Radio
Tirana intruding into an 'exclusive amateur' allocation!).
Another thing to consider is good input filtering. The use of switched
bandpass filters (one per band) is to my way of thinking, less elegant
than a manually-peaked 'preselect' control. I guess the switched-filter
approach is easier to implement for mass-market applications than the
aligning/tracking of 3 or 4 signal-frequency tuned-circuits for each band.
Also, the use of diode switches to select antenna filter circuits is at odds to
the idea of keeping non-linear devices out of the signal path. A nice ceramic
rotary switch is likely to be less lossy and more linear.
And finally, remember that 'commutative' mixers like double-balanced diodes
should be fed with their l.o. signal as a square wave to obtain best
performance. This can be achieved using E.C.L. signal-conditioning
chips or a hard-driven pair of power transistors (you'll need these
in any case to get the power needed for a switching diode mixer - some of the
mixer-drive circuits i have seen could qualify as QRP transmitters...!)

//Pete

468. Re: 75 foot tower 30 feet from neighbor

Newsgroup: rec.ham-radio
Date: 1990-01-22 15:52:39 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250116@hpnmdla.HP.COM>
Source record: 14123

I admit to being fairly removed from the epicenter of the recent
quake, living as I do in Santa Rosa, but we were close enought
that I lost water out of the swimming pool and so forth. I was
outside and *watched* my tower, a 68 foot Rohn 25 tiltover, during
the quake. My habit during earthquakes is to look for something
hanging, a lamp when I'm inside, or power poles/towers if I'm
outside to see what is going on when. I was standing watching my
7 year old trying to stay on her bicycle and couldn't figure out
why the ground was too close to me on both sides (like I was falling
but wasn't). I turned and the first thing I saw in the air on the
way to scanning for the tower was the electric mains drop from the
street doing a 10 foot or so peak to peak "jump rope". The tower,
which is guyed at 35 and 65 feet was wobbling about +- 15 degrees
but all the guys seemed to stay tight and yet not snap.
It's hard to guess what it would have looked like had I been
closer to the epricenter but my experience with precious earthquakes,
like October 1970 which devastated a good part of downtown Santa Rosa,
is that vertical towers and poles (light standards) do a lot of
swaying but come through pretty well.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@nmd.hpcom

469. Re: Half Wave Verticals

Newsgroup: rec.ham-radio
Date: 1990-01-22 16:28:50 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9001221628.AA25388@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 14124

I have use a bottom fet half-wave vertical (Cushcraft R3) on 10-15-20m with outstanding results. I have operated it with the bottom near the top of the house, just slightly below normally. I noticed no problems. I have also operated with the bottom on the ground and the top leaning against a tree. It worked just fine like that also. The bottom feed gives you a stronger mechanical construction, but is harder to match. The matching circuit is touchy and requires frequent adjustment if you use a simple parallel LC circuit. The Cushcraft R4 and R5 use something more sophisticated so it dosen
't have to be tuned. I don't know what it is.

I have also used a J on 2 meters. It has consistently worked better than any other HT type antenna I have tried. It also can be built quite strong mechanically, and would probably not require any adjustments for matching through major portions of the 10m band. If you have the height etc., I would recommend the J.

-- Doug WA6VVV

470. Re: antennas vs dishes

Newsgroup: rec.ham-radio
Date: 1990-01-22 16:57:07 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250117@hpnmdla.HP.COM>
Source record: 14125

I would suggest a 4-6 foot dish, all else being equal. A yagi, or even a pair of phased helices would no doubt work but are higher q structures, particularly the yagi. Dishes are extremely forgiving and if you can come up with an old TVRO one or similar will probably give more immediate results.
From what little I've seen of published results I suspect that a 6 foot dish and even a crummy MAR-6 MMIC front end at 3 dB or so NF will probably work pretty well. Putting a GaAs FET in would no doubt pick up a few dB more of C/N.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@nmd.hpcom

471. Beam deflection mixers (was Pure LO signals and Mixer)

Newsgroup: rec.ham-radio
Date: 1990-01-22 17:26:54 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001221733.AA13512@ti.com>
Source record: 14126

I also agree! In the late 60's I built a 10m rcvr using a 7360. It was so quiet that I at first thought it wasn't working properly!

Dube Todd, N5PDK

472. Re: Insurance coverage

Newsgroup: rec.ham-radio
Date: 1990-01-22 20:10:31 UTC
From: tim@lakesys.lakesys.com
Message-ID: <1604@lakesys.lakesys.com>
Source record: 13977

In article <395@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>
>
>N9ICD posted something about comprehensive auto insurance covering stolen
>radios STORED in the car.
>
>I recently was told by my agent that I could not claim a loss for my
>IC2AT, HR2510, AEA keyer, paddle and VHF wattmeter stored under the
>seats of my car. I had comprehensive insurance. They said that if
>I had it mounted in the car, and had paid for having it covered, then
>I would have a claim. They told me to look into renter's household
>insurance, which I don't have. I wish I had the ARRL insurance.
>
>Should I have pursued this further?

Yes, pursue it farther. Unless specifically stated that it's not covered,
I guess you can get it covered. I talked with an independent agent, and
he stated that the coverage is for THEFT!!! Theft of articles in the car
is included with this!!! He told me to find out why they are saying no!
If they can QUOTE from the policy, then they can get you, if they can not,
well you have them over a barrel! I have been working with the insurance
agent, and calims dept. I now found out, I might get more back if I use
the renters insurance, as I have "cost of living increase/replacement
garantee value" on the policy! So my stuff that went up in price might
over run the cost of the deductible, which is $100. My comprehensive is
$0.00, so I'd get "what I paid for" on the items. It's kinda a tough
decission on what I prefer the rates going up on! Actually, if the
Renters insurance went up a bit, it couldn't be a lot, whereas the
vehicle insurance I could see making a large climb! So, it's again a
choice I have to make! But, if it happen a short time ago, try to tell them
you believe it's covered, and until they can prove otherwise, you might win!

>
>73,
>Tad Cook
>tad@ssc.UUCP
>KT7H @ N7HFZ.WA.USA.NA

--
Timothy Winslow/N9ICD Philosophy in life:
tim@lakesys.lakesys.com Have fun in
or: uunet!marque!lakesys!tim Whatever
or: csd4.csd.uwm.edu!lakesys.lakesys.com!tim you do!!

473. Re: New House Wiring

Newsgroup: rec.ham-radio
Date: 1990-01-22 20:16:09 UTC
From: kfr@cbnewsj.ATT.COM
Message-ID: <3558@cbnewsj.ATT.COM>
Source record: 13978

In article <1509@umigw.MIAMI.EDU> wb8foz@mthvax.cs.miami.edu (David Lesher) writes:
> 2 appearances, every room. Don't forget the throne room. (where
> ELSE are you when the phone rings?)

The Throne Phone was already in the new wiring plans!

Kevin Redden
wb2zlf

474. Re: Pure LO signals and Mixers?

Newsgroup: rec.ham-radio
Date: 1990-01-22 20:22:17 UTC
From: dalyb@godzilla.UUCP
Message-ID: <48315514.1423f@godzilla.UUCP>
Source record: 13979

In article <16.Jan.90.14:53:10.GMT.#3894@UK.AC.NWL.IA>, PJML@IBMA.NERC-WALLINGFORD.AC.UK ("Pete Lucas, NCS-TLC, Swindon U.K.") writes:
> The usage of dual-gate FETs, often in single-ended, unbalanced
> configurations, seems commonplace.

The usage of dual gate FETs has several advantages:

1. Higher conversion gain over single gate devices as the non-linearities
of the second gate can be taken advantage of
2. a 20dB inherent LO to RF isolation
3. multioctave bandwidths possible

A dual gate FET mixer in a double balanced or image rejection configuration provides excellent performance. I agree that the use in a single ended or unbalanced configuration may lead to some problems, but don't blame this on the FET.

> Conversion gain is the last thing you should expect in a mixer.

I disagree with this statement. In some applications, you desire conversion gain. A mixer gain can offset a higher mixer noise figure to provide an overall lower noise figure. Recall:

F(total) = F(stage 1) + {F(stage2) - 1} / (gain of stage 1)

The noise figure of the second stage is reduced by the gain of the first stage. If the gain of the first stage is a loss (G < 1), then the noise figure of the second stage (and overall) is increased.

There are cases when a mixer conversion loss can result in an overall increase in the dynamic range of the receiver, however. If the higher D.R. is desired, then perhaps a diode mixer, with the resultant loss, may be applied.

The point here is that conversion gain may be desirable depending on the requirements of the receiver.

> Gain before the filter is the last thing you want.

Not necessarily, especially for VHF --> microwave applications!

73's;

Brian K. Daly WB7OML
AG Communication Systems, Phoenix, Arizona
UUCP: {...!ames!ncar!noao!asuvax|uunet!zardoz!hrc|att}!gtephx!dalyb
Phone: (602) 582-7644 FAX: (602) 582-7111

475. Computer control of ICOM R-7000

Newsgroup: rec.ham-radio
Date: 1990-01-22 20:38:55 UTC
From: dennis@tfsg.UUCP
Message-ID: <589@tfsg.UUCP>
Source record: 13980
Cross-posted to: rec.radio.shortwave,rec.ham-radio

<>

Has anyone out there attempted to use the computer interface that comes with the ICOM R-7000? I am refering to the "REMOTE" jack on the back of the radio. It is described briefly on page 13 of the R-7000 instruction manual. I have some questions for those of you in-the-know:

The instruction manual on page 13 (section 4-7) says, "Receiver control is performed serially in the IC-R7000 by the advanced ICOM CI-V Communication Interface System. Operation is possible by installing a voltage level converter with a personal computer that has an RS-232C serial port."

Then it gives a schematic diagram of a circuit that is to be inserted between the REMOTE jack connection on the back of the R-7000 and the serial port of the PC. My questions are:

1) What is the circuit for? Is it necessary? Can I just connect the REMOTE jack directly to the serial port of my PC without using this circuit?

2) Is this circuit described on page 13, section 4-7 available in a completed (already built and ready to use) form? If not, how difficult is it to make? Are there any special precautions I should be aware of if I attempt this myself?

3) What are the control codes used by the R-7000 for computer control? Neither the instruction manual nor the service manual explains what the codes are that the software would need to send through the port.

I know there are commercially-available packages that provide computer control of the ICOM R-7000 (and other receivers), but I thought it would be a fun project to develop one from scratch, customized to my requirements. Needless to say, my knowledge of hardware/communications is lacking, but once I can get my PC to communicate with the radio it should be easy from that point on.

I'd really appreciate some help from anyone who has attempted to do this!

Dennis Gibbs
tfsg!dennis
(703) 802-1961

476. America OnLine Ham area

Newsgroup: rec.ham-radio
Date: 1990-01-22 20:55:09 UTC
From: ralph@cbnewsj.ATT.COM
Message-ID: <3560@cbnewsj.ATT.COM>
Source record: 13981
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Last night on America OnLine, a CompuServe-type service for users of Macintoshes and Apple //s, I found a ham/SWL forum. It's under the "Lifestyles" section, and reachable with the keyword "HAM" (what a surprise....) There isn't a whole lot of stuff there yet, but I thought it was pretty interesting that a relatively new service would have a forum on the subject of radio pretty much from the beginning.

--

Ralph Brandi ralph@lzfme.att.com att!lzfme!ralph

Work flows toward the competent until they are submerged.

477. Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-22 21:07:56 UTC
From: jneher@tenorman.Sun.COM
Message-ID: <130554@sun.Eng.Sun.COM>
Source record: 13982
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Hi,

Did anyone out there save any of the articles on creating
good earth grounds to hook up to radio equipment.
I know this subject has been discussed before and I don't
want to bring it up again on the net. If anyone has these articles,
or has suggestions, could you please send them to me.

I don't have a copper water pipe handy to my station.
I have questions such as:

1. What kind of rods to drive into the earth?

2. How many?

3. How deep?

4. Is there any way to test how good a ground you have made?

Thanks,

Jon

sun!jneher
jneher@sun.com

478. rec.ham-radio.amsat newsgroup.

Newsgroup: rec.ham-radio
Date: 1990-01-22 21:15:27 UTC
From: brians@sequent.UUCP
Message-ID: <28120@sequent.UUCP>
Source record: 13983
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I received a number of people who also would like a new newsgroup
for amsat/space related articles. Who would do this kinda thing?

--
Brian Sheets KA7KDX _ /| "I'll be back"
5544 N Burrage. \`o_O'
Portland Or. 97217 ( ) Aachk! - Arnold Schwarzenegger,
503-526-4091 U Phft! Any movie he's been in.

479. DAVCO recvr question

Newsgroup: rec.ham-radio
Date: 1990-01-22 21:16:59 UTC
From: gregm@hpcvra.CV.HP.COM
Message-ID: <5710005@hpcvra.CV.HP.COM>
Source record: 13984

I have a question for all the radio experts on "not so old radios".

I just picked up a DAVCO DR-30 receiver. It looks like somebody
put a lot of work into making it a battery operated receiver
with a loop antenna also mounted on the back.

Question: since the batteries where not in the unit, what power supply
requirements exist for this rig. (I have no intention of going battery
operation for this). I can figure out the polarities.
This is a solid state rig about 5"x5"x6" with an analog front panel
and covers 3.5, 7 ..... 27??, 50 MHz and also has to crystal locations
to operate on 26MHz and 53 MHz.

Question: does anyone have any knowledge of possible origins of this rig?
Is it aircraft equipment.

At a loss..... I would sure be interested in a schematic (HI HI)
if anyone just happens to have one.....

Thank You

Greg May KB4OX (in 7 land)

480. Re: All Microsats transmitting!

Newsgroup: rec.ham-radio
Date: 1990-01-22 22:57:08 UTC
From: winter@Apple.COM
Message-ID: <38014@apple.Apple.COM>
Source record: 13985

In article <19250@bellcore.bellcore.com>karn@ka9q.bellcore.com(Phil Karn)writes:
>
>The central and western USA command stations were successful in commanding
>on all four Microsat satellites!

Congratulations to the AMSAT groups in many countries who made this feat possible! And thanks to AMSAT-NA for the excellent network they put together so that everyone could follow the action firsthand. It was really fun listening to the reports during the launch and during the first attempts to turn on the birds.

CNN carried a brief story about the Ariane launch last night, including an almost-accurate mention of the Microsats and UOSATS. (They said "at least four smaller satellites, one of which, called PACSAT, was built entirely by volunteers to enhance ham radio communications." Well, *all* of the six satellites besides SPOT were built by volunteers for ham radio and related purposes, but it was at least a sin of omission and not commission.)

Any news on the UOSATS??

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

481. USAA's auto insurance policy.

Newsgroup: rec.ham-radio
Date: 1990-01-22 23:17:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9001230803.AA25778@ucbvax.Berkeley.EDU>
Source record: 13986

I know how USAA does it. I think. :-) If the radio was installed like your stereo they will cover the loss. If it's slung under the dash (like my lil' 2m rig) they won't. Permanently installed is how they call it. As I read it, if my pickup should be totaled, they'll take the stereo (its part of the truck) but not the 2m (it's not part).

This reminds me of a friend who owned an RX-7 and a moped. The moped was stolen from his drive way. He considered telling the insurance people the moped was in the RX-7. I think we talked him out of that. Aggies.

Bob, N5GNA

P.S. Before you W5AC types take offense I am a graduate of the aforementioned school.

482. DOVE Satellite Downlink Sample

Newsgroup: rec.ham-radio
Date: 1990-01-23 03:51:43 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <106@ka2qhd.UUCP>
Source record: 13987
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

DOVE is a brand new OSCAR satellite that transmits telemetry on 145.825 MHz
using AX.25 protocol.

I just had a chance to copy some of DOVE's telemetry. During a 14 minute pass,
I copied 289 packet frames, or about 31 kilobytes of data. Here's just a SAMPLE
of what I copied, only about 26 hours after launch:

```
DOVE-1>TLM <UI>:
00:58 01:59 02:88 03:32 04:58 05:58 06:6D 07:3F 08:6C 09:60 0A:A1
0B:DD 0C:E8 0D:D7 0E:00 0F:24 10:CC 11:AE 12:01 13:01 14:B1 15:9D
16:96 17:93 18:94 19:94 1A:92 1B:8B 1C:99 1D:97 1E:24 1F:5E 20:BE

DOVE-1>TLM <UI>:
21:9B 22:7A 23:24 24:20 25:2D 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:29 2E:00 2F:9C 30:C8 31:9C 32:B6 33:0F 34:C6 35:A2 36:A8
37:9C 38:BC 39:98 3A:00

DOVE-1>STATUS <UI>:
00 00 00 88 B0 18 BB 01 00 B0 00 00 B0 00 00 00 00 00 00 00

DOVE-1>WASH <UI>:
wash addr:3a00:0000, edac=0x7d
DOVE-1>TIME-1 <UI>:
PHT: uptime is 039/12:42:46. Time is Tue Jan 23 03:11:40 1990

DOVE-1>TLM <UI>:
00:58 01:58 02:88 03:32 04:58 05:58 06:6D 07:3F 08:6B 09:5F 0A:A0
0B:DD 0C:E8 0D:D8 0E:01 0F:24 10:CC 11:AE 12:00 13:01 14:B2 15:9D
16:99 17:91 18:95 19:94 1A:91 1B:87 1C:9A 1D:98 1E:24 1F:5D 20:BE

DOVE-1>TLM <UI>:
21:9B 22:7B 23:22 24:1E 25:2E 26:00 27:00 28:00 29:00 2A:00 2B:01
2C:00 2D:2A 2E:00 2F:9C 30:C8 31:9C 32:B6 33:0F 34:C5 35:A2 36:A8
37:9C 38:BB 39:98 3A:00

DOVE-1>STATUS <UI>:
00 00 00 88 B0 18 BB 01 00 B0 00 00 B0 00 00 00 00 00 00 00

DOVE-1>BCRXMT <UI>:
vbat= 10.877 vlo1= 10.540 vlo2= 10.040 vmax= 11.540 temp= 6.661
```

Note that all frames are <UI> frames (Unnumbered Information) addressed to
different "Unproto" designations (they are transmitted as beacons and do not
require "connection" to receive.

DOVE, a product of the efforts of AMSAT of Brazil (Bramsat), currently
transmits on 145.825 MHz FM, with packet beacons ON for 2.5 minutes and OFF

for 30 seconds.

Pretty neat, huh?

73, de John, KD2BD

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

483. Microsat bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-23 07:01:35 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19281@bellcore.bellcore.com>
Source record: 13988

Posted: Mon, Jan 22, 1990 2:01 PM GMT Msg: IGJA-4145-8231
From: TAPR
To: paclist
Subj: Congrats from TAPR

A hearty CONGRATULATIONS from the officers, directors and membership of TAPR, to say nothing of the entire amateur community. Amateur digital communications has just taken a giant leap forward.

And a sincere THANK YOU to each and every one of you that had anything to do with pulling off this fantastic accomplishment.

Andy N0CCZ

Posted: Mon, Jan 22, 1990 2:36 PM GMT Msg: MGJA-4145-8529
From: BMCGWIER
To: amsat, msatcmd
Subj: Elements in error

The elements appear to be okay if you set the EPOCH to 015037 rather than 015207. It was predictable last night and this morning and I see that RAY Soifer reports same.

73
Bob

Posted: Mon, Jan 22, 1990 12:59 PM GMT Msg: NGJA-4145-7788
From: UOSAT
To: AMSAT
Subj: UOSAT-3/4 REPORT 001

UOSAT-OSCAR-14 and UOSAT-OSCAR-15 ACTIVATED

1250 UTC 22 January 1990

The UoSAT-3 and UoSAT-4 were both successfully commanded ON by the UoSAT Control station in Guildford this morning. On the 0900 UTC pass, the 435.120 MHz transmitter on UoSAT-4 was enabled and the satellite started transmitting engineering telemetry. UoSAT-3 was first commanded on the 1030 UTC pass. Its downlink is on 435.070 MHz. Further telemetry was received on the 1200 UTC pass. The downlinks are running at 50% duty cycle, currently 1 minute on and 1 minute off; this may be changed to 10 minutes on 10 minutes off during the 1400 UTC pass.

During the first days of operation, the two satellites will transmit several different data formats. These will all be

asynchronous bytes sent at 1200 bits/second, using AFSK-FM modulation. The data can be demodulated by any UoSAT-1/2 decoder connected to a 435-MHz FM receiver. Unlike UoSAT-2, which uses ASCII characters for most of its data formats, much of the demodulated data from the new satellites BINARY, and not printable ASCII. This data will be coming from one of two onboard sources: the dedicated hardware telemetry system, or the 1802 onboard computer operating system (known as the DIARY).

The dedicated hardware telemetry system is built around a custom-designed Very-Large-Scale Integrated Circuit (VLSI) manufactured especially for the UoSAT-3 and -4 satellites. This telemetry system is independent of all onboard computers, and provides UoSAT engineers with a simple way to monitor the health of the satellite. Telemetry is transmitted by the VLSI system in 10-byte "packets", each beginning with the bytes FF FF (hexidecimal). The VLSI system should only be in use for a few more orbits, so we will not publish the packet format at this time; if it is used for longer than expected, more detailed information will be distributed.

As soon as possible, we will load the FORTH operating system - DIARY - to the primary onboard computers on the satellites. The DIARY will allow us to begin more complex operations, such as whole-orbit-data collections, initial attitude determination, and deployment of the gravity-gradient boom. When the FORTH DIARY has been loaded, printable ASCII data (including a news bulletin) will be mixed with binary data formats.

Anyone who can get a BINARY logs of data from UoSAT-3 (OSCAR-14) or UoSAT-4 (OSCAR-15) on IBM disks is encouraged to send them to the UoSAT Team, The

University of Surrey, Guildford, SURREY, GU2 5XH, United Kingdom. Further information, including descriptions of the DIARY data formats, will follow.

Jeff Ward (G0/K8KA).

Posted: Mon, Jan 22, 1990 1:48 PM GMT Msg: JGJA-4145-8120
From: DCOWDIN
To: AMSAT
Subj: DON'T FORGET LAUNCH TEAM

Junior is a very happy man because we heard DOVE with a H/ and he said it was very strong with an 8 degree elevation!!! Junior leaves tonight and I hope to leave Wednesday! I will start to pack a few things then I will go to Devils Island tomorrow. 73's Guys Dave Cowdin

484. more Microsat bulletins, element correction

Newsgroup: rec.ham-radio
Date: 1990-01-23 07:02:51 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19282@bellcore.bellcore.com>
Source record: 13989

Posted: Tue, Jan 23, 1990 2:01 AM GMT Msg: NGJA-4146-6442
From: RSOIFER
To: paclist
CC: amsat
Subj: CORRECTION

Re my previous message: the 5 second correction to the mean motion should be added, not subtracted; this results in a mean motion of 14.28575, not 14.2841. A corrected version of the text follows:

CORRECTED

Radio observations taken of DOVE during Rev. 14 averaged 3 min. 10 sec. early compared with Bob's unmodified elset derived last night from Arianespace info. My suggested modification following Rev. 10 this morning, that we leave the epoch time alone at 22 days 1 hour 52 min 7 sec but change the mean motion to 14.28492, came out within 5 seconds of my Rev. 14 observation. To fine-tune it a little more, I suggest that we use 14.28575; that should get it right on.

Hope this helps someone until we get better data.

73, Ray, W2RS
.

Posted: Tue, Jan 23, 1990 5:04 AM GMT Msg: NGJA-4146-6974
From: BRAHN
To: msatcmd
Subj: TLMDC does WORK!

SUCCESS AT LAST!

After a long battle this evening, while all the time questioning my sanity, state-of-being, and what life is all about, I overcame the problems I was having in getting Bob's TLMDC software package to run.

Yes Bob, I was running MBBIOS last night and I did use a communications program to verify the TNC was sending the proper data. Everything looked a-ok, but no joy in getting the program to do a darn thing at all--not even trash on the screen!

This evening I started everything all over again--verifying data quality/format etc. Then I tried it on my old 4.7 MHz XT clone--data appeared. Ok, why and what next? Then the light came on (at last--it took far too long ;-))! THOSE DAMN

TSRs!!!!!

Yes, that was the problem. I slowly began getting rid of TSRs.
First the mouse driver--I started to get garbage, but it was
something. I than purged a virus checking TSR and low and
behold--TLMDC worked like a dream! There it was, REAL GOOD DATA!
AT LAST :-D

BOTTOM LINE: TSRs bit me where it hurts. I should have thought
of them, but with the excitement, etc that thought never crossed
my mind. And nothing was interfering with the operation of the
comm program--hex dumps were perfect! So, I've purged all TSRs
and advised the other gents who had problems last night to do the
same, see what happens, and start adding them back until they
find out what causes the problem.

Bob--any documented problems with MicroSoft C 5.1 and TSRs?

73 all and thanks for the suggestions -- Bruce

Posted: Tue, Jan 23, 1990 5:05 AM GMT Msg: DGJA-4146-6978
From: RDIERSING
To: MSATCMD
Subj: A FEW FRAMES

THE FOLLOWING FEW FRAMES ARE POSTED TO GIVE AN IDEA OF WHEN COPY COULD BE
MADE AFTER AOS AT LATITUDE 27.48N ON ORBIT 16.

PACSAT-1>TIME-1:
PHT: uptime is 039/16:06:10. Time is Tue Jan 23 04:35:11 1990

PACSAT-1>TLM:
00:C1 01:94 02:D2 03:77 04:EA 05:9B 06:F4 07:70 08:6D 09:87 0A:A1
0B:9C 0C:E7 0D:DC 0E:00 0F:38 10:D4 11:81 12:02 13:01 14:A4 15:94
16:90 17:91 18:89 19:84 1A:8B 1B:89 1C:86 1D:88 1E:24 1F:5C 20:96

PACSAT-1>TLM:
21:78 22:75 23:5C 24:42 25:2B 26:00 27:00 28:00 29:01 2A:01 2B:00
2C:01 2D:34 2E:04 2F:9A 30:9A 31:99 32:08 33:66 34:97 35:94 36:B6
37:95 38:AA 39:D0 3A:00

PACSAT-1>STATUS:
80 00 00 80 B0 18 EE 55 00 80 00 00 B0 00 00 00 00 00 00 00

PACSAT-1>WASH:
wash addr:0e80:0000, edac=0xdd

PACSAT-1>TIME-1:
PHT: uptime is 039/16:06:40. Time is Tue Jan 23 04:35:41 1990

PACSAT-1>WASH:
wash addr:1780:0000, edac=0xdd

PACSAT-1>TLM:
00:C0 01:94 02:D2 03:77 04:EC 05:9A 06:F3 07:70 08:72 09:82 0A:A4
0B:9C 0C:E8 0D:DD 0E:00 0F:32 10:D4 11:81 12:00 13:02 14:A4 15:94
16:8E 17:8A 18:8E 19:8C 1A:8C 1B:82 1C:8C 1D:90 1E:1F 1F:5C 20:9C

PACSAT-1>TLM:
21:72 22:74 23:5E 24:41 25:31 26:01 27:02 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:03 2F:98 30:99 31:9A 32:01 33:65 34:97 35:94 36:B7
37:97 38:AC 39:CB 3A:01

Posted: Tue, Jan 23, 1990 2:15 AM GMT Msg: KGJA-4146-6509
From: HPRICE
To: amsat
Subj: EDAC Errors

Based on the pre-launch value of the EDAC error counter, we have
already experienced a few single event upsets (SEUs) on each of the
microsats. This is normal and to be expected. The counter for LUSAT
shows many errors, this is more likely to have been a single correctable
error in executable code rather than many individual SEUs.

Each time that the hardware reads a byte containing a bit which was
corrupted by a high energy particle, the correction process ticks into
the EDAC error counter. If the bad byte is read, corrected by hardware,
then re-written by the program, it will not be corrected the next time
it is read. The "wash" routine goes thru each of the 256k of hardware
protected bytes, reading and re-writing all of memory each 4.3 minutes.
As a bad byte is read, it is corrected, counted, and re-written/fixed.
This gets one count per error.

If the error is in a part of the program or data that is read by a process
other than the wash program, an error will occur each time it is read, until
it is fixed by the wash. This results in several counts per error rather
than just one. I suspect that is what happened to LUSAT.

Other items:

The IR sensors are in their most sensitive setting (the default). We'll
probably crank in the log scale in the next few passes. However, there
already can be a case made for seeing the sun and the earth,
when the +Z face (with the IR sensor) is getting current, the IR is 255
counts, when -Z is getting sun and +Z is not, the count is in the 21 thru
146 range. As this data was taken near local noon, chances are good
the +Z was earth pointing (if -Z was sun pointing). When both Zs are
dark, the IR is 0.

Have fun with the telemetry. The more complex software uploading begins
tonite.

Harold
NK6K

Posted: Tue, Jan 23, 1990 3:16 AM GMT Msg: JGJA-4146-6690
From: HANSV

To: AMSAT
Subj: CONGRATULATIONS

Congratulations to all ! The launch of the 6 satellites is another
triumph for Amateur Radio.
The ALINS was a great success and created tremendous interest and
was worth every effort put into it by all.
Thank you from SA AMSAT and all in Southern Africa.

73 Hans ZS6AKV

Posted: Tue, Jan 23, 1990 5:22 AM GMT Msg: HGJA-4146-7010
From: BMCGWIER
To: amsat, msatcmd
Subj: Stuff

Independently, I empirically derived 14.2856 for a new mean motion. Just goes
to show you Ray, great minds think alike. After making that change, the passes
all day long were within seconds. This lowers us by over 20 km. Not the end
of the world but not great.

We are seeing lots of EDAC counts in this dense memory and the wash routines
are saving our buns. When an SEU happens in program intense space, the
counter really moves before the Wash routine gets to it. We never see
the edac counter move here. I would be MOST interested in getting data
from the Argentinians.

I bet that most of the SEU's occur over the SOuth Atlantic.

Bob

Posted: Tue, Jan 23, 1990 5:46 AM GMT Msg: BGJA-4146-7074
From: TCLARK
To: amsat
Subj: A little PR

Here is a packet bulletin I started circulating to the masses. If you post
it locally, please preserve the BID ----

SB ALL@AMSAT < W3IWI $34842_W3IWI
Listen to the new Microsats
R:900123/0535z 34842@W3IWI.MD.USA [Balto/Wash MD/DC/VA/DE] Z:21029

As you have probably heard, six new amateur satellites were launched on
schedule Sunday night, Jan.21 (about 01:36z on 1/22) following a one day
delay because of bad weather at Kourou. With that launch we now have
OSCAR-19 (and 14, 15, 16, 17 and 18) all in orbit.

All four Microsats (-16 thru -19) and both UoSATs (-14 and -15) have now all
been brought to life and all indications are that everything is nominal.

Of the Microsats, three (PACSAT, LUSAT and WEBERSAT) are transmitting 1200BPS
PSK packet telemetry in the 437 MHz range. LUSAT is also transmitting CW on
437.125 MHz.

The fourth Microsat, DOVE has a 2M downlink on 145.825 which later will be transmitting synthesized voice, but now it is sending ordinary 1200 BPS AFSK-FM packet telemetry which anyone can copy with a "stock" TNC and 2M FM radio -- no special equipment required! On the last pass I was even able to hear DOVE well on my HT with a rubber duckie when it was 2800 km away, about 5 degrees above the horizon. On the radio I normally use for the W3IWI PBBS, DOVE is as loud as many local area packet users. DOVE's 2 watt 2M xmtr puts out a potent signal!

All 6 spacecraft are in essentially the same sun synchronous orbit. In the northern hemisphere you will get two or three evening passes in a window centered on 10PM local time, and two or three morning passes centered on 11 AM local time -- all the passes you can hear will be between plus/minus two hours from these times.

So if you want to copy the packet signals from DOVE flying 800 km up, just crank your 2M FM rig to 145.825 and leave your TNC in the monitor mode. It will transmit for a couple of minutes and then stop for 30 seconds. To decode the telemetry from any of these satellites, watch the ALL@AMSAT packet bulletins distributed by AMSAT for more details.

And there's more to come -- the Japanese plan to launch OSCAR-20 next month, and astronaut Ron Parise, WA4SIR will have packet radio hardware onboard the next flight of the Shuttle Columbia (STS-35) in April.

If you are proud of these amateur achievements, please contact AMSAT for more information on how YOU can participate in these amateur space activities.

73 de Tom, W3IWI

/EX

485. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-23 08:01:47 UTC
From: die@cpoint.UUCP
Message-ID: <3648@cpoint.UUCP>
Source record: 13990
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jan20.215811.18908@hellgate.utah.edu> liebchen@cs.utah.edu (Armin Liebchen) writes:
>Does anyone know about the frequencies of online stock-market quote
>transmissions in the air. They're supposed to transmit on FM, but in
>order to cover some appreciable range I wouldn't expect them to go
>higher than 60MHz.

All of these services use SCA subcarriers on commercial FM stations to transmit the stock quote information. They are thus using frequencies between 88-108 mhz, but at the very high effective radiated powers of broadcast FM stations the signals are receivable with a decent antenna for distances of up to 100-150 or more miles away from the station.

The two most popular services transmit FSK subcarriers with about 8-10 khz of deviation on either 67 khz or 92 khz. Usually they choose a strong (50kw) FM station with a good signal over a wide area (good antenna site). Because of the need for good coverage these stations tend to be the top (and usually rock) stations in their area. Both major services have many (upwards of 100 I believe) stations transmitting their data streams in various markets throughout the US.

Modulation is direct NRZ FSK by encrypted ASCII data streams at 4800 or 9600 baud. Transmission is 8 bits plus parity or 8 bits with no parity asynchronous with 1 stop bit. The information is encrypted with relatively simple ciphers that can be broken by amateurs (nothing as hairy as DES is currently used). Under the encryption, the information will be found to have a regular format suitable for machine parsing rather than easy direct human readiblity.

There are also a number of other services that transmit streams of information (including wire services and the like) on SCA subcarriers both with FSK and PSK modulations and a 24kbs AM/VSB mode. Some, like the latter 24 kbs service use elaborate Reed Solomon or BCH forward error correcting codes, and transmit packetized data time division multiplexed on a packet by packet basis so that one data stream can carry many different information streams.

The stock quote signals can be received by simple homebrew PLL FSK decoders if the FM station signal is strong, but the software hacker unwilling to cobble together a hardware FSK demod can always purchase a Lotus Signal kit and hack the software. Lotus Signal kits come with a FM tuner/FSK receiver on an AT plug in board. The tuner and FSK unit are under software control and can be set to receive all available FSK transmissions with a little hackery.

Obviously, receiving such signals and extracting the information
therein may well constitute the crime of "signal theft" or "theft of
services". It seems clear that the ECPA outlaws unauthorized reception of
scrambled or encrypted transmissions, and that if the situation with satellite
TV is any guide the Feds might prosecute. Chances are very good that they would
prosecute anybody who made a business of selling equipment to support
such piracy, private individuals experimenting in their basements for fun are
much less likely to be targeted although they are probably still commiting
at least a technical crime.

--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

486. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-01-23 08:07:17 UTC
From: kjh@pollux.usc.edu
Message-ID: <22465@usc.edu>
Source record: 13991

In article <533@smcnet.UUCP> lawrence@smcnet.UUCP (Lawrence Roney) writes:
>Does anybody have a sugesstion for a repeater controller that they
>have used in construction of a system. Our group currently has a limited
>budget of around $1000 or so to spend on a controller/autopatch, however
>if there is a suggestion for an exceptionaly good unit, we might dig a
>little deeper and spring for it.
> Thanks.
>Lawrence Roney KC6HQR
>Mail: uunet!ucla-cs!smcnet!lawrence

I am working on one right now. I expect to be done in less than a
month. I suggest using an IBM PC, with a little extra misc. hardware.
I will use the speaker output through a low pass filter for CW id and
other informative messages. I will use standard serial and parallel
ports for input and output. Everything will be controlled by software.

A video monitor will not be required; a video card and a keyboard might
be. No hard disk will be required, a floppy controller and one floppy
drive will be used. The system will basically consist of case,
motherboard, power supply, floppy controller and drive, serial/parallel
card with real time clock, keyboard, and monitor (which may be removed
after bootup).

Advantages:
I get exactly what I want, not what the manufacturers think I
want.

Everything is easily changed as desired/required.

Controller is easily extended to more capabilities.

Hardware is readily available, and cheap - the total cost should
be less than many comparible controllers.

Customer service is excellent, because I know the manufacturer
well (that's me :-).

Disadvantages:
No voice ID or messages, just CW. (But I consider this a
feature, not a bug.) [Note: if voice ID is really required, it
wouldn't be that hard to add.]

Since I don't really plan on making a whole lot of money, and because I
don't think I could even if I tried, and because I basically agree with
Dr. Richard Stallman of MIT that software should be free, and because
releasing this software will be good for the amateur radio community as
a whole:

---> I plan to release the software and hardware design
into the public domain, if there is significant interest.

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

487. VHF Sweepstakes

Newsgroup: rec.ham-radio
Date: 1990-01-23 12:39:28 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9001240803.AA01287@ucbvax.Berkeley.EDU>
Source record: 13992

An earlier poster asked about the VHF Sweepstakes
this past weekend. Overall, conditions stank.
6 meters was worse than I have heard it in years, with
very little scatter on Sunday morning. Tropo condx
on the higher bands were poor. The ice/snow in the Atlantic
states didn't help activity. I was a tourist only and ended
with about 11K.

The only saving grace was the pathetic aurora on Sunday
night. From 0000 UTC until the end of the contest,
weak Au was present, mainly on 2 meters.

Anyone know any rough scores?

Mike Owen W9IP/2

488. FM Coverage Distances (NE US & California)

Newsgroup: rec.ham-radio
Date: 1990-01-23 14:18:36 UTC
From: rc@cmr.ncsl.nist.gov
Message-ID: <9001231418.AA05433@cmr.ncsl.nist.gov>
Source record: 13993

David I. Emery writes:
> All of these services use SCA subcarriers on commercial FM stations
> to transmit the stock quote information. They are thus using frequencies
> between 88-108 mhz, but at the very high effective radiated powers of broadcast
> FM stations the signals are receivable with a decent antenna for distances
> of up to 100-150 or more miles away from the station.

Don't get your hopes up for 100-150 mile range in the Northeastern part of the US. The FCC has reduced required separation is this part of the country, and many of the stations were allocated "before the freeze" with even closer distances. Even then they have been allowed to go to full Area 2 power of 50 kW at 150 m above average terrain.

Thus 99.5 MHz has full-power stations in Washington, DC, Wilmington, DE and New York City, for example. Distances are about 100 miles ON THE SAME CHANNEL. The first-adjacent problem + or - 200 kHz is fully as bad, with stations in Baltimore and SW Washington, DC area spaced by 200 kHz and about 50 miles. The just-being-added Docket 80-90 stations ensure that no station can be relied upon to cover beyond its primary area (~30 miles for Class B, ~15 miles for class A)

**** These comments certainly do not represent an official statement by my employer *****

73, Bob W3OTC

489. Re: Recommendations for indoor antenna?

Newsgroup: rec.ham-radio
Date: 1990-01-23 15:06:11 UTC
From: <>
Message-ID: <1990Jan23.150611.13169@usenet.ins.cwru.edu>
Source record: 13994

Does anyone have any thoughts on indoor verticals? I have considered running a wire up the staircase from the basement; it would give about ten meters of vertical wire. Would a random-wire tuner match such a beast? Would it work for frequencies at which the antenna was greater than 5/8 wave?

73,

--David

490. CODE 3

Newsgroup: rec.ham-radio
Date: 1990-01-23 15:08:57 UTC
From: root@kunivv1.sci.kun.nl
Message-ID: <785@kunivv1.sci.kun.nl>
Source record: 13995

I am looking for people who have experience with CODE 3, a program for decoding signals like RTTY, ASCII, AMTOR, AX25 packet radio, FAX, MORSE, HELL, FEC-A, FEC-B and a lot more of them. CODE 3 is sold by HOKA Electronic in Oude Pekela, NL. I have already obtained the rewviews of CODE 3 in Radio Amateur Magazine Dec 89 and Jan 90 . If you have comments, documentation, or a more extended manual than the one HOKA sended me, please write or E-mail.

Phons Bloemen phons@cs.kun.nl
Sophiaweg 244 6523 NJ Nijmegen NL Uni.of Nijmegen,Dept of Computer Science

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491. 30-50 MHZ

Newsgroup: rec.ham-radio
Date: 1990-01-23 16:16:38 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001231635.AA03055@ti.com>
Source record: 13996

There's practically no activity on the 30-50 mHz band, since law enforcement has moved to the higher bands. I believe that, since Hams have been deprived of space on 220, we could be given the space between 29.5 and 45 mHz without creating any problems. The new space could be designated the 8-meter band, and could be used for all sorts of data transmission experiments and open to all license classes.

73,
Dube Todd N5PDK

492. MININEC documentation source

Newsgroup: rec.ham-radio
Date: 1990-01-23 16:29:44 UTC
From: philb@ptolemy.TEKTRONIX.COM
Message-ID: <5940@orca.wv.tek.com>
Source record: 13997

I have found a source of documentation for the MININEC antenna
analysis program.

"MININEC algorithim, including mathematical formulation, error
analysis, and original program listing. This 100+ page manual
is available from the US Government for $22.95. It may be ordered
with a check, or by phone with a credit card. Request NTIS
document number ADA181682 from:

U.S. Dept. of Commerce
Natioanl Technical Infromation Service
5285 Port Royal Rd.
Springfield, Va 22161
(703) 487-4650"

Phil Biehl (503)685-2122
Tektronix Inc., VSG, MS 60-850, POB 1000, Wilsonville, OR 97070
{decvax,ucbvax,uw-beaver}!tektronix!orca!philb or philb@orca.WV.TEK.COM

493. New Icom Radios (Official Announcement) !!

Newsgroup: rec.ham-radio
Date: 1990-01-23 17:24:51 UTC
From: ewb@raybed2.UUCP
Message-ID: <1444@raybed2.UUCP>
Source record: 13998

FOR IMMEDIATE RELEASE

ICOM ANNOUNCES THE IC-R1 MINI-HANDHELD COMMUNICATIONS RECEIVER

JANUARY 19, 1990

The smallest wideband handheld receiver available today, the ICOM IC-R1 continuously covers 100kHz-1300MHz with AM, FM and Wide-FM modes. Measuring just 1.9"w x 4.0"H x 1.4"D this tiny receiver can go anywhere with you. The size is unbelievable!

Built-in NiCd Batteries. Like the famous "S" series hand-helds the IC-R1 has built-in NiCd batteries and optional battery packs.

Multi-Function Scanning . The IC-R1 incorporates a variety of scan functions to meet all your needs. They include: programmed scan, memory scan, selected mode memory scan, and auto memory write scan.

Keyboard and Tuning . This compact, easy to operate receiver features both direct keyboard entry and rotary tuning control.

100 Memory Channels . The tiny IC-R1 has 100 memory channels that store frequency, mode and skip functions. You can even mask memories!

Built-in Clock . More advanced functions of the IC-R1 in-clude a 24 hour clock and automatic timer. Your receiver can turn itself on or off. Super convenient for scheduled listening!

The world's smallest full-featured receiver, the IC-R1 is also equipped with a power saver function, adjustabe LCD contrast, a signal indicator, an external DC power jack with battery charge capability plus a large variety of other options from the "S" series handhelds. The new IC-R1 will be available in March, 1990.

FOR IMMEDIATE RELEASE

ICOM INTRODUCES THE NEW IC-R100 ADVANCED WIDEBAND COMMUNICATIONS RECEIVER

JANUARY 19, 1990

ICOM, the champion in receiver technology, introduces the new IC-R100 wideband communications receiver. The IC-R100 provides

tremendous listening versatility in a variety of locations including air band, marine band, and emergency service frequencies, as well as amateur bands. The compact IC-R100 is designed for flexible installation at home or in your car. Go the distance with ICOM's new IC-R100 wideband communications receiver!

*Super Wideband Receive Capability. The IC-R100 continuously covers a wide frequency range within 100kHz-1856MHz in AM, FM, and wide FM modes at home or in your vehicle .

*Easy-to-Operate Keyboard and Tuning Control. The IC-R100 has complete programming versatility. You can use either the keyboard or tuning control to access frequencies and memory channels.

*121 Memory Channels. A total of 121 memory channels are available on the IC-R100. 100 memory channels store operating frequencies, modes, RF attenuator and preamplifier settings. Twenty scan edge memory channels are used for specifying 10 pairs of frequency ranges required for programmed scan. Plus, the receiver has one independent memory channel used for priority scan.

*Built-in 24 Hour Clock. The IC-R100 includes a 24 hour clock and a variety of timer functions. Even if the receiver's external power supply is disconnected the clock continues to run because of the built-in lithium battery. The different timer functions are convenient for scheduled programs, the receiver just turns itself on and off .

The versatile IC-R100 also includes three separate antenna connectors, a built-in preamplifier and attenuator, plus a complete variety of scan functions. The new IC-R100 will be available in March, 1990.

FOR IMMEDIATE RELEASE

ICOM ANNOUNCES THE NEW IC-970 ALL MODE MULTI-BAND TRANSCEIVER

JANUARY 19, 1990

Project yourself into the 21st century with ICOM's new IC-970 all mode multi-band transceiver. Designed for the serious operator on 144, 440 and 1200MHz the IC-970 provides the most futuristic technology for DX, digital and satellite communications.

* Verstile Communications . The IC-970 comes fully equipped as an all mode dual bander for 144MHz and 440MHz. Operate the 1200MHz band by installing the optional UX-97 band unit or listen to what's happening in the world with the UX-R96 wide band receiver unit, receiving 50-905MHz continuously.

* Dual Band Watch . Capable of receiving both main and sub band audio simultaneously. Multiple scanning systems also function concurrently on the main and sub bands.

* Reach Beyond the Stars . Reach beyond the stars with the new IC-970. Communications via satellite has never been so easy. This amazing transceiver automatically tracks uplink and downlink frequencies when the tuning control is rotated. Ten memory channels specially designed for quick satellite communications emphasize ICOM's total commitment to your future communication needs.

* Progressive Quality Throughout . ICOM's extra large multi-function display is easy-to-read, providing complete main and sub band information. 99 memory channels per band store operating frequencies, modes and repeater information.

ICOM's exclusive DDS system accelerates the PLL circuits lockup times and provides improved Carrier-to-Noise-Ratios. A built-in pager and code squelch function, plus direct keyboard entry and ICOM's CI-V system are just a few additional IC-970 features that will propel you into the 21st century. You'll see why the IC-970 is the transceiver of a new generation! The IC-970 will be available April, 1990.

RELAYED from Compuserve by WA1OMM !!

494. Spot-2, V35, Microsats, etc.

Newsgroup: rec.ham-radio
Date: 1990-01-23 17:56:26 UTC
From: mac@idacrd.UUCP
Message-ID: <565@idacrd.UUCP>
Source record: 13999
Cross-posted to: sci.space,rec.ham-radio

As you may know, the Ariane V35 mission was a complete success. It lofted the new French Earth Resources satellite (SPOT-2) into a polar orbit. It was accompanied by six amateur radio satellites, four Microsats, two UOSATS. Are are performing nominally in orbit. The UOSAT commanders are able to work with the UOSATs with no problem and Harold Price, NK6K, and myself are able to command the Microsats at will. Thanks to the folks at Ariane for another perfect ride.

Bob

--

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------------------------------------------------------------------------------
My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
------------------------------------------------------------------------------
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495. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-01-23 19:30:22 UTC
From: jws@hpfcso.HP.COM
Message-ID: <7500012@hpfcso.HP.COM>
Source record: 14000

In your price range, the S-Comm 7K controller is an excellent choice. It will give you lots of programming capability, optional voice synthesis, and outstanding construction quality and durability (they also make variations for commercial applications). Contact Bob, WA9FBO at S-Comm at (303) 663-6000.

Numerous repeaters along the Colorado Front Range have been upgraded to this controller, and users are very happy with it.

73,

John, NK0R

jws%hpfcla@hplabs.hp.com

496. Re: Recommendations for indoor antenna?

Newsgroup: rec.ham-radio
Date: 1990-01-23 19:31:01 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <11164.25BCB57B@stjhmc.fidonet.org>
Source record: 14001

> From: cep4478@ultb.isc.rit.edu (C.E. Piggott)
> Date: 18 Jan 90 05:03:54 GMT
> Organization: Information Systems and Computing @ RIT, Rochester, New
> York
> Message-ID: <1946@ultb.isc.rit.edu>
> Newsgroups: rec.ham-radio
>
> what I experimented with was indoor dipoles for 10 and 15m. It's not
> as tough to do as I thought it was before starting: for one, a folded
> dipole is less than half the length of an ordinary dipole, so that
> is probably worth experimenting with.

Forty years ago, when I was a mere slip of a lad, I had a 40 meter folded dipole made by Amphenol. Same length as conventional dipoles. Are we maybe talking about different things? Mine was a half-wave of 300 ohm ribbon line with the two parallel conductors tied together electrically at the ends and fed with more 300 ohm ribbon connected in a break in the center of one conductor. It was a rather popular antenna then, when TV was new and 300 ohm ribbon was lying around by the ton.
73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

497. Re: All Microsats transmitting!

Newsgroup: rec.ham-radio
Date: 1990-01-23 19:37:15 UTC
From: jsb@hpfinote.HP.COM
Message-ID: <16170011@hpfinote.HP.COM>
Source record: 14002

Can someone publish a list of operating modes and frequencies for these
new birds????

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

498. Getting on freq.

Newsgroup: rec.ham-radio
Date: 1990-01-23 19:39:04 UTC
From: aaker@Apple.COM
Message-ID: <38048@apple.Apple.COM>
Source record: 14003

A novice asked how to make sure he was on the right freq. to
answer someone. Does anyone have any corrections or additions
to my best advice?

1. Make sure the RIT is OFF, or the RIT control is centered so that you're
listening on the same frequency as you transmit.

2. Tune in the other station so they sound right to you, with correct pitch to
get through the filter of your radio if you have a narrower CW filter.

3. Now leave the tuning knob alone!!! Go ahead and call the other station.
The other operator will adjust their frequency so that you sound right to them
(just like you did).

4. If on their next transmission, they sound like they have moved away from the
correct pitch, use your RIT control to tune them back to the correct pitch.
Don't use your tuning knob or your transmit frequency will move, and then the
other operator will move again trying to follow you. The two of you will
alternately "leap-frog" your way across the band.

5. Misc. & Hints: It might help to know that in trying to put your signal
right on someone's listening spot, you need to turn the knob the OPPOSITE way.
Example: if to you they sound pitched too low, you probably sound pitched too
high to them. To bring yourself closer to the middle, you need to turn the knob
to tune them even lower, NOT HIGHER. Also, make these adjustments very small,
say only half as much correction as you would like to have.

-Mark NT6G

499. Re: Miniature FM receivers - what chips to use?

Newsgroup: rec.ham-radio
Date: 1990-01-23 20:54:05 UTC
From: wilson@ccop1.ocpt.ccur.com
Message-ID: <281@ccop1.ocpt.ccur.com>
Source record: 14004

In article <3430001@hpqtdla.HP.COM>, jdg@hpqtdla.HP.COM (James Gentles) writes:
>
> r.e. Minature FM receivers.
>
> Have a look at TDA7000. Its a one chip FM radio, with RF, mixer, LO

With all this talk about minature receivers, it occurs to me that hams will have a great opportunity for publicity this year. The big movie that will surpass "Batman" in hype this year will be "Dick Tracy" starring Warren Beatty.

Let's have a contest for the first two-way wrist ham radio! Single channel 2 meter FM might work.

First prize - A distinguished listing in the Crime Stoppers Notebook!

73

Gary Wilson, WB2BOO

500. MARS mod for TS140

Newsgroup: rec.ham-radio
Date: 1990-01-23 21:09:36 UTC
From: tgrubbs@REDSTONE-EMH2.ARMY.MIL
Message-ID: <9001240805.AA01643@ucbvax.Berkeley.EDU>
Source record: 14005

Does anyone in NET LAND have the mods for MARS on the KENWOOD TS140.
I Would like to have them if possible.. Thanks..... Tom N4QYN

501. Re: Recommendations for indoor antenna?

Newsgroup: rec.ham-radio
Date: 1990-01-23 21:49:33 UTC
From: greg@uts.amdahl.com
Message-ID: <d04Q02vE81EG01@amdahl.uts.amdahl.com>
Source record: 14006

In article <11164.25BCB57B@stjhmc.fidonet.org> Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:
>
> > From: cep4478@ultb.isc.rit.edu (C.E. Piggott)
> > Date: 18 Jan 90 05:03:54 GMT
> > Organization: Information Systems and Computing @ RIT, Rochester, New
> > York
> > Message-ID: <1946@ultb.isc.rit.edu>
> > Newsgroups: rec.ham-radio
> >
> > what I experimented with was indoor dipoles for 10 and 15m. It's not
> > as tough to do as I thought it was before starting: for one, a folded
> > dipole is less than half the length of an ordinary dipole, so that
> > is probably worth experimenting with.
>
>Forty years ago, when I was a mere slip of a lad, I had a 40 meter folded
>dipole made by Amphenol. Same length as conventional dipoles. Are we maybe
>talking about different things? Mine was a half-wave of 300 ohm ribbon line
>with the two parallel conductors tied together electrically at the ends and fed
>with more 300 ohm ribbon connected in a break in the center of one conductor.
>It was a rather popular antenna then, when TV was new and 300 ohm ribbon was
>lying around by the ton.

Bingo. A "folded diple" is one which is a half-wave long and where the
ends fold back on themselves and join in the center, thusly:

```
_____________________________________________
(___________________ _____________________)
| |
| |
| |
```

Characteristic impedence: 300 Ohms. Most often seen as the
"driven" element of old TV Yagis.

What C. E. Piggot is probably describing is a "bent" dipole,
which is simply a normal half-wave with the ends running
around a corner. It'll have to be a little longer to get
the proper 50 Ohms impedence, but it'll work just fine.
(I worked 35 states as a Novice with 3 Watts on 40 and
15 CW using a bent dipole on the apartment roof. Only
took me 3 months.)

Greg

502. WAS: Dish in the attic NOW flat panel dishes

Newsgroup: rec.ham-radio
Date: 1990-01-23 22:56:18 UTC
From: bobm@qip.UUCP
Message-ID: <1838@qip.UUCP>
Source record: 14007
Cross-posted to: rec.video,rec.ham-radio,sci.electronics

In article <1881@neoucom.UUCP> wtm@neoucom.UUCP (Bill Mayhew) writes:
>

a lot of stuff about putting an antenna in the attic...

> Such an increase in power output
>would make microprocessor controlled steerable phased array flat
>panel antennas a practicality. Several japanese electronics firms
>are currently working on flat panel domestic satellite reception
>systems. The biggest boon for the consumer is that the phased
>array panel could easily be mounted on a generally south facing
>window or roof without the need of a professional installer. The
>microprocessor could autmatically figure out how to steer the array
>to the desired satellite.
>

Does anyone have any sources on flat panel's, what I'd like to know
is the disadvantages (size, cost, etc), how they are constructed,
(mesh wire, etc) and how they are steered. I'm looking to build
my own dish (around 4' or less) for the GEOs satellites and since
I'm starting from scratch and am broke I'd like to make this as
cheap as possible and yet work. I just picked up the Satellite Experimenters
Handbook and it has a lot of neat stuff, although it's dated 1985
and I feel that a LOT has gone on since then.

thanks
bob

503. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-24 00:28:39 UTC
From: grr@cbmvax.commodore.com
Message-ID: <9446@cbmvax.commodore.com>
Source record: 14008
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <130554@sun.Eng.Sun.COM> jneher@tenorman.Sun.COM (John Neher) writes:
> Hi,
>
> Did anyone out there save any of the articles on creating
> good earth grounds to hook up to radio equipment.
>
> 1. What kind of rods to drive into the earth?

You want copper plated steel ones. You can get little ones at Radio Shack,
heavy duty ones at a Ham Radio shop or electrical supply dealer.

> 2. How many?

One is probably enough in relativly most soil. With dry soil you might
want more or longer ones, but a lot of the "lots of grounds" stuff you
read is more appropriate to transmitting. If you do use multiples, they
should be at least as far apart as they are long.

> 3. How deep?

Deeper is better since the effect may depend on getting into contact with
various layers of soil that stay moist>.

> 4. Is there any way to test how good a ground you have made?

Try it. You may be able to get some indication by measuring the resistance
between two, but there is no guarantee that this is constant.

The other thing is to make sure you get a solid contact with the rod so
that it isn't flakey or noisey. Make sure the wire is clamped or soldered
to the rod, the little clamps that come with the radio shack rods are close
to useless. If you use a clamp, you may want to tape or otherwise weather
proof the clamp.

Keep the wire a short as possible and use decent sized wire - about the size
of your antenna wire. A short ground lead works best overall, a longer
one becomes a part of your antenna system and makes the antenna harder to
characterize, especially at higher frequencies.

Will it help? Probably at least some. If you are using an external
antenna, it also give you a place to hook a static-discharge/"lightening
arreastor" to, which may save your radio or prevent shock/fires...

--
George Robbins - now working for, uucp: {uunet|pyramid|rutgers}!cbmvax!grr
but no way officially representing: domain: grr@cbmvax.commodore.com
Commodore, Engineering Department phone: 215-431-9349 (only by moonlite)

504. Re: America OnLine Ham area

Newsgroup: rec.ham-radio
Date: 1990-01-24 01:14:42 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Jan24.011442.20828@NCoast.ORG>
Source record: 14009
Cross-posted to: rec.radio.shortwave,rec.ham-radio

As quoted from <3560@cbnewsj.ATT.COM> by ralph@cbnewsj.ATT.COM (Ralph Brandi):
+---------------
| Last night on America OnLine, a CompuServe-type service for users of
| Macintoshes and Apple //s, I found a ham/SWL forum. It's under the
| "Lifestyles" section, and reachable with the keyword "HAM" (what a
| surprise....) There isn't a whole lot of stuff there yet, but I
| thought it was pretty interesting that a relatively new service
| would have a forum on the subject of radio pretty much from the
| beginning.
+---------------

It's not really all *that* new... its former name was "AppleLink Personal
Edition". There are messages going back at least to early '89 in some areas.

++Brandon

--
Brandon S. Allbery allbery@NCoast.ORG, BALLBERY (MCI Mail), ALLBERY (Delphi)
uunet!cwjcc.cwru.edu!ncoast!allbery ncoast!allbery@cwjcc.cwru.edu
(comp.sources.misc mail to comp-sources-misc[-request]@backbone.site, please)
Third party vote-collection service: send mail to allbery@uunet.uu.net (ONLY)

505. Ham and/or Satellite Store

Newsgroup: rec.ham-radio
Date: 1990-01-24 01:47:30 UTC
From: doug@hpcilzb.HP.COM
Message-ID: <1110006@hpcilzb.HP.COM>
Source record: 14010

A friend of mine from New Zealand, who is a ham, is looking for good places to buy satellite equipment and ham equipment. He is staying in Palo Alto, California. Any local hams know one or two good places?

Douglas Hendricks Q: You say you believe that the meat is all. Why?
Hewlett-Packard A: The world is too wondrous to need a spiritual other.
Santa Clara, CA
(408) 553-3524
doug@hpcilje.hp.com

506. RF voltmeter

Newsgroup: rec.ham-radio
Date: 1990-01-24 03:07:29 UTC
From: BERTSCH-S@osu-20.ircc.ohio-state.edu
Message-ID: <12560663891011@osu-20.ircc.ohio-state.edu>
Source record: 14011

I am thinking about building a peak reading voltmeter into my MFJ dry dummy load, to have another way of measuring power output. I think a half wave, diode-cap circuit should do it, then:
P = (.707Epeak)^2/R
The output of this will be measured by a DVM with input Z > 10 Meg.
I will also require that this circuit not upset the SWR of the dummy load, and be accurate from 1.8 to 30 MHz. (A VHF version will follow.)

So, I figure I need to find a diode with:
1) PRV greater than 200 V, or better.
2) Foward drop as small as possible.
3) Junction capacitance _very_ small.

Any ideas?

507. Logging with KA9Q TCP/IP ?

Newsgroup: rec.ham-radio
Date: 1990-01-24 04:26:47 UTC
From: john@wa3wbu.UUCP
Message-ID: <573@wa3wbu.UUCP>
Source record: 14012

With the previous (pre-NOS) version of TCP, is there a way to log the results of a Trace to a file ? I'm running in under Unix. I've looked through the documentation and I can only get ftp and misc requests to log, not the trace. Any ideas ? I would like to leave trace on over a period in time and have it all captured.

John

--
John Gayman, WA3WBU | UUCP: uunet!wa3wbu!john
1869 Valley Rd. | ARPA: john@wa3wbu.uu.net
Marysville, PA 17053 | Packet: WA3WBU @ WB3EAH

508. Other HAM journals

Newsgroup: rec.ham-radio
Date: 1990-01-24 07:42:00 UTC
From: POSCH@AMC.UVA.NL
Message-ID: <9001240809.AA01873@ucbvax.Berkeley.EDU>
Source record: 14013

>I am interested in receiving the journals produced by the amateur radio
>societies from other English speaking countries (their versions of QST).
>Does anyone out there have any info on this? The address of RSGB is
>
>73's - WA5RPF

There's also another German journal called "DUBUS". It's written in German
as well as in English and contains only articles related to VHF-UHF and SHF
It appears 4 times per year, if you are interested I can give you the full
address.

Cor Posch, PA3DYW
Academic Medical Centre
Amsterdam

509. Re: TRC-430 CB

Newsgroup: rec.ham-radio
Date: 1990-01-24 09:16:00 UTC
From: john.stevens@canremote.uucp
Message-ID: <90012422214023@masnet.uucp>
Source record: 14014

I know this is for HAm but...

I've got a TRC-430 CB and mag-mount antenna, what would anyone pay for
it if they so desired?

It was used for about ten-days in November, then I left the company with
the company car remaining theirs.

Any askers... paid $136 or something like that (for all pieces).

~ EZ 1.24 ~ y If someone's depressed, be there for them y

* QNet 1.03a3: NorthAmeriNet: . HQBBS / ~ Toronto ~ Canada ~ 416y566y1765

510. Re: DAVCO recvr question

Newsgroup: rec.ham-radio
Date: 1990-01-24 09:35:35 UTC
From: tad@ssc.UUCP
Message-ID: <422@ssc.UUCP>
Source record: 14015

Greg May asked about the origins of the DAVCO DR30 receiver. It was a ham receiver marketed in the mid 60s by Davco Electronics, of Tallahassee. It sold for $389.50. My friend W7OE (SK) had one and liked it, although I think it's performance is not nearly as good as modern receivers.

Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

511. cleaning old radios.

Newsgroup: rec.ham-radio
Date: 1990-01-24 11:52:03 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <24.Jan.90.11
Source record: 14016

If you can strip the switch out of the radio entirely, and you have access
to an ultrasonic cleaning bath, then it is worth giving your switch a few
hours being bombarded with ultrasound. Same applies to tuning capacitors.
Use water with a touch of domestic detergent added - this will shift the
grease, dust and years of caked on filth. Wash well after this cleaning to
remove detergent traces (and any adhering crud),
dry in an oven { but dont melt it :-) } re-lubricate and re-install.
This method cured a 'jumpy' local oscillator in my AR88, but
be prepared for a battle of wits in just getting the switch out of the radio -
in some instances the radio looks to be assembled around the switch with
no thoughts of how to ever get it out! You may be able to pull the switch
spindle out the front, then remove individual wafers one at a time.
Ultrasound is quite wonderful for cleaning things up - tube sockets, variable
capacitors, front-panel knobs etc. all shine like new after a few hours in
the bath.
Dont try this technique with meters or dial-plates though - there is a
tendency for the printed calibrations to come off!

///Pete G6WBJ

512. Re: SW B'cast stations

Newsgroup: rec.ham-radio
Date: 1990-01-24 13:49:00 UTC
From: benk@inmet.inmet.com
Message-ID: <13700015@inmet>
Source record: 14017

For your info.: KYOI was sold to the Christian Science Monitor in 1987 or 1988. It went off the air during the summer of 1989, and came back on the air in the fall of 1989 with the new callsign KHBI. During the summer of 1989 the station's transmitter and anttenna facilities were upgraded (in particular a 2nd 100 kW transmitter was added). This station now broadcasts the World Service of the Christian Science Monitor (as well as Christian Science religious programs) just like WCSN (Maine) and WSHB (So. Carolina).

-- Ben Krepp

From uunet: uunet!inmet!benk
From DDN: benk@inmet.inmet.com

513. Re: 10 meter pirates (was = Re: AM oper

Newsgroup: rec.ham-radio
Date: 1990-01-24 14:17:42 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500365@ux1.cso.uiuc.edu>
Source record: 14018

> Does this include Amateur Electronic Supply? I notice that their catalog
> lists a Hustler RM-11S. This is a 2 kw PEP resonator which is intended
> for operation on 11 meters. I can't think of a legitimate purpose for this,
> at least in this country. [They also list a 400 Watt one that I could
> imagine using if I _needed_ 11 meter coverage.]

It's legal to use an antenna capable of handling 2 kw PEP with your 12 watt PEP legal CB rig, as far as I know.

I'm not against selling CB equipment. I'm against selling CB equipment that has been modified, or can be easily modified, to operate outside of the CB bands.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

514. (none)

Newsgroup: rec.ham-radio
Date: 1990-01-24 14:22:09 UTC
From: Jay_Appell_office@es.UUCP
Message-ID: <9001240922.14110604CB72@es.office>
Source record: 14019

I am looking for the mod that extends the receiver on the Kenwood 711A.
Can someone help me locate this. I can also be reached by phone
at 508-460-2548.
------------------------- REPLY ------------------------
***************** Original LETTER 1 of 1 *****************
Received: by es with OFFICE2.2b id D9C1010B1388; Wed, 24 Jan 90 05:13:21 EST
Date: Wed, 24 Jan 90 05:13:21 EST
From: uucp_office
Subject: WSMR-SIMTEL20.ARMY.MIL!INFO-HAMS-REQUEST:
Message-Id: <9001240513.D9C1010B1388@es.office>
To: Jay_Appell_office

>From uucp Wed Jan 24 05:13 EST 1990
>From bu.edu!WSMR-SIMTEL20.ARMY.MIL!INFO-HAMS-REQUEST Wed Jan 24 04:49:41 1990 remote from
cloud9
Received: from cloud9 by es with UUCP; Wed, 24 Jan 90 05:13:15 EST
Received: by cloud9.Stratus.COM (smail2.5)
id AA16568; 24 Jan 90 04:49:41 EST (Wed)
Received: from WSMR-SIMTEL20.ARMY.MIL by BU.EDU (1.97) Wed, 24 Jan 90 00:35:05 EST
Message-Id: <9001240535.AA21664@BU.EDU>
Date: Tue, 23 Jan 90 22:15:16 MST
From: es!cloud9!bu.edu!WSMR-SIMTEL20.ARMY.MIL!INFO-HAMS-REQUEST

Reply-To: bu.edu!WSMR-SIMTEL20.ARMY.MIL!INFO-HAMS
Subject: INFO-HAMS Digest V90 #92
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

INFO-HAMS Digest Tue, 23 Jan 90 Volume 90 : Issue 92

Today's Topics:
All Microsats transmitting!
America OnLine Ham area
ARRL ham insurance
ATV modulation scheme?
MARS mod for TS140
Miniature FM receivers - what chips to use?
Recommendations for indoor antenna?
Repeater Controllers
RF voltmeter

Date: 23 Jan 90 19:37:15 GMT
From: ucsdhub!hp-sdd!hplabsy!hpfcso!hpfinote!jsb@ucsd.edu (Jeff Beauprez)
Subject: All Microsats transmitting!
Message-ID: <16170011@hpfinote.HP.COM>

Can someone publish a list of operating modes and frequencies for these
new birds????

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

Date: 24 Jan 90 01:14:42 GMT
From: usenet.ins.cwru.edu!cwjcc!ncoast!allbery@tut.cis.ohio-state.edu (Brandon S. Allbery)
Subject: America OnLine Ham area
Message-ID: <1990Jan24.011442.20828@NCoast.ORG>

As quoted from <3560@cbnewsj.ATT.COM> by ralph@cbnewsj.ATT.COM (Ralph Brandi):
+---------------
| Last night on America OnLine, a CompuServe-type service for users of
| Macintoshes and Apple //s, I found a ham/SWL forum. It's under the
| "Lifestyles" section, and reachable with the keyword "HAM" (what a
| surprise....) There isn't a whole lot of stuff there yet, but I
| thought it was pretty interesting that a relatively new service
| would have a forum on the subject of radio pretty much from the
| beginning.
+---------------

It's not really all *that* new... its former name was "AppleLink Personal
Edition". There are messages going back at least to early '89 in some areas.

++Brandon

--
Brandon S. Allbery allbery@NCoast.ORG, BALLBERY (MCI Mail), ALLBERY (Delphi)
uunet!cwjcc.cwru.edu!ncoast!allbery ncoast!allbery@cwjcc.cwru.edu
(comp.sources.misc mail to comp-sources-misc[-request]@backbone.site, please)
Third party vote-collection service: send mail to allbery@uunet.uu.net (ONLY)

Date: 23 Jan 90 20:15:21 GMT
From: deimos!harris.cis.ksu.edu!mac@rutgers.edu (Myron A. Calhoun)
Subject: ARRL ham insurance
Message-ID: <1990Jan23.201521.5140@deimos.cis.ksu.edu>

Several expressed interest:
>I'd like to hear comments from anyone who's had experience with ARRL
>claim payments -- were you happy?

Because of lightning strikes to/near its repeater, my local repeater
group has had to file claims of about $800 twice in the last three
years or so. Both were paid promptly.

One of the strikes even zapped my almost-brand-new wide-area digipeater
housed in the same building as the audio repeater. Even though some
of my equipment hadn't yet been insured (the rules say something to
the effect that newly-purchased equipment up to some maximum value is
automatically insured until the next premium is due), my claim was paid
promptly.

>Also, my impression is that their rate is very competitive -- much
>better than I could get on a rider; has anyone found the opposite?

I would be happier if they were lower :-), but I am satisfied with
their rates compared to any others I've ever seen.
--Myron.
--
#--
Myron A. Calhoun, Ph.D. E.E.; Associate Professor (913) 539-4448 home
INTERNET: mac@harris.cis.ksu.edu (129.130.10.2) 532-6350 work
UUCP: ...{rutgers, texbell}!ksuvax1!harry!mac 532-7004 fax

Date: 21 Jan 90 14:29:52 GMT
From: pacbell!rbdc!kd4nc!ke4zv@ames.arc.nasa.gov (Gary Coffman)
Subject: ATV modulation scheme?
Message-ID: <3483@kd4nc.UUCP>

In article <1260021@hpmwtlb.HP.COM> timb@hpmwtd.HP.COM (Tim Bagwell) writes:
>/ hpmwtlb:rec.ham-radio / look@uicsrd.csrd.uiuc.edu / 2:38 am Jan 13, 1990 /
>
>I am building a all home brew ATV station. I just completed the oscillator
>chain and have about 70mw on 439.25 . I am now looking to build the power
>amp and video modulator. From what I have seen and read elsewhere it would
>appear there are two different ways of adding the modulation.
>
>1) Modulate the low power stage and follow it with a linear amp.
>
>2) Feed the low power stage to a modulated class C amp.
>
>Anyone care to comment on the methode they would choose and why?
>Thanks,
>
>Steve Look ka9szw
>look@uicsrd.csrd.uiuc.edu
>----------

Current commercial practice is to insert the modulation at a low level
(milliwatt range) just after the rf exciter. A diode ring modulator is
generally used followed by a SAW filter for vestigal sideband filtering
and carrier is reinserted after the SAW filter. Remember that TV transmits
the full upper sideband+carrier and the first .2Mhz of the lower sideband.
This technique allows bandwidth conservation while allowing simple
envelope detectors to reliably recover sync.

High level modulators suffer from incidental phase modulation which is
very difficult to tame and the need for large water cooled filterplexers
to remove the lower sideband. Also it is much more difficult to get
good linearity and chroma to luminance delay characteristics with a
high level modulator. A box called a predistorter is needed. A predistorter
shapes the video waveform to compensate for the transfer characteristics
of the high level modulator and modulated rf stage. These boxes are both
difficult to build and tempermental to adjust.

If a cruddy mono bandwidth hog is your goal, use high level modulation
without a filterplexer as is done in certain commercially made equipment
sold for amateur tv. On the other hand, if you want high quality color
transmission using socially exceptable bandwidth, use low level modulation
with good filtering and a good linear amp.

73 Gary KE4ZV
WXIA-TV Atlanta

Date: Tue, 23 Jan 90 15:09:36 CST
From: Tom Grubbs <tgrubbs@redstone-emh2.army.mil>
Subject: MARS mod for TS140

Does anyone in NET LAND have the mods for MARS on the KENWOOD TS140.
I Would like to have them if possible.. Thanks..... Tom N4QYN

Date: 23 Jan 90 20:54:05 GMT
From: masscomp!ocpt!ccop1!wilson@think.com (<masscomp!ocpt!ccop1!wilson@think.com>)
Subject: Miniature FM receivers - what chips to use?
Message-ID: <281@ccop1.ocpt.ccur.com>

In article <3430001@hpqtdla.HP.COM>, jdg@hpqtdla.HP.COM (James Gentles) writes:
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> r.e. Minature FM receivers.
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starring Warren Beatty.

Let's have a contest for the first two-way wrist ham radio! Single
channel 2 meter FM might work.

First prize - A distinguished listing in the Crime Stoppers Notebook!

73

Gary Wilson, WB2BOO

Date: 23 Jan 90 21:49:33 GMT
From: amdahl!greg@apple.com (Greg Bullough)
Subject: Recommendations for indoor antenna?
Message-ID: <d04Q02vE81EG01@amdahl.uts.amdahl.com>

In article <11164.25BCB57B@stjhmc.fidonet.org> Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:
>
> > From: cep4478@ultb.isc.rit.edu (C.E. Piggott)
> > Date: 18 Jan 90 05:03:54 GMT
> > Organization: Information Systems and Computing @ RIT, Rochester, New
> > York
> > Message-ID: <1946@ultb.isc.rit.edu>
> > Newsgroups: rec.ham-radio
> >
> > what I experimented with was indoor dipoles for 10 and 15m. It's not
> > as tough to do as I thought it was before starting: for one, a folded
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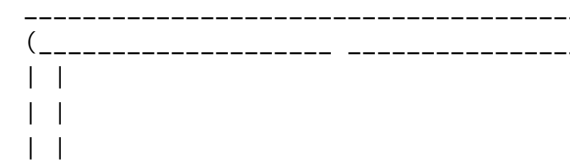
>with the two parallel conductors tied together electrically at the ends and fed
>with more 300 ohm ribbon connected in a break in the center of one conductor.
>It was a rather popular antenna then, when TV was new and 300 ohm ribbon was
>lying around by the ton.

Bingo. A "folded diple" is one which is a half-wave long and where the
ends fold back on themselves and join in the center, thusly:



Characteristic impedence: 300 Ohms. Most often seen as the
"driven" element of old TV Yagis.

What C. E. Piggot is probably describing is a "bent" dipole,
which is simply a normal half-wave with the ends running
around a corner. It'll have to be a little longer to get
the proper 50 Ohms impedence, but it'll work just fine.
(I worked 35 states as a Novice with 3 Watts on 40 and
15 CW using a bent dipole on the apartment roof. Only
took me 3 months.)

Greg

Date: 23 Jan 90 19:30:22 GMT
From: hp-sdd!hplabsy!hpfcso!jws@hplabs.hpl.hp.com (John Schmidt)

Subject: Repeater Controllers
Message-ID: <7500012@hpfcso.HP.COM>

In your price range, the S-Comm 7K controller is an excellent choice.
It will give you lots of programming capability, optional voice synthesis,
and outstanding construction quality and durability (they also make
variations for commercial applications). Contact Bob, WA9FBO at S-Comm
at (303) 663-6000.

Numerous repeaters along the Colorado Front Range have been upgraded to
this controller, and users are very happy with it.

73,

John, NK0R

jws%hpfcla@hplabs.hp.com

Date: 24 Jan 90 03:07:29 GMT
From: osu-20.ircc.ohio-state.edu!bertsch-s@tut.cis.ohio-state.edu (Steve Bertsch)
Subject: RF voltmeter
Message-ID: <12560663891011@osu-20.ircc.ohio-state.edu>

I am thinking about building a peak reading voltmeter into my MFJ dry
dummy load, to have another way of measuring power output. I think a
half wave, diode-cap circuit should do it, then:
P = (.707Epeak)^2/R
The output of this will be measured by a DVM with input Z > 10 Meg.
I will also require that this circuit not upset the SWR of the dummy
load, and be accurate from 1.8 to 30 MHz. (A VHF version will follow.)

So, I figure I need to find a diode with:
1) PRV greater than 200 V, or better.
2) Foward drop as small as possible.
3) Junction capacitance _very_ small.

Any ideas?

End of INFO-HAMS Digest V90 Issue #92
****

515. typing frenzy

Newsgroup: rec.ham-radio
Date: 1990-01-24 14:47:28 UTC
From: relling@eng.auburn.edu
Message-ID: <9001241447.AA23864@eng.auburn.edu>
Source record: 14020

Does anyone know where I can ftp or otherwise download an ASCII only
version of the latest CAVEC question and answer pool? I have in mind
a UNIX based question and answer program (possibly fed into quiz(6)).
I can find someone to type them in but would rather not have to
redo work that's already been done.

+------------------------------+---------------------------------+
Richard Elling	(205)844-2280
Work: relling@eng.auburn.edu	Auburn Univ., Engineering Admin.
Play: relling@cup.portal.com	AMPR.ORG: 44.100.0.72 (KB4HB-8)
+------------------------------+---------------------------------+

516. 99/4A packet

Newsgroup: rec.ham-radio
Date: 1990-01-24 15:48:37 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001241732.AA25038@ti.com>
Source record: 14021

Has anyone tried using the TI 99-4/A computer in a packet application? I still have one that is collecting dust, and have recently obtained a Ham license. It occurred to me that I might be able to ressurrect the ol' -4/A for packet use, but I don't know how (if) the 40-column display would work; or what other equipment would be needed (besides a TNC, of course). The system I have consists of the main keyboard unit; P-Box with mem expansion, IEEE-488 card and disk drive controller; and a TE-1 emulator cartridge.

I also am trying to learn about packet, so please keep this in mind if you respond. I'm not yet familiar with many of the packet terms. Any info- from 99/4A packet users would be appreciated.

Thanks,
Dube Todd, N5PDK

517. Re: Getting on freq.

Newsgroup: rec.ham-radio
Date: 1990-01-24 15:49:17 UTC
From: genem@hpindda.HP.COM
Message-ID: <5120006@hpindda.HP.COM>
Source record: 14022

Sounds great to me. I would just add one more step. When I first started out I didn't know the value of the CW filter. (I purchased one 3-days into enjoying CW :-))

> 2. Tune in the other station so they sound right to you, with correct pitch to
> get through the filter of your radio if you have a narrower CW filter.

If you don't have a narrow filter, tune the station until it zero-beats: you hear a puffing tone (or less). Then, turn down-band exactly 800Hz. You should be at the familiar CW tone, and also withing that stations filter.

Gene - AA6IY

518. Re: 10 meter pirates (was = Re: AM operation.)

Newsgroup: rec.ham-radio
Date: 1990-01-24 16:00:25 UTC
From: C.Dennison@newcastle.ac.uk
Message-ID: <1990Jan24.160025.9274@newcastle.ac.uk>
Source record: 14023

In article <9075@ttidca.TTI.COM> sorgatz@ttidcb.tti.com (Erik Sorgatz - Avatar) writes:

> Does the UK >(or anyone else?) have a CB band between 26 and 28 MHz.?

Yes we do.

+ Computing Science Dept, University of Newcastle | All opinions expressed +
+ Newcastle upon Tyne, UK, NE1 7RU (091 265 2486) | are mine and mine alone! +
+ ARPA: C.Dennison@newcastle.ac.uk | Chris Dennison +
++

519. Re: SAREX 1990

Newsgroup: rec.ham-radio
Date: 1990-01-24 16:00:48 UTC
From: jay@splut.conmicro.com
Message-ID: <YQL
Source record: 14024

In article <3887@jarthur.Claremont.EDU> jlulejia@jarthur.Claremont.EDU (John J. Lulejian) writes:
>I am curious what the latest information on SAREX is.
>Primarily, I am concerned with the type of orbit the Shuttle
>will be flying. Is it going to be a low orbit, which will
>restrict most of us in the higher latitudes, or will it be a
>higher orbit, similiar to the last one we worked with
>back in 1985? Also, will there be any SSTV on this
>flight or just packet?

Current information is that the next SAREX flight, STS-35, with Ron Parise, WA4SIR, will have a 28-degree orbit; the one after that, STS-37, with Ken Cameron, KB5AWO, is supposed to have a 39-degree orbit, which will do better for those in the higher latitudes.

STS-35 will not have SSTV aboard due to stowage space constraints - they had to squeeze to keep packet in the plans. Present plans for STS-37 include SSTV.

STS-35 is now scheduled to launch in the late April/early May timeframe, and STS-37 in the June/July period. There is a possibility that STS-37 may be postponed to next January, though.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
{attctc,bellcore}!texbell!splut!jay +--
"There is no doubt I should be tarred and feathered." - Richard Sexton

520. Re: INFO-HAMS Digest V90 #92

Newsgroup: rec.ham-radio
Date: 1990-01-24 16:05:08 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9001241605.AA03341@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 14025

Subject: RF Voltmeters

Don't use a resistor string to drop the voltage to the diode. The capacitance of the diode in such a dividor makes the voltage division frequency sensitive. You will get significant variance in readings between 80 and 10m with that approach. Also be careful of the resistor that is normally found in the DC probe for most VTVMs. If you build a special cable, the DC voltage division the VTVM expects will be off and give significant errors. Be wary of the various published circuits for such RF probes. I have not seen one where the DC voltage dividor circuits were calculated correctly (not just due to standard resistor values which is another problem).

-- Doug WA6VVV

521. Re: SAREX 1990

Newsgroup: rec.ham-radio
Date: 1990-01-24 16:09:37 UTC
From: jay@splut.conmicro.com
Message-ID: <7QL
Source record: 14026

In article <YQL:X.+@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>[...] the one after that, STS-37, with Ken Cameron, KB5AWO, [...]

OK, OK, OK...20 lashes with a rubber duckie. Ken's call is KB5AWP. Sorry about that...

...de K5ZB :-)

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
{attctc,bellcore}!texbell!splut!jay +--
"There is no doubt I should be tarred and feathered." - Richard Sexton

522. Re: 30-50 MHZ

Newsgroup: rec.ham-radio
Date: 1990-01-24 16:51:09 UTC
From: kchen@Apple.COM
Message-ID: <38077@apple.Apple.COM>
Source record: 13877

dube@cpdvax.csc.ti.com (DUBE TODD) writes:

>There's practically no activity on the 30-50 mHz band, since law enforce-
>ment has moved to the higher bands. I believe that, since Hams have been
>deprived of space on 220, we could be given the space between 29.5 and 45
>mHz without creating any problems.

You'd better tell the California Highway Patrol first. They still
operate almost smack in the middle of the range you mentioned (about
42 MHz). And there are the 46 MHz and 49 MHz appliances.

Is 6m that conjested in the '5' region that you need a new low-VHF
band? The only activity I hear on 6m around here seems to be JA's
in early afternoons :-) :-).

Regards,

Kok Chen kchen@apple.COM, kk6dp
Apple Computer, Inc.

523. VHF Communications Magazine

Newsgroup: rec.ham-radio
Date: 1990-01-24 16:54:34 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490087@hpscdc.scd.hp.com>
Source record: 13878

Many people have sent email asking about how to get "VHF Communications" magazine, so I thought it would be of general enough interest to post. For those not familiar with the magazine, it is published in Europe and the articles in the European edition are in German. However, an English edition is avaiable over here.

The content is similar to what Ham Radio Magazine used to have under the editorship of Jim Fisk, before it was reformatted last year to downgrade the level of the technical articles. The authors in VHF Communications are hard core homebrewers doing state of the art work. If you're a Novice or want one evening projects, stick with Ham Radio, but if you want heavy duty technical articles, you should consider switching to VHF Communications. By the way, the magazine is not really exclusively about VHF topics as the name would imply. There has been some good stuff about DSP recently.

To subscribe, send $20.95 for one year (4 issues) to:

Timekit
PO Box 22277
Cleveland, Ohio 44122
(216)-464-3820

Add $5.00 for airmail. Back issues are available also.

Timekit also sells parts, PC boards, and kits to support the construction projects in the magazine.

Rick N6RK

(I have no conection with Timekit or VHF Communications; I am a disinterested party---disinterested in Ham Radio Magazine that is :-)

524. 6M AM Activity in SNH and EMA

Newsgroup: rec.ham-radio
Date: 1990-01-24 17:08:17 UTC
From: CRANSTON@SMURF.enet.dec.com
Message-ID: <9001241708.AA05338@decwrl.dec.com>
Source record: 13879

6 Meter AM is alive and well in Southern N.H. and Eastern Ma.!!! There are 15-20 regularly active stations.

There is a daily (Monday - Sunday) net on 50.250 MHz from about 6:00AM to 7:30PM EST.

The "Boat Anchor Net" is active most nights at 9:00PM EST on 50.250 MHz.

On Saturday and Sunday mornings around 8:00 AM (+/-) there is activity on 50.400 MHz.

These are all VERY informal chat nets. All checkins are welcome. Dig out those old 6 meter AM rigs and join into the fun!

Scott
KB1NW

525. Re: More on Furren QSL Envelopes

Newsgroup: rec.ham-radio
Date: 1990-01-24 17:21:41 UTC
From: k2ph@cbnewsj.ATT.COM
Message-ID: <3611@cbnewsj.ATT.COM>
Source record: 13880

In article <9001171314.AA19664@bunny.gte.com>, pescatore_jt%ncsd@gte.COM writes:
> Just about any stationery (or is that stationary?) store will have what
> they call European Air Mail envelopes...

I wish we had your stationery stores! I went through every stationery
store in our yellow pages (Monmouth County New Jersey--suburban NYC)
and NONE of them had it, NONE said they could get it, and most looked
at me like I was crazy (how did they know?). So, to reiterate a
previous posting, where is a good source of European Air Mail envelopes?

--
==========
Bob Schreibmaier K2PH | UUCP: att!mtuxo!k2ph or k2ph@mtuxo.att.com
AT&T Bell Laboratories | ARPA: k2ph%mtuxo@att.arpa
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o8'W

526. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-24 17:32:51 UTC
From: bakken@cs.arizona.edu
Message-ID: <17152@megaron.cs.arizona.edu>
Source record: 13881
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <9446@cbmvax.commodore.com> grr@cbmvax.commodore.com (George Robbins) writes:
>In article <130554@sun.Eng.Sun.COM> jneher@tenorman.Sun.COM (John Neher)writes:

>> 2. How many?
>
>One is probably enough in relativly most soil. With dry soil you might
>want more or longer ones,

As Mike Smith told me via email, to help get a better ground in dry soil
you can water the rod once in a while or put fertilizer by the rod (it
ionizes the soil).

>The other thing is to make sure you get a solid contact with the rod so
>that it isn't flakey or noisey. Make sure the wire is clamped or soldered
>to the rod, the little clamps that come with the radio shack rods are close
>to useless. If you use a clamp, you may want to tape or otherwise weather
>proof the clamp.

Watch this one - building codes here don't allow you to solder your
ground wire to your ground rod - you have to use a clamp (maybe they
want you to be able to unhook it quickly if you strike a cable when
driving in the rod - I dunno). The store I got my ground rod at had
hefty brass clamps right next to the rods, so this was no problem.

Why does the clamp need to be weatherproofed, George (or anyone)?

>Keep the wire a short as possible and use decent sized wire - about the size
>of your antenna wire. A short ground lead works best overall, a longer
>one becomes a part of your antenna system and makes the antenna harder to
>characterize, especially at higher frequencies.

Mike also told me to keep the ground wire as short and fat as possible.
My office mate helped quantify that - he said that anytime the ground
"wire" (mine is 4 guage - more like a cable than a wire) is more than
about 1/4 wavelength it starts looking like impedence to the receiver
and you start to get some losses. I was able to keep mine down to
about 11', which might barely allow the 13m band without loss but,
by the above formula, causes a bit of loss for the 11m band.

--
Dave Bakken Internet: bakken@cs.arizona.edu
721 Gould-Simpson Bldg UUCP: uunet!arizona!bakken
Dept of Computer Science; U of Arizona Phone: +1 602 621 8372 (w)
Tucson, AZ 85721 USA FAX: +1 602 621 4246

527. Re: Good Earth Grounds

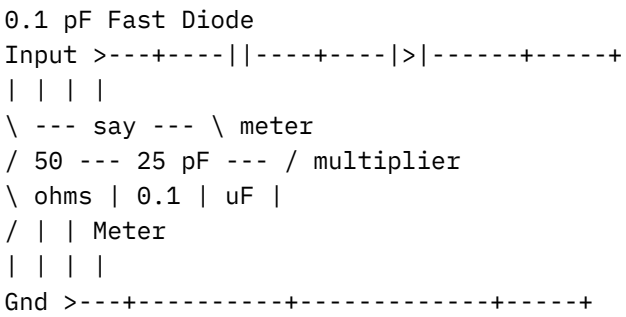
Newsgroup: rec.ham-radio
Date: 1990-01-24 17:46:40 UTC
From: crisp@mips.COM
Message-ID: <35001@mips.mips.COM>
Source record: 13882
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I'd advise against soldering the wire to the ground rod too, but for a different reason. I have seen many examples of soldered copper wire connections CORRODING. This probem is particularily bad if there is salt in the air like on the Gulf coast.
--
Just the facts Ma'am

528. Re: RF Voltmeter for Dummy Load

Newsgroup: rec.ham-radio
Date: 1990-01-24 18:00:18 UTC
From: rc@cmr.ncsl.nist.gov
Message-ID: <9001241800.AA08118@cmr.ncsl.nist.gov>
Source record: 13883

All the dummy load - power meters I have seen use a capacitor voltage divider before the voltmeter. This brings the voltage down to a reasonable value for very high speed diodes, and mostly eliminates the VSWR problem.



In this circuit there would be a 250:1 voltage division before the diode, enough for HIGH power. You probably want a hot carrier diode and about 3 volts pp at it. The 25 pF should be large compared with the diode capacitance. The 0.1 pF should be a fairly high reactance compared with the 50 ohm dummy load, at the highest frequency of interest. The lowest frequency where this will work well is where the input impedance of the diode detector is no longer large compared with the reactance of the "25 pF" capacitor.

Bob W3OTC

529. Re: 30 to 50 MHz

Newsgroup: rec.ham-radio
Date: 1990-01-24 19:21:25 UTC
From: rc@cmr.ncsl.nist.gov
Message-ID: <9001241921.AA08263@cmr.ncsl.nist.gov>
Source record: 13884

You may not hear much in this range, but a number of people are interested in it. Something like each alternate 1 MHz section is "Government". I've seen earnest proposals to gather up even more for Govt Meteor-Burst links. This is, in fact, the optimum frequency range for meteor-burst - a mode which finally looks to be taking off. Its "somedays" DX propagation makes it less attractive than the higher bands for most fire/police/taxi/etc purposes, but there seems to be enough other use so that the is no hope of getting more for hams use. The real worry is keeping the present 50-54 MHz ham band. If we don't watch out we may find that we hams are just a (rather useless) guard band between channel 2 and other people who have taken the lower part of six. An example of one of the many people who want this band is the AM Broadcaster in New Jersey who wants to see an "FM2" broadcast band - so that the AM-only stations will be able to have FM outlets, even though the present 88-108 band is full. He has variously asked for the 50 and 220 MHz ham bands. While he will (most likely) not succeed, others will keep trying.

Six-meter ham activity is a very "bursty" thing. When there is DX, the bottom hundreds of kHz of six fill up, the rest of the time there isn't much going on. While six has been my favorite band for many decades, it's hard to make a case for more ham frequencies in this region, and could be hard to defend all we presently have. I would suggest that we should put some emphasis of ham meteor-burst activity on six - maybe I'll eventually get time to put my effort where my mouth is.

73, Bob

530. Re: 30-50 MHZ

Newsgroup: rec.ham-radio
Date: 1990-01-24 19:33:43 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120107@hpcupt1.HP.COM>
Source record: 13885

CHP (the state fuzz) is still very much on the 42 mhz area
of the band. The cruser to base freq's are here

531. See misc.forsale

Newsgroup: rec.ham-radio
Date: 1990-01-24 20:28:55 UTC
From: mark@linqdev.UUCP
Message-ID: <374@linqdev.UUCP>
Source record: 13886

Ok... I got severly flamed for posting for sale stuff to this
catagory. I understand the reasons and will be more careful
in the future. How this for example:

See misc.forsale... I posted my HF station for sale there.
Does this cause problems for Interneters!?

Mark WS7M

206-827-1112
206-392-9672

532. Looking for tracking software

Newsgroup: rec.ham-radio
Date: 1990-01-24 20:37:08 UTC
From: brians@sequent.UUCP
Message-ID: <28268@sequent.UUCP>
Source record: 13887

I am looking for AMSAT tracing software for a PC-XT.

--
Brian Sheets KA7KDX _ /| "I'll be back"
5544 N Burrage. \`o_O'
Portland Or. 97217 ( ) Aachk! - Arnold Schwarzenegger,
503-526-4091 U Phft! Any movie he's been in.

533. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-24 20:50:28 UTC
From: ems@Apple.COM
Message-ID: <6335@internal.Apple.COM>
Source record: 13888
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <9446@cbmvax.commodore.com> grr@cbmvax.commodore.com (George Robbins) writes:
>In article <130554@sun.Eng.Sun.COM> jneher@tenorman.Sun.COM (John Neher) writes:

>> 1. What kind of rods to drive into the earth?

>You want copper plated steel ones. You can get little ones at Radio Shack,
>heavy duty ones at a Ham Radio shop or electrical supply dealer.

Or at your local home builders supply store (hardware store). They are
also used for some electrical and phone grounding requirements ...

--

E. Michael Smith ems@apple.COM

'Whatever you can do, or dream you can, begin it. Boldness has
genius, power and magic in it.' - Goethe

I am not responsible nor is anyone else. Everything is disclaimed.

534. Re: America OnLine Ham area

Newsgroup: rec.ham-radio
Date: 1990-01-24 21:45:25 UTC
From: roskos@IDA.ORG
Message-ID: <1990Jan24.214525.5238@IDA.ORG>
Source record: 13889
Cross-posted to: rec.radio.shortwave,rec.ham-radio

ralph@cbnewsj.ATT.COM (Ralph Brandi) writes:

>There isn't a whole lot of stuff there yet, but I
>thought it was pretty interesting that a relatively new service
>would have a forum on the subject of radio pretty much from the
>beginning.

The Prodigy Service did (and does) also. I have to admit that lately,
with a few exceptions, I get better information on Prodigy than on other
online sources, when I ask questions (especially in the PC-related
newsgroups). Some of the Monitoring Times writers (such as Jack Albert)
are on there also.
--
Eric Roskos (roskos@CS.IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

535. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-01-24 22:58:55 UTC
From: jpd@pc.usl.edu
Message-ID: <2348@rouge.usl.edu>
Source record: 13890

The A.C.C. RC-85 is about $900 and includes phone patch with a 200-slot dialer memory, limited-vocabulary voice msgs, and support for ICOM 900-series band modules (with extra-cost adapter, of course). I wrote a program to configure this controller using a PC and Hayes-style modem. The stock linking capabilities of the RC85 are not too great (IMHO).

The S-Comm 5K controller also has some possibilities; I believe 73 or Ham Radio Mag had an article about constructing a link interface.

73,
de James, N5KNX

--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

536. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-24 23:36:28 UTC
From: chrz@tellab5.TELLABS.COM
Message-ID: <2027@tellab5.TELLABS.COM>
Source record: 13891
Cross-posted to: sci.electronics,rec.ham-radio

In article <19106@bcsaic.UUCP>, carroll@bcsaic.UUCP (Jeff Carroll) writes:
> <Mike Pflueger tells about Professor Kraus' solution to carrying
> broadcast signals in tunnels using a wire extending beyond the end of
> the tunnel...>
>
> Now *here's* an interesting question, particularly for anyone
> like me who has spent half an hour in a tunnel during a traffic jam:
> Why do we allow tunnels to be built without such gizmos installed in
> them?

Perhaps the tunnels were built before it was generally recognized that
Americans had both a Right and a Need to be entertained during each and
every waking minute of their lives.

Imagine the horror of being left alone with just your own thoughts for
even 30 minutes...

537. Re: ATV modulation scheme?

Newsgroup: rec.ham-radio
Date: 1990-01-25 00:15:53 UTC
From: <>
Message-ID: <19342@bellcore.bellcore.com>
Source record: 13892

>If a cruddy mono bandwidth hog is your goal, use high level modulation
>without a filterplexer as is done in certain commercially made equipment
>sold for amateur tv. On the other hand, if you want high quality color
>transmission using socially exceptable bandwidth, use low level modulation
>with good filtering and a good linear amp.
>
>73 Gary KE4ZV
>WXIA-TV Atlanta

I second Gary's comments. I spent my college summers engineering at WMPB-TV, the Baltimore PBS station. They have a high UHF (channel 67) klystron-based transmitter. Klystrons are inherently highly nonlinear devices, and I became well acquainted with the techniques used to deal with them. One had to really stretch the sync pulses in order to drive the klystrons to full output, especially as the tubes aged. It took a lot of work to get the differential phase and gain ("intermodulation distortion" in audio terms) down to par. One quickly appreciated the wisdom of choosing negative video modulation as the American TV standard (with negative modulation, white -> less power, black -> more power, sync -> max power).

BTW, the standard test signal for adjusting linearity is called a "modulated stairstep". It resembles a grey scale, except it's a sickly looking greenish-yellow color (the hue corresponding to the NTSC reference color burst phase). If you see this signal on a TV station during test time, you can be pretty sure they're trying to adjust out the effects of their transmitter's nonlinearities.

The filterplexer in our case wasn't water cooled (peak visual transmitter output power was only 50 kw) but it was still a very hefty piece of hardware on the ceiling, with impressive heatsink fins.

Considering that VSB filtering is mandatory in any socially-acceptable video transmitter, low level modulation followed by linear amplification is clearly the way to go in an amateur TV transmitter.

Phil

538. Re: Miniature FM receivers - what chips to use?

Newsgroup: rec.ham-radio
Date: 1990-01-25 01:36:27 UTC
From: erc@khijol.UUCP
Message-ID: <1128@khijol.UUCP>
Source record: 13893

In article <281@ccop1.ocpt.ccur.com> wilson@ccop1.ocpt.ccur.com (<wilson>) writes:

>Let's have a contest for the first two-way wrist ham radio! Single
>channel 2 meter FM might work.

It might be fun, at that! Make it small enough that it can fit into one of
those Star Trek combadges.

I want to build one into a combadge, with VOX, so that I could show up at the
next Star Trek convention in uniform and freak out all the trekkies...Could
you imagine a 10-year-old's eyes when he sees a "Starfleet officer" walk up,
tap his combadge, and talk to his "captain"? Great fun!
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf
"The best diplomat I know of is a fully activated phaser bank." -- Scotty

539. Re: 30-50 MHZ

Newsgroup: rec.ham-radio
Date: 1990-01-25 01:45:23 UTC
From: jim@mmsac.UUCP
Message-ID: <3710@mmsac.UUCP>
Source record: 13894

Sure, it would be nice, but in my area, there are several control channels for paging transmitters on that band, and there are several paging transmitters too! Also, the CHP uses the 42 mHz -> 43 mHz region for all of their communication, and are not planning on changing to any other band. Also remember there are cordless telephones in the 46 -> 49 region, and I think there is even a CB band in there somewhere.

--

Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu

==========

The opinions stated herein are all mine.

540. WANTED: Good Woman

Newsgroup: rec.ham-radio
Date: 1990-01-25 03:02:58 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <108@ka2qhd.UUCP>
Source record: 13895
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

```
WANTED: Good Woman

Must be a licensed Amateur Radio operator, able to copy CW at 35 WPM, climb
towers and have an all-mode, computer operated OSCAR ground station.

Please send picture of computer and OSCAR ground station.

...John...
--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken
```

541. TV signal distribution amps

Newsgroup: rec.ham-radio
Date: 1990-01-25 04:09:04 UTC
From: djwalden@venera.isi.edu
Message-ID: <11554@venera.isi.edu>
Source record: 13896

Can anyone tell me a source for Blonder-Tongue television signal distribution amplifiers at a discounted price? Even used equipment would be of interest. I'm upgrading our condo complex's broadcast TV signal distribution system, and I'm interested in high-quality single-channel UHF amplifiers and UHF bandpass filters.

High-gain UHF antennas for distance reception are also needed. Do you have any suggestions for manufacturers besides Winegard, Colormaster, Blonder-Tongue or Radio Shack?

Dave Walden
djwalden@isi.edu

542. Love that DOVE!

Newsgroup: rec.ham-radio
Date: 1990-01-25 07:03:44 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Jan25.070344.22025@Neon.Stanford.EDU>
Source record: 13897

So, you always wanted to get into satellites, but couldn't affort the bucks for the multimode rigs and az-el antenna rack?

Well folks, "the times, the are a changin'"! With a $100 2m FM rig, a $50 TNC, and the terminal / computer of your choice, you can copy the telemetry and bulletins from the DOVE Microsat. Really! Just take your packet station, and put it on 145.825 MHz. If you want to get fancy, you can run an orbital prediction program, and wait for 5-7 minutes of packets from DOVE. But, if you have a way of saving packets, just leave the radio on for a day (24 hours). Either way, amateur satellite hacking has never been easier!

I copied about seven minutes of telemetry tonight (1/24), in the San Francisco Bay Area. [Yeah Bob, the MM is still off quite a bit.] Give it a try!

DOVE-1>TIME-1 <UI>:PHT: uptime is 041/15:02:15. Time is Thu Jan 25 05:31:09 1990

--
-=Paul Flaherty, N9FZX | "Unix could use a more user-friendly interface.
->paulf@shasta.Stanford.EDU | Does anyone have a card punch handy?"

543. Re: 30-50 MHZ

Newsgroup: rec.ham-radio
Date: 1990-01-25 08:35:28 UTC
From: tad@ssc.UUCP
Message-ID: <427@ssc.UUCP>
Source record: 13898

In article <9001231635.AA03055@ti.com>, dube@cpdvax.csc.ti.com (DUBE TODD) writes:
> There's practically no activity on the 30-50 mHz band, since law enforce-
> ment has moved to the higher bands. I believe that, since Hams have been
> deprived of space on 220, we could be given the space between 29.5 and 45
> mHz without creating any problems. The new space could be designated
> the 8-meter band, and could be used for all sorts of data transmission
> experiments and open to all license classes.
>
> 73,
> Dube Todd N5PDK

HOOO Boy! Where do I BEGIN with this one?

"Practically no activity on the 30-50 MHz band" ?? I don't get it...Dube lives in Texas, and here we are at the PEAK of Cycle 22, and he can't hear all the activity, especially in a southern latitude??!?!?

To start of with, there are the cordless phones and baby monitors from 46-49 MHz. In the middle of that range are a bunch of freqs used by the Red Cross, and here in the state of Washington there are frequencies used by the state highway department. Also a lot of search and rescue activity here.

But Dube mentioned 29.5 to 45 MHz....well, we already have 29.5-29.7, but above that are some federal govt and military freqs. Just above 30 MHz are local govt (police, fire, govt administration and even the California Highway Patrol!) freqs about every 20 KHz covering the whole spectrum.

With the peak of the sunspot activity now upon us, there is lots of skip coming in from all over on this spectrum. Local municipalities and state services experience a lot QRM from central and south america.

I am afraid that this wont work. Also, this part of the spectrum is not allocated for amateur use internationally. The reason they were able to take away part of 220 MHz is that it was not allocated to amateur use exclusively.

Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

544. problems with solid state rotor control

Newsgroup: rec.ham-radio
Date: 1990-01-25 09:44:07 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19347@bellcore.bellcore.com>
Source record: 13899

A couple of years ago, I modified my Kenpro KR-400 and KR-500 az and el rotor control boxes for external computer control. I did this by building what amounted to four solid state relays out of Radio Shack triacs and optoisolators and installing two in each box. TTL levels through a DIN connector actuate one of the two relays depending on the desired direction.

The other night, during a Microsat pass, I noticed that the az control box was humming rather loudly, and it was quite warm to the touch. Further investigation revealed that the rotor turned quite slowly in the right direction when the manual button was pushed, but normally in the left direction when the other button was pushed.

At first I thought the switch was defective; it felt a little funny, and I could hear the sounds of arcing inside. But it turned out that one of my little solid state relays was in fact to blame, the one connected across the "left" switch. It seems that the triac had begun to trigger itself erratically when not commanded to do so, and this was "fighting" the manual "right" switch.

I can't remember the voltage rating of the triacs I originally used, but I theorize that inductive spikes from the rotors eventually fried the triac. I replaced the defective one with a new triac rated for 400 PIV, and I also installed 120V MOVs across the terminals for each rotor winding. This should limit the inductive spikes to something the triacs can handle.

Just thought I'd mention this in case anyone else has made a similar modification to their control units. Even if yours hasn't failed it wouldn't be a bad idea to add the MOVs. They'll give you a small measure of protection against nearby lightning spikes as well.

Phil

545. Mixer linearity..

Newsgroup: rec.ham-radio
Date: 1990-01-25 10:28:04 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <25.Jan.90.10
Source record: 13900

Brian Daly raises some very valid points: At VHF/UHF/Microwave, the need
for pre-mixer RF amplification is there i agree, however, for practical HF
receivers in a terrestrial environment, i still feel that there is far too
much attention paid to getting gain! Remember, the gain you should use
depends on where in the signal path it occurs. I still stick to my thesis that
the fewer non-linear (or potentially non-linear) components of the signal
path, before the filter has taken out all the 'nasties', the better.
Some people have even considered the possible non-linearity
of the B-H (hysteresis) curve of ferrite materials to be a potential problem,
also there is a risk that if crystal/ceramic filters are driven too hard, then
they may be driven outside the Hooke's Law region of the quartz/ceramic,
and introduce 'mechanical crossmodulation'!
(you certainly can generate wonderful splatter if you saturate a ferrite
antenna balun, so theres SOME credence to the idea that the same problem
could occur in receivers..)
Balanced FET mixers (particularly if they use FETs that can handle reasonable
power, and run with plenty of standing current) do make a fine mixer I
agree. But in my experience they give up far sooner at high signal levels than
does a doubly-balanced diode quad. When you are operating from a site
which is less than 500 yards from a 500Kw FM broadcast transmitter, you need
all the overload capability you can get - my hotcarrier-diode-ring
and the 7360 seemed the only things that could handle the heat.

///Pete G6WBJ

546. Voice Mail Box For Repeaters ?

Newsgroup: rec.ham-radio
Date: 1990-01-25 12:45:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <90012509943@RELAY.CS.NET>
Source record: 13901

I'd like to construct a voice mail box for our local repeater. There are some devices on the market (ACC, Micro Control, etc.) that can do this very well by using DRAM IC's. Problem is that they're not very efficient and one has always got to worry about 'the clock running'. The Advanced Control DVM costs as much as a PC and can only hold 10 minutes worth of voice.

There is a device made to interface a PC with the phone line which stores voice to the hard disk. True, this may bit a bit slower but still, not appreciably. This device is called "The Complete Answering Machine". I understand it works well (menu driven) with the phone - has anyone attempted to interface this device to the controller of a repeater ??? What controller was used and was it successful ?

The "Complete Answering Machine" is a device used in many menu driven "900" numbers. The A/D sampling rate is high enough that one can not differenciate between a taped message and the digitized message.

547. Re: VHF Sweepstakes

Newsgroup: rec.ham-radio
Date: 1990-01-25 13:44:46 UTC
From: km3t@jjmhome.UUCP
Message-ID: <5281@jjmhome.UUCP>
Source record: 13902

In article <9001240803.AA01287@ucbvax.Berkeley.EDU>, MROWEN@STLAWU.BITNET (Mike Owen W9IP) writes:
> An earlier poster asked about the VHF Sweepstakes
> this past weekend. Overall, conditions stank.
> 6 meters was worse than I have heard it in years, with
> very little scatter on Sunday morning. Tropo condx
> on the higher bands were poor. The ice/snow in the Atlantic
> states didn't help activity. I was a tourist only and ended
> with about 11K.

I have to agree with Mike. I have operated a number of January VHF events from a variety of locations on the East Coast and cannot remember conditions and activity being so poor. Undoubtedly the weather (at least in the Northeast) was a big factor. I operated from K1TR's home station in southern New Hampshire and had a great time, despite the poor conditions. Perseverance pays off in a contest where conditions are so poor!

Many participants complained of iced-up antennas and antennas whose patterns were extremely skewed. One example was KF6AJ/1 in Danbury, CT. Normally an easy QSO, he had mediocre signals on 50-220 MHz and a horrible signal, despite running a decent deal of power, on 432 MHz. His 432 MHz antenna was actually working backwards! Normally 432 MHz has 1-1.5x the number of QSOs made on 220 MHz but not this time.

I was running 100W on 50 MHz so I couldn't make a whole lot of noise on scatter but I worked a couple of the bigger stations out at optimal scatter range on Sunday morning. WB2OTK in South Carolina was REAL LOUD on scatter with an excellent residual signal and N9JF in EM49 (real nice signal and a good scatter op).

>
> The only saving grace was the pathetic aurora on Sunday
> night. From 0000 UTC until the end of the contest,
> weak Au was present, mainly on 2 meters.

I didn't realize there was aurora until the last hour of the contest but I agree that it was pathetic. The only stations heard in southern NH on 50 and 144 MHz were from western NY and southern Ontario (also nothern NY). I worked W9IP on 50 MHz and we moved rapidly to 144 and 220 MHz but no luck on 432 MHz. Thanks Mike for FN24!

> Anyone know any rough scores?

My final score (used K1EA ConTest logging program, a pleasure as usual) was:

Band QSO QSO Points Grids
50 125 125 24

144 298 298 29
220 91 182 19
432 91 182 18
1296 7 28 2

---
612 815 92 ------> 74,980 points

Any other scores or rumors out there?
--
| Internet: pascoe@edcd.gte.com or pascoe%edcd.gte.com@relay.cs.net
Dave Pascoe | km3t%jjmhome@m2c.m2c.org
KM3T/1 | UUCP: {backbone}!m2c!jjmhome!km3t
| Packet Radio: km3t @ k1ugm.ma.usa.na

548. Re: Legalities of Multiple Call Signs

Newsgroup: rec.ham-radio
Date: 1990-01-25 14:12:20 UTC
From: willisa@cs.glasgow.ac.uk
Message-ID: <4345@vanuata.cs.glasgow.ac.uk>
Source record: 13903

In article <9001171628.AA04357@zit.cigy.> jcp@cgch.UUCP (Joseph C. Pistritto) writes:
>
> Does anyone know what the rules are if you are licensed in
>more than one country? I know that in each country you hold a license
>in, you must use the privleges and callsign assigned by that country,
>but what happens if you go to a third country to operate?

As far as I remember, you must abide by the restrictions in the other country,
further limited by the restrictions of you own licence. (In your case this
depends on which callsign you operate under).

Mark

--
JANet: willisa@uk.ac.gla.cs NSFnet: willisa@cs.glasgow.ac.uk

549. Re: New Icom Radios (Official Announcement) !!

Newsgroup: rec.ham-radio
Date: 1990-01-25 14:21:55 UTC
From: megabyte@chinet.chi.il.us
Message-ID: <1990Jan25.142155.9621@chinet.chi.il.us>
Source record: 13904

Did the Icom annoucement say anything about Icom's new R-72 SW
receiver?
--
Mark E. Sunderlin: IRS Technocrat in Winchester, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
"We're very kinky, in a Republican sort of way." - Sue Pauloz

550. Re: Love that DOVE!

Newsgroup: rec.ham-radio
Date: 1990-01-25 15:21:48 UTC
From: brian@ucsd.Edu
Message-ID: <11288@ucsd.Edu>
Source record: 13935

In article <1990Jan25.070344.22025@Neon.Stanford.EDU> paulf@bodega.stanford.edu (Paul Flaherty) writes:
>... packets from DOVE. But, if you have a way of saving packets, just leave
>the radio on for a day (24 hours).

And not only that, you'll get to watch the unwashed multitudes trying to
connect to it, beacon through it, and those who left their BBS and
net/rom beacons turned on when they switched the channel....

A "highly trained reserve of skilled operators" indeed! Phaugh.

- Brian

(No, the DOVE-1 satellite does not listen on 145.825.)

551. Re: 6M AM Activity in SNH and EMA

Newsgroup: rec.ham-radio
Date: 1990-01-25 15:31:20 UTC
From: rfc@briar.philips.com
Message-ID: <75779@philabs.Philips.Com>
Source record: 13905

I have a toy AM transciever xtaled on 50.585Mhz. I saw "toy" because it's only a regenerative reciever, and something like 10mW transmitter. Like one of those radioshack Space Patrol toys. The reciever isn't that selective, like 1Mhz bandwidth! Why did I bother to put it on 6M, from 49Mhz? Had nothing better to do one afternoon, and had the above xtal in the junk box. I brought it along when I visited a ham friend, who has 6M radio. He had it crossconnected to a 2M rig, to act like a crossband repeater. So, I actually had a QSO using my toy! I don't expect to have many more, unless someone with an AM 6M rig lives within 500 feet of me :-)

73 de WA2ISE

552. J-pole verticals

Newsgroup: rec.ham-radio
Date: 1990-01-25 16:35:19 UTC
From: avip@iilcad.intel.COM
Message-ID: <9001251635.AA20204@iilcad>
Source record: 13906

Thanks for the responses I got on my 1/2 wave verticals query. I'm trying to get a better understanding of the principles of operation of the J pole antenna.

Can a J-Pole antenna be seen as a 1/4 wave vertical with a 1/4 wave shorted stub impedance adaptor at the bottom end?

One of the stub legs is connected to the upper 1/4 wave length of the antenna, the other is kept open. Between a 1/4 wave vertical element and GROUND there is an impedance of 36 ohm, theory says.

```
|
|
|
| Z between A and ground is 36 ohm
A B Z between A and B = ???
| |
| |
| |
|\|\______
+-\_______ feedline (50 ohm)
```

Question: What is the equivalent impedance at the input of the stub (i.e. between A and B)? If I know this, and given the stub's Zo, I can find the 50 ohm point for the coax connection using a Smith chart. This would help in the adjustment, by having a good starting point to connect the coax straps.

(This "open circuit" connection to the end of a transmission line confuses me. I have seen similar connections in old editions of the "Handbook" showing end-fed dipoles. Can somebody explain me how does the stuff work?)

Avi Plotnik, 4X6LP
CSNET: avip%iil@sc.intel.com
Mail: Avi Plotnik -
Intel Israel Design Center
MTM Scientific Industries Center
P.O.Box 1659
Haifa 31015
Israel
FAX: 011-972-4-355999

553. Re: 10 meter pirates (was = Re: AM oper

Newsgroup: rec.ham-radio
Date: 1990-01-25 17:28:02 UTC
From: pfluegerm@valley.UUCP
Message-ID: <483fcfa5.15840@valley.UUCP>
Source record: 13907

In article <30500365@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> > Does this include Amateur Electronic Supply? I notice that their catalog
> > lists a Hustler RM-11S. This is a 2 kw PEP resonator which is intended
> > for operation on 11 meters. I can't think of a legitimate purpose for this,
>
> It's legal to use an antenna capable of handling 2 kw PEP with your 12 watt
> PEP legal CB rig, as far as I know.
>

This kind of reminds me of the "monster cable", or something like that,
which is being advertised to "audiophiles" as being better for your stereo
system - less distortion, more power to your speakers, "you can hear the
difference". You know, the cables with like 1/4" copper conductors rated
at 10000 Amps or something ungodly. The word "overkill" becomes an
understatement...

Makes me laugh every time I see one of those ads. I actually have seen
people spend the $1 per foot for this stuff.

:-)
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

554. Re: Not hearing anything about 6, etc.

Newsgroup: rec.ham-radio
Date: 1990-01-25 17:39:28 UTC
From: rc@cmr.ncsl.nist.gov
Message-ID: <9001251739.AA10643@cmr.ncsl.nist.gov>
Source record: 13908

I guess the problem is where you are listening/reading if you don't hear about six. There certainly some mention on this net. The "World Above 50 MHz" in QST has received complaints about too much emphasis on six..... No, it isn't on every rig you can buy, but Icom, Kenwood, etc build HF rigs which also cover six (TS-680, 767, etc, etc). Clearly hundreds of FT726 and 736 rigs have been sold, many with 6-meter modules. And I'm only talking about the CW/SSB end of the band.

Please give me a hint as to where you can find cheap 50 MHz rigs, SMIRK (Six Meter International Radio Klub) is always in the market for loaner and cheap rigs to give/loan to hams in interesting DX locations. FM-only rigs need not apply.

A handful of hams now have applications in for DXCC (100 countries confirmed) on six meters.

73, Bob W3OTC

555. Re: Ham and/or Satellite Store

Newsgroup: rec.ham-radio
Date: 1990-01-25 17:48:07 UTC
From: doug@hpcilzb.HP.COM
Message-ID: <1110007@hpcilzb.HP.COM>
Source record: 13909

>A friend of mine from New Zealand, who is a ham, is looking for good places
>to buy satellite equipment and ham equipment. He is staying in Palo Alto,
>California. Any local hams know one or two good places?

Thanks for the replies. Several people have suggested:
Quement Electronics in San Jose
Ham Radio Outlet in Burlingame and Oakland

Douglas Hendricks Q: You say you believe that the meat is all. Why?
Hewlett-Packard A: The world is too wondrous to need a spiritual other.
Santa Clara, CA
(408) 553-3524
doug@hpcilje.hp.com

556. Re: Love that DOVE!

Newsgroup: rec.ham-radio
Date: 1990-01-25 18:13:04 UTC
From: mac@idacrd.UUCP
Message-ID: <570@idacrd.UUCP>
Source record: 13937

From article <1990Jan25.070344.22025@Neon.Stanford.EDU>, by paulf@bodega.stanford.edu (Paul Flaherty):
> So, you always wanted to get into satellites, but couldn't affort the
> bucks for the multimode rigs and az-el antenna rack?
>
> I copied about seven minutes of telemetry tonight (1/24), in the
> San Francisco Bay Area. [Yeah Bob, the MM is still off quite a bit.]

Remember to set your clock carefully. On the low earth birds a 20 second error in clock makes a big percentage difference in the AOS/LOS/AZ/EL mean error in a pass.

You should have seen the elements I got from them. Just pure crap. I spent hours working on them, transforming coordinate systems (they don't tell you what coordinate system their elements are referred to). An apogee and perigee that we 30 km different than those derived from the semimajor axis. On and on and on. At my QTH, with the mean motion set to 14.28575 rev's per day, they are still the best element set.

It appears that UOSAT MIGHT be 3 for 3 on their lifetime launches. If you have heard UO-15, please post times/etc. here. The temps were a little warm it seemed to me but Jeff Ward's note seemed to think it was ok. They are almost 15 C warmer than the Microsat's. I hope that UOSAT E, Now UO-15 is not in serious trouble. Send me reports and I will pass via Telemail.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

---

557. Re: INFO-HAMS Digest V90 #99

Newsgroup: rec.ham-radio
Date: 1990-01-25 18:27:05 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9001251827.AA10510@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 13910

Subject: Half-wave vertical

The J antenna is mostly like a 1/2 wave vertical with a 1/4 wave matching transmission line feeding it. The impediance at the bottom of the 1/2 wave vertical should be infinity (voltage maximum, current minimum). A quarter wave feedline matches the infinite impediance down to 0. By tapping in somewhere above the 0 point, a 50 ohm point is achieved.

In reality, the impediance at the bottom of the 1/2 wave vertical is much lower than infinity. Someone claimed the impediance of my Cushcraft R3 was approx 1500 ohms with some reactance (not specified). I don't have the equipment to measure it, but the sizes of the matching box components indicate that the number is not too many orders of magnitude off. The length of the matching line is usually adjusted to compensate for this through trial and error. There are some emperically derived lengths for the matching line that seem to do the trick nicely. I don't have the numbers handy, but they could be found if desired.

-- Doug
WA6VVV

558. Re: 6m band, 1.25m, 23 cm band: Usage?

Newsgroup: rec.ham-radio
Date: 1990-01-25 20:11:48 UTC
From: REISERT@VICTIM.enet.dec.com
Message-ID: <9001252011.AA08135@decwrl.dec.com>
Source record: 13911

In article <1990Jan24.213232.531@chinet.chi.il.us>, megabyte@chinet.chi.il.us (Dr. Megabyte) writes...

>I was interested in hearing if anyone uses the 6 meter band. Of all the
>bands, I hear the least about the 6 meter band. Why is that? Why is
>it an unpopular band? Not only do I not hear much about it, but I see
>no new equipment for it and the used 6m rigs go for a song.

Well, I can try to answer some of your questions, I'm sure W9IP or someone else will fill in the holes.

The 6 meter band is not unpopular, to the contrary for the hams who use it it is very exciting. In the June VHF contest, for example, most stations will have their highest QSO and multiplier totals on this band. 6 Meters bridges the gap between HF and VHF - it has all of the standard VHF propagation modes such as Aurora, Tropo, Scatter, E-skip, Meteor Scatter and Moonbounce (earth-moon-earth), *plus* there are F2 openings that allow you to work over paths between 5 and 10 *thousand* miles!

If you just go by the articles in this newsgroup, you'll come to the conclusion that all hams either

1) tinker with gear,
2) have 440 rigs that are modified to listen out-of-band,
3) are active DXers or contesters, or
4) never get on the air and spend their time complaining about
the rules

True, 6 meters is hardly ever mentioned here. Few people, if any, use it in their cars like the 2 or 440. You wouldn't want to use it for packet, the baud rate is too slow. The antennas are bigger than you average 2 meter FM antenna, but heck, they're smaller than a 20 meter beam! And true, there isn't any really new gear coming out, but the functions that people need on their new whiz-bang-smaller-than-a-credit-card handi talkies just aren't needed or used on 6. 50 MHz attracts both DXers and VHFers, and it's a great band for people who like both.

jim, AD1C (WAS, WAC and 55 countries worked on 6 meters)

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street

P.O. Box 1123
Littleton, MA 01460

559. adjacent channel spacing

Newsgroup: rec.ham-radio
Date: 1990-01-25 20:33:37 UTC
From: kjh@pollux.usc.edu
Message-ID: <22512@usc.edu>
Source record: 13912

I have recently petitioned the frequency coordination gods here for a 440 pair. Every pair is used in this area, but several pairs are shared by several repeaters. [Almost all the repeaters on 440 here are private, and closed. :-(] Several people have advised me that the frequency coordination gods may not smile upon me.

If the gods are not friendly, I plan to appropriate a frequency for myself anyway. [I am a rebel. :-)] There are no machines on the 12.5 kHz splinter channels here. I have thought about the possibility of putting up my machine on one of these channels, with my output near the input of other repeaters, and my input near the other repeater's outputs. Other than raising the noise floor on the band, I don't think there would be any problems since everything is PL'ed.

Has anybody had any experience with this? Is it better to invert the closely spaced repeater (input close to other repeater's output)? What do the commercial people do? Please post or e-mail your responses, and thank you very much in advance.

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

560. FCC regulation of radio frequency usage

Newsgroup: rec.ham-radio
Date: 1990-01-25 20:54:23 UTC
From: mcyang@pollux.usc.edu
Message-ID: <22514@usc.edu>
Source record: 13913

Does anybody out there know the FCC regualtion of radio frequency usage ?
I want to know what range(s) are reserved for military, commercial and
civilian usages.

Please send your reply to mcyang@pollux.usc.edu

Thank you in advnace Mitch

561. Re: 6m band, 1.25m, 23 cm band: Usage?

Newsgroup: rec.ham-radio
Date: 1990-01-25 20:58:53 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Jan25.205853.28326@Neon.Stanford.EDU>
Source record: 13914

In article <9001252011.AA08135@decwrl.dec.com> REISERT@VICTIM.enet.dec.com (Jim -- LTN1-2/H03 -- DTN 226-6905 25-Jan-1990 1514) writes:
>True, 6 meters is hardly ever mentioned here. Few people, if any, use it in
>their cars like the 2 or 440. You wouldn't want to use it for packet, the
>baud rate is too slow.

Eh? Between 50 and 220 MHz, the maximum symbol rate is 19.6 Kbaud. That's pretty respectable.

6m has a bum rap for causing TVI problems. Frankly, I have more problems on 20m operating 100w F1D than with keying a 5w 6m HT next to my TV...

--
-=Paul Flaherty, N9FZX | "Unix could use a more user-friendly interface.
->paulf@shasta.Stanford.EDU | Does anyone have a card punch handy?"

562. Need info on rechargable Alkaline battery

Newsgroup: rec.ham-radio
Date: 1990-01-25 21:10:43 UTC
From: jim@mmsac.UUCP
Message-ID: <3738@mmsac.UUCP>
Source record: 13915
Cross-posted to: sci.electronics,rec.ham-radio

I recently aquired an old Motorola VHF Hi lunchbox radio. It
is a one-channel FM receiver/transmitter, and it puts out about 1
watt. It has a rechargable 6-volt, 4 amp-hour battery in it, that is
dried out, and doesn't work. If I supply 6 volts at about 1.5 amps to
the radio externally, it works fine.

Now, the battery has little screw-top covers on each cell, and I can
see the little sheets of metal and what looks like cardboard inside,
but it is completely dry.

Can I make this battery work again? Would it work if I put
hydrochloric acid in the cells (like from a car battery)? It says on
the side of the battery that it is a rechargeable alkaline battery,
and should only be charged with an approved Motorola charger.

Is there some kind of alkaline liquid I could put in it to make it work?

Any info would be helpful.
--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==
The opinions stated herein are all mine.

563. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-25 21:15:15 UTC
From: ee5391aa@hydra.unm.edu
Message-ID: <1389@ariel.unm.edu>
Source record: 13916

One suggestion I haven't seen so far is de-imaging the stock quotes given on whatever the "business channel" is (I don't have/watch cable TV (yet))... I've seen this on other's cable-connected veletisions on occasion.

Now, from (dim) memory, I recall an article in 73 Magazine from back before direct ASCII transmission was legal on our bands...someone showed that you could put letters on a SSTV image, transmit it LEGALLY (Uncle Fox said so!) and pick the image apart at the end to get your text. It was an administrative kludge, rendered pointless by authorization to use ASCII, but the idea may be useful here.

The image (as I recall) has a small rectangular portion of the screen display-ing stock quotations in a moving-strip (ticker-tape?) fashion. A frame grabber could "grab" every few seconds, and only a small portion of the image would need to be processed, so it should go quickly, and you generate a nice little tickertape file.

I don't know:
o How much it would cost
o How quickly the processing REALLY could be done
o How "old" the televised quotes are
o If anyone really gives a damn

There's the idea. Now, kick it around a bit.

Have fun,
n5gax

"So much karst; so little time...."
Duke McMullan n5gax nss13429r phon505-255-4642 ee5391aa@hydra.unm.edu

564. Re: Legalities of Multiple Call Signs

Newsgroup: rec.ham-radio
Date: 1990-01-25 23:04:47 UTC
From: michael@fe2o3.UUCP
Message-ID: <289@fe2o3.UUCP>
Source record: 13917

In article <9001171628.AA04357@zit.cigy.> jcp@cgch.UUCP (Joseph C. Pistritto) writes:
> Does anyone know what the rules are if you are licensed in
>more than one country? I know that in each country you hold a license
>in, you must use the privleges and callsign assigned by that country,
>but what happens if you go to a third country to operate?
>
> In particular, I hold a Technician license in the US, and the
>equivalent license in Swizterland. The licenses differ, however in
>the assignment of powers and frequency allocations (for instance, Tech
>class in Switzerland has no 50Mhz band privleges, and only 200 watts
>maximum power). What happens if operate in Germany (which is 400
>meters away for me). What happens if I operate MOBILE in Germany, etc?
>
If you hold a CEPT licence (i.e. European licence) you can operate in any
CEPT country under the provisions of CEPT T/R 61-01. There are many rules
though. Some are:
(Lifted from my latest UK licence)

a) You must be a temporary visitor and non-resident.

b) Operate only mobile or portable.

c) Comply with the requirements applicable to the use of W/T
apparatus at the location of operation in the host
country.
d) Comply with thus licence unless such complience would result
in a breach of the requirements of the host country.

e) present this Licence upon request to the relevent supervisory
authorities in the host country.

f) if he possesses an Amateur Radio Licence (B), [A VHF licence]
use only those frequencies above 144 MHz authorised for
use by licenced amateurs in the host country.

g) use his home call sign after the appropriate host country call
sign prefix.

h) comply with the relevant provisions of CEPT Recommendation
T/R 61-01.
> By the way, would contacts made under both callsigns count as
>one person for DXCC purposes?

B. T. W. before I got my U.S. call, I had an FCC permit to operate which
stated:
Operation under the terms and conditions of the license
issued to the alian by his government, but not to exceed the FCC Amateur

Extra class privilages.

---
email to
UUCP: uunet!mimsy!{arinc,fe203}!vk2bea!michael

_ _ _ _
Amateur | VK2BEA (Australia) '))) / //
Radio | G4NYV (United Kingdom) / / / o _. /_ __. _ //
Stations| NV3Z (United States) / ' (_<_(__/ /_(_/|_</_</_

Michael Katzmann
Broadcast Sports Technology.
2135 Espey Ct. #4
Crofton Md. 21114 USA

Ph: +1 301 721 5151

565. Gateway 19-Jan-90

Newsgroup: rec.ham-radio
Date: 1990-01-26 01:15:37 UTC
From: gws@n8emr.UUCP
Message-ID: <1413@n8emr.UUCP>
Source record: 13918

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================
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Gateway: The ARRL Packet Radio Newsletter - Stan Horzepa, WA1LOU - Editor

Volume 6 - Number 9 - January 19, 1990 - Part 1 of 4

Published by the: American Radio Relay League
225 Main Street, Newington, CT 06111

HAM SATELLITES' LAUNCH DELAYED UNTIL JANUARY 21

On January 8, Arianespace officials announced that the V35 launch of the Amateur Radio Microsat and UoSAT satellites will be delayed further due to problems with the non-Amateur Radio SPOT-2 satellite, which is the primary payload of the mission. The problem with SPOT-2 was due to a magnetic tape recorder failure. The launch is now scheduled for January 21 at 01:35 UTC.

from Bob McGwier, N4HY and Eric Rosenberg, WA6YBT via CompuServe's HamNet

SKIPNET STA EXTENDED

The FCC has granted a one-year extension of the STA (special temporary authority) for automated packet-radio operations on HF for SKIPNET participants. This January 4 action is in direct response to an ARRL request.

ARRL AWARDS FIRST GRANT FOR HF PACKET-RADIO RESEARCH

The ARRL made its first technology grant of more than $1000 to a team of investigators headed by Stephen Hall, WM6P, for research in diversity reception of HF packet-radio signals. Co-investigators in the team are Andy Demartini, KC2FF, Wally Lindstruth, WA6JPR, Bill Lake, WB6RIJ, Herb Duncan, WE7L, and Peter LaCount, W8UXD.

The objectives of this work are to investigate the benefits of diversity reception for HF packet radio, design practical diversity antenna systems, modem characteristics and receiver design for diversity. Funds provided under this grant are for purchase of equipment, electronic parts and other out-of-pocket expenses in connection with this research. The team members donate their volunteer labor and much of their own equipment in carrying out this work.

NEW VERSION OF ARES/DATA AVAILABLE

Version 1.1 of ARES/Data is now available. The new version of this multiconnect, multiport, generic data base program for the IBM PC and compatible computers provides the following three new features.

A STATUS command provides a brief status of the system, ie, the current LABELS and WIDTHS settings and the current data base size.

An automatic Origin Indicator at the beginning of the MESSAGE field indicates which station last updated each record. The station's call sign or the word "SYSOP" will appear here, so in case of data entry errors or other questions, everyone will know who made each entry.

A WIDTHS command allows you to more neatly format output data on the screen. It does not change the data in any way, but provides a way for the column output to "look right." If the value for any field is shorter than the defined WIDTH for that field, when that record is displayed, spaces will be used to keep the fields aligned. If a given value is longer than the specified WIDTH, then all of the value is displayed.

The program may be downloaded from CompuServe's HamNet or may be obtained by sending a blank disk (5-1/4-inch 360-kbyte or 3-1/2- inch 720-kbyte) and return postpaid disk mailer to:

W.E. Moerner, WN6I
1003 Belder Dr
San Jose, CA 95120-3302

ARES/Data may be distributed freely as long as distribution is on a nonprofit basis.

from W. E. Moerner, WN6I @ KB6OWT

PACKET RADIO MANUAL IN BRAILLE

Northern Nevada Braille Transcribers, a volunteer, nonprofit, tax-exempt group, now has the MFJ-1270 TNC 2 Packet Radio Owner's Manual available in braille. It is contained in six volumes of various lengths. It is also available on an Apple computer floppy disk. This braille manuscript is available without charge to anyone who can use it, however, contributions in any amount are gratefully accepted. Interested parties can write for additional information to Northern Nevada Braille Transcribers, 1015 Oxford Ave, Sparks, NV 89431.

from The ARRL Letter

Volume 6 - Number 9 - January 19, 1990 - Part 2 of 4

RESTRUCTURING OF THE PACKET BULLETIN BOARD SYSTEM PROPOSED

Much grumbling is heard these days about bulletins in the PBBS network. The complaints include such things as there are just too many bulletins for PBBS users to sift through, many of them have inappropriate distribution (items of purely local or regional interest being propagated around the world), you often can't tell what the subject matter is without reading them, important local items are missed in the hodgepodge of bulletins from

afar and so on. To a certain extent, these are problems of user education. PBBS users need to be informed more emphatically not to send "for sale" items to @ALLBBS, to use more informative Subject lines, etc. The real problem, however, is that PBBS SYSOPs lack the bulletin management tools which would allow them to bring some order to this chaos.

Anyone who uses landline BBSs, information utilities such as CompuServe, or computer networks such as USENET, already has an appreciation for one major shortcoming of PBBSs. Unlike those systems, the packet-radio systems have no means of subdividing the bulletins (which usually go by different names on other systems) into different categories or special interest areas. Therefore, users have to wade through everything from soup to nuts (especially the latter!) to find the few items of interest to them. This wastes time and precious channel bandwidth. One partial solution to the problem is to use the To: field of bulletins to categorize them; then astute PBBS users can use commands like "L> XXXX" to find bulletins related to the area designated by "XXXX." KA1NNN has proposed a list of categories (as published in Gateway, Volume 6, Number 2, and also distributed on the PBBS circuit) and some categories are already in use in some areas. This is by no means a complete solution, but it is a good first step and one which PBBS SYSOPs should strongly support.

In considering what other changes might be made to the packet- radio bulletin distribution system, it is useful to examine how those other systems mentioned above handle similar tasks. I would like to focus on USENET because I believe it offers the most useful model from which we can learn, but there are certainly others worth examining, such as the Fidonet BBS network.

Although USENET is not a BBS, it has some notable similarities to the PBBS network. It has been described as "a kind of grass roots network based on controlled anarchy." Sound familiar? The network consists of more than 5000 computer sites, ranging from huge mainframes to lowly PCs. What they have in common is the UNIX operating system (or at least the ability to communicate with UNIX systems). In USENET, "bulletins" are articles posted by users of these systems and the articles collectively make up the USENET "news." The news is subdivided into approximately 300 different "newsgroups" and articles are propagated amongst the participating systems by a flood routing scheme very similar to that used for packet-radio bulletins. Of course, the medium of propagation is different, typically being telephone dial-up or leased lines, and the volume of news is considerably greater.

A USENET user accesses the news by logging into his host system and running a "newsreader" program. Most systems have several such programs available, each with a different user interface. They all make use of a configuration file in the user's home directory, which lists all of the newsgroups. For each newsgroup, this file indicates whether the user has "subscribed" to it (ie, whether the newsreader will show him articles from that newsgroup) and which article numbers he has read. While reading an article, the user has options such as sending a copy to a file or to a printer, posting a

follow-up article or sending private e-mail to the author.

Articles can also be posted without running the newsreader by using a different program, usually called "postnews." This is typically used when the article is not a follow-up to a previous article. The program first asks for a subject, then some key words that can be used for searching and then the name of the newsgroup in which to post it. More than one newsgroup can be selected ("cross-posting") in instances where the article's content spans several areas of interest. If the user is unsure of what newsgroups are available, the program can provide him with a list. The program then prompts for a distribution area for the article. There are usually about six choices (eg, local site only, metropolitan area, state or province, country, continent, worldwide); each newsgroup will have a pre-defined default distribution area which can be accepted by simply hitting Enter. Then the user is transferred to an editor to create the body of the article. Doing a follow-up article is easier because all of the preliminary details (newsgroup, key words, subject, distribution) are picked up from the article to which the user is replying.

One other interesting aspect of newsgroups is that some of them are moderated. This means that users are not allowed to post articles directly from their site into that group; instead, they must be mailed to a moderator, who posts them only after determining that the contents are actually a useful contribution to the discussion. This sounds like censorship, and moderated groups are in the minority on USENET, but a good moderator can really keep the noise level down and the quality level up.

(continued next message)

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RESTRUCTURING OF THE PACKET BULLETIN BOARD SYSTEM PROPOSED
(continued from preceeding message)

Since there are a great number of USENET newsgroups running the gamut from highly technical and specialized to completely frivolous, a hierarchical naming system has been developed to make them easier to handle. A newsgroup name consists of two to four sections, separated by periods, proceeding left to right from the general to the specific. At the top of hierarchy are some broad topic areas such as "rec." (recreation/arts/leisure), "sci." (science and technology), and "comp." (computers). The newsgroup that deals with general topics of interest to hams is rec.ham-radio, but there is also a more specific newsgroup devoted to packet radio, known as rec.ham-radio.packet. The group for discussing IBM PC compatibles is comp.sys.ibm-pc, and so on. A few of the newsgroup names indicate geographical or institutional areas rather than topic areas. Since many of the USENET sites do not want to carry all of the newsgroups, the hierarchical naming system makes it much easier to specify which groups will be accepted by a particular site.

An interesting aspect of the anarchic nature of USENET is the way in which new newsgroups are created. There is no central authority to organize such

things, so it is up to the initiative of individual users to start the process. Proposals for new newsgroups are discussed, often heatedly, in a particular newsgroup which was created for that purpose. After a suitable period, if there appears to be enough support for the new group, someone will begin collecting votes, which are sent in by e-mail. After the prescribed period, the results are posted to the net, usually accompanied by a list of the voters and how they voted. If there are at least one hundred more "yes" votes than "no" votes, the newsgroup is declared to be created. Control messages are sent out, which cause the Netnews software to automatically add the new newsgroup to the USENET distribution. Most users will have their newsreaders configured so that they will see new newsgroups when they appear. They then can "unsubscribe" if they do not wish to continue reading the new additions.

How does this relate to the PBBS network? There are obviously some aspects of USENET which don't apply, but there are also some useful lessons we can learn. The notion of newsgroups is embodied in the To: field categories mentioned earlier. The limitation of six characters should be removed, possibly making way for a hierarchical naming scheme. The naming of the newsgroups will probably continue to evolve haphazardly for a while with some catching on and becoming popular and others falling by the wayside through lack of use. At some point, it would be desirable to formalize the list of existing newsgroups, and institute some sort of voting procedure for adding new ones. Since the packet-radio news network will presumably continue to emphasize topics related to ham radio, as opposed to everything under the sun as on USENET, I don't expect that the number of newsgroups needed will be nearly as large.

The other important aspect of bulletin/news distribution is the geographical distribution areas, which belong in the @PBBS field of bulletin-type messages. I would like to see a clean division between newsgroups and distribution areas so that the @PBBS field is used for the latter function only. This means that bulletins that are presently distributed to ALL@AMSAT, for instance, would instead be addressed to AMSAT@ALLBBS or, perhaps, SPACE@ALLBBS. If you were entering news on satellite passes in your own area, you would then address it to SPACE@LOCAL (where LOCAL is replaced by whatever is appropriate for distribution in your area). I believe that half a dozen or so distribution areas, ranging from local to worldwide, is all we really need in the @PBBS field. This would be supplemented by a file listing all of the newsgroups, along with various attributes which control how they should be handled by the PBBS.

Among the possible attributes for a given newsgroup are: don't accept articles for that newsgroup; accept articles, but don't retain them locally (for feeding other PBBSs who want that newsgroup); accept articles and make them available to users; archive articles in that group into a text file, etc. The newsgroup file would also be referenced for forwarding purposes, if there is a need to forward only selected newsgroups to other PBBSs.

In order to effectively manage the news (I'd like to get away from calling it "bulletins"), some major changes in the PBBS software is needed. There

should be more help available to users entering news articles, so that they can easily get a list of available newsgroups and distribution areas that can be used. The SYSOP needs tools which allows him or her to define these items and also to establish linkages between them which can be used to prevent inappropriate distribution. It should be possible, for example, for the SYSOP to set a limit on distribution area for "for sale" items, and thus prevent the 4SALE@ALLBBS sort of abuse that we have been seeing lately. It should also be possible to set up controls so that articles from users that have very wide distribution are flagged and put on hold so that the SYSOP can review them before deciding whether they should be unleashed on the world. This adds a burden to the SYSOP, but seems to be the only solution to curbing the abuse we are currently experiencing. The situation should improve in time, as the level of user education improves.

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RESTRUCTURING OF THE PACKET BULLETIN BOARD SYSTEM PROPOSED
(continued from preceeding message)

Another control which is needed is the ability to flag a given newsgroup as "moderated." In such cases, users would not be allowed to post articles directly to that newsgroup. Instead, they would get a message giving them the name and e-mail address of the moderator for that group and be allowed to mail the article to the moderator if they wish to continue.

For reading the news, the PBBS user interface should provide some of the functions of the USENET newsreaders. The most important function is the ability to allow users to select which newsgroups they want to see. The selection, along with other preferences, would then be part of the user profile stored in the user file. There would be at least one obligatory newsgroup for important local announcements, which cannot be unsubscribed. The news should be kept entirely separate from mail, the two areas being entered with different commands.

In general, the user interface should not only make it easier to selectively find and read news items, but also to interact with them by facilitating the process of responding to them. For instance, the PBBS Send commands should be supplemented with a Follow-up command which would accept as an argument, a message number. It would create a new news article having the same newsgroup, distribution, and subject (prefixed by "Re:" if it isn't already) and the user just has to enter the text. Some means of tracking message threads would be handy too (or at least a command to list articles having the same subject as a particular article). One of the reasons I don't like the term "bulletin" is that it implies a one-way flow of news. I want to see more interactive discussions taking place by means of the PBBS network and software which facilitates such interaction.

There are many possibilities for enhancing the news reading interface, but the important thing right now is to start the evolutionary process in the right direction. Start using the To: field categories which have been suggested, along with others that appear as needed. After this usage has become well entrenched, we can try to standardize a basic set of

newsgroups, a method for adding new ones and discuss how the newsgroup name field might best be extended. At the same time, we should only use the @PBBS field for geographical distribution areas. Then the PBBS software writers can have at it and create some of the new tools we need to make the news distribution system work the way it should.

The PBBS network provides a very useful e-mail service for its users, but the bulletin distribution system is degenerating into chaos. We have an opportunity to build it into a truly useful system for distributing and exchanging information, but we must act now. Let's get on with the job!

Comments are welcome.

by Barry McLarnon, VE3JF @ VE3JF

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail to:

Gateway
Stan Horzepa, WA1LOU
75 Kreger Drive
Wolcott, CT 06716-2702

or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS or IP address 44.88.0.14.)

The deadline for each issue of Gateway is the Saturday preceding the issue date (which is typically a Friday).

REPRODUCTION OF GATEWAY MATERIAL

Material may be excerpted from Gateway without prior permission, provided that the original contributor is credited and Gateway is identified as the source.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM/SWL/SCANNER BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

566. Gateway 05-Jan-90

Newsgroup: rec.ham-radio
Date: 1990-01-26 01:19:10 UTC
From: gws@n8emr.UUCP
Message-ID: <1414@n8emr.UUCP>
Source record: 13919

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================
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Gateway: The ARRL Packet Radio Newsletter Stan Horzepa, WA1LOU, Editor

Volume 6 - Number 8 - January 5, 1990 - Part 1 of 4

Published by the:
American Radio Relay League, 225 Main Street, Newington, CT 06111

AMATEUR SATELLITE LAUNCH IMMINENT

All seven payloads: four MicroSats, two UoSATs and the primary SPOT-2 payload have been integrated and encapsulated in their payload structure in preparation for launch this month. The SPOT-2 has also been fully fueled and all are awaiting mating with the Arianne vehicle which will occur in a few days.

The MicroSat batteries are being trickle-charged, 10 hours on and 14 hours off per day, by Dave Cowdin, WD0/HHU, who will be in Kourou through launch day. This is done so that the on-board computers will remain powered up to retain their software loads in preparation for early flight operations.

Although separation from the launcher physically connects power to the MicroSat transmitters, they will not actually be turned on until a few hours after launch by either NK6K operating W6TRW on the US West Coast or N4HY on the East Coast.

Rudimentary telemetry software for IBM PC and compatibles is being prepared at this time and will be available soon. Distribution will be first to command stations and Command Station Development Program members followed by availability from AMSAT Headquarters and various electronic sources. If you do not have your software in place on launch day, simply capture files of received data for later processing.

Monitor the following frequencies early in the mission:

LUSAT 437.150 PSK straight PSK transmitter
LUSAT-CW 437.125 CW modified character set
WEBERSAT 437.075 PSK raised-cosine transmitter
PACSAT 437.025 PSK raised-cosine transmitter
DOVE 145.825 FM packet radio

Monitoring the PSK signals will require an SSB receiver and a TNC 2 modified with a 1200-baud PSK demodulator. FM packet radio from DOVE may be monitored with an unmodified TNC and FM receiver. The LUSAT CW beacon

transmits telemetry values in Morse code with modified numeric characters to save CW transmitter power. In all cases, more information will be published as it becomes available from the spacecraft development team. Copy CW signals as heard and capture packet-radio telemetry into computer disk files for later processing.

Additional information including other downlink frequencies and the uplink frequencies will be released as "opening day" for each of the satellites nears.

from AMSAT News Service

PACKET RADIO STARS IN TREK FLICK

Several months ago, Harold Price, NK6K, challenged me to demodulate what he thought might be HF packets in the motion picture Star Trek IV. During the scene where Scotty is valiantly trying to beam both Chekov and Uhura back from the USS Enterprise, Scotty is having a hard time hearing them. One of the sources of interference appeared to Harold to be HF packet radio.

Always being one to rise to a challenge, I took on the job of doing some fancy Digital Signal Processing footwork. Almost from the first, I was certain that it must be an HF packet because my very first demodulation attempt clearly revealed flags before the start of a frame and end of frame. I knew it was HDLC of some variety.

Several things impeded the effort including Scotty's voice on top of the packets and some 20-meter SSB nearly on top of the signal. All of this had to be filtered out. I spent an hour of time on the Cray-2 at work and used the fanciest FSK demodulator I could write and I finally had the noisy baseband signal plotted on paper in front of me. I did my best to get an integral number of samples per baud as the signal was very noisy and, though the bits could be made out by eye, I could tell that it was going to take another hour of Cray-2 time to get the clock recovered and to make good bit decisions. In a couple of places, HDLC showed me what were clearly bit errors and these could be done by eye as well.

After the filtering and building a demodulator for the badly mistuned signal (it was almost 900 Hz below 'normal'), I took the bits to Phil Karn, KA9Q, and he decoded the NRZI data and proved beyond a shadow of a doubt that it was indeed an HF Amateur Radio packet. It was WA8ZCN-0 sending an RR for NR-3 to N6AEZ on 20 meters. I got Bill Harrigill, WA8ZCN, on the phone and he agrees that it was probably him. Thanks Harold for the challenge and Phil for the help.

from Bob McGwier, N4HY via CompuServe's HamNet

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HIERARCHICAL ADDRESSING TIPS

More and more PBBSs are now supporting "H" Hierarchical addresses of the form K9DOG @ W3IWI.MD.USA. You can tell which PBBSs accept such addresses when you connect to them by looking at the SID (System ID). This is the

field like [MBL-5.13-H$] or [RLI- 11.6-CH$] where the H indicates that the PBBS accepts the expanded addresses.

Now for some "rules":

1. In the portion to the right of the "@" you still must supply a valid PBBS call sign if you use H addressing. Do not use H addressing for NTS messages (eg, ST 94321 @ NTSCA) or for bulletins (eg, SB ALL @ MDCPBBS $). You don't have to use H addressing for well-known PBBSs.

2. The fields to the right of the @ which are separated by periods are intended to be real, physical locations. The convention that is being followed is to use the two-letter state/province postal abbreviation. Examples in the US and Canada include MD for Maryland, PQ for Quebec, MI for Michigan, WA for Washington state and DC for Washington, DC.

Similar examples in foreign countries include MI for the Milano district of Italy and WA for the state of Western Australia.

3. This is followed by a three-letter country abbreviation following ISO standards (the same letter codes used during the Olympics). Examples are:

Argentina ARG Italy ITA
Australia AUS Japan JPN
Austria AUT South Africa ZAF
Brazil BRA Spain ESP
Canada CAN Sweden SWE
Chile CHL Switzerland CHE
West Germany DEU England GBR
Greece GRC United States USA
Indonesia IDN USSR SUN
Israel ISR

4. An optional continent code, like EU for Europe, NA for North America, AS for Asia, AU for Australia, may be added.

5. Addresses are assembled from left to right, smallest area to largest. Thus, my full address would be W3IWI@W3IWI.MD.USA.NA but for forwarding within this continent, W3IWI@W3IWI.MD or W3IWI.MD.USA would be adequate. From the examples given above, you must be careful of mail leaving the country since MI could be either Michigan or Milano. Thus I would need to address a message to my friend Luca in Milano as IW2ECL @ I2KBD.MI.ITA or IW2ECL @ I2KBD.MI.ITA.EU to avoid the message going to Michigan.

6. In some cases, you will see attempts to facilitate local distribution with an address like W6XYZ@N6VV.#NOCAL.CA.USA, where the #NOCAL may mean something in California, but is just passed through by PBBSs forwarding the mail out west. Such supplementary addresses are always preceded by a #. Don't try to be creative inventing new ones. A bad example is one user who invented the return address xxxxx@N4QQ.MDCPBBS.MD.USA.Z:21211 -- both the MDCPBBS and Z:21211 fields are bogus.

7. Don't use these addresses to try to force routing. A recent message sent to Washington state with the address xxxxx@WS7M.W3IWI played ping-pong for three days between the W3IWI and WB7DCH HF mail gateways.

8. The extended H address applies to the PBBS, not to the individual user. Thus, if K9DOG uses W3IWI, then his address is K9DOG@W3IWI.MD.USA, not K9DOG.MD.USA. The address for a Virginia user of WA3ZNW is N4PQR @ WA3ZNW.MD.USA and not N4PQR @ WA3ZNW.VA.USA since WA3ZNW is located in MD.

9. Remember you need to supply a correct address for mail. You should not worry about the route the mail takes. Don't try to force your mail to follow a particular path.

10.It is your responsibility to supply a good, clean, correct address and the packet-radio network will do its best to move the mail to its destination. Be careful about typographical errors. Here are some examples of what has happened: N0AN is not the same as NOAN (with the letter o). W1XYZ is not WIXYZ (with the letter i) nor is it WlXYZ (with a lower case L).

from Tom Clark, W3IWI

Volume 6 - Number 8 - January 5, 1990 - Part 3 of 4

AUTOMATIC CONTROL OF HF DATA COMMUNICATIONS PROPOSED

On December 12, ARRL counsel Chris Imlay, N3AKD, filed a petition for rule making with the FCC seeking the adoption of rules to permit limited HF RTTY and data communication under automatic control. The 24-page petition draws on the experience gained during the past 2-1/2 years under the STA granted to the ARRL in mid-1987 permitting a limited number of packet-radio stations (known as "SKIPNET") to operate under automatic control on specific HF frequencies forming an organized "long haul" message forwarding network. The League's conclusion, based on this experience, is that the desirability of automatic operation on the HF bands has been firmly established and, in fact, is now an integral part of the normal Amateur Radio activity in all ITU Regions.

The ARRL's proposal seeks inclusion of automatically controlled AMTOR and Baudot as well as data modes. In the petition, ARRL says, "the feasibility of automatically controlled operation on AMTOR has been demonstrated by US amateurs operating under special temporary authority.

... AMTOR is more robust than is packet radio and is used to bridge difficult radio paths.
... Thus, its operations under automatic control is not only feasible, but necessary for the development and efficient operation of amateur networks.
... manually controlled Baudot RTTY 'mailboxes' (or MSOs) have been active in the Amateur Radio Service since the early 1980s.
... the software controlling the mailboxes has provisions which allow the interrogating station to ask for repeats. Manual control of these mailboxes

... is an unnecessary burden on the mailbox system operators.
... The technology and operational experience using each of these modes has matured to the point that this is now possible.
... the benefits of automatic operation are shared by amateur operators worldwide and are instantly available to provide public service during disasters."

The petition seeks designation of the following band segments as being available (not exclusively) for automatic control of RTTY and data transmissions: 3.605 to 3.615 MHz, 7.035 to 7.045 MHz, 10.140 to 10.150 MHz, 14.090 to 14.100 MHz, 18.100 to 18.110 MHz, 21.090 to 21.100 MHz, 24.920 to 24.930 MHz, 28.100 to 28.120 MHz.

In a separate letter to SKIPNET members, ARRL Executive Vice President Dave Sumner, K1ZZ, explained why these particular frequencies are suggested in ARRL's petition. Dave said that the ranges chosen in most bands are probably self-evident except for those in the 20- and 40-meter bands.

"The specific frequencies used by SKIPNET stations have shown it's possible to shoehorn in with other US users. But, we have received complaints from societies in other countries about HF packet-radio frequencies, particularly in the 20- and 40-meter bands.

"On 20 meters, nearly every other country operates phone in the 14.100-14.150 MHz range, and packet-radio operations in the lower part of that range have been a continual cause of concern to them. This has been the case in all ITU/IARU Regions including Region II -- the Americas. The fact that some of their own packet-radio operators use frequencies above 14.100 has not convinced the societies in other countries that this is a good place for packet radio. The worldwide consensus (with some reluctance on our part) is that packet radio should operate below 14.100. Of course, that puts pressure on the Baudot RTTYers and AMTOR RTTYers just below them in frequency and, ultimately, on the CW operations.

"On 40 meters, most countries have a narrower band -- only 7.0 to 7.1 MHz -- into which they must squeeze CW, RTTY, packet radio, phone and image communications. Around 7.040, or even as low as 7.030, is where their phone band starts. So, you can understand why there might be contention over packet radio and RTTY around 7.090.

"The frequency segments for each band were chosen after careful review of domestic and international implications. While we knew to begin with that there was no such thing as a "perfect fit," we had to try for a "best fit" solution. Please bear in mind that we now have a viable packet-radio network that is worldwide in scope. As such, we need to use frequencies that are compatible with the rest of the world. Even with the frequency segments chosen, there may still be the need for future adjustments, both by us and in other countries, to finally arrive at common segments for automatic operation.

"We anticipate that individuals may wish to suggest some changes in the frequency segments proposed by the League. We believe such input to be

helpful in cases where commentors take the time to consider the domestic and international implications of their proposals."

The FCC has not yet assigned an RM number to this petition.

from The ARRL Letter

Volume 6 - Number 8 - January 5, 1990 - Part 4 of 4

PACKET RADIO IN SAREX 1990 PLANS

The Shuttle Amateur Radio Experiment (SAREX) will have a big year in 1990. So much so, it has been dubbed "SAREX-90."

STS-35 Space Shuttle Columbia is scheduled for a lO-day mission, to be launched on the evening of April 26, 1990. Dr Ron Parise, WA4SIR, a Payload Specialist, has been cleared by NASA to operate voice and packet radio during his flight.

STS-37 Space Shuttle Atlantis is scheduled for a five-day mission to be launched June 4, 1990. Marine Corps Lt Col Ken Cameron, KB5AWP, the Pilot, has been authorized to operate voice, packet radio, slow-scan television and ATV.

Both flights will use the amateur 2-meter band. The equipment is now undergoing final testing at the Johnson Space Center in Houston. Packet-radio operations will be continuous for periods of about 12 hours daily. Voice and television operations will be dependent on the astronaut's work schedules; but early flight plans indicate that they should have an hour or more available daily.

The orbital track on both missions will be at an inclination of approximately 28.5 degrees. This southerly orbit will put most of the United States out of range during the times when the astronauts are available, so AMSAT plans to establish ground station networks over strategic locations to relay communications. Stations in Australia, South America, Mexico, and Africa are now being contacted by AMSAT. Japan also is under consideration. Each general area will be coordinated by a control station, which will be in direct contact with a key station, W5RRR, at the Johnson Space Center in Houston, Texas. They will use amateur satellites, short wave links and commercial facilities for the international hookup.

Communications will be broadcast by the key station and repeated to WA3NAN, at Goddard Space Flight Center, Washington, DC and to W6VIO, at the Jet Propulsion Lab in Pasadena, California. Broadcasts from these stations, and W1AW, will be heard on most amateur bands. Several VHF and UHF repeater groups plan to pick up and transmit the material. They will carry NASA Mission Commentary, frequent bulletins to advise listeners of astronaut planned transmissions and repetition of all amateur two-way voice and slow-scan TV transmissions with the spacecraft. Mission planning information also will be fed by computer from the Johnson Space Center to the coordinating stations to insure the accuracy of their bulletins of advice on when and where to tune in the spacecraft. W1AW will be used as a

media showcase, as will W5RRR.

In addition, a Teleconference Net is planned to feed most amateur repeater stations in the United States. These stations will permit easy access to schools. With the help of Amateur Radio club members and handheld equipment, students will be invited to share in the flights. They will even be able to talk directly to the astronauts at some locations!

This project is co-sponsored by the ARRL and AMSAT. ARRL is lead organization for information, education and support. AMSAT is lead for technical operations. The Johnson Space Center Amateur Radio Club is in charge of in-flight equipment and flight planning. The Motorola Radio Club in Illinois has provided specially built transceivers and antenna.

from The ARRL Letter

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail to:

Gateway
Stan Horzepa, WA1LOU
75 Kreger Drive
Wolcott, CT 06716-2702

or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS or IP address 44.88.0.14.)

The deadline for each issue of Gateway is the Saturday preceding the issue date (which is typically a Friday).

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--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM/SWL/SCANNER BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

567. Even more about 6 meters (LONG)

Newsgroup: rec.ham-radio
Date: 1990-01-26 01:33:31 UTC
From: rc@cmr.ncsl.nist.gov
Message-ID: <9001260133.AA11840@cmr.ncsl.nist.gov>
Source record: 13920

This is extracted from a message I sent last July to someone who enquired about six meters. With the recent additional requests, I'm posting it for general information. Absolutely no endorsements are given, especially no endorsements from my employer.
****

Firstly, six is something of an acquired taste, I suppose. There is relatively little FM activity on six, and in any case I don't take part in it. I'm on the low end; the place where SSB/CW activity is concentrated. There is not much local rag-chewing on six. Except as mentioned below, there has been very little packet work on six.

Most of the SSB/CW operators on six are at least vaguely interested in radio propagation effects. One of the things that keeps many people on the band is that nearly every propagation mode know to hamdom happens on six at one time or another. It has held my interest for many years. Oh sure, I've done some operating on other bands, and have been pretty inactive for a year or so at times, but ....

OPERATION

Operation is mostly on SSB, but switching to CW is common for really weak sigs, and a few people operate nothing else. Per the FCC, SSB must be above 50.1 MHz. The DX calling frequency is 50.110 MHz. An attempt is underway to leave 50.100 to 50.125 clear from domestic QSOs, to give the DX stations a chance to be heard. With that in mind, a second (domestic) calling frequency of 50.125 MHz is in use. Only on the wildest of Es openings do you find SSB operation much above 50.200 MHz. On transatlantic opennings you find most French stations, and many of the Gs operating above 50.2 MHz. The are a few dozen CW propagation beacons in the 50.060 to 50.080 MHz region in the US, and others elsewhere around the world in the 50.0 - 50.1 range. As well as signal reports, most stations exchange "grid square" information. On VHF and up bands, the world has been divided in 1-degree lat x 2-degree long "squares" which start at the south pole and date line and "read right up". I am in FM19, for example - actually FM19JB, each major "field" (FM) being divided

10x10 into 100 squares (19) and each "square" being divided
20x20 into 400 subsquares (JB). European stations like
the subsquares; most US stations don't even know their
own. In any case, the "squares" and their VUCC awards
have been a wonderful interest builder, and have kept the
QSL printers in business! I've now worked almost 400 squares
on 6 since the "squares" business started on 1 January 1983.

RIGS

The equipment situation is easy to cover, so I'll do that
now. Probably 50% of the active stations have 80 to
150 W output, either from old Icom 551D s (the 551 is 10
W), or from solid-state (brick) amplifiers following the
many types of 10 W rigs. Perhaps 40% of the stations run
just 10 to 20 W, but most of them either get an amplifier
or drop out after a year or so. The remaining 10% have
either tube rigs such as the Drake TR-6, Swan 250 (too
drifty!), Heath SB110A (spurious sig 150 kHz or so from
output), or high-power amplifiers. The kilowatt is quite
rare on six (see below for why). The norm for "serious"
stations is the 150 W amplifier. Last July I went through
some of my grid-square cards for the station information
contained thereon. Note that some of these cards go back
six years and thus slight currently-available gear.
- "BAREFOOT" POWER - WITH AMPLIFIER
RIG <25W <100W >100W <kW kW
Drake TR6 7 2
Heath SB110 2 1
Homebrew 4 1 1
Icom 505 1
551 14 3 3
551D 21 2
560 2 1
Kenwood TS600 5 2 1
TS660 2 1
TS670 2 1
TS680 1
Swan 250 11 2
Transv/someHB 10 4
Yaesu FT620 6
FT625 6 2
FT690 3
FT726 4 1

TOTAL 56 25 21 12 15
(sum=102, 37 having < 25W, including amplifier)
(22 having 25-100W, incl. amplifier)
(43 having >100W, including amplifier)
I'm sure that this list slights the more recent rigs. It
merely reports what has been on the air 1983-1989. No

endorsements are given, your mileage may vary.

ANTENNAS

A beam is essentially necessary. Everyone is horizontally polarized, but cross-polarization doesn't matter for Es or F2. A few stations use 3-element beams, but a 4 or 5 element beam is so small that a LOT of people use them. Quite a few people have Cushcraft 6-element "Boomers". Mine really over-shadows the house with its 34-foot boom! There are a few other big beams, up to the M2 with a 50-foot boom, and the lunatic fringe stacks them, etc.. The higher the tower the better! RG8 or RG213 is plenty good enough cable for most people. Antenna-mounted preamps aren't needed. External noise is fairly high at 50 MHz. It overrides the front-end noise figure on about all the rigs on the market today unless you have a LOT of cable loss or a VERY quiet location.

Also from my cards: (largest beam = 44 elements!)
NUMBER OF ELEMENTS
<3 3 4 5 6 >6
this size 9 8 15 22 30 19
HEIGHT (FEET)
<26 26-55 56-100 >100
this height 10 35 18 3

PROPAGATION

Tropo - The ordinary ground-wave tropo range on six isn't quite as great as on two. There are a number of reasons. Since there are so many other prop modes on six, people don't try so hard on tropo. Antenna gain often is higher on two. Noise is lower on two. At least in the summer, stations like W3BWU (Pittsburgh), W3IDZ (northern NJ) are easily worked from here with the beam pointing at them, and can be heard at almost any pointing. They are in the 150-W class.

Meteors - Any area workable by meteors can be worked more easily by Es or aurora. Even though meteor sigs are much stronger and longer on six than on two, little use has been made of them. There has been a VERY little meteor-burst packet work on six. I had the first such contact (with W0RPK). W3XO worked him a few years later.

Ionoscatter - Some people think it's really meteors, but every weekend morning there are a number of nearly-kilowatt stations working each other on SSB at distances of about 600 - 1000 miles by ionosperic scatter. Sigs are weak, and it takes good beams, height, and power, but

it is very reliable. See the old NBS papers by Bailey, Bateman and Kirby, et al. Bateman and Kirby were/are hams. Ross Bateman died last year. Dick Kirby continues as head of CCIR in Geneva.

Aurora - Much easier than on two. SSB is usually intelligible. Point north about dusk, most commonly in March and October/November. Lots of people work this mode when it happens.

Es - You know something about Es from TV DXing and "short skip" on ten meters. Having much better antennas, modulation, and receivers, hams do a lot more with it on six than you are used to on channel two TV.
It is most common from May to August, and around Christmas, here in Northern latitudes. In addition to the common single-hop range of 500 - 1500 miles, there are quite a few double-and-more hop contacts on six. Now that a number of Europeans are on six (with LOW power), we find that they can be worked from the US east coast each summer. Likewise the Caribbean stations work all over the US. The US west coast has an easy time with Hawaii and Alaska.

F2 - This is the traditional world-wide F-layer propagation you know and love from 20 and 15 meters. At most sunspot maximum periods, a few years of each eleven, the MUF reaches above 50 MHz in the autumn and spring. It isn't every day, but even antipodal communication has happened. The leaders have now worked over 100 countries. But they have spent MANY hours over many years trying to catch the fleeting opening. F2 brings an influx of the lower-band DX operators. The normal rather gentle operating style gets somewhat lost at those times.

Transequatorial Propagation - The southern US gets a number of openings to South America by some kind of ionospherically-ducted propagation. The stations are generally about equidistant either side of the magnetic equator. Given exceptional luck, an Es opening linked into this mode can make it available to more northern stations. This mode has bad flutter fading and a touch of the auroral spectrum spreading. This mode also works sometimes on two meters if you use CW and really good gear. It has been worked on 432 MHz.

EME - There have been a few EME contacts on six, but the required extreme antenna size and transmitter power make it out of the reach of most people.

Did I leave any modes out?

TVI, ITV

There is no doubt about it, six has TVI troubles. You find a limited number of people on six in channel 2 areas unless cable is widely subscribed-to. Many VCRs and audio systems are also prone to six-meter pickup. The common connecting or power cable is a quarter-wave antenna for six .... The TV owners have their revenge since the 13th harmonic of the color subcarrier, or something, of TV sets and TV games puts out a birdy at 50.113 MHz to bother the six-meter operators in return.... There is also quite a bit of trouble from noisy power distribution lines if they aren't buried (usually bad insulators or poor guy bonding).

STILL INTERESTED?

That should be enough to hold you for a while. Listen to 28.885 MHz, the ten-meter liaison frequency for overseas six-meter DX.

73,
Bob W3OTC
WAS (#638), WAC, and 66 countries on six.

568. Request for info ... solar sails.

Newsgroup: rec.ham-radio
Date: 1990-01-26 01:53:00 UTC
From: shri@ccs1.cs.umass.edu
Message-ID: <9124@dime.cs.umass.edu>
Source record: 13921

Read in recent Scientific American (Apr 89) about a solar sail race, a race in space for light crafts powered by the photon pressures.. Three entries are being planned etc. One each from Europe, Asia, and America.

I remember a blurb in a QST long time back about Ham interst in Solar Sails, for the amateur sattelites .. are any Hams involved in this too ?

The article also mentions India, among the countries with active groups working on solar sails. Anyone have pointers to such people in India ?

e-QSL (or post if thers is sufficient interest) . 73 es GB.

-- shrikumar (shri@ccs1.cs.umass.edu, shri@ncst.in)

569. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-26 02:31:32 UTC
From: shibumi@capmkt.COM
Message-ID: <405@capmkt.COM>
Source record: 13922
Cross-posted to: rec.ham-radio,rec.radio.shortwave

markz@ssc.UUCP (Mark Zenier) writes:

>In article <1990Jan20.215811.18908@hellgate.utah.edu>, liebchen@cs.utah.edu (Armin Liebchen) writes:
>> Does anyone know about the frequencies of online stock-market quote
>> transmissions in the air. They're supposed to transmit on FM, but in
...
>They are sent as a SCA subcarrier on an FM broadcast station. 88-108 Mhz.
>Since it's a subscription system, there is probably some level of protection
>in the form of custom modulation or encipherment.

>Warning, the #$%^& Electronics Communications Privacy Act has some restrictions
>on listening to SCA signals.

And if the exchanges find out that you have been recieving the data, they will come after you directly for theft. The exchanges are considered a quasi-govermental agency, and they *will* prosecute. Also, if you have executed any trades using this information, there are additional penalties. In theory, you could avoid this by paying the exchange fees. However, since the forms that must be filled out for the exchange fees include sections for *how* you are recieving the data, filling in "Intercepted from FNN Signal transmissions" would likely get you in hot water.

You might ask how you would be caught. And I don't have an answer for that. I do know that it wont go well for you if they do catch you, since the least you will have to do is pay all of the past fees you skipped on -- which are about $100+ a month PER EXCHANGE.

The FNN Signal broadcasts are encrypted, but I believe the method is trivial to crack. You will need to work out the transmission formats, which are much more complex.

Just a word of warning...

--
| Kenton A. Hoover |
| Weapons Specialist shibumi@capmkt.COM |
| Capital Market Technology +1 415 540 6400 |
| "Evil will always triumph over good because good is dumb" |

570. Re: Need info on rechargable Alkaline battery

Newsgroup: rec.ham-radio
Date: 1990-01-26 03:55:29 UTC
From: whit@milton.acs.washington.edu
Message-ID: <1583@milton.acs.washington.edu>
Source record: 13923
Cross-posted to: sci.electronics,rec.ham-radio

In article <3738@mmsac.UUCP> jim@mmsac.UUCP (Jim Lips Earl) writes:
>I recently aquired an old Motorola VHF Hi lunchbox radio.
>
>Now, the battery has little screw-top covers on each cell, and I can
>see the little sheets of metal and what looks like cardboard inside,
>but it is completely dry.
>
>Can I make this battery work again? Would it work if I put
>hydrochloric acid in the cells (like from a car battery)? It says on
>the side of the battery that it is a rechargeable alkaline battery,

The first NiCd rechargeable batteries (late sixties?) were called
"rechargeable alkaline" batteries. The cells you describe are the
wet-cell type, which is not terribly common nowadays. The electrolyte
was either lye (sodium hydroxide) or the similar potassium hydroxide
or lithium hydroxide. The wet cells are not common because the stuff
is nasty if it leaks.
Assuming it's dried out (not leaked), you should be able to
just add distilled water. The hydroxide can turn to oxide in some
situations, so this may not work, but it's easy to try.
To the best of my knowledge, the electrolyte of choice is
about 30% potassium hydroxide.
C&H Sales has a variety of (military surplus) batteries
and cells of this sort: 1 7/8"x6" per cell, 4 amp-hours, 1.2volts
per cell (#NCB8200, $3 each) and 2 5/16" x 1 1/8" x 6", 14 amp-hours,
1.2 volts per cell (#NCB7600, $5 each) are typical.
Their phone # is (800) 325-9465; get a catalog from them and see
if something looks familiar.

I am known for my brilliance, John Whitmore
by those who do not know me well.

571. Digitizing scopes

Newsgroup: rec.ham-radio
Date: 1990-01-26 04:12:07 UTC
From: root@sbcs.sunysb.edu
Message-ID: <4581@sbcs.sunysb.edu>
Source record: 13924
Cross-posted to: rec.ham-radio,sci.electronics

I am getting pretty tempted to buy one of these new breed of
digitizing 'scopes that HP and Tek are offering. They claim
anywhere from 250 -> 500 MS/s for basically very low cost.
The question is: are these instruments really useful for
medium -> high speed logic work, eg say I want to look at
video coming off a graphics board at 158 mHz. Comparable
analog scopes run twice as much per bandwidth dollar, so
some flags are raised in my mind ie you don't get something
for nothing. Would appreciate any hearing any experiences people
have had with eg the Tek 2431 or any of the HP low end gear. I would
be particularly interested in hearing from people that have
used such 'scopes in RF work.

Thanks,

Rick Spanbauer, WB2CFV
State U of NY/Stony Brook

572. DSP projects status?

Newsgroup: rec.ham-radio
Date: 1990-01-26 04:44:28 UTC
From: elmquist@chasun
Message-ID: <9001260444.AA00690@chasun.>
Source record: 13925

I've heard about two on-going DSP projects for amateur radio use. Seems AEA is working on something and so is TAPR-- I'm sure Mr. Quiktrak, N4HY, can tell us about the status of the AEA project...but how's the TAPR one coming along?

I'm wondering if these units will have the necessary firmware/ software to do the demod. of the data from the Microsats-- or will the AEA box initially only do HF things like RTTY, AMTOR and PACKET? (I'm guessing at this...since it's called DSP-232 which seems to imply replacement of PK-232).

I've been putting off the purchase of the dedicated PSK modems since the DSPs look like they could be the ideal solution to having to have a half dozen different modems in the shack.

Any ideas?

73, Chris N0JCF

573. Re: Love that DOVE!

Newsgroup: rec.ham-radio
Date: 1990-01-26 05:58:19 UTC
From: winter@Apple.COM
Message-ID: <38118@apple.Apple.COM>
Source record: 13926
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1990Jan25.070344.22025@Neon.Stanford.EDU> paulf@bodega.stanford.edu (Paul Flaherty) writes:
>So, you always wanted to get into satellites, but couldn't afford the
>bucks for the multimode rigs and az-el antenna rack?
>
>Well folks, "the times, the are a changin'"! With a $100 2m FM rig, a
>$50 TNC, and the terminal / computer of your choice, you can copy the
>telemetry and bulletins from the DOVE Microsat. Really! Just take your
>packet station, and put it on 145.825 MHz.

I guess I just wasn't paying attention before the launch, because I hadn't realized that DOVE could be copied with a standard TNC. Paul is right--just dial up the frequency and wait. (If you don't want to wait 24 hours or run orbital elements, try 10 p.m. and 11 a.m. +/- 2 hrs. as one of the AMSAT folks suggested.)

And to echo Terry Bell's comments in r.h-r.packet, the KA9Q TCP/IP software works great for this. I think a lot of people believe that Phil's package is only for TCP/IP. Not so! It's also a full-blown AX.25 package. I use it for everything. Anyway, the last pass of DOVE is still sitting on my Mac's screen; next pass should be in a little while. Just waitin' for the little puppy to come over the horizon...

Like Paul says--try it!!

73,
Patty

p.s. I followed up in rec.ham-radio because I suspect that some people who don't read .packet might get more interested in the subject after Paul's posting. But I'm recommending extended followups to r.h-r.p.
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

574. AMSAT news service bulletins, 1/23/90

Newsgroup: rec.ham-radio
Date: 1990-01-26 06:48:20 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19385@bellcore.bellcore.com>
Source record: 13927

Posted: Tue, Jan 23, 1990 10:24 PM GMT Msg: HGJA-4147-5482
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS-$0123

SB ALL @ AMSAT $ANS-023.01
SUCCESSFUL LAUNCH OF SIX NEW AMATEUR RADIO SATELLITES

HR AMSAT NEWS SERVICE BULLETIN 023.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

After nearly three years of hard work by scores of dedicated AMSAT volunteers, there are finally six new amateur satellites in orbit. At 01:35:31 UTC on January 22, 1990, ESA successfully launched it's V35 mission, an Ariane 4 booster, from its launch facility in Kourou, French Guiana. On board were six amateur radio satellites, two built by the University of Surrey, UO14 and UO15 and four microsats built by AMSAT-NA, AO16, AO17, AO18, AO19. An errant tape recorder on the primary payload, SPOT-2 delayed the launch from January 9th and bad weather in the area brought about a scrub of the launch on January 21. However, the picture perfect launch occured at the beginning of the ten minute launch window Sunday evening local time.

The AMSAT Launch Information Network Service (ALINS) brought the launch "live" to thousand of amateurs and interested on-lookers world wide. Doug Loughmiller, KO5I, President of AMSAT-NA, anchored the net which could be heard on the ham bands covering 160 meters all the way up to AO10 and AO13. Also heard on the ALINS net were a number of the major contributors to this latest effort. Commentary prior to the launch was offered by Tom Clark, W3IWI, Jan King W3GEY, Martin Sweeting, G3YJO, Jeff Ward G0/K8KA, Harold Price NK6K, Dave Cowdin WD0HHU and Bob McGwire N4HY. It was noted that this was also an anniversary for the ALINS net. It was twenty years ago, on January 23, 1970, when the first ALINS net covered the launch of Australius-OSCAR 5.

Doug Loughmiller, watching the ESA video feed of the launch, counted down to ignition and liftoff. AMSAT's Dave Cowdin, who had been at the launch site for over 5 weeks gave updates on the progress of the mission from his position at ESA mission control. At about three minutes into powered flight (during the second stage burn), the launch commentary ceased. For over a minute, neither Dave Cowdin or Tom Clark, who was monitoring the launch from the NASA Goddard Space Flight Center in Greenbelt MD offered any information. This silence had certainly activated the adrenaline glands and stopped the breathing of those who were listening. One voice offered some comfort, explaining that ESA had never had a second stage failure in any of its missions. Finally Dave's voice

came through indicating that all systems were "still GO" --- and with that message, those listening could begin to breath again. As part of the elation felt by the development team, Harold Price (a member of the software team) indicated his delight in recognizing that the satellites were no longer within the grasp of the hardware team, and that the satellites were "all theirs".

At 20:04 minutes of mission elapsed time, ESA issued a payload separation command to its launch vehicle and UO14 and UO15 were freed. A minute and a half later at 21:29 mission elapsed time, ESA issued two more payload separation commands and AO16, AO17, AO18, AO19 were released. Dave Cowdin reported that the six separation lights were "All Green" indicating confirmation that all six Amateur Satellites had successfully separated from the launch vehicle.

Dave Cowdin indicated that AMSAT was treated in a most professional manner by ESA. Although the primary payload, SPOT-2, (a $100 million observation satellite) was ESA's primary concern, applause from ESA mission control could be heard over the ALINS net as the six satellites were separated from the main launch vehicle.

During the first orbit, AMSAT-LU in Buenos Aires commanded the CW beacon to commence transmitting, and it provided vital temperature and battery voltage information to the satellite command team. Although attempts by N4HY to turn on the PSK telemetry beacons during orbit 1 were unsuccessful, all of the Microsats were transmitting by the end of the last pass (orbit 3) over the west coast, around 0700. Spacecraft engineers Harold Price and Jan King, operating from W6TRW, indicated that the satellites had either responded to ground command or had switched on transmitters automatically in order to prevent battery overcharging. WEBERSAT was succesfully commanded on from Weber State College in Ogden, Utah during orbit 2. UO-14 and 15 were activated during the first opportunity visible from the University of Surrey on orbit 5.

/EX
SB ALL @ AMSAT $ANS-023.02
PRE-LAUNCH MICROSAT KEPLERIAN ELEMENT SET

HR AMSAT NEWS SERVICE BULLETIN 023.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

SPOT-2 / MICROSAT / UOSAT KEPLERIAN ELEMENT SET

The following element, originally provided by ESA as relayed by N4HY has been modified by W2RS to more closely predict observed AOS and LOS times:

Satellite: SPOT-2, UO-D, E, Microsat-A, B, C, D
Catalog number:
Epoch time: 90022.0778588
Element set: Kourou-1
Inclination: 98.73 deg
RA of node: 97.9558 deg

Eccentricity: 0.0013
Arg of perigee: 93.9 deg
Mean anomaly: 302.31 deg
Mean motion 14.28575 rev/day
Decay rate: 1.0e-05 rev/day^2
Epoch rev: 0
Appogee 816.0 km
Perigee 798.1 km

The following element set for PACSAT was provided by RGO via G3AAJ.

Satellite: AO-16
Catalog number:
Epoch time: 90022.77211779
Element set: RGO
Inclination: 98.7092 deg
RA of node: 99.2408 deg
Eccentricity: 0.0003323
Arg of perigee: 185.4669 deg
Mean anomaly: 178.4316 deg
Mean motion 14.28180195 rev/day
Decay rate 7.9248e-04 rev/day^2
Epoch rev: 10

Whatever element set you are using, allow some tolerance in pass times
and antenna pointing until information starts to become available from
the standard sources.

/EX
SB ALL @ AMSAT $ANS-023.03
MICROSAT AND UOSAT FREQUENCIES

HR AMSAT NEWS SERVICE BULLETIN 023.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

MICROSAT AND UOSAT FREQUENCIES AND DEPLOYMENT ORDER

The following are the Microsat and UoSat listening frequencies,
data rates, and modes for the first few weeks of operation and
check out.

Spacecraft OSCAR number Frequency, MHz Mode

UoSat D UO-14 435.070 1200 bps AFSK (FM)
UoSAT E UO-15 435.120 1200 bps AFSK (FM)
PACSAT AO-16 437.025 1200 bps PSK AX.25
DOVE AO-17 145.825 1200 bps AFSK AX.25 (FM)
WEBERSAT AO-18 437.075 1200 bps PSK AX.25
LUSAT AO-19 437.150 1200 bps PSK AX.25
LUSAT - CW LUSAT 437.125 12 WPM CW telemetry

Packet transmission from DOVE may be monitored with an unmodified TNC-2 or clone, using an FM receiver. The other microsats (PACSAT, WEBERSAT, and LUSAT) require an SSB receiver and TNC with a 1200 bps PSK demodulator (FO-12 compatible, NOT the 400 bps PSK demodulator used with AO-10 and AO-13). The modulation scheme used by the UoSats is compatible with UO-11.

/EX
SB ALL @ AMSAT $ANS-023.04
PREPARATION FOR SAREX OPERATIONS WELL UNDERWAY

HR AMSAT NEWS SERVICE BULLETIN 023.04 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

Although the past few months have seen much attention focused on the Microsat/UOSAT launch, there is yet another amateur space spectacular to take note of. In April Ron Parise (WA4SIR) will be an astronaut on the next flight of the shuttle Columbia. Ron will be flying a SAREX (Shuttle Amateur Radio EXperiment) payload.

Ron will be taking the Motorola HT plus packet hardware. The SAREX packet hardware is a 1990 version of what we had hoped to fly in 1986 when the Challenger disaster caused a schedule setback. In 1986, we planned a radiation-hardened 16K TNC2 -- the 1990 version is a radiation-hardened Heath/Tasco HK-21 "Pocket Packet" with 32k of RAM. The Support computer has evolved from a small Radio Shack Model-100 (which we would have had to provide) to a Grid laptop PC clone (which is a standard item on the orbiter).

For the 1986 mission we had planned a "ROBOT" QSO machine which could work up to 9 people simultaneously, which had the capability for sending a long (1.7 kbyte) "Meta-beacon" and which could also be used as a "normal" TNC if there were real time QSOs. The 1986 firmware was tested in several locations and on two aircraft tests and proved to be very robust. The 1990 SAREX TNC firmware is an updated version of the earlier code. The major functional change is that the TNC now has enough RAM to store 650 QSOs, which in turn solves a major operational problem that would have existed in 1986 when the "worked" logs would have had to be downlinked in real time and assembled from beacons. As with the earlier software, stations only appear in the "worked" log the first time they complete a QSO -- no dupes! There has also been a minor change in the dupe definition in that the log drops any SSID, so a QSO with K9DOG-4 is a dupe if K9DOG has been worked earlier.

During the winter of 1985/6 there was a lot of interest in having SAREX demo stations in several parts of the country. Those stations who would like to offer their services a demo station should contact Tom Clark, W3IWI, or Courtney Duncan, N5BF, through AMSAT Headquarters.

/EX
SB ALL @ AMSAT $ANS-023.05
QSL CARDS FROM U2MIR HAVE ARRIVED

HR AMSAT NEWS SERVICE BULLETIN 023.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990

TO ALL RADIO AMATEURS BT

Ray Soifer W2RS recently reported that he and KZ1Z have received QSL cards from U2MIR. They were mailed 29 DEC 89 from Moscow and was signed by UW3AX. Those stations who contacted U2MIR while he was in orbit should be checking their mailboxes over the next few days for this rare collector's item.

/EX
SB ALL @ AMSAT $ANS-023.06
MICROSAT'S EDAC COUNTER REFERENCES SET

HR AMSAT NEWS SERVICE BULLETIN 023.06 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

The current early orbit software for the four Microsats does not record EDAC errors (Error Detection And Correction circuitry for the on-board memory), it only reports the status of the EDAC counter. The counter comes up in a random state when power is first applied. To determine the number of EDAC errors occuring during the first few days, the values of the counters at initial power up are listed here:

DOVE: 0xaa LUSAT: 0x0b PACSAT: 0xd8 WEBER: 0x22

Note that a large count value does not necessarily indicate a large number of radiation hits. Counters are incremented each time effected bytes are read from memory, but are only corrected when those bytes are written to memory during a memory wash cycle or ordinary data manipulations. If an effected byte is located in a part of software that is executed many times, many errors may be registered before the wash correction occurs.

/EX
SB ALL @ AMSAT $ANS-023.07
MICROSATS' FINAL PRE-LAUNCH TELEMETRY FRAMES

HR AMSAT NEWS SERVICE BULLETIN 023.07 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

Below are listed two consecutive telemetry frames downloaded from each Microsat during the final telemetry dump at Kourou.

DOVE-1>TIME-1:PHT: uptime is 004/20:40:46. Time is Tue Dec 19 11:09:40 1989

DOVE-1>TLM:00:58 01:5C 02:7E 03:29 04:40 05:5D 06:6A 07:3D 08:6D 09:5D 0A:A6
0B:B6 0C:E8 0D:DC 0E:04 0F:26 10:DC 11:86 12:00 13:0C 14:7C 15:7B
16:79 17:74 18:78 19:77 1A:78 1B:53 1C:7C 1D:76 1E:D0 1F:62 20:C6

DOVE-1>TLM:21:A8 22:76 23:10 24:0B 25:1E 26:00 27:00 28:00 29:00 2A:00 2B:01
2C:4C 2D:34 2E:3A 2F:7A 30:9B 31:7C 32:00 33:00 34:7D 35:7E 36:7D
37:7E 38:7D 39:7C 3A:01

DOVE-1>STATUS: 00 00 00 80 B0 18 55 00 00 B0 00 00 30 00 00 00 00 00 00 00

```
DOVE-1>WASH:wash addr:2500:0000, edac=0xaa
DOVE-1>TIME-1:PHT: uptime is 004/20:40:56. Time is Tue Dec 19 11:09:50 1989

DOVE-1>TLM:00:60 01:5B 02:7F 03:2A 04:3D 05:59 06:70 07:3D 08:6E 09:5E 0A:A4
0B:B6 0C:E8 0D:DC 0E:05 0F:26 10:DC 11:86 12:00 13:0C 14:7C 15:7C
16:76 17:74 18:76 19:77 1A:74 1B:53 1C:7C 1D:76 1E:D0 1F:62 20:C5

DOVE-1>TLM:21:AA 22:75 23:10 24:0C 25:1E 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:4B 2D:32 2E:3A 2F:7A 30:9A 31:7A 32:00 33:00 34:7C 35:7D 36:7E
37:7E 38:7D 39:7C 3A:01

DOVE-1>STATUS: 00 00 00 80 B0 18 55 00 00 B0 00 00 30 00 00 00 00 00 00 00

DOVE-1>WASH:wash addr:2740:0000, edac=0xaa

LUSAT-1>TIME-1:PHT: uptime is 004/20:09:50. Time is Tue Dec 19 11:01:43 1989

LUSAT-1>TLM:00:62 01:72 02:6E 03:5F 04:70 05:7A 06:6A 07:85 08:6A 09:71 0A:A5
0B:9D 0C:E7 0D:DD 0E:05 0F:51 10:DC 11:85 12:00 13:05 14:7D 15:7A
16:6E 17:6A 18:6D 19:70 1A:6A 1B:6B 1C:68 1D:65 1E:CE 1F:5F 20:A2

LUSAT-1>TLM:21:90 22:78 23:02 24:00 25:15 26:00 27:02 28:00 29:01 2A:00 2B:01
2C:3E 2D:35 2E:2E 2F:7A 30:77 31:77 32:00 33:00 34:7D 35:7A 36:7A
37:7A 38:80 39:7A 3A:7A 3B:FF 3C:FF

LUSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 00 00 00 30 00 00 00 00 00 00 00

LUSAT-1>WASH:wash addr:0d40:0000, edac=0x0b
LUSAT-1>TIME-1:PHT: uptime is 004/20:10:00. Time is Tue Dec 19 11:01:53 1989

LUSAT-1>TLM:00:62 01:75 02:70 03:5F 04:67 05:7D 06:6D 07:85 08:6A 09:75 0A:A5
0B:9F 0C:E7 0D:DD 0E:05 0F:50 10:DC 11:85 12:00 13:05 14:7D 15:7A
16:6D 17:70 18:6D 19:70 1A:6A 1B:6E 1C:65 1D:65 1E:CE 1F:5F 20:9D

LUSAT-1>TLM:21:90 22:78 23:02 24:01 25:15 26:00 27:02 28:00 29:01 2A:00 2B:00
2C:3E 2D:38 2E:2E 2F:7A 30:78 31:7A 32:00 33:01 34:80 35:7A 36:7A
37:7A 38:80 39:7A 3A:7A 3B:FF 3C:FF

LUSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 00 00 00 30 00 00 00 00 00 00 00

LUSAT-1>WASH:wash addr:0f80:0000, edac=0x0b

PACSAT-1>TIME-1:PHT: uptime is 004/22:46:30. Time is Tue Dec 19 11:15:31 1989

PACSAT-1>TLM:00:6A 01:82 02:6E 03:64 04:69 05:8C 06:5D 07:62 08:70 09:80 0A:A6
0B:98 0C:E7 0D:DC 0E:19 0F:30 10:E2 11:82 12:00 13:09 14:7C 15:7B
16:6F 17:5F 18:6F 19:6B 1A:70 1B:76 1C:6C 1D:6C 1E:CB 1F:5F 20:AA

PACSAT-1>TLM:21:8C 22:76 23:0C 24:08 25:1B 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:4C 2D:34 2E:47 2F:79 30:78 31:78 32:00 33:00 34:7E 35:7E 36:7D
37:7D 38:7D 39:9D 3A:01

PACSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 80 00 00 30 00 00 00 00 00 00 00

PACSAT-1>WASH:wash addr:10c0:0000, edac=0xd8
PACSAT-1>TIME-1:PHT: uptime is 004/22:46:40. Time is Tue Dec 19 11:15:41 1989
```

```
PACSAT-1>TLM:00:67 01:84 02:70 03:67 04:6B 05:90 06:5A 07:64 08:70 09:80 0A:A5
0B:98 0C:E7 0D:DE 0E:1A 0F:31 10:E2 11:82 12:00 13:09 14:7C 15:7A
16:6D 17:70 18:5F 19:5F 1A:70 1B:73 1C:70 1D:68 1E:CC 1F:5F 20:AA

PACSAT-1>TLM:21:8D 22:77 23:0D 24:08 25:1C 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:4C 2D:34 2E:48 2F:78 30:7A 31:7A 32:00 33:00 34:7D 35:7F 36:7E
37:7D 38:7D 39:9C 3A:00

PACSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 80 00 00 30 00 00 00 00 00 00 00

PACSAT-1>WASH:wash addr:1300:0000, edac=0xd8

WEBER-1>TIME-1:PHT: uptime is 004/21:50:10. Time is Tue Dec 19 11:20:40 1989

WEBER-1>TLM:00:74 01:6F 02:69 03:7B 04:70 05:8C 06:71 07:7F 08:6B 09:31 0A:8C
0B:9E 0C:BD 0D:A4 0E:06 0F:59 10:92 11:81 12:04 13:51 14:7C 15:7A
16:76 17:70 18:6B 19:74 1A:6B 1B:75 1C:6E 1D:75 1E:C8 1F:65 20:9C

WEBER-1>TLM:21:91 22:77 23:11 24:12 25:22 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:60 2D:43 2E:51 2F:79 30:78 31:79 32:28 33:28 34:7C 35:7C 36:7C
37:7C 38:BE 39:F6 3A:79 3B:94 3C:EF 3D:FF 3E:42 3F:BF 40:7D 41:7D
42:BF

WEBER-1>STATUS: 00 00 00 80 B0 18 55 03 00 FB EF FF 30 00 00 00 00 00 00 00

WEBER-1>WASH:wash addr:0c80:0000, edac=0x22
WEBER-1>TIME-1:PHT: uptime is 004/21:50:20. Time is Tue Dec 19 11:20:50 1989

WEBER-1>TLM:00:74 01:6E 02:68 03:7B 04:70 05:8C 06:70 07:7D 08:68 09:2E 0A:8C
0B:9E 0C:BD 0D:A4 0E:06 0F:5A 10:92 11:81 12:04 13:52 14:7C 15:7A
16:6D 17:6F 18:6C 19:74 1A:6A 1B:75 1C:6C 1D:75 1E:C8 1F:64 20:9C

WEBER-1>TLM:21:91 22:76 23:12 24:12 25:21 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:60 2D:43 2E:51 2F:7A 30:78 31:7A 32:28 33:26 34:7C 35:7C 36:7C
37:7C 38:BF 39:FD 3A:78 3B:94 3C:DF 3D:FF 3E:42 3F:BF 40:7D 41:7C
42:BF

WEBER-1>STATUS: 00 00 00 80 B0 18 55 03 00 FB EF FF 30 00 00 00 00 00 00 00

WEBER-1>WASH:wash addr:0ec0:0000, edac=0x22

/EX
```

575. DOVE telemetry report

Newsgroup: rec.ham-radio
Date: 1990-01-26 07:51:45 UTC
From: matt@pixar.UUCP
Message-ID: <8857@pixar.UUCP>
Source record: 13928
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

The following is a copy of the last telemetry frame received in Point Reyes, Ca. before LOS on DOVE. AOS on this pass was at 0636 UTC and LOS was at 0651 UTC on 26 Jan. Location of the receiving station is about 38d05m North, 122d48m West.

```
DOVE-1>TIME-1:
PHT: uptime is 042/16:20:27. Time is Fri Jan 26 06:49:21 1990
DOVE-1>TLM:
00:59 01:58 02:88 03:32 04:58 05:58 06:6E 07:40 08:6C 09:62 0A:A2
0B:DC 0C:E8 0D:D7 0E:01 0F:24 10:CA 11:A7 12:00 13:01 14:B0 15:9C
16:9B 17:98 18:99 19:9A 1A:96 1B:93 1C:9D 1D:9B 1E:22 1F:5E 20:BC
DOVE-1>TLM:
21:8E 22:77 23:24 24:21 25:2E 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2A 2E:00 2F:9C 30:C9 31:9E 32:10 33:D8 34:C5 35:98 36:A6
37:A4 38:BA 39:97 3A:00
DOVE-1>STATUS:
00 00 00 85 B0 18 DD 02 00 B0 00 00 B0 00 00 00 00 00 00 00
DOVE-1>BCRXMT:
vbat= 10.560 vlo1= 10.540 vlo2= 10.040 vmax= 11.540 temp= 6.661
DOVE-1>WASH:
wash addr:1600:0000, edac=0xa3
```

I hope that the folks that need this telemetry can use this. Did I miss the publication of how the decoding is done? If anyone can list the 59 different channels in the TLM packet, it would be fantastic.

This stuff is really accessable & quite fun!! THANKS to all that worked on the new birds!

Matt Martin ....!ucbvax!pixar!matt
N6LQB

576. (still more) Microsat messages

Newsgroup: rec.ham-radio
Date: 1990-01-26 09:13:09 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19390@bellcore.bellcore.com>
Source record: 13929

Posted: Fri, Jan 26, 1990 9:07 AM GMT Msg: EGJA-4149-7841
From: PKARN
To: amsat
Subj: microsat elements

Here's a set of elements for what are being called 1990 005A and 1990 005H, since they were not included in Max White's list. These came from Kelso's Celestial BBS.

1990 005A
1 20436U 90 5 A 90 23.82409993 .00004306 00000-0 17953-2 0 77
2 20436 98.7217 100.2931 0003389 178.5625 181.5624 14.26691687 258
1990 005H
1 20443U 90 5 H 90 23.82219061 -.00030107 00000-0 -12187-1 0 73
2 20443 98.7165 100.2885 0010048 210.8523 149.2068 14.28223237 250

I didn't include his other sets because the ones Max White provided have later epochs.

I wouldn't make ANY assumptions about which of the 8 element sets correspond to which real objects, including SPOT and the launcher. At the moment 005B is well ahead of the pack and 005A is well behind, with the others bunched in the middle. C and E look almost identical. I'm not sure what all this tells us, since I don't know what maneuvers (if any) were done by SPOT and the launcher after separation, nor do I know the precise velocity vector of each separation.

If we could get radar cross section data we could narrow things down, but lacking this we'll have to wait for all the objects to spread out. Then we can tell NORAD which is which. (I note, rather wryly, that they're part of the same organization that says they'll have no problem telling, with absolute reliability, the difference between an incoming nuclear warhead and a decoy in a matter of minutes...but I digress. :-))

--Phil

Posted: Fri, Jan 26, 1990 8:45 AM GMT Msg: JGJA-4149-7790
From: HPRICE
To: amsat
CC: jking
Subj: First Microsat program load

The first post-launch software was uploaded to WEBERSAT this evening. The upload was started on the east coast by N4HY and completed by NK6K @ W6TRW on the west coast. We'll use this technique of uploading large programs over several passes by multiple command stations to counter the relatively short access times.

During the first pass over LA, the satellite was getting perfect copy
of 152-byte packets while it was still near the horizon, with
25 watts into a klm-22c. We didn't try to see how low with RF we could go, as
we wanted to get the software in. It appears that the satellites will be
as easy to get into as we hoped. Receiver sensitivity and channel centers
will be calibrated in the days to come.

An improved loader in now running on WEBERSAT, although the new battery
control algorithm is not yet loaded.

The weber transmitter was off from Fri Jan 26 05:06:30 1990 UTC until
Thu Jan 26 06:37:06 1990 UTC. The UTC date on weber was set to 1989
by mistake, this will be corrected in the morning.

We are still in the process of installing factory field upgrades to
webersat in preparation of turning it over to the "customer" sometime
next week.

Harold
NK6K

577. Re: Getting into HAM-PACKT

Newsgroup: rec.ham-radio
Date: 1990-01-26 09:17:00 UTC
From: john.stevens@canremote.uucp
Message-ID: <90012700003548@masnet.uucp>
Source record: 13930

Talking from a Radio non-exist POV...

How do I get into this stuff... I'm a Cb operator... I want the range and contact that HAM has. As well, I'm really living on this BBS concept... Get the drift?

OAO.CAMSTEVENS@Mississauga,Ont.

(Okay so I like mail lines...)

~ EZ 1.24 ~ yBe proud of your country, it's all we havey

* QNet 1.03a3: NorthAmeriNet: . HQBBS / ~ Toronto ~ Canada ~ 416y566y1765

578. Re: Contacting Wray Jaques

Newsgroup: rec.ham-radio
Date: 1990-01-26 09:17:00 UTC
From: john.stevens@canremote.uucp
Message-ID: <90012700003509@masnet.uucp>
Source record: 13931

If this message is able to travel ....

Send it up near Ottawa/Hull (Aylmer). There's a certain W.T.Jacques that
I'd like to make contact with... R.S.V.P.

Thanx to anyone who can help....

That's an UNK of mine....

~ EZ 1.24 ~ y Success is... ... being loved y

* QNet 1.03a3: NorthAmeriNet: . HQBBS / ~ Toronto ~ Canada ~ 416y566y1765

579. J-pole Antennas.

Newsgroup: rec.ham-radio
Date: 1990-01-26 10:22:42 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <26.Jan.90.10
Source record: 13932

The J-pole: yes it is esentially a 1/2 wave element with
a 1/4 wave matching stub at the base. As to the end impedance of a 1/2 wave,
well, there have been various claims for this, ranging between 500 and 5000
ohms.... There will be numerous factors affecting this - whether the element
is in free-space or not, the ratio of length to diameter of the element
(make it out of wire and its impedance will be higher than if it is of
large cross-section).
A 'fat' element will also have a wider bandwidth.
I have used 1/2 wave elements fed with conventional transformer matching,
i guessed the approximate ratio as being something like 15:1 and moved the
tap on the transformer to get maximum radiated field-strength.... It
worked!.
Remember, the *calculated* impedance and the *actual* impedance are only
ever the same if you are in free space (in other words theres nothing for
thousands of wavelengths in any direction...)

Anyone who expects to design and build an antenna and have it work 'straight
out of the computer', is grossly optimistic. Only fools calculate their
impedances, then expect to see a real antenna fit the theory!

If interested in the 'j-pole', also look up the 'Slim Jim' (a sort of
'folded j-pole') designed by Fred Judd G2BCX. It is about the same size as
the traditional j-pole, but about one and a half dB more efficient.

///Pete G6WBJ

580. 6 meters

Newsgroup: rec.ham-radio
Date: 1990-01-26 11:20:29 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9001270804.AA22846@ucbvax.Berkeley.EDU>
Source record: 13933

In a recent posting, "Dr. MegaByte" asked about usage of the 50-54 MHz (6 meter) band. I would like to echo the response made by Jim, AD1C: Yes, 6 meters is very heavily used and is extremely popular among VHFers. I'll bet that over 90% of the weak-signal (i.e. SSB/CW, non-FM, non-ATV) VHFers have 6-meter gear.

You may _perceive_ that 6 meters is unoccupied for several reasons. First, its activity is strongly seasonal. E-layer propagation is about nil during most of the winter, so many 6-meter ops don't get on the air except during the summer. Second, the "ground-wave" [bad term, I know...] range on 6 meters is not great, so unless you live within about 50-75 miles of an active station, you may not hear much day-to-day activity. Lastly, it takes a beam antenna to get good results on 6 (just like on the higher VHF bands). So if you're a casual listener, perhaps using just a scanner and vertical antenna, you will not hear much of the activity that's actually there.

6 meters is VERY alive and VERY well, thanks to recent F2 DX openings to Europe, Japan, and S. America. Concentrate your listening in the range 50.1 - 50.150 (especially .110 and .125) and you may get a case of 6-meter fever, too.

Mike Owen, W9IP/2

581. Re: Results of: 75 Foot Tower 30 feet f

Newsgroup: rec.ham-radio
Date: 1990-01-26 12:17:26 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500366@ux1.cso.uiuc.edu>
Source record: 13934

What kinds of testimony was given against allowing the variance?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

582. ICOM R1

Newsgroup: rec.ham-radio
Date: 1990-01-26 14:52:51 UTC
From: ewb@raybed2.UUCP
Message-ID: <1448@raybed2.UUCP>
Source record: 13936
Cross-posted to: rec.ham-radio,rec.radio.shortwave

-< info from Japanese magazine >-

I just find a report of the IC-R1 on 'Radio Life' that is a Japanese
magazine for SWL (also for air,police,other utility band listening and
modification of HAM transceiver for wide band receiving).

The following are points of this report.

o IC-R1 has gain about -5dB(max. SINAD) in above VHF band.
o IC-R1 works well only in warranted freq. (2MHz - 905MHz).
IC-R1 doesn't work well in below 1.4MHz (MW band) and above 1.2GHz.
o The bundled antenna is matched at about 150/400/850MHz bands.
So, if you want to enjoy overseas broadcasting services, you have to
prepare an antenna for HF band.
o IC-R1 is weak in overload and image QRM. If you'll use high gain
antenna, you'll receive unwanted waves at the same time.

(I'm sorry but my poor english)
Hiro/JG1JAS

RELAYED FROM DECNET

583. ARRL January VHF Test

Newsgroup: rec.ham-radio
Date: 1990-01-26 15:59:00 UTC
From: zwirko%v5120.decnet@nrl3.arpa
Message-ID: <9001270806.AA23146@ucbvax.Berkeley.EDU>
Source record: 13938

More observations of the ARRL January VHF SS (1-20/21):

Here in the Maryland D.C. area conditions were reported to be poor on all bands. 6m offered only a few meteor scatter contacts, while 2m and up offered only some slight enhancements to the south and west...At this QTH New England and W. NY were barely heard, which was highly unusual. Unfortunately no Aurora this far south on Sunday evening.
Some best DX on the various bands from FM18 were:
6m - K5CM (EM25) & WA0BWE (EN34)
2m - N4EQT (EM77) & VE3ASO (FN25)
70cm - VE3ASO (FN25) & K4LVV (EM96)

We were all quite fortunate here in the Mid-Atlantic, not to be hit by the ice/snow which plagued those north of us. As a matter of fact it was partly sunny on Sunday with temps. in the mid-50's.

The rough setup here was 300W & 6L@35' on 6m, 300W & 19L@40' on 2m and KW & 27L@ 45' on 70cm (lost my GasFet mid-test).

I, also like Dave (KM3T), used the K1EA ConTest logging program, which really is a pleasure! The 3Band score is as follows:

Band QSO QSO Points Grids
50 142 142 32
144 229 229 34
432 92 184 19

---
463 555 85 ------> 47,175 points

Some other (rumored) point scores from 5Band op's here in MD were:

K1RZ - 105.1K
NW5E - 93.9K
W3IP - 86.7K
W3ZZ - 81.2K

73 de Andy (KA1GD) andy.zwirko@v5120a.nrl.navy.mil

584. PRO-2005

Newsgroup: rec.ham-radio
Date: 1990-01-26 16:24:45 UTC
From: fisher@minster.york.ac.UK
Message-ID: <swordfish.633371086@minster.york.ac.uk>
Source record: 13939

Organization: University of York, Dept. of Computer Science

Jim Christy (jchristy@hpspcoi.hp.com) writes:

> I have just bought a PRO-2005 scanner unit from RS. So far, I find the
> reception and scanning rate quite good. However, I find the user interface
> to be very "modal" and non-intuitive.

I agree.

> As with most consumer manuals, we
> are presented with a "cookbook" approach to operation rather than a solid
> presentation or flowchart-style template of the machine's user interface
> [...]

That is just what I thought. The user interface is really quite poor.

> Has anyone attempted
> a state diagram of this machine?

Yes, I have; but the state diagram is very complicated, and I gave up.

> Finally, I am also quite interested in modifying the 2005 to recieve the
> gaps in its frequency band.

My un-modified 2005 covers 25 .. 1300 MHz, with a small
gap around 700 MHz, which I wd guess is the IF.
Do models sold in the U.S.A. have a more restricted range?

Tony Fisher
Dept. of Computer Science, The University of York, York YO1 5DD, U.K.
Tel. +44 904 432738 or 432722
Janet: fisher@uk.ac.york.minster
DARPA: fisher%uk.ac.york.minster@ucl-cs
UUCP: fisher@minster.UUCP (..!uunet!mcvax!reading!minster!fisher)

585. Re: radio control of models

Newsgroup: rec.ham-radio
Date: 1990-01-26 17:39:51 UTC
From: irwin@m.cs.uiuc.edu
Message-ID: <13900015@m.cs.uiuc.edu>
Source record: 13940

I fly R/C and use 6 meters on some of my systems. Since the imports ran US companies under the table, it is tough to find 6 meter systems.

I got mine from Royal Electronics, in Denver, which no longer makes systems. I have quite a few spare servo gears, etc, so manage to keep them alive.

At this point in time, the only US manufacturer that I know of who might assist you in this is ACE R/C, in Higginsville, MO. I am at work and do not have any magazines handy, but I would think that if you called information, got their phone number and called, you could find out what is available.

ACE has kits, and the last time I knew, they still carried 6 meter equipment. As far as conversion of equipment on the market, I do not feel it would be worth it, I have built homebrew R/C hardware in the past and it gets costly to get the correct coil forms, crystals, etc, that fits the existing boards that you would find in the systems, especially when you are buying in low quantity. Additionally, all systems in this country (most anyway) come from across the pond and US parts just do not have the same sizes, etc.

Al Irwin W9LXP
Univ of Illinois
Dept of Comp Sci
Urbana, IL
irwin@m.cs.uiuc.edu

586. Re: Love that DOVE!

Newsgroup: rec.ham-radio
Date: 1990-01-26 17:56:18 UTC
From: mac@idacrd.UUCP
Message-ID: <575@idacrd.UUCP>
Source record: 13941

From article <11288@ucsd.Edu>, by brian@ucsd.Edu (Brian Kantor):
> In article <1990Jan25.070344.22025@Neon.Stanford.EDU> paulf@bodega.stanford.edu (Paul Flaherty) writes:
>>... packets from DOVE. But, if you have a way of saving packets, just leave
> And not only that, you'll get to watch the unwashed multitudes trying to
> connect to it, beacon through it, and those who left their BBS and
> net/rom beacons turned on when they switched the channel....
>
> - Brian
> (No, the DOVE-1 satellite does not listen on 145.825.)

Brian is quite correct. The DOVE-1 does NOT listen to 145.825. It will never be a packet radio digipeater or any of that stuff. In the VERY NEXT upload, messages will be sent which tell the poor folks who are suffering from our lack of pre-flight publicity, that 145.825 Mhz is in the Amateur Space allocation and that this is an educational satellite. It is just so loud people don't realize that it is a satellite. Hell, it is louder than most of the digi's I connect to around here.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
---

587. A new home is needed for the INFO-HAMS mailing list

Newsgroup: rec.ham-radio
Date: 1990-01-26 19:25:00 UTC
From: w8sdz@WSMR-SIMTEL20.ARMY.MIL
Message-ID: <KPETERSEN.12561366260.BABYL@WSMR-SIMTEL20.ARMY.MIL>
Source record: 13942

SIMTEL20 is suffering from a serious overload of its network services. We must find new homes for Info-Hams and other high-volume mailing lists.

If your host is on the Internet and is willing to take on the additional mail load and has disk space for the archives, please contact me.

73,

--Keith Petersen W8SDZ
Info-Hams mailing list maintainer
Internet: w8sdz@WSMR-SIMTEL20.Army.Mil, w8sdz@brl.arpa BITNET: w8sdz@NDSUVM1
Uucp: {ames,decwrl,harvard,rutgers,ucbvax,uunet}!wsmr-simtel20.army.mil!w8sdz

588. Display Upgrade for TM-721A / 621A

Newsgroup: rec.ham-radio
Date: 1990-01-26 19:33:05 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2590@wyse.wyse.com>
Source record: 13943

Well, I just got the latest poop on the display upgrade for the Kenwood TM-721A and the TM-621A....

Now it is MARCH! These guys are unbelievable... When I asked why the delay, they said that "sometimes it is hard to schedule production"...

Wow! How profound, they have been trying to build this modules since before October and they still can not do it... I work at an engineering company, and to miss a schedule by more than 6 months is pretty amazing.

Does anyone have a name/number/address of some important person at Kenwood to discuss this with?

Thanks in advance!

DE KJ6NN
Phil

589. Re: VHF Sweepstakes

Newsgroup: rec.ham-radio
Date: 1990-01-26 20:00:46 UTC
From: k4bnc@cbnewsh.ATT.COM
Message-ID: <7698@cbnewsh.ATT.COM>
Source record: 13944

While I must agree on the general sentiments expressed about VHF/UHF conditions
here in the East there was a brief F layer opening around noon Sunday to California. While
my station isn't exactly in the class of K1TRs I did manage a few
6 land QSOs. Other well equipped locals made perhaps 6 to 8 QSOs.
73 John K4BNC in NNJ FN20

590. Re: rec.ham-radio.amsat newsgroup.

Newsgroup: rec.ham-radio
Date: 1990-01-26 22:33:18 UTC
From: steveb@masscomp.ccur.com
Message-ID: <6915@masscomp.ccur.com>
Source record: 13945
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <28120@sequent.UUCP> brians@sequent.UUCP (Brian Sheets) writes:
>I received a number of people who also would like a new newsgroup
>for amsat/space related articles. Who would do this kinda thing?

Count me in as a supporter of a seperate news group for Amsat

---
Steve Binning (WA9NRB) Don't confuse motion with action. Mark Twain

591. Re: J-pole verticals

Newsgroup: rec.ham-radio
Date: 1990-01-27 04:00:10 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500367@ux1.cso.uiuc.edu>
Source record: 13946

The upper end of the J pole is a HALF wave, NOT a quarter wave (approximately) so the A:B impedence is going to be very high. You can't feed there without a matching network. The lower part of the J pole *IS* your matching network.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

592. Re: Display Upgrade for TM-721A / 621A

Newsgroup: rec.ham-radio
Date: 1990-01-27 06:30:27 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500368@ux1.cso.uiuc.edu>
Source record: 13947

> Wow! How profound, they have been trying to build this modules since before
> October and they still can not do it... I work at an engineering company,
> and to miss a schedule by more than 6 months is pretty amazing.

This is the way things seem to work in Japan. Because of the committment the companies make to their employees (you have a job for life), they must make sure they don't overextend their production lines, because that means hiring people that they cannot simply "let go" as so often happens in this country when the production needs drop. So they keep their production line running all the time, and generally have a queue of things to be made.

What does happen at times, I understand, is that different companies will contract with each other for production. I don't know if small parts would warrant doing that.

> Does anyone have a name/number/address of some important person at Kenwood
> to discuss this with?

Kenwood doesn't have important people. I was told this by an unimportant person at Kenwood. This is why I no longer buy Kenwood.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

593. Return Receipt

Newsgroup: rec.ham-radio
Date: 1990-01-27 08:08:44 UTC
From: asqk-db-co@taegu-emh1.army.mil
Message-ID: <9001270559.aa11359@36sig.taegu-emh1.army.mil>
Source record: 13948

```
Receipt of your message

Dated: Fri, 26 Jan 90 12:58:29 MST 26 Jan 90 01:19:10 GMT
Subject: INFO-HAMS Digest V90 #105 Gateway 05-Jan-90

is acknowledged.
```

594. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-27 09:48:48 UTC
From: grr@cbmvax.commodore.com
Message-ID: <9479@cbmvax.commodore.com>
Source record: 13949
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <17152@megaron.cs.arizona.edu> bakken@megaron.cs.arizona.edu (Dave Bakken) writes:

> Watch this one - building codes here don't allow you to solder your
> ground wire to your ground rod - you have to use a clamp (maybe they
> want you to be able to unhook it quickly if you strike a cable when
> driving in the rod - I dunno). The store I got my ground rod at had
> hefty brass clamps right next to the rods, so this was no problem.

Pretty wierd. Might be the "solder alone isn't enough" line of reasoning.

> Why does the clamp need to be weatherproofed, George (or anyone)?

Cause a little moisture/dirt/acid rain will chew thru the copper flashing on the RS rods and clamps in short order. Keep the mosisture out and you'll be better off. If you got heavy copper plating and a good enough wire/clamp to obtain "gas tight" contact, then one needn't bother.

--
George Robbins - now working for, uucp: {uunet|pyramid|rutgers}!cbmvax!grr
but no way officially representing: domain: grr@cbmvax.commodore.com
Commodore, Engineering Department phone: 215-431-9349 (only by moonlite)

595. uPD858 needed (and general PLL question)

Newsgroup: rec.ham-radio
Date: 1990-01-27 10:07:00 UTC
From: john@frog.UUCP
Message-ID: <11489@frog.UUCP>
Source record: 13950
Cross-posted to: sci.electronics,rec.ham-radio

Having just acquired a CB radio to convert to 10 meter Ham use, I would like to ask if anyone knows where I can get a uPD858 PLL/synthesizer chip. It is manufactured by NEC. I have one catalog that lists a uPD857, and a uPD861, but no 858 -- is it still manufactured? The Sylvania ECG 1198 is supposed to be a substitute. Failing finding the real thing, does anyone have a data sheet for it, and suggestions for substituting another chip on an adaptor board (it puts out a 0=lock signal, unlike most other PLLs, just to be difficult...).

Thanks much in advance,
John Woods, WB7EEL
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

596. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-01-27 10:26:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90012712330138@masnet.uucp>
Source record: 13951

ku>I don't think I could even if I tried, and because I basically agree
ku>with Dr. Richard Stallman of MIT that software should be free, and
ku>because releasing this software will be good for the amateur radio
ku>community as a whole:

ku> ---> I plan to release the software and hardware design
ku> into the public domain, if there is significant

Fri 01-26-1990 [16:18]
If you're bound and determined to release it to the PD, that's
fine. Might I suggest that, in lieu of a shareware "contribution,"
that you include in the docs, a note asking the end user to send
a contribution to their favorite charity instead of to you?

~ DeLuxe 1z11a20 #2989 Yeah? Well dahdidahdit dahdahdidah to you too!:-)
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

597. Re: Your chance to help spend

Newsgroup: rec.ham-radio
Date: 1990-01-27 10:26:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90012712330066@masnet.uucp>
Source record: 13952

c.>1) Continuous Coverage or as close as possible, from 30 mcs up to
c.> AT LEAST 950 megs or so.
c.>2) Ability to operate in all covered bands in AM, and FM mode. SSB
c.> would also be nice, but I expect it would get too expensive.
c.>3) LOTS of memory available. Certainly 100 frequencies or more is
c.> not too much to expect.

RE: The Pro-2005 scanner.

The 2005 is basically the same as the 2004, except it has "real"
keys, not the membrane type. It's still easily modifiable to
receive CMT and increase the scanning speed. The 2004/2005 operate
from roughly 25 MHz to 1300 MHz continuously (with modifications)
except for the UHF TV channels, somewhere around 700 MHz or so. I
forget right off hand, grin. Oddly enough, the prior 2003 covered
part of the lower UHF channels, but coverage ended about 512 MHz.
Together, they cover almost everything. With modifications, the
Pro-2004 will hold 400 channels. I think the 2005 needs no mods
for that. The 2004 has ten search banks, meaning you can search
10 frequency ranges without a lot of programming. It has AM,
NBFM and WBFM. No SSB.

c.>4) A good search capacity allowing for variable search increments. ie:
c.> 12.5 khs 5 khz etc.

Yes. On CMT, you can search in 30 kHz steps. I think it has 5, 12.5,
30, and 50 kHz steps.

c.>2) A (good quality) backlight.

Yes. The 2004 has two positions, high and low. Wish they had "off,"
as I like to lie in bed at night and listen. Even the low position
is blinding. I covered a thin piece of cardboard with black
electrical tape and cut it to fit in the scanner's "window."

c.>3) The ability to run off of 12 volts. (For automobile use.)

Yes, but the 2004 has no mounting capability. Why the 12 volts then?
Dunno. I keep two 6-volt lantern batteries and a modified cigarette
lighter power cord wired up. We had a massive ice storm about 6 years
ago, and the power was out for a week. Emergency radio power is
MANDATORY.

c.>1) More than one antenna jack.
c.>4) An S-meter.
c.>5) A built in recording jack.
c.>6) A built in clock/timer.

No. No. No. No. I guess you could use an external antenna
switch, one for vertical, and one for beam. The S-meter would be
good for the beam. A recording jack with constant output would
be excellent. Why don't more radios have this? The SW rig I
have has an "external speaker" jack (mini phone plug) and a
mono 1/4" plug for headphones. No record jack, $%#&^!! I
haven't seen a clock in a scanner since my stepdad's Bearcat
210 several years ago. If it comes with a record jack, I'd like
to see a function where you could connect a plug from the scanner
to the remote control on a cassette recorder. When a specified
channel(s) were active, the recorder would come on. This could
be set with front panel controls. The above mentioned Bearcat
did this, and it was great.

~ DeLuxe 1z11a20 #2989 [(a+b)^2 - (a^2 + 2*a*b)] / (b^2) != 1
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

598. Re: 10 meter pirates (was = R

Newsgroup: rec.ham-radio
Date: 1990-01-27 10:26:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90012712330176@masnet.uucp>
Source record: 13953

pu>It's legal to use an antenna capable of handling 2 kw PEP with your
pu>12 wate PEP CB rig.

Fri 01-26-1990 [16:24]
Yeah, you never know when lightning is going to strike the power
lines next to your house, causing a surge that will drive your CB
up to 1500 watts or so, hi. I'm not all that opposed to someone
having an extra 10-25 watts in their car (even though it's
illegal), because you may need it to cut through. Definitely
am opposed to over 5/12 watts on base stations...

~ DeLuxe 1z11a20 #2989 Satellite communication is simply over my head...
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

599. Re: Buying a used scanner

Newsgroup: rec.ham-radio
Date: 1990-01-27 10:26:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90012712330022@masnet.uucp>
Source record: 13954

RE: Tennelec scanners

pM> parts difficult to obtain. Radios reputed to be poor
pM> performers. Got my MS-2 and MCP-1 basket cases for free

Wed 01-24-1990 [22:41]
Dunno. I was able to receive the Kansas City area Missouri State
Highway Patrol from southwest Missouri using only the supplied
antenna, and it performed real well when skip was rolling in. The
only disadvantage I found was that when skip _was_ rolling in,
it was a real PITA to program 16 consecutive channels. As you
know, you had to enter that gawd-awful binary code. The
"search" function is a Godsend... All-in-all, a satisfactory
performer. My stepdad's sister has his Tennelec, and I'd like to
get ahold of it, just to keep it on the table to listen to the
local PD, so I could free up my Pro-2003 and Pro-2004. Besides,
the Tennelec's flashing lights were pretty awesome, hi.

~ DeLuxe 1z11a20 #2989 Don't insult the gator til you cross the river
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

600. Re: Noise under 530khz

Newsgroup: rec.ham-radio
Date: 1990-01-27 10:26:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90012712330110@masnet.uucp>
Source record: 13955

tM>I'm new to this area of the radio spectrum. Can anyone tell me
tM>what this buzz is? It also shows up to a lesser degree in the
tM>low end of the BC band (below about 600Khz), and it doesn't

Wed 01-24-1990 [23:15]
It's one of my two #$@%^&!! electric blankets... You see, I have
one on top of me, and one under me. I stay warmer with both of them
turned to 2 or 3 than if I had just one turned to 7 or higher.
Unfortunately, I like to lie in bed and listen to SW. However,
nothing below 5500 kHz comes in over the racket. AM is fair,
but forget LW!!

~ DeLuxe 1z11a20 #2989 I'm a lumberjack and I'm okay
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

601. Kenwood TH-x6AT series, mods

Newsgroup: rec.ham-radio
Date: 1990-01-27 12:28:53 UTC
From: kjh@pollux.usc.edu
Message-ID: <22534@usc.edu>
Source record: 13956
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Kenwood has anounced (advertised) the TH-26AT and the TH-46AT. These look almost identical to the TH-25AT and the TH-45AT. The differences (read improvements) are:

* 21 memories instead of 14
* DTMF squelch system
* 4 number 15 digit autodialer
* frequency step size selectable (5, 10, 12.5, 15, 20 or 25 kHz)
* wider (RX) coverage on 2m model
* time operated or CARRIER OPERATED RESUME on scan

My biggest complaint against the TH-x5AT series was the time operated scan. This is the next closest thing to useless. All the rest seems to be just fluff.

I think that the TH-x6AT series can't be too much different from the TH-x5AT series. I'm not going to go out and buy them to see, but I have strong suspicions that the mods that I previously posted to allow out of band TX/RX and retuning the PLL will still apply. Of course, the mods that I posted for changing the frequency step size are now moot. I would appreciate it if someone would try out my mods on their new TH-x6AT, and report back to the net. If anybody wants a copy of my mods, I can post them again. They are probably also archived in a number of places. 73, and why can't the Japanese get it right the first time? They really messed up with the time operated resume while scanning, and even now the 70cm rig doesn't RX out of band!

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

602. R7000 on 12 Volts DC

Newsgroup: rec.ham-radio
Date: 1990-01-27 16:07:43 UTC
From: charlie@oakhill.UUCP
Message-ID: <2879@radio.oakhill.UUCP>
Source record: 13957

Attention R7000 owners/hackers:

I was noticing in my R7000 manual that it looks like there is a plug
hidden behind a small panel on the right rear near the AC line cord.
I removed the cover and sure enough there is a MOLEX type of plug with
a shorting jumper in it. It apparently jumpers the +12 volts from the
power supply to the rest of the radio. COULD THIS MEAN that the R7000
can be operated in your automobile from 13.8 VDC?? Looks like it to me.
One might also install a noise filter in the 'space' provided in the radio.
Bob Parnass...have you noticed this about the R7000? Has anyone converted
their R7000 to +12V optional operation? Does anybody see any problems
with this? R7000 in the car would be pretty neat.

-Charlie Thompson
WB4HVD for 23 years
and I'm not that old.

603. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-27 17:23:59 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Jan27.172359.28457@Neon.Stanford.EDU>
Source record: 13958
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <9479@cbmvax.commodore.com> grr@cbmvax.commodore.com (George Robbins) writes:
>In article <17152@megaron.cs.arizona.edu> bakken@megaron.cs.arizona.edu (Dave Bakken) writes:

-> Watch this one - building codes here don't allow you to solder your
-> ground wire to your ground rod - you have to use a clamp (maybe they
-> want you to be able to unhook it quickly if you strike a cable when
-> driving in the rod - I dunno). The store I got my ground rod at had
-> hefty brass clamps right next to the rods, so this was no problem.

>Pretty wierd. Might be the "solder alone isn't enough" line of reasoning.

The logical consequence of a lightning hit is high current flow, leading to
heat in the joint, leading to melted solder. A good mechanical connection
is necessary.

Marc Kaufman (kaufman@Neon.stanford.edu)

604. '727 mod request (again)

Newsgroup: rec.ham-radio
Date: 1990-01-27 19:58:00 UTC
From: 390624331@UWPLATT.EDU
Message-ID: <E969F10382FF200EDA@uwplatt.edu>
Source record: 13959

Would the ham who sent a message to me saying that they had the FT-727R extended (beyond the normal type-in) mod message please re-send it? Over Christmas break I did not unsubscribe to many of the high-volume message services on here and had so much mail when I got back that I may have accidentally axed your message. (I did get the message that you would be sending it to me as soon as you verified that the mail did not bounce back.)
Thanks again, '73
Randy (WK9M)

605. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-27 20:04:49 UTC
From: phantom@gagme.uucp
Message-ID: <58@gagme.uucp>
Source record: 13960

Summary:
Expires:
References: <130554@sun.Eng.Sun.COM> <9446@cbmvax.commodore.com>
<17152@megaron.cs.arizona.edu> <35001@mips.mips.COM>
Sender:
Reply-To: phantom@gagme.UUCP (Leif Ericksen)
Followup-To:
Distribution:
Organization: GAGME - Public Access UNIX of Niles, Illinois, USA, Earth
Keywords:

In article <35001@mips.mips.COM> crisp@mips.COM (Richard Crisp) writes:
>
>I'd advise against soldering the wire to the ground rod too, but for a
>different reason. I have seen many examples of soldered copper wire
>connections CORRODING. This probem is particularily bad if there is
>salt in the air like on the Gulf coast.
>--

Yes it is true you should really never solder a ground, like when wiring
a house, you have a eight foot ground rod that is copper, and you have to
pound that thing into the ground with a sledge hammer so it only sticks out
oh about 1 inch or so. Then you need a U clamp and run the wire to that..

A nice eazy way to put in one of these big ground rods is to pick yourself
up a hammer drill A nice BIG one like A Makeda (sp) or A Millwakie (sp)
then put the ground rod on the ground tip to the ground and the hammer drill
in the hammer pos. and start her up it will me done in a matter of seconds..

However there is a safer method (drill safty) you get a piece of meatal like
a drinn bit shor so it does not stick out of the drill when you weld a cup like thing on to
it so the grond rod can go into that, this helps avoid
damaging your drill or getting the rod stuck in it...
enjoy and maybe thiss will help you out for installing the ground rod.

~~~~~~

Leif Ericksen phantom The Phantom Warrior
voice (708)-490-0534
email phantom@gagme.uucp or phantom%gagme.uucp@uunet.uu.net
location: Schaumburg Il, planet Earth, Milkyway galaxy.

~~~~~~

****

606. Re: R7000 on 12 Volts DC

Newsgroup: rec.ham-radio
Date: 1990-01-27 20:20:09 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19433@bellcore.bellcore.com>
Source record: 13961

Yes, the R-7000 can be easily modified to operate off +12V. I've been doing that with mine for quite some time, since I have a common 12V power system I use to power the rest of my radios.

Running the R-7000 off an external 12V supply allows you to avoid using the internal AC supply, which gets quite hot with continuous operation.

Phil

607. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-27 21:18:39 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Jan27.211839.4955@Neon.Stanford.EDU>
Source record: 13962
Cross-posted to: rec.ham-radio,rec.radio.shortwave

So you want a Real Ground (tm)?

The real experts in this sort of thing are the VLF/ELF people. One (suprisingly) good source on the topic is "The Handbook of Solar Flare Monitoring and Propagation Forecasting" by Carl M. Chrenan, published by TAB books. Chernan's recipe for a Real Ground (tm):

1. Dig a hole 18" in diameter down 4'.
2. Drive a 3/4" by 8' copperweld ground rod into the center of the hole, flush with the ground.
3. Fill hole with mix of 2 parts Bentonite, 2 parts (non-setting) Gypsum, and 3 parts rock salt, leaving 6" on top.
4. Place a 3/4" by 4' perforated PVC tube with bottom capped into mixture, flush with ground.
5. Fill in remaining 6" with soil. Place a nice looking cap on the PVC tube.

Now, every month, put 5 gallons of hot water in a bucket, and dissolve as much rock salt as possible into solution. Uncap the PVC tube, and pour in the brine. You now have a Real Ground (tm), whose resistance should be a mere fraction of an ohm.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

608. Re: Looking for tracking software

Newsgroup: rec.ham-radio
Date: 1990-01-27 21:22:21 UTC
From: fpa@qualcom.qualcomm.com
Message-ID: <1294@qualcom.qualcomm.com>
Source record: 13963

In article <28268@sequent.UUCP> brians@sequent.UUCP (Brian Sheets) writes:
>I am looking for AMSAT tracing software for a PC-XT.
>
I suggest you call AMSAT at 301-589-6062. Martha, the lady who answers
the phone there, is very helpful.

609. FRG-8800 on 12V (Formerly R7000 on 12 Volts DC)

Newsgroup: rec.ham-radio
Date: 1990-01-27 21:56:31 UTC
From: mac@harris.cis.ksu.edu
Message-ID: <1990Jan27.215631.23711@deimos.cis.ksu.edu>
Source record: 13964

In article <2879@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
[several lines deleted]

>.... Has anyone converted
>their R7000 to +12V optional operation? Does anybody see any problems
>with this? R7000 in the car would be pretty neat.

No, but I converted my FRG8800 to +12 volts DC so I could
use it in Africa when the AC power went off (which was about
every other night).

Someone told me recently that the 8800 now comes with the
conversion already installed?
--Myron.
--
#--
Myron A. Calhoun, Ph.D. E.E.; Associate Professor (913) 539-4448 home
INTERNET: mac@harris.cis.ksu.edu (129.130.10.2) 532-6350 work
UUCP: ...{rutgers, texbell}!ksuvax1!harry!mac 532-7004 fax

610. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-27 22:28:32 UTC
From: markz@ssc.UUCP
Message-ID: <433@ssc.UUCP>
Source record: 13965

In article <405@capmkt.COM>, shibumi@capmkt.COM (Kenton A. Hoover) writes:
>
> And if the exchanges find out that you have been recieving the data, they
> will come after you directly for theft.

I worked on a project that used a satellite transmission from CQI. There
were two flavors. The realtime data stream that the brokerages got and
a 15 minute delayed stream that the rest of the world could used.

What restrictions are there on the time delayed version, and what does the
SCA service use?

markz@ssc.uucp

611. Re: R7000 on 12 Volts DC

Newsgroup: rec.ham-radio
Date: 1990-01-27 22:35:51 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <12780@cbnewse.ATT.COM>
Source record: 13966

In article <2879@radio.oakhill.UUCP>, charlie@oakhill.UUCP
(Charlie Thompson) writes:

> ..... COULD THIS MEAN that the R7000
> can be operated in your automobile from 13.8 VDC? ...

> Bob Parnass...have you noticed this about the R7000?

Yes, to run the R-7000 from 12 VDC, I installed the Icom DC kit.
Although it is advertised as an R-71A accessory, it works equally
well with the R-7000.

I've put the R-7000 in my truck for tasks like locating the source
of power line QRN.
--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

612. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-27 23:09:42 UTC
From: tkelso@afit-ab.arpa
Message-ID: <9001281108.AA19131@ucbvax.Berkeley.EDU>
Source record: 13967

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #639 -
Alouette 1
1 00424U 62B-A 1 90 25.21309753 .00000220 00000-0 25410-3 0 2561
2 00424 80.4628 67.0294 0022286 281.5113 78.3546 13.67284761363155
ATS 1
1 02608U 66110 A 90 20.98742296 -.00000127 00000-0 99999-4 0 955
2 02608 13.4145 14.7935 0108587 356.0705 3.8396 1.00392933 1077
ATS 3
1 03029U 67111 A 90 21.02006859 -.00000075 00000-0 99999-4 0 2830
2 03029 13.0250 22.4264 0033006 198.2664 161.5754 1.00272216 81329
Cosmos 398
1 04966U 71 16 A 90 25.45007196 .00025554 16750-4 14917-3 0 4868
2 04966 51.5309 230.3742 2382245 243.3252 90.5005 10.82890128576082
Starlette
1 07646U 75010 A 90 22.01842112 .00000013 00000-0 10578-3 0 65
2 07646 49.8219 15.2307 0206179 68.6949 293.5820 13.82131368755566
LAGEOS
1 08820U 76039 A 90 25.45390426 .00000004 00000-0 00000 0 0 9816
2 08820 109.8649 306.2281 0044656 268.8989 90.6301 6.38664772 64822
GOES 2
1 10061U 77048 A 90 22.15696209 -.00000019 00000-0 99999-4 0 3517
2 10061 7.6972 65.5409 0030095 203.2400 156.7123 1.00279235 7571
GPS-0001
1 10684U 78020 A 90 24.33682980 .00000009 00000-0 99999-4 0 3127
2 10684 63.6596 94.0031 0115531 198.7868 160.8463 2.00558272 72969
GPS-0002
1 10893U 78 47 A 90 24.30449716 -.00000026 00000-0 00000 0 0 906
2 10893 64.4417 334.8696 0157456 25.9625 334.8094 2.00549492 85789
GOES 3
1 10953U 78062 A 90 21.21667052 .00000090 00000-0 99999-4 0 8023
2 10953 6.5805 68.2637 0005210 243.5919 116.3422 1.00272118 3124
SeaSat 1
1 10967U 78064 A 90 22.47391788 .00001379 00000-0 52289-3 0 2260
2 10967 108.0180 19.5251 0002821 241.4047 118.6824 14.35356530605546
GPS-0003
1 11054U 78093 A 90 22.11281078 -.00000025 00000-0 00000 0 0 1538
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2 11054 63.9975 331.2754 0055233 118.8706 241.6798 2.00565787 82755
Nimbus 7
1 11080U 78098 A 90 22.29083626 .00000233 00000-0 24160-3 0 6295
2 11080 99.2001 290.4571 0010106 114.0624 246.1587 13.83388898567861
GPS-0004
1 11141U 78112 A 90 21.71010610 .00000009 00000-0 00000 0 0 2480
2 11141 63.6543 93.9812 0057429 318.5967 41.0212 2.00564183 81441
NOAA 6
1 11416U 79 57 A 90 22.45373369 .00001388 00000-0 59258-3 0 9626
2 11416 98.5208 18.3971 0011799 183.4567 176.6547 14.26421194549151
GPS-0005
1 11690U 80 11 A 90 22.84570591 .00000010 00000-0 00000 0 0 8954
2 11690 64.0805 95.9184 0112264 202.4420 157.1306 2.00557744 87325
GPS-0006
1 11783U 80 32 A 90 24.15804985 -.00000025 00000-0 00000 0 0 277
2 11783 63.7856 330.7888 0145390 60.7699 300.6621 2.00573712 71433
GOES 4
1 11964U 80 74 A 90 22.54697866 -.00000102 00000-0 00000 0 0 1269
2 11964 6.0964 71.0073 0031264 106.9819 253.2886 0.99230032 4204
GOES 5
1 12472U 81049 A 90 23.06091287 -.00000244 00000-0 99999-4 0 8174
2 12472 3.0961 77.5528 0001826 256.6002 103.3197 1.00263004 30798
DE 1
1 12624U 81 70 A 90 23.32226140 -.00000010 00000-0 -95248-4 0 3196
2 12624 89.1228 149.2140 6235943 330.4716 5.4772 3.51028567257033
SME
1 12887U 81100 A 90 23.61783775 .00038022 00000-0 94080-3 0 4549
2 12887 97.6624 63.3072 0002834 150.9808 209.1632 15.40345756458944
Meteor 2-08
1 13113U 82 25 A 90 13.08051601 .00000169 00000-0 14164-3 0 6879
2 13113 82.5382 251.9089 0014821 188.6816 171.4099 13.84123269394272
Salyut 7
1 13138U 82 33 A 90 24.79682820 .00038538 00000-0 60846-3 0 84
2 13138 51.6082 304.1777 0002044 110.7310 249.3722 15.53115991442494
Cosmos 1383
1 13301U 82 66 A 90 24.50924199 .00000141 00000-0 15436-3 0 5325
2 13301 82.9290 46.0765 0026669 193.8854 166.1570 13.67794237378031
LandSat 4
1 13367U 82 72 A 90 24.26797352 .00004481 00000-0 10031-2 0 2149
2 13367 98.1852 89.4887 0002230 191.7781 168.4301 14.57145726400346
Meteor 2-09
1 13718U 82116 A 90 20.58528226 .00000330 00000-0 16760-3 0 8513
2 13718 81.2447 68.8510 0057240 99.8978 260.8665 14.13431635366261
IRAS
1 13777U 83 4 A 90 22.35546374 .00000241 00000-0 19127-3 0 7112
2 13777 99.0325 221.3386 0013582 68.3368 291.9238 13.98730754 26552
Cosmos 1447
1 13916U 83 21 A 90 23.21083113 .00000158 00000-0 15660-3 0 6708
2 13916 82.9476 119.2461 0037662 181.2137 178.8935 13.74002809342766
TDRS 1
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1 13969U 83 26 B 90 22.06763248 -.00000209 00000-0 00000 0 0 9133
2 13969 4.1255 67.0633 0006212 255.2560 104.5416 1.00276467 91619
GOES 6
1 14050U 83 41 A 90 21.26420049 .00000118 00000-0 00000 0 0 614
2 14050 1.8746 79.8973 0001434 275.3933 84.4496 1.00280515 8796
OSCAR 10
1 14129U 83 58 B 90 17.27634125 .00000057 00000-0 00000 0 0 4512
2 14129 25.9396 223.5666 6004515 110.6067 320.9838 2.05879643 21623
GPS-0008
1 14189U 83 72 A 90 18.26767087 .00000008 00000-0 99999-4 0 6954
2 14189 63.2808 92.5947 0142085 216.4217 142.6537 2.00561565 47752
Meteor 2-10
1 14452U 83109 A 90 18.58489570 .00000686 00000-0 28844-3 0 8090
2 14452 81.1640 77.6405 0093924 195.1907 164.6449 14.22548888323165
LandSat 5
1 14780U 84 21 A 90 24.84448736 .00002402 00000-0 54219-3 0 302
2 14780 98.1392 87.4776 0001840 284.9412 75.0640 14.57163857313844
UoSat 2
1 14781U 84 21 B 90 24.60023258 .00002674 00000-0 50931-3 0 5982
2 14781 97.9706 81.7576 0012981 348.1213 11.9712 14.64790863314948
GPS-0009
1 15039U 84 59 A 90 23.31396731 .00000007 00000-0 00000 0 0 7939
2 15039 63.0307 91.6447 0018324 241.3697 118.5149 2.00563069 41139
Cosmos 1574
1 15055U 84 62 A 90 21.91014282 .00000148 00000-0 14754-3 0 8171
2 15055 82.9583 170.1218 0028602 12.7714 347.4162 13.73318325279992
Meteor 2-11
1 15099U 84 72 A 90 24.43158390 .00000105 00000-0 89946-4 0 9922
2 15099 82.5292 190.3946 0013540 343.3587 16.7136 13.83778628280717
GPS-0010
1 15271U 84 97 A 90 23.70904776 -.00000026 00000-0 00000 0 0 7433
2 15271 63.3162 330.4555 0104644 324.4194 34.8900 2.00572721 38258
Cosmos 1602
1 15331U 84105 A 90 23.30382242 .00003815 00000-0 53387-3 0 1537
2 15331 82.5388 135.0916 0024768 84.4705 275.9518 14.77142345286695
NOAA 9
1 15427U 84123 A 90 25.24914629 .00000781 00000-0 44428-3 0 4749
2 15427 99.1615 21.8167 0016017 52.0456 308.2161 14.12408902263805
Meteor 2-12
1 15516U 85 13 A 90 21.76143642 .00000315 00000-0 27256-3 0 1479
2 15516 82.5366 130.9056 0015640 219.2449 140.7591 13.84257083251298
Cosmos 1686
1 16095U 85 86 A 90 23.76729789 .00033789 00000-0 53642-3 0 4760
2 16095 51.6099 309.3092 0001251 106.0415 254.0456 15.53029118243432
GPS-0011
1 16129U 85 93 A 90 23.37173420 .00000008 00000-0 00000 0 0 3952
2 16129 63.8201 92.5059 0120763 150.4378 210.3188 2.00561180 31457
Meteor 3-1
1 16191U 85100 A 90 21.64136412 .00000043 00000-0 99999-4 0 8873
2 16191 82.5519 81.3115 0021534 112.4943 247.8469 13.16892496204272
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Meteor 2-13
1 16408U 85119 A 90 22.05647900 .00000198 00000-0 16738-3 0 5629
2 16408 82.5338 45.5196 0017863 48.8540 311.4150 13.84281686205834
Mir
1 16609U 86 17 A 90 24.81737861 .00044885 00000-0 62178-3 0 3585
2 16609 51.6214 331.7508 0020339 86.0444 274.2772 15.56385754225721
SPOT 1
1 16613U 86 19 A 90 24.19241877 .00001342 00000-0 64832-3 0 7416
2 16613 98.7170 100.7460 0000286 181.6023 178.5174 14.20029541 43497
Meteor 2-14
1 16735U 86 39 A 90 22.06890313 .00000191 00000-0 16157-3 0 3483
2 16735 82.5346 72.4522 0015673 114.7575 245.5222 13.84038163184738
Cosmos 1766
1 16881U 90 24.47382616 .00004430 00000-0 62586-3 0 8479
2 16881 82.5212 193.2147 0023634 98.2810 262.1074 14.76788139187933
EGP
1 16908U 86 61 A 90 23.91403492 -.00000155 00000-0 -81687-3 0 1630
2 16908 50.0214 339.5318 0011287 186.7291 173.3393 12.44382892156894
FO-12
1 16909U 86 61 B 90 23.89068611 -.00000025 00000-0 99999-4 0 1785
2 16909 50.0168 339.9003 0011453 184.7940 175.2781 12.44403507156880
NOAA 10
1 16969U 86 73 A 90 19.05481342 .00000588 00000-0 27581-3 0 3307
2 16969 98.6158 50.2427 0013755 347.9935 12.0913 14.23416116173399
Meteor 2-15
1 17290U 87 1 A 90 21.88321638 .00000189 00000-0 16059-3 0 3240
2 17290 82.4671 338.3447 0014163 15.2083 344.9503 13.83840958153865
MOS-1
1 17527U 87 18 A 90 24.10793807 .00000426 00000-0 34265-3 0 3849
2 17527 99.1258 98.4236 0000865 102.6299 257.4982 13.94879341149176
GOES 7
1 17561U 87 22 A 90 23.95745585 -.00000043 00000-0 99999-4 0 4016
2 17561 0.1081 253.7452 0005255 111.4388 354.8077 1.00273525 3971
Kvant-1
1 17845U 87 30 A 90 25.13846835 .00017702 00000-0 24999-3 0 9776
2 17845 51.6227 330.1393 0019833 90.0631 270.5355 15.56428441161820
DMSP B5D2-3
1 18123U 87 53 A 90 25.25391086 .00000889 00000-0 48806-3 0 4672
2 18123 98.8173 217.7572 0015489 70.8794 289.4054 14.13837002134207
RS-10/11
1 18129U 87 54 A 90 24.21669961 -.00000006 00000-0 -13290-4 0 178
2 18129 82.9243 74.9022 0012545 152.3862 207.7963 13.72053842129707
Meteor 2-16
1 18312U 87 68 A 90 22.03426850 .00000219 00000-0 18868-3 0 3647
2 18312 82.5583 46.1353 0011581 309.4506 50.5623 13.83592474122779
Meteor 2-17
1 18820U 88 5 A 90 22.04927620 .00000307 00000-0 26542-3 0 1931
2 18820 82.5441 106.6372 0017500 19.2109 340.9711 13.84281428 99964
DMSP B5D2-4
1 18822U 88 6 A 90 24.17320902 .00001156 00000-0 54840-3 0 3780
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2 18822 98.6673 266.0303 0006434 336.9502 23.1755 14.21231965102366
AO-13
1 19216U 88 51 B 90 20.44983662 -.00000137 00000-0 99999-4 0 693
2 19216 57.1255 172.4315 6876711 219.4762 61.6910 2.09702838 12304
OKEAN 1
1 19274U 88 56 A 90 24.20346123 .00005283 00000-0 75714-3 0 6280
2 19274 82.5192 292.0960 0020553 230.8102 129.1287 14.76256809 83673
Meteor 3-2
1 19336U 88 64 A 90 24.89767979 .00000392 00000-0 99999-3 0 3597
2 19336 82.5505 18.8176 0019095 319.9247 40.0181 13.16878261 72094
NOAA 11
1 19531U 88 89 A 90 24.20040918 .00000886 00000-0 50955-3 0 1914
2 19531 98.9654 332.5007 0011811 334.0033 26.0561 14.11414901 68651
TDRS 2
1 19548U 88 91 B 90 12.16547070 .00000131 00000-0 99999-4 0 653
2 19548 0.0723 123.7770 0004161 114.1394 122.0160 1.00274990 3886
Cosmos 2001
1 19796U 89 11 A 90 24.63288747 -.00001008 00000-0 99999-3 0 3319
2 19796 62.9725 111.3853 7155809 319.7344 5.0745 2.00644068 6921
GPS BII-01
1 19802U 89 13 A 90 5.43014213 .00000016 00000-0 99999-4 0 642
2 19802 55.0777 203.8309 0061593 156.9692 203.3543 2.00561121 6486
Akebono
1 19822U 89 16 A 90 24.83885316 .00038992 00000-0 23029-2 0 4098
2 19822 75.1225 308.3231 4225788 312.4469 18.8281 7.03423613 23294
Meteor 2-18
1 19851U 89 18 A 90 22.05513654 .00000117 00000-0 99999-4 0 1419
2 19851 82.5214 344.8831 0015775 56.1634 304.1046 13.83917864 45354
TDRS 3
1 19883U 89 21 B 90 13.79998613 -.00000235 00000-0 99999-4 0 490
2 19883 0.0813 17.4424 0006666 250.6893 91.7847 1.00267179 2340
GPS BII-02
1 20061U 89 44 A 90 5.11529977 -.00000031 00000-0 00000 0 0 455
2 20061 54.6931 22.4655 0082137 171.4817 188.6997 2.00564230 4221
Nadezhda
1 20103U 89 50 A 90 22.04785639 .00000135 00000-0 13224-3 0 695
2 20103 82.9591 32.7230 0039484 84.7580 275.8073 13.73554171 27658
GPS BII-03
1 20185U 89 64 A 90 12.06532105 .00000016 00000-0 99999-4 0 376
2 20185 54.9347 204.4369 0026750 140.3244 219.8916 2.00566544 7562
Soyuz TM-8
1 20218U 89 71 A 90 23.72581771 .00001560 00000-0 25129-4 0 1379
2 20218 51.6147 337.2202 0020459 81.6177 278.8139 15.56264825 21766
Activnyi
1 20261U 89 80 A 90 24.81090090 .00004041 00000-0 12808-2 0 2430
2 20261 82.6025 319.5514 1260122 302.4221 46.1006 12.43145520 14775
Activnyi RB
1 20262U 89 80 C 90 22.31612647 .00027129 00000-0 85642-2 0 1260
2 20262 82.6039 321.1329 1261958 308.0342 39.6690 12.42944534 14461
Magion 2
```

```
1 20281U 89 80 B 90 24.80304373 -.00005850 00000-0 -18535-2 0 2550
2 20281 82.6013 319.5311 1260472 302.4087 46.1179 12.43278236 14779
GPS BII-04
1 20302U 89360.34546224 -.00000030 10000-3 0 395
2 20302 54.7442 324.1045 0038357 306.7527 52.8901 2.00573713 1284
Meteor 3-3
1 20305U 89 86 A 90 20.40370958 .00000066 00000-0 15637-3 0 435
2 20305 82.5519 322.2303 0015755 341.5145 18.5410 13.15847696 11510
COBE
1 20322U 89 89 A 90 20.58105002 .00004854 00000-0 32610-2 0 430
2 20322 99.0251 32.4295 0007366 56.4860 303.6988 14.00997024 8813
Kvant-2
1 20335U 89 93 A 90 23.79000752 .00051942 00000-0 71992-3 0 900
2 20335 51.6235 336.8901 0020471 82.5574 277.7674 15.56302826 9212
Cosmos 2052
1 20350U 89 95 A 90 10.05720713 .00725246 28344-4 29603-3 0 1060
2 20350 67.1355 144.2178 0111226 117.4422 243.7694 16.09621301 6516
1989 096B
1 20353U 89 96 B 89363.07065714 .00195181 77400-5 13353-2 0 811
2 20353 51.5443 285.7829 1146076 195.5426 160.7325 13.47665229 3669
1989 096D
1 20358U 90 4.82145879 0.00139266 58549-5 95388-3 0 670
2 20358 51.5401 261.0178 1139421 214.1555 138.0713 13.49164355 4575
GPS BII-05
1 20361U 89 97 A 90 21.56217161 .00000016 00000-0 99999-4 0 117
2 20361 54.9537 146.1423 0065169 44.4068 316.0870 2.00550886 785
1989 097B
1 20362U 89 97 B 90 11.24572425 .00009925 00000-0 12418-2 0 352
2 20362 35.6485 332.5970 0331685 335.1153 23.3871 14.49785306 4423
1989 097C
1 20363U 90 11.48271584 0.00267323 74325-5 14861-2 0 413
2 20363 37.6015 121.8649 5985300 226.7072 64.2719 4.18339324 1271
Raduga 24
1 20367U 90 13.29792244 0.00000168 10000-3 0 348
2 20367 1.4473 263.8368 0005421 247.6782 112.8617 1.00261065 303
1989 098D
1 20370U 89 98 D 90 9.79300959 -.00000025 00000-0 99999-4 0 196
2 20370 1.4873 264.1145 0016037 28.0591 332.9297 0.97855577 257
Progress M2
1 20373U 90 25.13844347 0.00029872 41637-3 0 470
2 20373 51.6228 330.1395 0019839 90.0297 270.4293 15.56429851 5729
Cosmos 2053
1 20389U 90 24.81043288 0.00011868 66169-3 0 581
2 20389 73.5392 40.4861 0009602 181.7862 178.2796 15.13611674 4364
1989 100B
1 20390U 90 18.19867724 0.00002783 15822-3 0 267
2 20390 73.5438 54.6197 0008681 202.7443 157.3298 15.13509989 3360
Cosmos 2054
1 20391U 89101 A 90 21.47303744 -.00000098 00000-0 99999-4 0 480
2 20391 1.4302 273.7708 0017486 183.1989 177.4877 1.00284059 275
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1989 101D
1 20394U 90 14.56247602 -.00000094 10000-3 0 116
2 20394 1.4538 275.0814 0011027 45.2156 315.3694 0.98248803 195
Skynet 4A
1 20401U 90 24.55419588 0.00000017 0 208
2 20401 3.3671 303.9790 0042816 53.7956 306.9522 1.00831605 119
JCSAT
1 20402U 90 21.23793805 -.00000138 10000-3 0 141
2 20402 0.2886 261.2244 0002542 1.3344 97.4081 1.00268747 186
1990 001D
1 20404U 90 20.47587650 0.00002840 19443-2 0 170
2 20404 21.6125 277.5882 7208844 183.5585 164.9104 2.34493581 460
1990 001F
1 20406U 90 21.36929401 0.00006732 19812-2 0 168
2 20406 26.7577 268.6918 5864382 202.8157 113.9625 4.22111750 852
LEASAT 5
1 20410U 90 2 B 90 22.06659714 .00000064 00000-0 99999-4 0 102
2 20410 3.4147 323.0306 0123586 185.3733 174.7172 1.00273711 67
1990 002C
1 20411U 90 21.73775051 0.00009279 22226-2 0 123
2 20411 27.2227 121.7839 5240137 17.6393 355.1952 5.20097089 576
1983 070F
1 20412U 89365.73874852 -.00000368 10000-3 0 19
2 20412 67.4971 261.5083 6494076 270.8143 21.0044 2.04025373 1234
1983 020D
1 20413U 90 16.50000000 -.00000404 10000-3 0 40
2 20413 45.8927 301.6066 8794760 8.3459 185.8865 0.24719748 02
1990 003A
1 20426U 90 24.79030025 0.00219131 13643-4 13002-3 0 195
2 20426 62.8238 259.8586 0039030 111.6660 248.9199 16.16343522 1167
1990 003B
1 20427U 90 22.12491241 0.02785451 12147-4 11385-2 0 129
2 20427 62.7989 269.9906 0002107 319.2290 40.5920 16.22920990 735
Cosmos 2056
1 20432U 90 25.10250429 0.00000755 30271-3 0 128
2 20432 74.0370 306.9361 0024436 331.1011 28.8785 14.29694438 920
1990 004B
1 20433U 90 20.97155958 0.00002223 84632-3 0 98
2 20433 74.0400 314.4323 0029524 349.0497 11.0006 14.31203687 347
SPOT 2
1 20436U 90 5 A 90 24.87607554 -.00000632 00000-0 -25309-3 0 82
2 20436 98.7236 101.3451 0003445 177.1740 182.9359 14.26690700 406
1990 005B
1 20437U 90 5 B 90 25.07930591 .00001088 00000-0 43563-3 0 59
2 20437 98.6167 101.5503 0011910 184.1978 175.9110 14.30125629 434
UoSat E
1 20438U 90 5 C 90 24.38214443 .00038261 00000-0 15162-1 0 37
2 20438 98.7174 100.8496 0011059 210.2871 149.7737 14.28586878 331
MicroSat 1
1 20439U 90 5 D 90 24.31223425 .00015545 00000-0 62099-2 0 88
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2 20439 98.7121 100.7773 0011029 209.0952 150.9520 14.28443513 325
MicroSat 2
1 20440U 90 5 E 90 24.38209160 .00023136 00000-0 91999-2 0 38
2 20440 98.7160 100.8517 0011276 211.1319 148.8824 14.28569390 338
MicroSat 3
1 20441U 90 5 F 90 24.31185946 .00013144 00000-0 52284-2 0 28
2 20441 98.7168 100.7824 0011162 214.1778 145.7732 14.28705650 327
MicroSat 4
1 20442U 90 5 G 90 24.38180079 -.00017243 00000-0 -68738-2 0 47
2 20442 98.7167 100.8503 0012258 210.6580 149.3875 14.28756933 330
1990 005H
1 20443U 90 5 H 90 23.82219061 -.00030107 00000-0 -12187-1 0 73
2 20443 98.7165 100.2885 0010048 210.8523 149.2068 14.28223237 250
1990 006A
1 20444U 90 24.63067419 0.00000065 -22788-2 0 42
2 20444 62.7784 114.9944 7327698 288.0849 9.7156 2.05533344 44
1990 006B
1 20445U 90 24.71169038 0.00626083 85094-5 13597-2 0 56
2 20445 62.8210 109.4556 0261407 121.2822 241.5679 15.58903360 233
1990 006D
1 20447U 90 24.65095046 0.01006994 35257-4 12799-2 0 72
2 20447 62.8307 109.5850 0306827 116.7347 246.5377 15.55902171 222
1990 008B
1 20453U 90 25.27938320 -.00000042 -24897-5 0 21
2 20453 35.6600 255.5282 0591232 143.1895 221.0735 14.04134822 52
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Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
```

613. SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-28 01:18:10 UTC
From: roskos@IDA.ORG
Message-ID: <1990Jan28.011810.1861@IDA.ORG>
Source record: 13968
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Recently someone forwarded to me a Usenet article, apparently about 5 years old, by John Sangster (W3IK) of MITRE, explaining how to do SCA demodulation. It was a very good article, and made everything very clear; since I'd been intending to try it for a long time, and since I'd gotten a lot of experience with the 565 PLL building the WEFAX demodulator which I described here about a year ago, I decided this weekend to try building an SCA demodulator.

Alas, it is not nearly as easy as it seems, apparently. It was very easy to build the demodulator; there's a diagram for one in Figure 5 of the Signetics 565 data sheet, and I built it on a small perfboard about 1" square so it would fit inside a portable radio. I also bought a $15 FM radio from Radio Shack (their "anywhere radio") for the purpose. (The completed VCO in the demodulator runs at the proper frequency, and the demodulator itself appears to work.)

According to Sangster's article, "the best way to recover the SCA audio is to go in to the FM receiver and tap off at the `top' of the volume control."

I've tried this with three receivers now -- the above-mentioned $15 radio, a Radio Shack DX-400 shortwave radio (with FM), and my full-size FM stereo tuner.

The $15 radio is based on a 1-chip FM receiver -- though not the one in the Radio Shack semiconductor book -- and there are only two pins on the IC that have an AF signal on them. Both of them, when observed with an oscilloscope, are "clean" in the sense that when there is no sound coming out of the speaker, there's no signal present. I think, if I understand how this works, there should be a 67 KHz subcarrier present even when there is no sound, if you have the proper signal.

The results with the DX-400 were more interesting -- I unfortunately don't have the manual for it any more, so I traced the signal around with an oscilloscope and a signal tracer. I found that again, all the AF signals I could find were "clean" in the above sense. But I did find that if I connect my demodulator to a fairly strong signal in the IF, the demodulator would demodulate the (regular) FM program out of it. This makes me wonder if maybe the IF for the DX-400 is around 67 KHz, since that is what the demodulator was tuned for.

I also tried it with my ancient STA-720 stereo receiver. It has two ICs of interest, an LA1231 and an LA3350; the former seems to be the FM demodulator, and the latter the stereo demultiplexer. There was a signal going into pin 2 of the LA3350 that looks more like a composite

audio signal, so I tried using that. But the result is that when the radio is tuned onto a station, I get no signal out of the SCA demodulator; if I detune it slightly, I can hear the station I am tuning away from. (This is true for all stations. I know there is at least one SCA program being broadcast locally, since a local charitable group advertises that they provide free radios to the blind for use in receiving SCA "readings for the blind". I would suspect that in a city of this size (Washington, DC), there would be others as well.)

This is very puzzling, and somewhat discouraging. Has anyone built an SCA demodulator using a 565? What kind of radio did you use as the receiver? Did you have to modify the circuit in the Signetics data sheet? The circuit in the data sheet is fairly simple... there is a high pass filter to filter out the main program signal, then the PLL, then a low pass filter to filter out the noise from the PLL's VCO. I had hoped from reading the above article that it would be simple to just insert the demodulator between the original input to the volume control of a portable radio and the volume control, giving a radio that could receive SCA... but it seems to be more difficult than that.

(The original article talks about using a VLF receiver to receive the SCA by connecting it to the composite audio from an FM station. So I realize that approach is available, but I don't have a VLF receiver, and would rather build a demodulator specifically for the purpose.)

--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

614. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-28 01:18:12 UTC
From: bakken@cs.arizona.edu
Message-ID: <17289@megaron.cs.arizona.edu>
Source record: 13969
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Thanks for the good info, Paul!! I just need a few more details, which
others probably do too.

In article <1990Jan27.211839.4955@Neon.Stanford.EDU> paulf@bodega.stanford.edu.UUCP (Paul
Flaherty) writes:
>So you want a Real Ground (tm)?
[etc.]
>3. Fill hole with mix of 2 parts Bentonite, 2 parts (non-setting) Gypsum, and
> 3 parts rock salt, leaving 6" on top.

I have no idea what Bentonite and Gypsum are (and don't particularly care).
But where can I find them - what type of store?

>4. Place a 3/4" by 4' perforated PVC tube with bottom capped into mixture,
> flush with ground.

I didn't see perforated PVC tubes, only solid ones at a store a while ago.
If I drill my own holes, about how many per foot and about what diameter?
I suspect the idea is a small enough hole to allow the brine to seep out
over the entire length of the tube.
--
Dave Bakken Internet: bakken@cs.arizona.edu
721 Gould-Simpson Bldg UUCP: uunet!arizona!bakken
Dept of Computer Science; U of Arizona Phone: +1 602 621 8372 (w)
Tucson, AZ 85721 USA FAX: +1 602 621 4246

615. Legalities of Multiple Call Signs

Newsgroup: rec.ham-radio
Date: 1990-01-28 01:50:40 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <11399.25C2503D@stjhmc.fidonet.org>
Source record: 13970

> From: jcp@cgch.UUCP (Joseph C. Pistritto)
>
> >Mailer: Elm [revision: 64.9]
>
> Does anyone know what the rules are if you are licensed in
> more than one country? I know that in each country you hold a license
> in, you must use the privleges and callsign assigned by that country,
> but what happens if you go to a third country to operate?

Would that not be governed by which passport you travel under? If you enter
Germany under a visa on a U.S. passport, I would think the German government
would more or less expect you to use the U.S. license. In fact, I'd be
surprised if they didn't insist on it.
73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

616. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-28 02:22:56 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Jan28.022256.14800@Neon.Stanford.EDU>
Source record: 13971
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <17289@megaron.cs.arizona.edu> bakken@megaron.cs.arizona.edu (Dave Bakken) writes:
>I have no idea what Bentonite and Gypsum are (and don't particularly care).
>But where can I find them - what type of store?

Bentonite is a porous clay; gypsum is a type of chalk. Try a gardening or building materials store.

>I didn't see perforated PVC tubes, only solid ones at a store a while ago.
>If I drill my own holes, about how many per foot and about what diameter?

Actually, you could probably use a soaker hose. The main idea is to distribute the brine quickly and evenly.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

617. Re: R7000 on 12 Volts DC

Newsgroup: rec.ham-radio
Date: 1990-01-28 03:41:17 UTC
From: die@cpoint.UUCP
Message-ID: <3738@cpoint.UUCP>
Source record: 13972

In article <2879@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>I was noticing in my R7000 manual that it looks like there is a plug
>hidden behind a small panel on the right rear near the AC line cord.
>I removed the cover and sure enough there is a MOLEX type of plug with
>a shorting jumper in it. It apparently jumpers the +12 volts from the
>power supply to the rest of the radio. COULD THIS MEAN that the R7000
>can be operated in your automobile from 13.8 VDC?? Looks like it to me.
>One might also install a noise filter in the 'space' provided in the radio.
>Bob Parnass...have you noticed this about the R7000? Has anyone converted
>their R7000 to +12V optional operation? Does anybody see any problems
>with this? R7000 in the car would be pretty neat.

The answer is most definately yes !. I have used mine mobile
and I know a number of other people who have regularly used theirs mobile.
The only hassle is, that to do it right, you need a little bracket thingy
to hold the molex connector in the hole once you remove the cover plate.
This bracket and a DC power cable with matching molex plug are available from
ICOM (part numbers are listed in the service manual which I unfortunately
have at home where I can't look them up as I post).

Naturally, as with any expensive ham gear not screwed to the car
in the radio hole, the possibility of collecting on your car insurance if you
loose the thing to a thief is somewhat limited unless you carry a special
policy covering radios.

--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

618. The great Microsat shell game

Newsgroup: rec.ham-radio
Date: 1990-01-28 04:59:20 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19497@bellcore.bellcore.com>
Source record: 13973

Posted: Sun, Jan 28, 1990 3:27 AM GMT Msg: IGJA-4151-1261
From: JKING
To: AMSAT
CC: PKARN
Subj: Microsat TX Frequencies

Phil, KA9Q is interested in conducting doppler measurements for all of the SPOT mission spacecraft in the interest of sorting out the separating bodies as soon as possible and in deriving the orbital elements for same. In so doing, he asked me for the precise frequencies of the transmitters. It occured that others may also be interested in making these measurements and that these exact frequencies have not yet been distributed.

The following frequencies were taken after the completion and final tuning of the completed transmitter assemblies. The temperatures were taken at 23 deg. C. Note that currently, the transmitters are closer to 0 deg. C. I am searching to see if we have any data that suggests how the frequency of the transmitters changes with temperature.

PACSAT:

Normal PSK TX: 437.02625 MHz

Raised Cosine TX: 437.05130 MHz

S-Band TX: 2401.1428 MHz

DOVE:

FM TX No. 1: 145.82516 MHz

FM TX No. 2: 145.82438 MHz

S-Band TX: 2401.2205 MHz

WEBERSAT:

Normal PSK TX: 437.07510 MHz

Raised Cosine TX: 437.10200 MHz

LUSAT:

Normal PSK TX: 437.15355 MHz

Raised Cosine TX: 437.12580 MHz

I have no data on frequency change with temperature for these transmitters. Perhaps someone else made temperature measurements during thermal vacuum. The log book doesn't help.

Happy Doppler Shift.

73's,
Jan

Posted: Sun, Jan 28, 1990 4:47 AM GMT Msg: LGJA-4151-1306
From: PKARN
To: amsat
Subj: sep analysis

I've uploaded to DOCS an analysis of the straight-line distances between each pair of objects associated with the Ariane V35 launch, in the hope that this might help those trying to sort out the various objects. Certainly the close proximity of pairs like 1990 005C and 005E ought to be a clue to their identities.

I also note that object 005B has a mean motion significantly larger than the other seven objects. This leads me to suspect that it's the spent launcher. Object 005A has a mean motion somewhat smaller than the others, and is in the least eccentric orbit; this I suspect is SPOT-2.

Would those posting orbital elements please provide sets for all eight objects (005A thru H) until we are able to positively tell which are NOT the ones we want? NORAD's assignment of object numbers to satellite names is almost certainly in error. Thanks!

Phil

In the hope that this will help someone with the detective problem of sorting through the menagerie of objects from the Ariane V35 launch, here's a computer analysis of the current straight-line distances between each pair of objects. The letters before each pair of results are the objects' international designators (e.g., the first entry is for the pair of objects 1990 005A and 1990 005B). The distances are given for two arbitrary instants 24 hours apart, and are in kilometers. The "V" flag on the end of the line indicates that the objects are visible to each other (the line between them does not intersect the earth.)

The positions of objects B thru G were based on Keplerians with epochs on day 26 read to me over the phone by N4HY; Keplerians for objects A and H had epochs on day 23.8 and were the ones I fetched the other day from TS Kelso's BBS.

--Phil

a b
Sat Jan 27 00:00:00.0 1990 UTC 7213.933
Sun Jan 28 00:00:00.0 1990 UTC 8501.850
a c
Sat Jan 27 00:00:00.0 1990 UTC 4037.521 V
Sun Jan 28 00:00:00.0 1990 UTC 4830.487 V

```
a d
Sat Jan 27 00:00:00.0 1990 UTC 3863.518 V
Sun Jan 28 00:00:00.0 1990 UTC 4636.558 V
a e
Sat Jan 27 00:00:00.0 1990 UTC 4099.527 V
Sun Jan 28 00:00:00.0 1990 UTC 4902.147 V
a f
Sat Jan 27 00:00:00.0 1990 UTC 4329.556 V
Sun Jan 28 00:00:00.0 1990 UTC 5133.758 V
a g
Sat Jan 27 00:00:00.0 1990 UTC 4491.515 V
Sun Jan 28 00:00:00.0 1990 UTC 5389.215 V
a h
Sat Jan 27 00:00:00.0 1990 UTC 3218.871 V
Sun Jan 28 00:00:00.0 1990 UTC 3787.596 V
b c
Sat Jan 27 00:00:00.0 1990 UTC 3433.596 V
Sun Jan 28 00:00:00.0 1990 UTC 4110.449 V
b d
Sat Jan 27 00:00:00.0 1990 UTC 3608.769 V
Sun Jan 28 00:00:00.0 1990 UTC 4306.904 V
b e
Sat Jan 27 00:00:00.0 1990 UTC 3370.816 V
Sun Jan 28 00:00:00.0 1990 UTC 4037.325 V
b f
Sat Jan 27 00:00:00.0 1990 UTC 3136.423 V
Sun Jan 28 00:00:00.0 1990 UTC 3799.515 V
b g
Sat Jan 27 00:00:00.0 1990 UTC 2970.120 V
Sun Jan 28 00:00:00.0 1990 UTC 3533.581 V
b h
Sat Jan 27 00:00:00.0 1990 UTC 4248.869 V
Sun Jan 28 00:00:00.0 1990 UTC 5145.499 V
c d
Sat Jan 27 00:00:00.0 1990 UTC 181.034 V
Sun Jan 28 00:00:00.0 1990 UTC 205.507 V
c e
Sat Jan 27 00:00:00.0 1990 UTC 65.207 V
Sun Jan 28 00:00:00.0 1990 UTC 76.523 V
c f
Sat Jan 27 00:00:00.0 1990 UTC 305.451 V
Sun Jan 28 00:00:00.0 1990 UTC 323.354 V
c g
Sat Jan 27 00:00:00.0 1990 UTC 475.569 V
Sun Jan 28 00:00:00.0 1990 UTC 597.920 V
c h
Sat Jan 27 00:00:00.0 1990 UTC 845.980 V
Sun Jan 28 00:00:00.0 1990 UTC 1092.330 V
d e
Sat Jan 27 00:00:00.0 1990 UTC 245.504 V
```

```
Sun Jan 28 00:00:00.0 1990 UTC 281.561 V
d f
Sat Jan 27 00:00:00.0 1990 UTC 486.108 V
Sun Jan 28 00:00:00.0 1990 UTC 528.583 V
d g
Sat Jan 27 00:00:00.0 1990 UTC 656.194 V
Sun Jan 28 00:00:00.0 1990 UTC 803.025 V
d h
Sat Jan 27 00:00:00.0 1990 UTC 665.299 V
Sun Jan 28 00:00:00.0 1990 UTC 887.407 V
e f
Sat Jan 27 00:00:00.0 1990 UTC 240.685 V
Sun Jan 28 00:00:00.0 1990 UTC 247.108 V
e g
Sat Jan 27 00:00:00.0 1990 UTC 410.869 V
Sun Jan 28 00:00:00.0 1990 UTC 521.756 V
e h
Sat Jan 27 00:00:00.0 1990 UTC 910.479 V
Sun Jan 28 00:00:00.0 1990 UTC 1168.245 V
f g
Sat Jan 27 00:00:00.0 1990 UTC 170.225 V
Sun Jan 28 00:00:00.0 1990 UTC 274.749 V
f h
Sat Jan 27 00:00:00.0 1990 UTC 1150.548 V
Sun Jan 28 00:00:00.0 1990 UTC 1414.367 V
g h
Sat Jan 27 00:00:00.0 1990 UTC 1320.144 V
Sun Jan 28 00:00:00.0 1990 UTC 1687.450 V
```

619. Callsign server

Newsgroup: rec.ham-radio
Date: 1990-01-28 05:23:20 UTC
From: huopio@kannel.lut.fi
Message-ID: <HUOPIO.90Jan28002320@kannel.lut.fi>
Source record: 13974

A long time ago there was an article about the callsign server. I have
lost all information concerning it, so please someone send me the
IP-address and operating instructions!

--Thanks a lot already,

--Kauto--
--
****************** Kauto Huopio (huopio@kannel.lut.fi) **********************
*US Mail: Kauto Huopio, Punkkerikatu 1 A 10, SF-53850 Lappeenranta, Finland *
*Project: Learn some GNU Emacs first.. :-) *
****

620. Re: R7000 on 12 Volts DC

Newsgroup: rec.ham-radio
Date: 1990-01-28 05:50:40 UTC
From: john@wa3wbu.UUCP
Message-ID: <577@wa3wbu.UUCP>
Source record: 13975

In article <2879@radio.oakhill.UUCP>, charlie@oakhill.UUCP (Charlie Thompson) writes:
> Attention R7000 owners/hackers:
>
> I was noticing in my R7000 manual that it looks like there is a plug
> hidden behind a small panel on the right rear near the AC line cord.
> I removed the cover and sure enough there is a MOLEX type of plug with
> a shorting jumper in it. It apparently jumpers the +12 volts from the
> power supply to the rest of the radio. COULD THIS MEAN that the R7000
> can be operated in your automobile from 13.8 VDC?? Looks like it to me.

This most certainly is correct. In fact, I purchased the 12 volt
kit from Icom. It is the same kit as thier other radios. It comes with a
molex connector and DC pig-tail. I put a cigarette-lighter plug on it
and voila, the R-7000 goes into the car lickity-split. Apparently there
seem to be some confusion as to there being a kit available for the
R7000 when in fact it uses the same as all the rest. Happy listening!

John

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John Gayman, WA3WBU | UUCP: uunet!wa3wbu!john
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621. Keplerian elements

Newsgroup: rec.ham-radio
Date: 1990-01-28 06:26:12 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19501@bellcore.bellcore.com>
Source record: 13976

I haven't seen any Keplerian elements from TS Kelso's BBS lately, so I
logged in directly and pulled over the latest set. Here they are.
Note that the names for the various Ariane V35 objects are almost certainly
wrong (except perhaps for SPOT-2) so don't place too much faith in them.

I've got some later elesets for objects B-G via N4HY that I'll post next.

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Alouette 1
1 00424U 62B-A 1 90 25.21309753 .00000220 00000-0 25410-3 0 2561
2 00424 80.4628 67.0294 0022286 281.5113 78.3546 13.67284761363155
ATS 1
1 02608U 66110 A 90 20.98742296 -.00000127 00000-0 99999-4 0 955
2 02608 13.4145 14.7935 0108587 356.0705 3.8396 1.00392933 1077
ATS 3
1 03029U 67111 A 90 21.02006859 -.00000075 00000-0 99999-4 0 2830
2 03029 13.0250 22.4264 0033006 198.2664 161.5754 1.00272216 81329
Cosmos 398
1 04966U 71 16 A 90 25.45007196 .00025554 16750-4 14917-3 0 4868
2 04966 51.5309 230.3742 2382245 243.3252 90.5005 10.82890128576082
Starlette
1 07646U 75010 A 90 22.01842112 .00000013 00000-0 10578-3 0 65
2 07646 49.8219 15.2307 0206179 68.6949 293.5820 13.82131368755566
LAGEOS
1 08820U 76039 A 90 25.45390426 .00000004 00000-0 00000 0 0 9816
2 08820 109.8649 306.2281 0044656 268.8989 90.6301 6.38664772 64822
GOES 2
1 10061U 77048 A 90 22.15696209 -.00000019 00000-0 99999-4 0 3517
2 10061 7.6972 65.5409 0030095 203.2400 156.7123 1.00279235 7571
GPS-0001
1 10684U 78020 A 90 24.33682980 .00000009 00000-0 99999-4 0 3127
2 10684 63.6596 94.0031 0115531 198.7868 160.8463 2.00558272 72969
GPS-0002
1 10893U 78 47 A 90 24.30449716 -.00000026 00000-0 00000 0 0 906
2 10893 64.4417 334.8696 0157456 25.9625 334.8094 2.00549492 85789
GOES 3
1 10953U 78062 A 90 21.21667052 .00000090 00000-0 99999-4 0 8023
2 10953 6.5805 68.2637 0005210 243.5919 116.3422 1.00272118 3124
SeaSat 1
1 10967U 78064 A 90 22.47391788 .00001379 00000-0 52289-3 0 2260
2 10967 108.0180 19.5251 0002821 241.4047 118.6824 14.35356530605546
GPS-0003
1 11054U 78093 A 90 22.11281078 -.00000025 00000-0 00000 0 0 1538
2 11054 63.9975 331.2754 0055233 118.8706 241.6798 2.00565787 82755
Nimbus 7
1 11080U 78098 A 90 22.29083626 .00000233 00000-0 24160-3 0 6295
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2 11080 99.2001 290.4571 0010106 114.0624 246.1587 13.83388898567861
GPS-0004
1 11141U 78112 A 90 21.71010610 .00000009 00000-0 00000 0 0 2480
2 11141 63.6543 93.9812 0057429 318.5967 41.0212 2.00564183 81441
NOAA 6
1 11416U 79 57 A 90 22.45373369 .00001388 00000-0 59258-3 0 9626
2 11416 98.5208 18.3971 0011799 183.4567 176.6547 14.26421194549151
GPS-0005
1 11690U 80 11 A 90 22.84570591 .00000010 00000-0 00000 0 0 8954
2 11690 64.0805 95.9184 0112264 202.4420 157.1306 2.00557744 87325
GPS-0006
1 11783U 80 32 A 90 24.15804985 -.00000025 00000-0 00000 0 0 277
2 11783 63.7856 330.7888 0145390 60.7699 300.6621 2.00573712 71433
GOES 4
1 11964U 80 74 A 90 22.54697866 -.00000102 00000-0 00000 0 0 1269
2 11964 6.0964 71.0073 0031264 106.9819 253.2886 0.99230032 4204
GOES 5
1 12472U 81049 A 90 23.06091287 -.00000244 00000-0 99999-4 0 8174
2 12472 3.0961 77.5528 0001826 256.6002 103.3197 1.00263004 30798
DE 1
1 12624U 81 70 A 90 23.32226140 -.00000010 00000-0 -95248-4 0 3196
2 12624 89.1228 149.2140 6235943 330.4716 5.4772 3.51028567257033
SME
1 12887U 81100 A 90 23.61783775 .00038022 00000-0 94080-3 0 4549
2 12887 97.6624 63.3072 0002834 150.9808 209.1632 15.40345756458944
Meteor 2-08
1 13113U 82 25 A 90 13.08051601 .00000169 00000-0 14164-3 0 6879
2 13113 82.5382 251.9089 0014821 188.6816 171.4099 13.84123269394272
Salyut 7
1 13138U 82 33 A 90 24.79682820 .00038538 00000-0 60846-3 0 84
2 13138 51.6082 304.1777 0002044 110.7310 249.3722 15.53115991442494
Cosmos 1383
1 13301U 82 66 A 90 24.50924199 .00000141 00000-0 15436-3 0 5325
2 13301 82.9290 46.0765 0026669 193.8854 166.1570 13.67794237378031
LandSat 4
1 13367U 82 72 A 90 24.26797352 .00004481 00000-0 10031-2 0 2149
2 13367 98.1852 89.4887 0002230 191.7781 168.4301 14.57145726400346
Meteor 2-09
1 13718U 82116 A 90 20.58528226 .00000330 00000-0 16760-3 0 8513
2 13718 81.2447 68.8510 0057240 99.8978 260.8665 14.13431635366261
IRAS
1 13777U 83 4 A 90 22.35546374 .00000241 00000-0 19127-3 0 7112
2 13777 99.0325 221.3386 0013582 68.3368 291.9238 13.98730754 26552
Cosmos 1447
1 13916U 83 21 A 90 23.21083113 .00000158 00000-0 15660-3 0 6708
2 13916 82.9476 119.2461 0037662 181.2137 178.8935 13.74002809342766
TDRS 1
1 13969U 83 26 B 90 22.06763248 -.00000209 00000-0 00000 0 0 9133
2 13969 4.1255 67.0633 0006212 255.2560 104.5416 1.00276467 91619
GOES 6
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1 14050U 83 41 A 90 21.26420049 .00000118 00000-0 00000 0 0 614
2 14050 1.8746 79.8973 0001434 275.3933 84.4496 1.00280515 8796
OSCAR 10
1 14129U 83 58 B 90 17.27634125 .00000057 00000-0 00000 0 0 4512
2 14129 25.9396 223.5666 6004515 110.6067 320.9838 2.05879643 21623
GPS-0008
1 14189U 83 72 A 90 18.26767087 .00000008 00000-0 99999-4 0 6954
2 14189 63.2808 92.5947 0142085 216.4217 142.6537 2.00561565 47752
Meteor 2-10
1 14452U 83109 A 90 18.58489570 .00000686 00000-0 28844-3 0 8090
2 14452 81.1640 77.6405 0093924 195.1907 164.6449 14.22548888323165
LandSat 5
1 14780U 84 21 A 90 24.84448736 .00002402 00000-0 54219-3 0 302
2 14780 98.1392 87.4776 0001840 284.9412 75.0640 14.57163857313844
UoSat 2
1 14781U 84 21 B 90 24.60023258 .00002674 00000-0 50931-3 0 5982
2 14781 97.9706 81.7576 0012981 348.1213 11.9712 14.64790863314948
GPS-0009
1 15039U 84 59 A 90 23.31396731 .00000007 00000-0 00000 0 0 7939
2 15039 63.0307 91.6447 0018324 241.3697 118.5149 2.00563069 41139
Cosmos 1574
1 15055U 84 62 A 90 21.91014282 .00000148 00000-0 14754-3 0 8171
2 15055 82.9583 170.1218 0028602 12.7714 347.4162 13.73318325279992
Meteor 2-11
1 15099U 84 72 A 90 24.43158390 .00000105 00000-0 89946-4 0 9922
2 15099 82.5292 190.3946 0013540 343.3587 16.7136 13.83778628280717
GPS-0010
1 15271U 84 97 A 90 23.70904776 -.00000026 00000-0 00000 0 0 7433
2 15271 63.3162 330.4555 0104644 324.4194 34.8900 2.00572721 38258
Cosmos 1602
1 15331U 84105 A 90 23.30382242 .00003815 00000-0 53387-3 0 1537
2 15331 82.5388 135.0916 0024768 84.4705 275.9518 14.77142345286695
NOAA 9
1 15427U 84123 A 90 25.24914629 .00000781 00000-0 44428-3 0 4749
2 15427 99.1615 21.8167 0016017 52.0456 308.2161 14.12408902263805
Meteor 2-12
1 15516U 85 13 A 90 21.76143642 .00000315 00000-0 27256-3 0 1479
2 15516 82.5366 130.9056 0015640 219.2449 140.7591 13.84257083251298
Cosmos 1686
1 16095U 85 86 A 90 23.76729789 .00033789 00000-0 53642-3 0 4760
2 16095 51.6099 309.3092 0001251 106.0415 254.0456 15.53029118243432
GPS-0011
1 16129U 85 93 A 90 23.37173420 .00000008 00000-0 00000 0 0 3952
2 16129 63.8201 92.5059 0120763 150.4378 210.3188 2.00561180 31457
Meteor 3-1
1 16191U 85100 A 90 21.64136412 .00000043 00000-0 99999-4 0 8873
2 16191 82.5519 81.3115 0021534 112.4943 247.8469 13.16892496204272
Meteor 2-13
1 16408U 85119 A 90 22.05647900 .00000198 00000-0 16738-3 0 5629
2 16408 82.5338 45.5196 0017863 48.8540 311.4150 13.84281686205834
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1 16609U 86 17 A 90 24.81737861 .00044885 00000-0 62178-3 0 3585
2 16609 51.6214 331.7508 0020339 86.0444 274.2772 15.56385754225721
SPOT 1
1 16613U 86 19 A 90 24.19241877 .00001342 00000-0 64832-3 0 7416
2 16613 98.7170 100.7460 0000286 181.6023 178.5174 14.20029541 43497
Meteor 2-14
1 16735U 86 39 A 90 22.06890313 .00000191 00000-0 16157-3 0 3483
2 16735 82.5346 72.4522 0015673 114.7575 245.5222 13.84038163184738
Cosmos 1766
1 16881U 90 24.47382616 .00004430 00000-0 62586-3 0 8479
2 16881 82.5212 193.2147 0023634 98.2810 262.1074 14.76788139187933
EGP
1 16908U 86 61 A 90 23.91403492 -.00000155 00000-0 -81687-3 0 1630
2 16908 50.0214 339.5318 0011287 186.7291 173.3393 12.44382892156894
FO-12
1 16909U 86 61 B 90 23.89068611 -.00000025 00000-0 99999-4 0 1785
2 16909 50.0168 339.9003 0011453 184.7940 175.2781 12.44403507156880
NOAA 10
1 16969U 86 73 A 90 19.05481342 .00000588 00000-0 27581-3 0 3307
2 16969 98.6158 50.2427 0013755 347.9935 12.0913 14.23416116173399
Meteor 2-15
1 17290U 87 1 A 90 21.88321638 .00000189 00000-0 16059-3 0 3240
2 17290 82.4671 338.3447 0014163 15.2083 344.9503 13.83840958153865
MOS-1
1 17527U 87 18 A 90 24.10793807 .00000426 00000-0 34265-3 0 3849
2 17527 99.1258 98.4236 0000865 102.6299 257.4982 13.94879341149176
GOES 7
1 17561U 87 22 A 90 23.95745585 -.00000043 00000-0 99999-4 0 4016
2 17561 0.1081 253.7452 0005255 111.4388 354.8077 1.00273525 3971
Kvant-1
1 17845U 87 30 A 90 25.13846835 .00017702 00000-0 24999-3 0 9776
2 17845 51.6227 330.1393 0019833 90.0631 270.5355 15.56428441161820
DMSP B5D2-3
1 18123U 87 53 A 90 25.25391086 .00000889 00000-0 48806-3 0 4672
2 18123 98.8173 217.7572 0015489 70.8794 289.4054 14.13837002134207
RS-10/11
1 18129U 87 54 A 90 24.21669961 -.00000006 00000-0 -13290-4 0 178
2 18129 82.9243 74.9022 0012545 152.3862 207.7963 13.72053842129707
Meteor 2-16
1 18312U 87 68 A 90 22.03426850 .00000219 00000-0 18868-3 0 3647
2 18312 82.5583 46.1353 0011581 309.4506 50.5623 13.83592474122779
Meteor 2-17
1 18820U 88 5 A 90 22.04927620 .00000307 00000-0 26542-3 0 1931
2 18820 82.5441 106.6372 0017500 19.2109 340.9711 13.84281428 99964
DMSP B5D2-4
1 18822U 88 6 A 90 24.17320902 .00001156 00000-0 54840-3 0 3780
2 18822 98.6673 266.0303 0006434 336.9502 23.1755 14.21231965102366
AO-13
1 19216U 88 51 B 90 20.44983662 -.00000137 00000-0 99999-4 0 693
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2 19216 57.1255 172.4315 6876711 219.4762 61.6910 2.09702838 12304
OKEAN 1
1 19274U 88 56 A 90 24.20346123 .00005283 00000-0 75714-3 0 6280
2 19274 82.5192 292.0960 0020553 230.8102 129.1287 14.76256809 83673
Meteor 3-2
1 19336U 88 64 A 90 24.89767979 .00000392 00000-0 99999-3 0 3597
2 19336 82.5505 18.8176 0019095 319.9247 40.0181 13.16878261 72094
NOAA 11
1 19531U 88 89 A 90 24.20040918 .00000886 00000-0 50955-3 0 1914
2 19531 98.9654 332.5007 0011811 334.0033 26.0561 14.11414901 68651
TDRS 2
1 19548U 88 91 B 90 12.16547070 .00000131 00000-0 99999-4 0 653
2 19548 0.0723 123.7770 0004161 114.1394 122.0160 1.00274990 3886
Cosmos 2001
1 19796U 89 11 A 90 24.63288747 -.00001008 00000-0 99999-3 0 3319
2 19796 62.9725 111.3853 7155809 319.7344 5.0745 2.00644068 6921
GPS BII-01
1 19802U 89 13 A 90 5.43014213 .00000016 00000-0 99999-4 0 642
2 19802 55.0777 203.8309 0061593 156.9692 203.3543 2.00561121 6486
Akebono
1 19822U 89 16 A 90 24.83885316 .00038992 00000-0 23029-2 0 4098
2 19822 75.1225 308.3231 4225788 312.4469 18.8281 7.03423613 23294
Meteor 2-18
1 19851U 89 18 A 90 22.05513654 .00000117 00000-0 99999-4 0 1419
2 19851 82.5214 344.8831 0015775 56.1634 304.1046 13.83917864 45354
TDRS 3
1 19883U 89 21 B 90 13.79998613 -.00000235 00000-0 99999-4 0 490
2 19883 0.0813 17.4424 0006666 250.6893 91.7847 1.00267179 2340
GPS BII-02
1 20061U 89 44 A 90 5.11529977 -.00000031 00000-0 00000 0 0 455
2 20061 54.6931 22.4655 0082137 171.4817 188.6997 2.00564230 4221
Nadezhda
1 20103U 89 50 A 90 22.04785639 .00000135 00000-0 13224-3 0 695
2 20103 82.9591 32.7230 0039484 84.7580 275.8073 13.73554171 27658
GPS BII-03
1 20185U 89 64 A 90 12.06532105 .00000016 00000-0 99999-4 0 376
2 20185 54.9347 204.4369 0026750 140.3244 219.8916 2.00566544 7562
Soyuz TM-8
1 20218U 89 71 A 90 23.72581771 .00001560 00000-0 25129-4 0 1379
2 20218 51.6147 337.2202 0020459 81.6177 278.8139 15.56264825 21766
Activnyi
1 20261U 89 80 A 90 24.81090090 .00004041 00000-0 12808-2 0 2430
2 20261 82.6025 319.5514 1260122 302.4221 46.1006 12.43145520 14775
Activnyi RB
1 20262U 89 80 C 90 22.31612647 .00027129 00000-0 85642-2 0 1260
2 20262 82.6039 321.1329 1261958 308.0342 39.6690 12.42944534 14461
Magion 2
1 20281U 89 80 B 90 24.80304373 -.00005850 00000-0 -18535-2 0 2550
2 20281 82.6013 319.5311 1260472 302.4087 46.1179 12.43278236 14779
GPS BII-04
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1 20302U 89360.34546224 -.00000030 10000-3 0 395
2 20302 54.7442 324.1045 0038357 306.7527 52.8901 2.00573713 1284
Meteor 3-3
1 20305U 89 86 A 90 20.40370958 .00000066 00000-0 15637-3 0 435
2 20305 82.5519 322.2303 0015755 341.5145 18.5410 13.15847696 11510
COBE
1 20322U 89 89 A 90 20.58105002 .00004854 00000-0 32610-2 0 430
2 20322 99.0251 32.4295 0007366 56.4860 303.6988 14.00997024 8813
Kvant-2
1 20335U 89 93 A 90 23.79000752 .00051942 00000-0 71992-3 0 900
2 20335 51.6235 336.8901 0020471 82.5574 277.7674 15.56302826 9212
Cosmos 2052
1 20350U 89 95 A 90 10.05720713 .00725246 28344-4 29603-3 0 1060
2 20350 67.1355 144.2178 0111226 117.4422 243.7694 16.09621301 6516
1989 096B
1 20353U 89 96 B 89363.07065714 .00195181 77400-5 13353-2 0 811
2 20353 51.5443 285.7829 1146076 195.5426 160.7325 13.47665229 3669
1989 096D
1 20358U 90 4.82145879 0.00139266 58549-5 95388-3 0 670
2 20358 51.5401 261.0178 1139421 214.1555 138.0713 13.49164355 4575
GPS BII-05
1 20361U 89 97 A 90 21.56217161 .00000016 00000-0 99999-4 0 117
2 20361 54.9537 146.1423 0065169 44.4068 316.0870 2.00550886 785
1989 097B
1 20362U 89 97 B 90 11.24572425 .00009925 00000-0 12418-2 0 352
2 20362 35.6485 332.5970 0331685 335.1153 23.3871 14.49785306 4423
1989 097C
1 20363U 90 11.48271584 0.00267323 74325-5 14861-2 0 413
2 20363 37.6015 121.8649 5985300 226.7072 64.2719 4.18339324 1271
Raduga 24
1 20367U 90 13.29792244 0.00000168 10000-3 0 348
2 20367 1.4473 263.8368 0005421 247.6782 112.8617 1.00261065 303
1989 098D
1 20370U 89 98 D 90 9.79300959 -.00000025 00000-0 99999-4 0 196
2 20370 1.4873 264.1145 0016037 28.0591 332.9297 0.97855577 257
Progress M2
1 20373U 90 25.13844347 0.00029872 41637-3 0 470
2 20373 51.6228 330.1395 0019839 90.0297 270.4293 15.56429851 5729
Cosmos 2053
1 20389U 90 24.81043288 0.00011868 66169-3 0 581
2 20389 73.5392 40.4861 0009602 181.7862 178.2796 15.13611674 4364
1989 100B
1 20390U 90 18.19867724 0.00002783 15822-3 0 267
2 20390 73.5438 54.6197 0008681 202.7443 157.3298 15.13509989 3360
Cosmos 2054
1 20391U 89101 A 90 21.47303744 -.00000098 00000-0 99999-4 0 480
2 20391 1.4302 273.7708 0017486 183.1989 177.4877 1.00284059 275
1989 101D
1 20394U 90 14.56247602 -.00000094 10000-3 0 116
2 20394 1.4538 275.0814 0011027 45.2156 315.3694 0.98248803 195
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Skynet 4A
1 20401U 90 24.55419588 0.00000017 0 208
2 20401 3.3671 303.9790 0042816 53.7956 306.9522 1.00831605 119
JCSAT
1 20402U 90 21.23793805 -.00000138 10000-3 0 141
2 20402 0.2886 261.2244 0002542 1.3344 97.4081 1.00268747 186
1990 001D
1 20404U 90 20.47587650 0.00002840 19443-2 0 170
2 20404 21.6125 277.5882 7208844 183.5585 164.9104 2.34493581 460
1990 001F
1 20406U 90 21.36929401 0.00006732 19812-2 0 168
2 20406 26.7577 268.6918 5864382 202.8157 113.9625 4.22111750 852
LEASAT 5
1 20410U 90 2 B 90 22.06659714 .00000064 00000-0 99999-4 0 102
2 20410 3.4147 323.0306 0123586 185.3733 174.7172 1.00273711 67
1990 002C
1 20411U 90 21.73775051 0.00009279 22226-2 0 123
2 20411 27.2227 121.7839 5240137 17.6393 355.1952 5.20097089 576
1983 070F
1 20412U 89365.73874852 -.00000368 10000-3 0 19
2 20412 67.4971 261.5083 6494076 270.8143 21.0044 2.04025373 1234
1983 020D
1 20413U 90 16.50000000 -.00000404 10000-3 0 40
2 20413 45.8927 301.6066 8794760 8.3459 185.8865 0.24719748 02
1990 003A
1 20426U 90 24.79030025 0.00219131 13643-4 13002-3 0 195
2 20426 62.8238 259.8586 0039030 111.6660 248.9199 16.16343522 1167
1990 003B
1 20427U 90 22.12491241 0.02785451 12147-4 11385-2 0 129
2 20427 62.7989 269.9906 0002107 319.2290 40.5920 16.22920990 735
Cosmos 2056
1 20432U 90 25.10250429 0.00000755 30271-3 0 128
2 20432 74.0370 306.9361 0024436 331.1011 28.8785 14.29694438 920
1990 004B
1 20433U 90 20.97155958 0.00002223 84632-3 0 98
2 20433 74.0400 314.4323 0029524 349.0497 11.0006 14.31203687 347
SPOT 2
1 20436U 90 5 A 90 24.87607554 -.00000632 00000-0 -25309-3 0 82
2 20436 98.7236 101.3451 0003445 177.1740 182.9359 14.26690700 406
1990 005B
1 20437U 90 5 B 90 25.07930591 .00001088 00000-0 43563-3 0 59
2 20437 98.6167 101.5503 0011910 184.1978 175.9110 14.30125629 434
UoSat E
1 20438U 90 5 C 90 24.38214443 .00038261 00000-0 15162-1 0 37
2 20438 98.7174 100.8496 0011059 210.2871 149.7737 14.28586878 331
MicroSat 1
1 20439U 90 5 D 90 24.31223425 .00015545 00000-0 62099-2 0 88
2 20439 98.7121 100.7773 0011029 209.0952 150.9520 14.28443513 325
MicroSat 2
1 20440U 90 5 E 90 24.38209160 .00023136 00000-0 91999-2 0 38
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2 20440 98.7160 100.8517 0011276 211.1319 148.8824 14.28569390 338
MicroSat 3
1 20441U 90 5 F 90 24.31185946 .00013144 00000-0 52284-2 0 28
2 20441 98.7168 100.7824 0011162 214.1778 145.7732 14.28705650 327
MicroSat 4
1 20442U 90 5 G 90 24.38180079 -.00017243 00000-0 -68738-2 0 47
2 20442 98.7167 100.8503 0012258 210.6580 149.3875 14.28756933 330
1990 005H
1 20443U 90 5 H 90 23.82219061 -.00030107 00000-0 -12187-1 0 73
2 20443 98.7165 100.2885 0010048 210.8523 149.2068 14.28223237 250
1990 006A
1 20444U 90 24.63067419 0.00000065 -22788-2 0 42
2 20444 62.7784 114.9944 7327698 288.0849 9.7156 2.05533344 44
1990 006B
1 20445U 90 24.71169038 0.00626083 85094-5 13597-2 0 56
2 20445 62.8210 109.4556 0261407 121.2822 241.5679 15.58903360 233
1990 006D
1 20447U 90 24.65095046 0.01006994 35257-4 12799-2 0 72
2 20447 62.8307 109.5850 0306827 116.7347 246.5377 15.55902171 222
1990 008B
1 20453U 90 25.27938320 -.00000042 -24897-5 0 21
2 20453 35.6600 255.5282 0591232 143.1895 221.0735 14.04134822 52
```

622. Ariane V35 element sets

Newsgroup: rec.ham-radio
Date: 1990-01-28 06:32:57 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19502@bellcore.bellcore.com>
Source record: 13827

Here's a composite collection of the latest element sets I've been
able to find for the eight objects launched on Ariane V35:

Satellite: 1990 005A
Catalog number: 20436
Epoch time: 90024.87607554
Wed Jan 24 21:01:32.926 1990 UTC
Element set: 8
Inclination: 98.7236 deg
RA of node: 101.3451 deg
Eccentricity: 0.0003445
Arg of perigee: 177.1740 deg
Mean anomaly: 182.9359 deg
Mean motion: 14.26690700 rev/day
Decay rate: -6.32e-06 rev/day^2
Semi major axis: 7178.101 km
Anom period: 100.932879 min
Apogee: 802.480 km
Perigee: 797.534 km
Ref perigee: 4406.91055006
Wed Jan 24 21:51:11.524 1990 UTC

Satellite: 1990 005B
Catalog number: 20437
Epoch time: 90026.68847227
Fri Jan 26 16:31:24.4 1990 UTC
Element set: n4hy1
Inclination: 98.6159 deg
RA of node: 103.1441 deg
Eccentricity: 0.0011923
Arg of perigee: 180.3428 deg
Mean anomaly: 179.7745 deg
Mean motion: 14.30130452 rev/day
Decay rate: 1.252e-05 rev/day^2
Semi major axis: 7166.572 km
Anom period: 100.690115 min
Apogee: 796.972 km
Perigee: 779.883 km
Ref perigee: 4408.65355422
Fri Jan 26 15:41:07.84 1990 UTC

Satellite: 1990 005C
Catalog number: 20438
Epoch time: 90026.20320696
Fri Jan 26 04:52:37.81 1990 UTC

Element set: n4hy1
Inclination: 98.7182 deg
RA of node: 102.5708 deg
Eccentricity: 0.0010961
Arg of perigee: 206.5967 deg
Mean anomaly: 153.4532 deg
Mean motion: 14.28553709 rev/day
Decay rate: -3.3e-06 rev/day^2
Semi major axis: 7171.853 km
Anom period: 100.801250 min
Apogee: 805.757 km
Perigee: 790.035 km
Ref perigee: 4408.17336847
Fri Jan 26 04:09:39.35 1990 UTC

Satellite: 1990 005D
Catalog number: 20439
Epoch time: 90026.62370505
Fri Jan 26 14:58:08.116 1990 UTC
Element set: n4hy1
Inclination: 98.7153 deg
RA of node: 103.0852 deg
Eccentricity: 0.0011027
Arg of perigee: 201.7484 deg
Mean anomaly: 158.2722 deg
Mean motion: 14.28479551 rev/day
Decay rate: 9.95e-05 rev/day^2
Semi major axis: 7172.102 km
Anom period: 100.806483 min
Apogee: 804.734 km
Perigee: 788.917 km
Ref perigee: 4408.59292791
Fri Jan 26 14:13:48.971 1990 UTC

Satellite: 1990 005E
Catalog number: 20440
Epoch time: 90026.62335429
Fri Jan 26 14:57:37.810 1990 UTC
Element set: n4hy1
Inclination: 98.7151 deg
RA of node: 103.0902 deg
Eccentricity: 0.0011071
Arg of perigee: 206.0985 deg
Mean anomaly: 153.9510 deg
Mean motion: 14.28581108 rev/day
Decay rate: -1.564e-05 rev/day^2
Semi major axis: 7171.761 km
Anom period: 100.799317 min
Apogee: 805.599 km
Perigee: 789.720 km
Ref perigee: 4408.59341958

Fri Jan 26 14:14:31.451 1990 UTC

Satellite: 1990 005F
Catalog number: 20441
Epoch time: 90026.62290875
Fri Jan 26 14:56:59.315 1990 UTC
Element set: n4hy1
Inclination: 98.7161 deg
RA of node: 103.0910 deg
Eccentricity: 0.0011810
Arg of perigee: 204.9222 deg
Mean anomaly: 154.7424 deg
Mean motion: 14.28598289 rev/day
Decay rate: -5.117e-05 rev/day^2
Semi major axis: 7171.704 km
Anom period: 100.798105 min
Apogee: 805.739 km
Perigee: 788.799 km
Ref perigee: 4408.59282052
Fri Jan 26 14:13:39.692 1990 UTC

Satellite: 1990 005G
Catalog number: 20442
Epoch time: 90026.62278804
Fri Jan 26 14:56:48.886 1990 UTC
Element set: n4hy1
Inclination: 98.7158 deg
RA of node: 103.0897 deg
Eccentricity: 0.0012190
Arg of perigee: 208.5457 deg
Mean anomaly: 151.5997 deg
Mean motion: 14.28781100 rev/day
Decay rate: 0.00023372 rev/day^2
Semi major axis: 7171.092 km
Anom period: 100.785208 min
Apogee: 806.460 km
Perigee: 788.977 km
Ref perigee: 4408.59331463
Fri Jan 26 14:14:22.384 1990 UTC

Satellite: 1990 005H
Catalog number: 20443
Epoch time: 90023.82219061
Tue Jan 23 19:43:57.268 1990 UTC
Element set: 7
Inclination: 98.7165 deg
RA of node: 100.2885 deg
Eccentricity: 0.0010048
Arg of perigee: 210.8523 deg
Mean anomaly: 149.2068 deg
Mean motion: 14.28223237 rev/day

Decay rate: -0.00030107 rev/day^2
Semi major axis: 7172.960 km
Anom period: 100.824574 min
Apogee: 807.517 km
Perigee: 793.103 km
Ref perigee: 4405.79317112
Tue Jan 23 19:02:09.984 1990 UTC

623. Re: Voice Mail Box For Repeaters ?

Newsgroup: rec.ham-radio
Date: 1990-01-28 07:47:01 UTC
From: lawrence@smcnet.UUCP
Message-ID: <545@smcnet.UUCP>
Source record: 13828

In article <90012509943@RELAY.CS.NET>, RHAREL%FAB8@SC.INTEL.COM ("RICHARD HAREL-CAL.LAB 7215") writes:
> I'd like to construct a voice mail box for our local repeater.
> There are some devices on the market (ACC, Micro Control, etc.)
> that can do this very well by using DRAM IC's. Problem is that
> they're not very efficient and one has always got to worry about
> 'the clock running'. The Advanced Control DVM costs as much as a
> PC and can only hold 10 minutes worth of voice.
>
> There is a device made to interface a PC with the phone line
> which stores voice to the hard disk. True, this may bit a bit slower
> but still, not appreciably. This device is called "The Complete
> Answering Machine". I understand it works well (menu driven) with
> the phone - has anyone attempted to interface this device to the
> controller of a repeater ??? What controller was used and was it
> successful ?

The Complete Answering Machine card is a nice unit. It will even let you address the cards so that up to 4 units can be placed inside 286 or 386 class machines. The software however does limit its use to answering phones only. If anyone gets their hands on some type of source code for the units, I would love to hear from them.

Another idea is looking into AT&T's Voice Power Boards or older models of ther CONVERSANT 1 or 2 systems. We have these systems at Santa Monica College in operation for automated Touch-Tone registration. They are fully programmable using modified C code. I saw some companies selling used gear a while back. I have yet to try and interface the system with the radio gear but the thought has crossed my mind.

73's
Lawrence
--

Lawrence Roney - Santa Monica College Telecommunications Department
KC6HQR 1900 Pico Blvd., Santa Monica, CA 90405-1628
Mail: uunet!ucla-cs!smcnet!lawrence or ...!csun!smcnet!lawrence

624. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-28 13:38:29 UTC
From: grr@cbmvax.commodore.com
Message-ID: <9487@cbmvax.commodore.com>
Source record: 13829
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jan28.011810.1861@IDA.ORG> roskos@IDA.ORG (Eric Roskos) writes:
> Recently someone forwarded to me a Usenet article, apparently about 5
> years old, by John Sangster (W3IK) of MITRE, explaining how to do SCA
> demodulation...
...
> According to Sangster's article, "the best way to recover the SCA audio
> is to go in to the FM receiver and tap off at the `top' of the volume
> control."

This is apt to be nonsense. The place you have to pick it off is between
the output of the FM detector and the Multiplex decoder (if it's stereo)
or before the de-emphasis network/filter (if it's a cheap mono). By the
time you get to the volume control, there's a pretty good chance the
high frequency compenents you're looking for have been wasted.

--
George Robbins - now working for, uucp: {uunet|pyramid|rutgers}!cbmvax!grr
but no way officially representing: domain: grr@cbmvax.commodore.com
Commodore, Engineering Department phone: 215-431-9349 (only by moonlite)

625. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-28 13:48:51 UTC
From: grr@cbmvax.commodore.com
Message-ID: <9488@cbmvax.commodore.com>
Source record: 13830
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <9487@cbmvax.commodore.com> grr@cbmvax.commodore.com (George Robbins) writes:
> In article <1990Jan28.011810.1861@IDA.ORG> roskos@IDA.ORG (Eric Roskos) writes:
> > Recently someone forwarded to me a Usenet article, apparently about 5
> > years old, by John Sangster (W3IK) of MITRE, explaining how to do SCA
> > demodulation...

Forgot to mention:

1) Don't expect many stations to be running SCA - in Philadelphia there were
only 4, one a doctor's info network, one some kind of data, and I don't
remember the other two.

2) Most likely stations are the ones that broadcast easy listening aka
elevator music - often put out similar programming less the adverts.

3) The off-channel tuneing effects you describe aren't surprising, probably
some crude demoulation of the main or stereo sub-carrier.

4) If you can borrow a 0-100KHz audio spectrum analyser, it makes things
a bit easier, since it give a graphic indication of the various carriers
in the multiplexed signal.

--
George Robbins - now working for, uucp: {uunet|pyramid|rutgers}!cbmvax!grr
but no way officially representing: domain: grr@cbmvax.commodore.com
Commodore, Engineering Department phone: 215-431-9349 (only by moonlite)

626. Re: Voice Mail Box For Repeaters ?

Newsgroup: rec.ham-radio
Date: 1990-01-28 13:49:57 UTC
From: brian@ucsd.Edu
Message-ID: <11338@ucsd.Edu>
Source record: 13831

One company offers a voice mail attachment for their $2700 repeater controller; it's in the same price range when you fill it up with memory.

Now you can make your repeater not only sound like a pinball machine, but it can now repeat the wisdom of deceased old farts long after they're gone.

Is this the ham radio equivalent of hanging fuzzy dice from your rear-view mirror?
- Brian

627. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-01-28 15:48:34 UTC
From: john@anasaz.UUCP
Message-ID: <1224@anasaz.UUCP>
Source record: 13832

```
]ku>I don't think I could even if I tried, and because I basically agree
]ku>with Dr. Richard Stallman of MIT that software should be free, and
]ku>because releasing this software will be good for the amateur radio
]ku>community as a whole:

As one who both produces software for a living, and manufactures
and sells repeater controllers (True Value Software TVS-701), I have
to say that the general idea that software should be free is a bit
idealistic. While I love using PD software, I would point out that
a lot of good software is only produced because it is NOT free.
My repeater controller has a lot of software features in it that
cost me (and my customers) a lot of time to discover the need
for and to implement. The profit motive certainly helped get that
done!
--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Freedom and Communism are incompatable.
```

628. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-28 16:01:23 UTC
From: john@anasaz.UUCP
Message-ID: <1225@anasaz.UUCP>
Source record: 13833
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jan27.211839.4955@Neon.Stanford.EDU> paulf@bodega.stanford.edu.UUCP (Paul Flaherty) writes:
]So you want a Real Ground (tm)?
]
]The real experts in this sort of thing are the VLF/ELF people. One
](suprisingly) good source on the topic is "The Handbook of Solar Flare
]Monitoring and Propagation Forecasting" by Carl M. Chrenan, published by
]TAB books. Chernan's recipe for a Real Ground (tm):
]
]1. Dig a hole 18" in diameter down 4'.
]2. Drive a 3/4" by 8' copperweld ground rod into the center of the hole,
] flush with the ground.
]3. Fill hole with mix of 2 parts Bentonite, 2 parts (non-setting) Gypsum, and
] 3 parts rock salt, leaving 6" on top.
]4. Place a 3/4" by 4' perforated PVC tube with bottom capped into mixture,
] flush with ground.
]5. Fill in remaining 6" with soil. Place a nice looking cap on the PVC tube.
]
]Now, every month, put 5 gallons of hot water in a bucket, and dissolve as
]much rock salt as possible into solution. Uncap the PVC tube, and pour in
]the brine. You now have a Real Ground (tm), whose resistance should be a
]mere fraction of an ohm.

There are some problems with this approach:
(1) If you live on a rock, it's hard to drill the hole.
(2) If you live in a dry climate, such as here in Phoenix, the
ground conductivity is so low that even the above approach
will produce only a marginal ground.

There are some other techniques. I learned these from Hartley Gardner,
W1OQ, who knows more about lightning protection than anyone I have met.
He makes his living designing and installing commercial sites on
mountaintops here in AZ. Many of these sites get hit several times
during every storm. Most are built on low conductivity soil or
rock.

Lightning has a lot of high frequencies in it. Thus the same thing
that would work as a ground for a vertical antenna (75 meters or so)
will help.

The technique for poor soil is:

(1) Plant several 8 foot large diameter (1" or so) ground rods
in a 10-20 foot radius around the tower. Use epson
salts or whatever to improve their connection to the ground.

(2) String LARGE, solid copper wire (.5" diameter or bigger)
wire between each ground rod and the tower. Also run these
around between the ground rods around the circumference of
the system.
(3) WELD the copper wire to the rods using a CADWELD (sp?) system.
This is a device that has a mold in the right shape for the
copper wire and the rod. You fill it with a powder containing
copper and some form of thermite, and then light it. When it
is done, you have a seamless, big copper weld surrouding the
junction of the wire and the rod. Of course, if you don't have
a CADWELD, you can use clamps.
(4) Make sure the wires are well bonded to the tower structure (or
whatever you are protecting). If you are protecting a building, run
the same large wire over the top of it in a grid pattern to make
a shield.

If you are on rock, you can achieve pretty good lighting protection
by making a large capacitive hat over the rock. Basically make the
same system I just described, minus the rods, and with more wire and
as large a diameter as you can get away with. The "hat" will soften
the lightning pulse, and also provide enough conductivity to
soak up the current over time.

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Freedom and Communism are incompatable.

629. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-28 20:58:53 UTC
From: markz@ssc.UUCP
Message-ID: <437@ssc.UUCP>
Source record: 13834
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jan28.011810.1861@IDA.ORG>, roskos@IDA.ORG (Eric Roskos) writes:
> According to Sangster's article, "the best way to recover the SCA audio
> is to go in to the FM receiver and tap off at the `top' of the volume
> control."

Any decent design will have filtered out anything above 15 Khz at that point.

> The circuit in the data sheet is fairly simple... there is a
> high pass filter to filter out the main program signal, then the PLL,
> then a low pass filter to filter out the noise from the PLL's VCO.

There can be up to 3 SCA carriers 62, 75, and 92 Khz (off the top of
my head). Your PLL will lock on the strongest of one of these, (or
the 19 Khz stereo pilot tone). What frequency is the VCO at?

> (The original article talks about using a VLF receiver to receive the
> SCA by connecting it to the composite audio from an FM station. So I
> realize that approach is available, but I don't have a VLF receiver, and
> would rather build a demodulator specifically for the purpose.)

I used an old tuner with a ratio detector which had a test point used to
adjust the detector, and connected that to my VLF convertor thru a 270 Kohm
resistor to keep from loading the circuit down. Make sure to tap in before
any low pass filtering before the stereo demultiplexer chip.

markz@ssc.uucp

630. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-29 01:04:30 UTC
From: kjh@pollux.usc.edu
Message-ID: <22553@usc.edu>
Source record: 13835
Cross-posted to: rec.ham-radio,rec.radio.shortwave

How do you electrically connect to this good earth ground? To the ground rod that is 1.5' deep? With copper wire?

Won't the brine corrode the copper wire? Won't the brine corrode the buried ground rod? What is the expected lifetime of this "good" ground?

"Before Abraham was born, Kenneth J. Hendrickson N8DGN
I AM!" Jesus of Nazareth 1709 S. Bonnie Brae St., LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

631. HP HDSP-8724 info

Newsgroup: rec.ham-radio
Date: 1990-01-29 01:23:12 UTC
From: bailey@jacobs.CS.ORST.EDU
Message-ID: <15309@orstcs.CS.ORST.EDU>
Source record: 13836

Anyone have information about using one of these? It appears to be a 24 digit LED display subsystem which HP made for use in instrument displays. I picked one up surplus and am curious about how you hook it up and program it.

Kirk Bailey

632. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-29 01:57:43 UTC
From: markz@ssc.UUCP
Message-ID: <438@ssc.UUCP>
Source record: 13837
Cross-posted to: rec.ham-radio,rec.radio.shortwave

A reference. August and September 1987 Radio-Electronics have a construction
project of a complete FM tuner with an SCA decoder.

In article <9488@cbmvax.commodore.com>, grr@cbmvax.commodore.com (George Robbins) writes:
> Forgot to mention:
>
> 1) Don't expect many stations to be running SCA - in Philadelphia there were
> only 4, one a doctor's info network, one some kind of data, and I don't
> remember the other two.

In a quick tour of the stations I can get, (Puget Sound, the multipath
capitol of the west coast) I found 6 SCA's on 5 stations.
Two elevator music, two data channels, a spanish program, and news for the
blind. I probably missed some because even a small amount of multipath
will bury the subcarriers in noise. And nonlinearity in your main
FM demodulator will splatter the main audio all over.

markz@ssc.uucp

633. Re: 6m band, 1.25m, 23 cm band: Usage?

Newsgroup: rec.ham-radio
Date: 1990-01-29 12:07:59 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500370@ux1.cso.uiuc.edu>
Source record: 13838

> I was interested in hearing if anyone uses the 6 meter band. Of all the
> bands, I hear the least about the 6 meter band. Why is that? Why is
> it an unpopular band? Not only do I not hear much about it, but I see
> no new equipment for it and the used 6m rigs go for a song.

I am not ready to do CW/SSB type DXing on the VHF/UHF bands, so all that I do presently is FM. 6 meters has a problem. There are four radios I know of currently made for 6 meters and support synthesized tuning. One of these is the Icom IC-575 base station unit. Another is the Icom IC-59X add on for the IC-900/901 multiband and expensive mobile units. Another is a Yaesu unit whose model number slips my mind. It is a SSB/FM unit that looks like a mobile and that they are trying to convince you is portable. The last is the Yaeso FT-736 multi-band base unit that needs the 6 meter band module to get on 6.

Most 6 meter gear in use seems to be older crystal controlled units. With no 6 meter repeaters around here, I have no need for crystal control. I need synthesized tuning, but there simply is no suitable equipment on the market yet.

Japan is not supplying the US with what the US needs, but rather is only trying to keep a higher economy of scale for equipment thought out primarily for the Japanese market. The American sales reps are not making much effort to communicate to Japan about the needs here; they are just making excuses.

> On another note, I see that the Novices can now use the 1.25m and 23cm
> bands. How active are these bands? Can a Novice find traffic on these
> bands in rural areas or are they urban only where 2m is "full"?

220 and 440 start getting used before 2m is "full". 440 more popular for this in part because of the surplus availability, and in part because of the historic and present lack of new 220 equipment. What happens just before the band gets full, is the lids get on the 2m. The flight to 220 and 440 first begins by some to escape the lids. It seems a greater proportion of 440 repeaters are PL'd and private, for such reasons perhaps.

> Just another bubbling ham wondering about what it will be like once he gets
> his ticket.

Well, since you are probably studying hard for your ticket, if not already waiting for it to arrive and studying on the upgrade, it won't be long before you can tell us what the bands are really like.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

634. SCA - not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-29 13:24:46 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9001291324.AB00031@adam.DG.COM>
Source record: 13839

CEO summary:
Eric Rosko writes that he's having problems demodulating SCA broadcasts. I've built the same NE565 demodulator from the same Signetics application note and have hooked it up to both a Ford car radio (AM/FM, poked around the IF area until I found something with audio on it) and a early 1970s stereo tuner which had a "quadraphonic decoder" jack on the back. Both worked fine...I found that there were all kinds of SCA transmissions but the universal feature they all had was a fairly high S/N ratio. The carriers are transmitted at very low modulation levels compared to the program audio (someone will enlighten us with the exact percentage, no doubt). The point is that maybe you need more signal level, or, ideally, a high pass filter with a cutoff around 50Khz (since 38Khz is the L-R stereo subcarrier which you don't want, and 67KHz, I believe, is the first SCA carrier). Don't forget some gain before the filter.
Good luck,
Peter Simpson, KA1AXY
Data General Corp
Westboro, MA

635. Re: VHF Sweepstakes

Newsgroup: rec.ham-radio
Date: 1990-01-29 13:35:10 UTC
From: dvh@cci632.UUCP
Message-ID: <33420@cci632.UUCP>
Source record: 13840

Well, here in Western NY, conditions also REALLY STANK!!! We basicaly had nothing in the way of enhancements until late Sunday, when we had a weak aurora. Like Mike W9IP/2 reported, I think nearly everyone had "taken their marbles and gone home" by the time the Au showed up. I operated with a multi- WB3JSU/2 in FN03, west of Rochester, NY, on all bands through 10GHz. Our breakdown is as follows:

6m- 128 x 32
2m 329 x 50
220 70 x 23
432 78 x 24
902 11 x 8 (really low- the ice really screwed up the microwaves)
1.2 18 x 11 (same as above)
2.3+ 12 x 7 (same as above)

We did work N0KNN (EN42) and K5CM (EM25) on 6m scatter Sunday morning. It was disappointing because everyone worked so hard- we never quit, but things were really socked in.

My home station was operated by KE2DI using his call and he managed about 21K in spite of melting the water hoses on the 1296 final and pouring water all over it and the 2m and 70cm amps.

Some of the scores I have heard are:

WC2K (FM29 multi)- 402K
VE3ASO (FN25) - 87K
W2CNS (FN13) - 74K
N2WK (FN13) - 114K- All Right Wayne!!!

And our own (WB3JSU/2) (FN03 multi)- 150K

That's all I know- let's hear some more numbers from the other big single and multi-op stations.

73 Dave KD5RO/2

636. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-29 13:35:48 UTC
From: taber@pstjtt.enet.dec.com
Message-ID: <832@ryn.esg.dec.com>
Source record: 13841
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <22553@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson N8DGN) writes...
>
>Won't the brine corrode the copper wire? Won't the brine corrode the
>buried ground rod? What is the expected lifetime of this "good" ground?
>
And more important, won't the brine kill all the vegetation in the area,
and create an underground "plume" of brine that will foul the ground
water in that area? I know for sure you could get into big trouble with
the Massachusetts environmental people for this, I can't speak for other
states or the feds.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Mail address: Nahhhhh, you don't want to send me mail....

637. Re: 10 meter pirates (was = R

Newsgroup: rec.ham-radio
Date: 1990-01-29 13:49:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90012920243855@masnet.uucp>
Source record: 13842

pu>It's legal to use an antenna capable of handling 2 kw PEP with your
pu>12 wate PEP CB rig.

Fri 01-26-1990 [16:24]
Yeah, you never know when lightning is going to strike the power
lines next to your house, causing a surge that will drive your CB
up to 1500 watts or so, hi. I'm not all that opposed to someone
having an extra 10-25 watts in their car (even though it's
illegal), because you may need it to cut through. Definitely
am opposed to over 5/12 watts on base stations...

~ DeLuxe 1z11a20 #2989 Satellite communication is simply over my head...
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

638. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-01-29 13:49:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90012920243833@masnet.uucp>
Source record: 13843

ku>I don't think I could even if I tried, and because I basically agree
ku>with Dr. Richard Stallman of MIT that software should be free, and
ku>because releasing this software will be good for the amateur radio
ku>community as a whole:

ku> ---> I plan to release the software and hardware design
ku> into the public domain, if there is significant

Fri 01-26-1990 [16:18]
If you're bound and determined to release it to the PD, that's
fine. Might I suggest that, in lieu of a shareware "contribution,"
that you include in the docs, a note asking the end user to send
a contribution to their favorite charity instead of to you?

~ DeLuxe 1z11a20 #2989 Yeah? Well dahdidahdit dahdahdidah to you too!:-)
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

639. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-29 14:54:34 UTC
From: julian@bongo.UUCP
Message-ID: <299@bongo.UUCP>
Source record: 13844

In article <22553@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson N8DGN) writes:
>
> Won't the brine corrode the copper wire? Won't the brine corrode the
> buried ground rod? What is the expected lifetime of this "good" ground?
>
What I have always used to improve ground conductivity is Copper
Sulphate. I use it in preference to common salt for two reasons.
First common salt (Sodium Chloride) is pretty corrosive. The
second reason is that high saline levels in soil make it barren.
Large bare spots in the lawn cause more grief with the neighbours
than large pieces of aluminium on the roof.

Copper sulphate is available from many gardening and farming
stores. It is used in agriculture to make "Bordeaux mixture",
this is a mixture of copper sulphate and lime, it is used as a
fungicide. Copper sulphate is also often used as an algicide.
Bought as industrial grade, copper sulphate is quite cheap.
Don't try to by it from a lab supply house, if your heart can
stand the price, your wallet won't. If you can't get copper
sulphate, you can in a pinch use ferrous sulphate. Ferrous
sulphate is also available from farm and garden stores.

Most ground seems quite conductive as long as it is damp. That
seems to be the key.

--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

640. IS THERE A DSP-232 ON THE HORIZON ??

Newsgroup: rec.ham-radio
Date: 1990-01-29 14:57:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9001300802.AA16542@ucbvax.Berkeley.EDU>
Source record: 13845

Even though AEA has made no information public about the rumored "DSP 232"...
I was wondering if this is indeed the proper time to sell my beloved PK232
at what is still close to it's purchase value. With the 6 microsats
successfully launched - the future is here once again - and if the new TNC's
can indeed do everything that the '232 did + more...
I think it's worth it. Guess we'll have to wait 'till Dayton Hamvention to see.

If any of you have any opinions on the subject,
I'd appreciate hearing from you.

73,
4X1DA @4XNET

Return Mail:RHAREL%FAB8%sc.intel.com at RELAY.CS.NET

641. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-29 16:11:21 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840025@hpl-opus.HP.COM>
Source record: 13846

```
/ hpl-opus:rec.ham-radio / paulf@bodega.stanford.edu (Paul Flaherty) / 1:18 pm Jan 27,
1990 /
> 1. Dig a hole 18" in diameter down 4'.
> 2. Drive a 3/4" by 8' copperweld ground rod into the center of the hole,
> flush with the ground.
> 3. Fill hole with mix of 2 parts Bentonite, 2 parts (non-setting) Gypsum, and
> 3 parts rock salt, leaving 6" on top.
> 4. Place a 3/4" by 4' perforated PVC tube with bottom capped into mixture,
> flush with ground.
> 5. Fill in remaining 6" with soil. Place a nice looking cap on the PVC tube.
>
> Now, every month, put 5 gallons of hot water in a bucket, and dissolve as
> -- etc, etc.
> -=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
> ->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"
> > ----------

It seems to me that all this gives you is a good earth ground
CONNECTION, not neccessarily a good earth GROUND. The Ground surrounding
the connection is not effected, and depends on it's own conductivity,
which, unless you live near water, is generally poor.

--------------------------------------------------------------------------------
George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ
--------------------------------------------------------------------------------
```

642. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-29 16:34:00 UTC
From: roskos@IDA.ORG
Message-ID: <1990Jan29.163400.4322@IDA.ORG>
Source record: 13847
Cross-posted to: rec.ham-radio,rec.radio.shortwave

markz@ssc.UUCP (Mark Zenier) writes:

>There can be up to 3 SCA carriers 62, 75, and 92 Khz (off the top of
>my head). Your PLL will lock on the strongest of one of these, (or
>the 19 Khz stereo pilot tone). What frequency is the VCO at?

I tuned the VCO's free-running frequency to 67 KHz. I also tried varying it throughout its range (which is very large) while tuned to a station.

Since posting the original message, I have received several helpful replies, though I don't have the demodulator working yet:

a) One person had a commercially-made SCA demodulator that was intended to go in the particular radio I had (a Radio Shack DX-400, which is a predecessor to the current DX-440, and was made by Uniden). His instructions told where to connect the demodulator, so I connected mine to that same point.

b) Someone else (who has always known exactly what he was talking about in the past) wrote to say he'd tried the circuit from the Signetics data sheet and couldn't get it to work either.

I'll summarize the responses in more detail after I figure out what's wrong with the demodulator.

My current belief is that possibly there is a problem with the circuit that appears in the Signetics data sheet. (Interestingly, this circuit and the text describing it is copied almost verbatim in a book on communications published by Prentice-Hall which I have at home, without giving acknowledgement to the source.) One thing I find is that almost nothing gets through the filter at the input to the VCO; there is a very weak signal present, but noise from the VCO (which is probably around 10 millivolts itself) present at the input pin of the 565 is stronger than what gets through the filter. I am thinking maybe the filter doesn't work right. Ironically, this same thing happened when I built the WEFAX demodulator that I wrote about last year... the capacitor values which appeared in the Signetics data sheet for the FSK demodulator were incorrect, and by trial-and-error I found other values that worked correctly.

[This is a weakness in my background, I'm afraid. All the textbooks I have show filters in terms of LC circuits, whereas all the filters that appear in these practical circuits are RC filters. I don't know how to calculate the cutoff frequency for the filter in the data sheet, as a result. I don't have the data sheet here, but if I remember right the filter is as follows:

```
signal input -----510pf--+--510pf--+--PLL input
| |
| |-- bias voltage (+) from voltage divider
4.7K
|
===
-
.
```

I'll have to check that and make sure, but I believe that's it.]

--

Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

643. Latest Microsat keplerians

Newsgroup: rec.ham-radio
Date: 1990-01-29 17:02:53 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19503@bellcore.bellcore.com>
Source record: 13865

Here's a composite collection of the latest element sets I could find for the eight objects associated with the Ariane V35 launch. The satellite names are of the form 5a, 5b, 5c, etc., corresponding to objects 1990 005A, 1990 005B, etc.

Based on doppler measurements over the weekend plus other factors, I currently believe that object A is SPOT-2, B is the Ariane third stage, C is AO-16 (Pacsat), D is UO-14 (UoSAT-D), E is DO-17 (Dove), F is WO-18 (Webersat), G is LO-19 (LUSAT) and H is UO-15 (UoSAT-E).

These are of course subject to change as we get new element sets; the differences between these sets can be subtle, and the corrections can be large, especially in the first week or two after launch. I'm especially suspicious of sets with negative decay rates.

Satellite: 5a
Catalog number: 20436
Epoch time: 90024.87607554
Wed Jan 24 21:01:32.926 1990 UTC
Inclination: 98.7236 deg
RA of node: 101.3451 deg
Eccentricity: 0.0003445
Arg of perigee: 177.1740 deg
Mean anomaly: 182.9359 deg
Mean motion: 14.26690700 rev/day
Decay rate: -6.32e-06 rev/day^2
Semi major axis: 7178.101 km
Anom period: 100.932879 min
Apogee: 802.480 km
Perigee: 797.534 km
Ref perigee: 4406.91055006
Wed Jan 24 21:51:11.524 1990 UTC

Satellite: 5b
Catalog number: 20437
Epoch time: 90026.68847227
Fri Jan 26 16:31:24.4 1990 UTC
Inclination: 98.6159 deg
RA of node: 103.1441 deg
Eccentricity: 0.0011923
Arg of perigee: 180.3428 deg
Mean anomaly: 179.7745 deg
Mean motion: 14.30130452 rev/day
Decay rate: 1.252e-05 rev/day^2
Semi major axis: 7166.572 km

Anom period: 100.690115 min
Apogee: 796.972 km
Perigee: 779.883 km
Ref perigee: 4408.65355422
Fri Jan 26 15:41:07.84 1990 UTC

Satellite: 5c
Catalog number: 20438
Epoch time: 90027.11372187
Sat Jan 27 02:43:45.569 1990 UTC
Inclination: 98.7156 deg
RA of node: 103.5776 deg
Eccentricity: 0.0012284
Arg of perigee: 198.3357 deg
Mean anomaly: 161.7466 deg
Mean motion: 14.28578058 rev/day
Decay rate: 5.922e-05 rev/day^2
Semi major axis: 7171.772 km
Anom period: 100.799532 min
Apogee: 804.505 km
Perigee: 786.885 km
Ref perigee: 4409.08227128
Sat Jan 27 01:58:28.238 1990 UTC
Beacon: 437.0263 MHz

Satellite: 5d
Catalog number: 20439
Epoch time: 90026.62370505
Fri Jan 26 14:58:08.116 1990 UTC
Inclination: 98.7153 deg
RA of node: 103.0852 deg
Eccentricity: 0.0011027
Arg of perigee: 201.7484 deg
Mean anomaly: 158.2722 deg
Mean motion: 14.28479551 rev/day
Decay rate: 9.95e-05 rev/day^2
Semi major axis: 7172.102 km
Anom period: 100.806483 min
Apogee: 804.734 km
Perigee: 788.917 km
Ref perigee: 4408.59292791
Fri Jan 26 14:13:48.971 1990 UTC

Satellite: 5e
Catalog number: 20440
Epoch time: 90026.62335429
Fri Jan 26 14:57:37.810 1990 UTC
Inclination: 98.7151 deg
RA of node: 103.0902 deg
Eccentricity: 0.0011071
Arg of perigee: 206.0985 deg

Mean anomaly: 153.9510 deg
Mean motion: 14.28581108 rev/day
Decay rate: -1.564e-05 rev/day^2
Semi major axis: 7171.761 km
Anom period: 100.799317 min
Apogee: 805.599 km
Perigee: 789.720 km
Ref perigee: 4408.59341958
Fri Jan 26 14:14:31.451 1990 UTC

Satellite: 5f
Catalog number: 20441
Epoch time: 90026.62290875
Fri Jan 26 14:56:59.315 1990 UTC
Inclination: 98.7161 deg
RA of node: 103.0910 deg
Eccentricity: 0.0011810
Arg of perigee: 204.9222 deg
Mean anomaly: 154.7424 deg
Mean motion: 14.28598289 rev/day
Decay rate: -5.117e-05 rev/day^2
Semi major axis: 7171.704 km
Anom period: 100.798105 min
Apogee: 805.739 km
Perigee: 788.799 km
Ref perigee: 4408.59282052
Fri Jan 26 14:13:39.692 1990 UTC

Satellite: 5g
Catalog number: 20442
Epoch time: 90026.62278804
Fri Jan 26 14:56:48.886 1990 UTC
Inclination: 98.7158 deg
RA of node: 103.0897 deg
Eccentricity: 0.0012190
Arg of perigee: 208.5457 deg
Mean anomaly: 151.5997 deg
Mean motion: 14.28781100 rev/day
Decay rate: 0.00023372 rev/day^2
Semi major axis: 7171.092 km
Anom period: 100.785208 min
Apogee: 806.460 km
Perigee: 788.977 km
Ref perigee: 4408.59331463
Fri Jan 26 14:14:22.384 1990 UTC

Satellite: 5h
Catalog number: 20443
Epoch time: 90026.76452730
Fri Jan 26 18:20:55.158 1990 UTC
Inclination: 98.7153 deg

RA of node: 103.2253 deg
Eccentricity: 0.0010024
Arg of perigee: 203.6768 deg
Mean anomaly: 156.3937 deg
Mean motion: 14.28249836 rev/day
Decay rate: 4.74e-06 rev/day^2
Semi major axis: 7172.871 km
Anom period: 100.822697 min
Apogee: 805.286 km
Perigee: 790.905 km
Ref perigee: 4408.73411057
Fri Jan 26 17:37:07.152 1990 UTC
Beacon: 435.1200 MHz

644. TI-99/4A Packet

Newsgroup: rec.ham-radio
Date: 1990-01-29 17:04:55 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001291939.AA28824@ti.com>
Source record: 13848

Thanks to all who responded to my request about using the 99/4A in a packet application.

73,
Dube Todd, N5PDK

645. TI-99/4A Packet

Newsgroup: rec.ham-radio
Date: 1990-01-29 17:04:55 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001291939.AA28825@ti.com>
Source record: 13849

Thanks to all who responded to my request about using the 99/4A in a packet application.

73,
Dube Todd, N5PDK

646. More Microsat/UoSAT items

Newsgroup: rec.ham-radio
Date: 1990-01-29 17:08:47 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19512@bellcore.bellcore.com>
Source record: 13866

Posted: Sun, Jan 28, 1990 6:16 PM GMT Msg: JGJA-4151-2004
From: RSOIFER
To: bmcgwier, pkarn
Subj: More observations, tentative id proposal

Based on my last phone conversation with Phil, we tentatively think
that C is PACSAT, D is UOSAT 3 (UO14), F is WEBERSAT and H is UOSAT 4
(UO15). That left E and G to be assigned between DOVE and LUSAT.
So, on this last (1800) pass, I decided to track DOVE on the 2m rx
and LUSAT on the 437 MHz rx. LUSAT clearly led DOVE; TCA for LUSAT
was 17:57:55 while TCA for DOVE was 17:59:30. AOS and LOS times
also led for LUSAT by a minute or more. Hence, I believe that
E is DOVE and G is LUSAT. That completes my tentative object
identification, until someone comes up with a conflicting
observation. What say? 73, Ray

Posted: Sun, Jan 28, 1990 6:52 PM GMT Msg: AGJA-4151-2065
From: PKARN
To: amsat
Subj: More observations, more confidence

I just saw Ray's report of a good TCA measurement for UO-D that he says
exactly matched object D. I had already tentatively concluded the same
thing, so I guess I can now up my confidence in that ID from "moderate"
to "very high". By process of elimination, that also strengthens my
confidence in E being Dove and H being UoSAT-E.

Jan, could you redo your velocity analysis with these identifications
and see if there is much change? Thanks.

One thing that would provide very good information for object
identification would be the precise time of a sunrise or sunset for
each object, since they occur in just a few seconds at that altitude.
Unfortunately the present geometry of the orbit and terminator makes it
difficult to find a ground station that can observe this in real time,
so I've asked N4HY about the possibility of uploading routines to do
it. He says it can be done in a couple of days.

Surrey: could you guys do the same thing for UO-D (and hopefully UO-E)?
Thanks!

Phil

Posted: Sun, Jan 28, 1990 7:38 PM GMT Msg: JGJA-4151-2144
From: HPRICE
To: amsat
CC: msatcmd

Subj: Data needed for Weber

For any stations that stored data from WEBER during the pass visible
from the East coast Saturday morning local. I need everying that
came out starting at :

PHT: uptime is 044/03:23:07. Time is Sat Jan 27 16:53:51 1990

for the next 40 seconds.

In that range should be a message like this:
WEBER-1>MEM-0: <text>

I need to know if there was such a message, and what the contents were.

Thanks,
Harold
NK6K

Posted: Sun, Jan 28, 1990 7:32 PM GMT Msg: KGJA-4151-2131
From: UOSAT
To: amsat
Subj: Orbit terminator observation.

Phil,
Unless I'm mistaken, we see the orbit terminator here, and could record
some observations. Expect a bit more UoSAT news on Monday, as we look
through all the tracking information you've generated this weekend. Our
buddies with the radar can confirm that the leading object is the launcher,
and we know from their orbit manoeuvers that SPOT is the trailing object.
73, JWW

Posted: Sun, Jan 28, 1990 7:35 PM GMT Msg: BGJA-4151-2136
From: UOSAT
To: AMSAT
Subj: UoSAT-OSCAR-14/15 REPORT #4

UOSAT-OSCAR-14 and UOSAT-OSCAR-15 REPORT #004
1846 UTC 28 January 1990

** UoSAT-OSCAR-14 **

The FORTH Diary software is in operation on UO-14, as programmers MS Hodgart
and MLJ Meerman (G0/PA3BHF) ground-test new attitude-determination and control
software prior to re-loading the OBC.

The standard UoSAT ASCII whole-orbit data (WOD) format has been added to the
DIARY's downlink schedule, and new WOD surveys have been conducted daily.
Stations with UoSAT-2 decoders and WOD collection software should be able to
decode these surveys without difficulty. The surveys which have been
transmitted in ASCII so far are a survey of the magnetometer channels (22, 23
and 24 starting at 21:54 on 26 January), and a survey of the PACSAT
Communications Experiment 80C186 CPU temperature and current consumption
(channels 5 and 44, starting 11:45 on 27 January). The very beginning of the

PCE survey clearly shows the 10-degree increase in CPU temperature which occurs when the 80C186 is turned on.

UO-14 analog telemetry channel assignments and equations are as follows:

Channel Name Equation
---
0 Array +X Curr. (mA) (N * 1.80388)+0.649398
1 Array Volts (V) (N * 0.0560561)-0.183998
2 +5V Current (mA) (N * 3.20354)-29.6648
3 +14V Current (mA) (N * 4.454)-87.93
4 -X Array Temp. (Deg C) (N * -0.3)+95.1
5 PCE CPU Temp. (Deg C) (N * -0.3)+95.1
6 Transmitter Temp (Deg C) (N * -0.3)+95.1
7 Tx. 0 Output (V eqv) (N * 0.005)+0
8 Array -X Curr. (mA) (N * 1.76691)-10.6721
9 +10V Voltage (V) (N * 0.014268)+0
10 -10V Current (mA) (N * 0.142022)-7.63663
11 Battery Current (mA) (N * 2.8863)+0
12 +X Array Temp. (Deg C) (N * -0.3)+95.1
13 Battery Temp. (Deg C) (N * -0.3)+95.1
14 Tx. 1 Output (V eqv) (N * 0.005)+0
15 Batt Cell Volt. (V) (N * 0.0023502)+0
16 Array +Y Curr. (mA) (N * 1.75297)-0.806367
17 +10V Current (mA) (N * 0.142735)+0.371105
18 -10V Voltage (V) (N * -0.016609)+0
19 PCM Input Curr. (mA) (N * 2.23267)-1.17377
20 -Y Array Temp. (Deg C) (N * -0.3)+95.1
21 OBC 1802 Temp. (Deg C) (N * -0.3)+95.1
22 Nav. Mag X (uT) (N * 0.115)-57.7543
23 Nav. Mag Z (uT) (N * 0.1103)-55.478
24 Nav. Mag Y (uT) (N * -0.113)+57.7359
25 Array -Y Curr. (mA) (N * 1.7854)-10.5338
26 +5V Voltage (V) (N * 0.0073268)+0
27 Battery Voltage (V) (N * 0.0176724)-0.1033
28 Boom Motor Temp. (Deg C) (N * -0.3)+95.1
29 +Y Array Temp. (Deg C) (N * -0.3)+95.1
30 ADCS Box Temp. (Deg C) (N * -0.3)+95.1
31 MagTorq +/- Mag. (V) (N * 0.005)+0
32 Boom Deployment (m) (N * 0.01818)-1.109
33 Spare
34 Rx. 1 Strength (V) (N * 0.005)+0
35 Rx. 2 Strength (V) (N * 0.005)+0
36 Spare
37 Rx. 1 Discrimin. (V) (N * 0.005)-2.7
38 Rx. 2 Discrimin. (V) (N * 0.005)-2.7
39 TDE/CPE (V) (N * 0.005)+0
40 RAMUNIT Bank 0 (mA) (N * 0.0481203)-0.0039217
41 RAMUNIT Bank 1 (mA) (N * 0.0496267)+0.000174239
42 RAMUNIT Bank 2 (mA) (N * 0.0496976)-0.00801862
43 RAMUNIT Bank 3 (mA) (N * 0.0491288)+0.00596549

44 PCE CPU Curr. (mA) (N * 0.416155)-0.024982
45 BCR DAC Voltage (V) (N * 0.005)+0
46 Rx. 1 AFC (V) (N * 0.005)+0
47 Earth Detector (V) (N * 0.005)+0
48 Rx. 2 AFC (V) (N * 0.005)+0

** UoSAT-OSCAR-15 **

We still have heard nothing from UO-15 since 22 January. Tracking stations and amateur listeners have determined that the object "out ahead" of the Microsat cluster is not UO-15, but the spent Ariane third stage. The object trailing the pack is SPOT-2, which has been raised to a slightly higher orbit and so has lower mean motion than the other satellites.

Accurate reports of UoSAT-OSCAR-15 reception after 2330 UTC on 22 January are desperately needed. The nominal downlink frequency is 435.120 MHz, and transmissions are at 1200 bits/second AFSK-FM.
- de G0/K8KA.

Posted: Sun, Jan 28, 1990 9:01 PM GMT Msg: BGJA-4151-2304
From: HPRICE
To: amsat
Subj: Status

Weber is in good shape, running the latest battery management routines. The load of the same software to LUSAT was started on today's west coast am passes today.
hp

Posted: Sun, Jan 28, 1990 11:06 PM GMT Msg: DGJA-4151-2488
From: PKARN
To: amsat
Subj: reply to Jeff Ward

Jeff,

Now that you mention it, you're right; you can see sunrise a couple of minutes before the end of your first evening pass and almost immediately before the end of your second evening pass. Your morning passes are all in full sunlight. I'm very interested in seeing your data. Are you listening to any of the Microsats, or do you have your hands full with the UoSATs?

I hadn't actually run any terminator visibility calculations until now, thinking that we needed stations well into the arctic or antarctic, but I guess the UK qualifies! I do envy you for all your extra passes, though. Perhaps N4HY and NK6K ought to take a DXpedition to the South Pole, all this microsat software loading would go faster. :-)

Any figures on the separation velocities? I'm trying to figure out why UO-14 and UO-15 are so far apart, if in fact UO-14 is 1990 005D and UO-15 is 1990 005H.

Phil

Posted: Mon, Jan 29, 1990 6:56 AM GMT Msg: DGJA-4151-3258
From: EOGRADY
To: rsoifer
CC: pkarn
Subj: objects

Hello again Ray.

Doppler observations taken here tonight cause me to disagree somewhat with the conclusions that have been presented. On two sucessive passes tonight, I took readings on Pacsat and Weber respectively. Readings were taken at 30 sec intervals and matched against tracking data at 6 sec intervals. I believe that there is a VERY tight fit for Pacsat to be D and Weber to be E. My data would not support the theory that Pacsat is C--off by about 1:20. In addition, previous observations here indicate that Lusat appears to be G. The doppler data is available in Quatro Pro form if any one is interested.(By the way--Q-Pro makes for a really nice way to record and graph the data--the curves look like a textbook example!)

I feel quite certain about Pacsat/Weber/Lusat, everyone seems to agree that A is spot, and I suspect that C is UO14. Elimination suggests then that Dove is F.

So, for my two cents worth----

A-Spot
B-? launcher or UO15
C-UO14
D-Pacsat
E-Weber
F-Dove
G-Lusat
H-? launcher or UO15

I expect to receive new elsets early in the am from Max and will forward along to all--unless Surrey has allready posted them. The email gets to Surrey before me and they go right to tmail whereas I have to deal with the email delays across the "pond". It's unfortunate that RGO is no longer on tmail.

Posted: Mon, Jan 29, 1990 11:18 AM GMT Msg: JGJA-4151-3656
From: RSOIFER
To: eogrady
CC: pkarn, bmcgwier
Subj: Objects

Ed, at this point I believe that all of our observations are limited by the accuracy of the elsets with which we are working, which in some cases are five or six days old (specifically A and H). I won't be satisfied that we have the objects identified properly until our choices hold up over several successive sets of elements. As you receive COMPLETE sets of 8 objects, pse post them so we

can get to work. Tnx & 73, Ray

Posted: Mon, Jan 29, 1990 6:13 AM GMT Msg: AGJA-4151-3171
From: HPRICE
To: amarg
CC: amsat
Subj: LUSAT

LUSAT was loaded with the improved loader and improved battery management routines just after
uptime is 045/14:31:40. Time is Mon Jan 29 05:23:33 1990

The average battery voltage should now be higher.

Harold
NK6K

Posted: Mon, Jan 29, 1990 1:37 PM GMT Msg: AGJA-4151-4165
From: EOGRADY
To: amsat
Subj: New Elsets

Received the following this morning, Monday Jan 29.

ED : PSE RELAY TO AMSAT NA / MCGWIER / KING / KARN
SURREY : PSE RELAY TO RON BROADBENT / RICH LIMEBEAR
R 290930Z JAN 90
SUBJ: MICROSAT ELSETS

FURTHER ELSETS COME IN OVER THE WEEKEND. SORRY FOR NO COMMS
END OF LAST WEEK, POWER OUT AND NIL COMPUTERS WITH 95 MPH GALES
HERE. ALL NOW RESTORED, BUT FURTHER TROUBLE LOOMING FOR TODAY.
TO CLEAR UP ANY CONFUSION, HAVING HAD MSGS RELAYED FROM JAN KING
AND PHIL KARN, THE ELSETS WE GET ARE DIRECT FROM BMEWS HERE
IN UK, OUT OF THE MOUNTAIN. WE FED THEM THE SEPARATION TIMES
AND DEPLOYMENT SEQUENCE AS GUIDANCE. THE ELSETS ARE GENUINE
SPACE COMMAND.

90 05B 26.68847227 00001252
98.6159 103.1441 0011923 180.3428 179.7745 14.30130462 66

90 05C 26.20320696 -0000033
98.7182 102.6708 0010961 206.5967 153.4532 14.28553709 59

90 05E 26.62335429 -00001564
98.7164 103.0902 0011071 206.0985 153.9510 14.28581108 65

90 05F 26.62290875 -00005117
98.7161 103.0910 0011810 204.9222 154.7424 14.28698289 65

90 05G 26.62278804 00023372
98.7158 103.0897 0012190 208.5457 151.5997 14.28781100 65

90 05H 26.76452730 00000474
98.7153 103.2253 0010024 203.6768 156.3937 14.28249836 67

I WOULD HAVE THOUGHT THE ONLY DIFFERENTIAL ONE WOULD HAVE ON A RADAR SCREEN WOULD BE BETWEEN THE UOSATS / MICROSATS AND THE LAUNCHER. WITH ALL 4 MICROSATS THE SAME, IT WOULD BE HARD TO INDIVIDUALLY IDENTIFY THEM AGAINST ANY KNOWN CHARACTERISTICS.

NO FURTHER OBJECTS HAVE BEEN CATALOGUED FROM THIS LAUNCH AS OF SUNDAY.

LATE ARRIVAL : 90 05C 27.11372187 00005922
98.7156 103.5776 0012284 198.3357 161.7466 14.28578058 72

MAX WHITE / SATELLITE TEAM

I have requested info on "D" and should have word back later.

Best regards,
Ed KC2ZF

647. Precise microsat freqs; sep analysis

Newsgroup: rec.ham-radio
Date: 1990-01-29 17:10:27 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19513@bellcore.bellcore.com>
Source record: 13850

Posted: Sun, Jan 28, 1990 3:27 AM GMT Msg: IGJA-4151-1261
From: JKING
To: AMSAT
CC: PKARN
Subj: Microsat TX Frequencies

Phil, KA9Q is interested in conducting doppler measurements for all of the SPOT mission spacecraft in the interest of sorting out the separating bodies as soon as possible and in deriving the orbital elements for same. In so doing, he asked me for the precise frequencies of the transmitters. It occured that others may also be interested in making these measurements and that these exact frequencies have not yet been distributed.

The following frequencies were taken after the completion and final tuning of the completed transmitter assemblies. The temperatures were taken at 23 deg. C. Note that currently, the transmitters are closer to 0 deg. C. I am searching to see if we have any data that suggests how the frequency of the transmitters changes with temperature.

PACSAT:

Normal PSK TX: 437.02625 MHz

Raised Cosine TX: 437.05130 MHz

S-Band TX: 2401.1428 MHz

DOVE:

FM TX No. 1: 145.82516 MHz

FM TX No. 2: 145.82438 MHz

S-Band TX: 2401.2205 MHz

WEBERSAT:

Normal PSK TX: 437.07510 MHz

Raised Cosine TX: 437.10200 MHz

LUSAT:

Normal PSK TX: 437.15355 MHz

Raised Cosine TX: 437.12580 MHz

I have no data on frequency change with temperature for these transmitters. Perhaps someone else made temperature measurements during thermal vacuum. The log book doesn't help.

Happy Doppler Shift.

73's,
Jan

Posted: Sun, Jan 28, 1990 4:47 AM GMT Msg: LGJA-4151-1306
From: PKARN
To: amsat
Subj: sep analysis

I've uploaded to DOCS an analysis of the straight-line distances between each pair of objects associated with the Ariane V35 launch, in the hope that this might help those trying to sort out the various objects. Certainly the close proximity of pairs like 1990 005C and 005E ought to be a clue to their identities.

I also note that object 005B has a mean motion significantly larger than the other seven objects. This leads me to suspect that it's the spent launcher. Object 005A has a mean motion somewhat smaller than the others, and is in the least eccentric orbit; this I suspect is SPOT-2.

Would those posting orbital elements please provide sets for all eight objects (005A thru H) until we are able to positively tell which are NOT the ones we want? NORAD's assignment of object numbers to satellite names is almost certainly in error. Thanks!

Phil

In the hope that this will help someone with the detective problem of sorting through the menagerie of objects from the Ariane V35 launch, here's a computer analysis of the current straight-line distances between each pair of objects. The letters before each pair of results are the objects' international designators (e.g., the first entry is for the pair of objects 1990 005A and 1990 005B). The distances are given for two arbitrary instants 24 hours apart, and are in kilometers. The "V" flag on the end of the line indicates that the objects are visible to each other (the line between them does not intersect the earth.)

The positions of objects B thru G were based on Keplerians with epochs on day 26 read to me over the phone by N4HY; Keplerians for objects A and H had epochs on day 23.8 and were the ones I fetched the other day from TS Kelso's BBS.

--Phil

a b
Sat Jan 27 00:00:00.0 1990 UTC 7213.933
Sun Jan 28 00:00:00.0 1990 UTC 8501.850
a c
Sat Jan 27 00:00:00.0 1990 UTC 4037.521 V
Sun Jan 28 00:00:00.0 1990 UTC 4830.487 V

```
a d
Sat Jan 27 00:00:00.0 1990 UTC 3863.518 V
Sun Jan 28 00:00:00.0 1990 UTC 4636.558 V
a e
Sat Jan 27 00:00:00.0 1990 UTC 4099.527 V
Sun Jan 28 00:00:00.0 1990 UTC 4902.147 V
a f
Sat Jan 27 00:00:00.0 1990 UTC 4329.556 V
Sun Jan 28 00:00:00.0 1990 UTC 5133.758 V
a g
Sat Jan 27 00:00:00.0 1990 UTC 4491.515 V
Sun Jan 28 00:00:00.0 1990 UTC 5389.215 V
a h
Sat Jan 27 00:00:00.0 1990 UTC 3218.871 V
Sun Jan 28 00:00:00.0 1990 UTC 3787.596 V
b c
Sat Jan 27 00:00:00.0 1990 UTC 3433.596 V
Sun Jan 28 00:00:00.0 1990 UTC 4110.449 V
b d
Sat Jan 27 00:00:00.0 1990 UTC 3608.769 V
Sun Jan 28 00:00:00.0 1990 UTC 4306.904 V
b e
Sat Jan 27 00:00:00.0 1990 UTC 3370.816 V
Sun Jan 28 00:00:00.0 1990 UTC 4037.325 V
b f
Sat Jan 27 00:00:00.0 1990 UTC 3136.423 V
Sun Jan 28 00:00:00.0 1990 UTC 3799.515 V
b g
Sat Jan 27 00:00:00.0 1990 UTC 2970.120 V
Sun Jan 28 00:00:00.0 1990 UTC 3533.581 V
b h
Sat Jan 27 00:00:00.0 1990 UTC 4248.869 V
Sun Jan 28 00:00:00.0 1990 UTC 5145.499 V
c d
Sat Jan 27 00:00:00.0 1990 UTC 181.034 V
Sun Jan 28 00:00:00.0 1990 UTC 205.507 V
c e
Sat Jan 27 00:00:00.0 1990 UTC 65.207 V
Sun Jan 28 00:00:00.0 1990 UTC 76.523 V
c f
Sat Jan 27 00:00:00.0 1990 UTC 305.451 V
Sun Jan 28 00:00:00.0 1990 UTC 323.354 V
c g
Sat Jan 27 00:00:00.0 1990 UTC 475.569 V
Sun Jan 28 00:00:00.0 1990 UTC 597.920 V
c h
Sat Jan 27 00:00:00.0 1990 UTC 845.980 V
Sun Jan 28 00:00:00.0 1990 UTC 1092.330 V
d e
Sat Jan 27 00:00:00.0 1990 UTC 245.504 V
```

```
Sun Jan 28 00:00:00.0 1990 UTC 281.561 V
d f
Sat Jan 27 00:00:00.0 1990 UTC 486.108 V
Sun Jan 28 00:00:00.0 1990 UTC 528.583 V
d g
Sat Jan 27 00:00:00.0 1990 UTC 656.194 V
Sun Jan 28 00:00:00.0 1990 UTC 803.025 V
d h
Sat Jan 27 00:00:00.0 1990 UTC 665.299 V
Sun Jan 28 00:00:00.0 1990 UTC 887.407 V
e f
Sat Jan 27 00:00:00.0 1990 UTC 240.685 V
Sun Jan 28 00:00:00.0 1990 UTC 247.108 V
e g
Sat Jan 27 00:00:00.0 1990 UTC 410.869 V
Sun Jan 28 00:00:00.0 1990 UTC 521.756 V
e h
Sat Jan 27 00:00:00.0 1990 UTC 910.479 V
Sun Jan 28 00:00:00.0 1990 UTC 1168.245 V
f g
Sat Jan 27 00:00:00.0 1990 UTC 170.225 V
Sun Jan 28 00:00:00.0 1990 UTC 274.749 V
f h
Sat Jan 27 00:00:00.0 1990 UTC 1150.548 V
Sun Jan 28 00:00:00.0 1990 UTC 1414.367 V
g h
Sat Jan 27 00:00:00.0 1990 UTC 1320.144 V
Sun Jan 28 00:00:00.0 1990 UTC 1687.450 V
```

648. cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-01-29 17:30:42 UTC
From: TROTH@RICEVM1.RICE.EDU
Message-ID: <9001300803.AA16558@ucbvax.Berkeley.EDU>
Source record: 13851

Does anyone have a list of cordless telephone "channels"?

I have a UNIDEN pulse dialer with a "CH19A" sticker on it.
I doubt I'll find much use for this other than as a phone, but I'd be
interested in listening to it with other gear.

Thanks!

"Incidentally, CTTY NUL is an excellent user-method of locking up DOS."
- Michael J. Saletnik

Rick Troth <TROTH@RICEVM1.RICE.EDU> ------------ Rice ONCS VM Systems Support

649. Kenwood 78xx mods

Newsgroup: rec.ham-radio
Date: 1990-01-29 17:32:52 UTC
From: TROTH@RICEVM1.RICE.EDU
Message-ID: <9001300803.AA16602@ucbvax.Berkeley.EDU>
Source record: 13852

My 7850 is out again. (something flakey in the PA when it takes
a spike from the choke I installed ... but anyway) While I've got it
open, does anyone know of some neat tricks I can do with it?, like
expanding coverage past the 143.900 to 148.995 range it has currently.

"Incidentally, CTTY NUL is an excellent user-method of locking up DOS."
- Michael J. Saletnik

Rick Troth <TROTH@RICEVM1.RICE.EDU> ------------- Rice ONCS VM Systems Support

650. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-29 18:16:47 UTC
From: gordon@prls.UUCP
Message-ID: <31081@prls.UUCP>
Source record: 13853
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jan29.163400.4322@IDA.ORG> roskos@IDA.ORG (Eric Roskos) writes:
(several lines deleted)
->
-> b) Someone else (who has always known exactly what he was talking about in
-> the past) wrote to say he'd tried the circuit from the Signetics data
-> sheet and couldn't get it to work either.
->
->My current belief is that possibly there is a problem with the circuit
->that appears in the Signetics data sheet.
-
-> the capacitor values which
->appeared in the Signetics data sheet for the FSK demodulator were
->incorrect, and by trial-and-error I found other values that worked
->correctly.

Eric;
I could not determine your email address. Please provide me with
one.

EVERYONE: I work at Signetics. If anyone can verify these errors, or
elaborate upon them, I'm willing to find which department
of ours is the source of the error, bring it to their attention,
and post (or email to those interested) a correction.

Thank you;
Gordon Vickers 408/991-5370, at Signetics (Sunnyvale, California, USA)
{mips|pyramid|philabs}!prls!facv01!gordon ** All disclaimers apply **
Earth is a complex array of symbiotic relationships: Every extinction, whether
animal, mineral, vegetable, or cultural hastens our own demise.

651. PRO32 mods and/or fixes.

Newsgroup: rec.ham-radio
Date: 1990-01-29 18:30:58 UTC
From: johnb@uwovax.uwo.ca
Message-ID: <4831.25c44592@uwovax.uwo.ca>
Source record: 13867

Does anyone have mods to expand frequency coverage on the Realistic
Pro32 scanner?
Also, would like a fix for the 2 following items.

1. I seem to be getting an annoying HISS from the speaker (and also
from earphones and headphones) at all times.

2. When the volume is cranked way up , I only get a loud roar from the
speaker when receiving nearby stations.

E-MAIL to : JOHN@UWOVAX.UWO.CA
or post in this news item. TQVM

652. New Uniden MR-8100 Scanner Info

Newsgroup: rec.ham-radio
Date: 1990-01-29 19:48:01 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9001300805.AA16685@ucbvax.Berkeley.EDU>
Source record: 13854

I just received in today's mail some literature from Page-Com (a professional-radio distributor) on a new scanner which they described as "intended exclusively for use by public service organizations." Of course, if it isn't meant for us ordinary people, we immediately want one, right? :-) Well, maybe and maybe not... By the way, this is very briefly mentioned on page 7 of the Feb 90 RCMA Newsletter; however, they were working from only a magazine ad. What I have is a full-page spec sheet.

Here's the info, copied exactly [sloppy capitalization & punctuation, too] from the spec sheet:

UNIDEN PUBLIC SAFETY RADIO RECEIVER MR 8100

The product is a high performance scanning radio receiver intended exclusively for use by public service organizations. Its' rugged mechanical design will withstand extreme environments expected in mobile and emergency applications. Oversized controls and displays reduce likelihood of operator error. Frequency coverage includes all public service and federal bands in the range 29 to 956 MHz (includes VHF air band). Capable of scanning nearly 100 channels per second, more channels can be included in the scan without missing information on any one channel. Rather than showing a frequency when a signal is present, English labels identify each channel. The unit is designed for convenient mounting and effective use in all types of mobile applications.

[Illustration: shows a rounded-edged upright device vaguely similar to a laptop computer, except with a single strip of large LCD characters across the top, with some red legends and LEDs below them for a display, two large round knobs marked "VOL" and "SQ" on the lower left, two smaller round knobs in the center marked "CONT" and "DIM", a row of square buttons across the middle numbered 1 thru 9 and 0 (each one under an LED), and 9 more buttons in a 3 X 3 arrangement on the lower right, marked HLD, SCN, "." (that key is round; the others are rectangular), MAN, SPD, L/O, PRI, PRG, and ENT. A mounting bracket holds the unit from underneath, like it was made to mount on top of a dash. A separate model SP1 speaker, with its own mounting bracket, sits next to the scanner.]

[The Page-Com price for this toy is $499.95, by the by.]

FEATURES SUMMARY

Memory
100 channels with English labels; 10 banks

Band coverage channel
All public service and air bands, 29-956 MHz, proper channel spacing for all bands [Hmmm... See chart below; don't think this includes cellular]

Scan Speeds
selected from keyboard normal: 32 ch/sec super: 93 ch/sec
*actual speed depends on how channels are programmed

Supervisory Programming
Control of field programming options via supervisors PC system; full programmability of frequencies, labels, field accessibility to cellular telephone band and priority channel. [I wonder if "field accessibility" means diode clipping or something less extreme?]

Field Programmable
all frequencies field programmable except as restricted by supervisory pre-program

Display
Latest technology, backlighted dot matrix display; 20 alpha-numeric characters, 0.35 inch high

Keyboard
backlighted, widely spaced, rubber keys; 8 functions, ten numbers and decimal point

Scan delay
Automatic, 2 second following transmission

Operating modes
SCAN, MANUAL, PRIORITY, direct channel access, PROGRAM

Rotary controls
Large knobs for volume, squelch. Also backlight dim control. Separate ON/OFF switch

ON/OFF switch
Rocker switch on side of cabinet

Audio
External 6 Watt speaker [wonder if that means the audio amp is only in the external speaker and there isn't any in the scanner? See specs.]

Antenna
Single, 50 Ohn [sic], BNC antenna port serves all bands

Sensitivity
Typically, less than 1 UV [sic] for 12 dB SINAD

Input power
Nominal 10-14 Volt mobile supply, 0.8 Amps max

Operating temperature
-20 to 60{degree symbol}C

DETAILED DESCRIPTION & SPECIFICATIONS

KEYBOARD FEATURES

SCAN Selects SCAN mode while in any other mode or resumes scan on next channel if signal is present on present channel.

CH/HOLD Used to selct HOLD mode while scanning, or, when in HOLD mode, to advance to next channel in scan sequence.

MANUAL Evokes direct channel access mode. User is prompted to enter bank and channel numbers.

LOCKOUT In MANUAL mode, LOCKOUT key alternately includes and removes the present channel from the scan sequence. An indicator is provided to show LOCKOUT status.

PROGRAM Key alternately selcts and deselects PROGRAM mode. PROGRAM mode is used to enter frequencies into memory. User is prompted throughout the programming process. Field programming may be limited or eliminated according to results of pre-programming by the supervisory (PC) system.

ENTER Terminates the programming process by storing the entered frequency into the present channel memory.

NUMBERS Ten number keys and a decimal point are provided to selct channels in manual mode and to enter frequencies in program mode. In SCAN mode, number keys select/deselect banks for the scan sequence.

PRIORITY Alternately selects/deselects PRIORITY mode. Priority mode performs a scan of a single selected channel regardless of scanner operating mode. In PROGRAMMING mode, the key selects/deselects the current channel to be the priority channel.

SPEED Alternately selects between fast or normal scan speeds.

OTHER CONTROLS

ON/OFF Rocker switch on side of case, independent of volume control and more secure.

VOLUME Large volume control without an ON/OFF switch eliminates need to adjust volume at each turn-on.

SQUELCH Large squelch control easily sets receiver sensitivity threshold.

DIM Dim control adjusts intensity of LED indicators and backlighting for the LCD display and keyboard.

LCD Contrast /viewing angle adjustment. [I think this means you can tilt the unit in the bracket...]

RECEIVER SPECIFICATION

Band coverage (MHz) Frequency Spacing (kHz) Sensitivity (uV, 12 db SINAD)
29-29.7 MHz 5 kHz 0.4 uV
29.7-50 5 0.4
50.0-54 5 0.4
118-136 5 0.7
136-144 5 0.5

144-148 5 0.5
148-174 5 0.5
406-420 12.5 0.5
420-450 12.5 0.5
450-470 12.5 0.5
470-512 12.5 0.5
806-956 12.5 0.6

Intermediate frequencies: 10.85 MHz, 455 kHz
Adjacent channel rejection: _> 70 dB at 25 kHz, 40.84 MHz Rcve. freq.
Intermodulation: _> 60 dB, 162.4 MHz rcve. freq., 3 signal
Ultimate signal to noise: _> 45 dB, 40.84 MHz rcve. freq.
Audio response: -6 dB per octave, +1 -3 dB, ref. 1 kHz (200 to 3500 Hz)
Audio power: 3.0 watts minimum into 4 Ohm spkr. [What about the external speaker unit cited above? Which do you believe?]
Input power: 10 - 15 Vdc, < 1 Amp
Operating temperature: -20 to 60 {degree symbol}C
Storage temperature: -30 to 70 {degree symbol}C
Size: 7.87W X 5.75H X 1.89D inches
Weight: 4.5 lbs.
Antenna port: one BNC for all bands, 50 Ohm
Mounting: mounting bracket included

["_>" is the "Greater-than or equal to" symbol.]

Page-Com Inc.
10935 Alder Circle
Dallas, Texas 75238
1-800-527-1670
In Dallas 680-9750

End of specs

Note that there is NO info given on this business about "supervisory programming" from a PC. No mention of any special input jacks for the PC to link to the scanner, no mention of the costs or capabilities of the software to run on this cited PC, no specs for the PC itself, etc. Thus this is quite incomplete, until the data for that vital part of the system is provided. Interestingly, Page-Com's cover letter makes no mention of the availability of that, though they claim the scanners are in stock and can be shipped immediately.

Also note that the opening blurb is a direct lie. It claims the unit covers "all public-service and federal bands in the range 20-956 MHz" but it does NOT include the [federal] military aero band, and the bit of federal frequencies in the 70 MHz range (between VHF TV channels 4 & 5).

Feel free to send copies of this to club publications, etc., in order to get the info distributed ASAP. What I wrote here is ALL the info I have; if you want more, call Page-Com or Uniden.

Regards, Will Martin

653. Re: R7000 on 12 Volts DC

Newsgroup: rec.ham-radio
Date: 1990-01-29 20:58:04 UTC
From: pfluegerm@valley.UUCP
Message-ID: <4854a945.15840@valley.UUCP>
Source record: 13855

In article <2879@radio.oakhill.UUCP>, charlie@oakhill.UUCP (Charlie Thompson) writes:
> Attention R7000 owners/hackers:
>
> I was noticing in my R7000 manual that it looks like there is a plug
> hidden behind a small panel on the right rear near the AC line cord.
> I removed the cover and sure enough there is a MOLEX type of plug with
> a shorting jumper in it. It apparently jumpers the +12 volts from the
> power supply to the rest of the radio. COULD THIS MEAN that the R7000
> can be operated in your automobile from 13.8 VDC?? Looks like it to me.
> One might also install a noise filter in the 'space' provided in the radio.
> Bob Parnass...have you noticed this about the R7000? Has anyone converted
> their R7000 to +12V optional operation? Does anybody see any problems
> with this? R7000 in the car would be pretty neat.
>
> -Charlie Thompson
> WB4HVD for 23 years
> and I'm not that old.

Yes, it does run on 12VDC. I simply bought ICOM's DC cord for it.
About $8, I believe... :-)
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

654. G5RV or R4 on 160m ???

Newsgroup: rec.ham-radio
Date: 1990-01-29 21:33:00 UTC
From: menton%v5130c.decnet@CCF3.NRL.NAVY.MIL
Message-ID: <9001300806.AA16795@ucbvax.Berkeley.EDU>
Source record: 13856

If all goes well, I'll have a Cushcraft R4 1/2 wave vertical and a low-band horizontal wire antenna installed in the near future. My initial thought for the wire antenna was a G5RV, which, at my friendly ham radio dealer (EEB), includes a baluuuuuuun (baloooooon ??) (you know - a balun!). Question: at the shack, both of these are fed via coax. Do I have any possibility of loading either of these antennae on 160m, by using the old trick of tying the center conductor to the shield and feeding as a long wire? I've done this in the past, but there were no loading or tuning circuits in the antenna as there is with both of the above.

- Bob Menton KG3J
ARPAnet: MENTON@CCF.NRL.NAVY.MIL

655. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-29 21:35:11 UTC
From: tjw@unix.cis.pitt.edu
Message-ID: <21957@unix.cis.pitt.edu>
Source record: 13868
Cross-posted to: sci.electronics,rec.ham-radio

In article <19106@bcsaic.UUCP> carroll@bcsaic.UUCP (Jeff Carroll) writes:

> Now *here's* an interesting question, particularly for anyone
>like me who has spent half an hour in a tunnel during a traffic jam:
>Why do we allow tunnels to be built without such gizmos installed in
>them?

In Pittsburgh, a city of tunnels, there is a wire running down the
Liberty Tubes, and the antenna works well! But, there's none running
through the Fort Pitt Tunnels or the Squirell Hill Tunnels and all you
get is static.

Terry WA3VQJ
--
INTERNET: tjw@unix.cis.pitt.edu BITNET: TJW@PITTVMS CC-NET: 33802::tjw
UUCP: {decwrl!decvax!idis, allegra, bellcore}!pitt!unix.cis.pitt.edu!tjw
And if dreams could come true, I'd still be there with you,
On the banks of cold waters at the close of the day. - Craig Johnson

656. Looking for Kenwood TS-140 Mods

Newsgroup: rec.ham-radio
Date: 1990-01-29 22:23:18 UTC
From: aaker@Apple.COM
Message-ID: <38171@apple.Apple.COM>
Source record: 13869

Looking for modifications for the Kenwood TS-140 HF Transceiver.

Any mods accepted: extended receive range, extended transmit, ...

No mods currently contained in the RADIO MODS server at
bitlib@uwo.ca Please e-mail and I will summarize and post
to the RADIO MODS server. Thank You.

Mark NT6G aaker@apple.com

(Don't wait! Do it Now!)

657. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-29 22:33:48 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Jan29.223348.7630@Neon.Stanford.EDU>
Source record: 13871

In article <64840025@hpl-opus.HP.COM> labelle@hpl-opus.HP.COM (George LaBelle) writes:
> It seems to me that all this gives you is a good earth ground
> CONNECTION, not neccessarily a good earth GROUND. The Ground surrounding
> the connection is not effected, and depends on it's own conductivity,
> which, unless you live near water, is generally poor.
>
> --
>George La Belle uucp: hplabs!hpl-opus!labelle

That's the purpose of the brine recharging. The salt leeches into several
cubic meters of surrounding soil, and together with the added moisture,
increases conductivity. The author suggested that this method gives
fractional ohm grounds, even for arid climates.

Also, since the brine is discharged four feet below the surface, it shouldn't
affect plant growth with short roots (like grass). However, I don't know
that from experience, and that's really the only way you'll find out.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

658. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-29 22:40:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500371@ux1.cso.uiuc.edu>
Source record: 13872

So in addition to your broadcast receiver, won't most else be dead as well such as your 144, 220, 440 Mhz, and your cellular? What if someone needs emergency medical aid down there when the traffic is jammed?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

659. Re: Display Upgrade for TM-721A / 621A

Newsgroup: rec.ham-radio
Date: 1990-01-30 01:03:08 UTC
From: rps@dtseng.UUCP
Message-ID: <7244@dtseng.UUCP>
Source record: 13857

In article <2590@wyse.wyse.com>, pgraham@wyse.wyse.com (PC-NFS Philip Graham x1124 #) writes:
> Now it is MARCH! These guys are unbelievable... When I asked why the delay,
> they said that "sometimes it is hard to schedule production"...
>
> Wow! How profound, they have been trying to build this modules since before
> October and they still can not do it... I work at an engineering company,
> and to miss a schedule by more than 6 months is pretty amazing.

I used to work for a Japanase IC manufacturer and am relatively familiar with the process involved in getting a new product through the "system" to the market. Some items you have to take into account are:

1. If you miss your production run date you may not be in the queue again for quite a while. (If you actually cause line down time you may also be out of a job.) Your chances of getting into the queue again soon depend on profitability of product, delivery contracts, line rehab., etc.

2. The profitability of an upgrade such as this is probably nowhere near a new, whole product. If you were responsible for the bottom line which would you produce?

3. The upgrade product may not even be behind schedule. The person you talked to may have no contact with the true engineering group(s) and may be misinformed. How often do the salesbozos you deal with ever really get the story right? (Or at least repeat the story correctly?)

In the final analysis, I have found Japanese production techniques/facilities to be very efficient; significantly moreso than US equivalents. As a result I would be more likely to believe that you were misled than to believe production of the display upgrade to have slipped for anything other than financial reasons.

Of course, this is all IMHO.

Robert
--
Robert P. Scott | DTS Engineering, Inc. | {decvax,zinn}!dtseng!rps
Nothing could be finer than some green wallet liner....

660. ICOM IC-24AT info needed.

Newsgroup: rec.ham-radio
Date: 1990-01-30 01:29:20 UTC
From: rps@dtseng.UUCP
Message-ID: <7245@dtseng.UUCP>
Source record: 13858

First a few of questions:

1. Does this sucker have a cross-band repeater type mode? If so,
anyone know how to turn it on and off?

2. Can the VHF receiver be pulled down into the aircraft band like
the 2SAT? If so, what is the mod?

3. Anyone have the service manual for this one yet?

One point of info. An undocumented "function".

If you depress the LIGHT and D buttons while turn on the power the
HT goes through some type of diagnostic. (You also get to see all
the LCD masking this way. Do I see a 440/1.2 HT coming up?...

--
Robert P. Scott | DTS Engineering, Inc. | {decvax,zinn}!dtseng!rps
Nothing could be finer than some green wallet liner....

661. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-30 02:38:01 UTC
From: roskos@IDA.ORG
Message-ID: <1990Jan30.023801.5385@IDA.ORG>
Source record: 13874

julian@bongo.UUCP (julian macassey) writes:

> What I have always used to improve ground conductivity is Copper
>Sulphate.

Isn't CuSO4 toxic to fish? I think I recall that is what they use to kill off all the old fish when they have to restock a lake due to there being an overpopulation of the "wrong" kind of fish.

If so, it would be a good idea not to use it if you live near a lake or a stream feeding into a lake.

What about conventional fertilizer? It seems as if what you need is just a good supply of free ions in the water around the ground. But it seems as if just increasing the surface area of your ground conductor would be the best approach (e.g., burying a metal grid as others have suggested) rather than trying to lower the resistance of a small area around a ground stake, since anything you put into the ground that's water soluble will wash away over time, especially if you have really porous soil, and will tend to go into and contaminate the groundwater. Even fertilizer has this problem since it washes into the surface streams eventually and fertilizes the aquatic plants, causing a lot of algal growth if nothing else.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

662. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-30 02:45:23 UTC
From: bakken@cs.arizona.edu
Message-ID: <17336@megaron.cs.arizona.edu>
Source record: 13873

In article <1225@anasaz.UUCP> john@anasaz.UUCP (John Moore) writes:
> [etc.]
>There are some problems with this approach:
> (1) If you live on a rock, it's hard to drill the hole.
> (2) If you live in a dry climate, such as here in Phoenix, the
> ground conductivity is so low that even the above approach
> will produce only a marginal ground.

[etc.]

>The technique for poor soil is:

>(1) Plant several 8 foot large diameter (1" or so) ground rods
>in a 10-20 foot radius around the tower. Use epson
>salts or whatever to improve their connection to the ground.

OK, how about any ideas for those of us who live in a dry climate
but run random wires up trees or construct PVC verticals rather
than huge towers! Thanks for any suggestions.

--
Dave Bakken Internet: bakken@cs.arizona.edu
721 Gould-Simpson Bldg UUCP: uunet!arizona!bakken
Dept of Computer Science; U of Arizona Phone: +1 602 621 8372 (w)
Tucson, AZ 85721 USA FAX: +1 602 621 4246

663. callsign server (IBMs work now!)

Newsgroup: rec.ham-radio
Date: 1990-01-30 05:46:26 UTC
From: bowen@cs.Buffalo.EDU
Message-ID: <16478@eerie.acsu.Buffalo.EDU>
Source record: 13875

Well, I finally got around to tracing the problems with connections from IBM/CMS machines and it turns out there was a bug in *my* code. And I've been blaming IBM! Anyway, those of you running under CMS should now have no problem connecting now.

For those not familiar with the server (there are a few of you left), you can access it if your site is on the Internet by connecting to socket number 2000 on the host marvin.cs.buffalo.edu (128.205.32.4). This is probably done with the following command:

telnet 128.205.32.4 2000

It really depends on your operating system, though. If this doesn't work, I'd suggest contacting your system administrator for advice.

Devon

664. Re: WANTED: NASA Frequencies

Newsgroup: rec.ham-radio
Date: 1990-01-30 10:22:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90020121141848@masnet.uucp>
Source record: 13859

gr>(shuttle, air-to-ground, satellite, etc.). I was just wondering where
gr>one would have to look to get these frequencies (i.e. frequency

Sun 01-28-1990 [21:27]
Boy, you don't ask for much, hi! Here it is. It may be in a couple
of messages, as PCBoard has a 99-line limit.

The space shuttle transmits on three frequency bands, UHF, S-Band, and
Ku-Band. The UHF frequencies are simple AM voice and very easy to copy.
These frequencies are used for launch and landing operations, EVA comms,
(i.e. from the spacesuits back and forth to the shuttle), and as an
additional voice downlink when other channels are in use or the current
ground station has no S-Band capability. The frequncies in use are:

296.8 MHz - air to ground, or orbiter to suit
259.7 MHz - air to ground, or suit to orbiter
279.0 MHz - suit to orbiter or suit to suit
243.0 MHz - standard Mil aircraft emergency freq.

The S-Band system is one of the primary orbiter downlink bands. The
voice channels are digital slope delta modulation and are mux'ed in
with the rest of the orbiter telemetry, very difficult to copy. Much
of the downlink TV is on S-Band also but it is wideband FM and should
be easily copyable. The frequencies are:

2287.5 MHz - primary digital downlink
2250.0 MHz - wideband FM with either main engine analog
telemetry during launch, or TV during orbit
operations.

The Ku-Band system is used in conjunction with the tracking and data
relay satellites and is used much more heavily in Spacelab flights than
in others. The data is *very* high rate digital (50 Mbits/sec range) and
therefore essentially impossible for you to demodulate and decommutate
in your basement. Nevertheless the shuttle transmits on 15.003GHz. You
should also note however that these transmissions are directed toward
the TDRS satellite with a high gain antenna and would therefore not be
copyable on the ground. The UHF frequencies are fun to listen to but
are not heavily used except during EVA's. You will almost always hear
some activity on them however sometime during a mission but you just
have to be patient.

USAF/NASA Frequencies
=====================
4.510 MHz 9.974 MHz 4.760 MHz 10.780 MHz 4.855 MHz 11.104 MHz
4.992 MHz 11.414 MHz 5.350 MHz 11.548 MHz 5.810 MHz 14.615 MHz

6.727 MHz 19.303 MHz 6.740 MHz 19.984 MHz 8.993 MHz 20.191 MHz
9.315 MHz 20.475 MHz

HF USED AT KENNEDY SPACE CENTER : 2.182 MHz 3.023 MHz

Search/Rescue (Aircraft) : 164.800 MHz
(Ships) : 148.500 MHz, 149.100 MHz, 162.000 MHz

S-Band Microwave
==========
Air-to-Ground : 2205.0, 2217.5, 2250.0, 2287.5 MHz
Ground-to-Air : 2041.9, 2201.4 MHz

NASA Aeronautical Frequencies VHF/UHF in MHz
==========
Kennedy - 117.8, 121.7, 126.2, 126.3, 284.0, 138.3, 138.45,
149.925, 162.612, 273.5, 335.8, 340.9, 348.4, 358.3

Patrick AFB - 118.4, 121.7, 125.1, 126.2, 128.7, 236.6, 269.9,
290.3, 318.1

Edwards AFB - 116.4, 120.7, 121.8, 126.1, 127.8

KSC Ground Support VHF in MHz
==========
148.480 149.170 162.610 163.460 163.480 163.510
170.350 163.560 165.190 170.150 170.170 171.150
171.260 173.560 173.680

(continued next message)

~ DeLuxe 1z11a20 #2989 This space available for public comment.
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

665. Re: Space shuttle freqs

Newsgroup: rec.ham-radio
Date: 1990-01-30 10:22:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90020121141908@masnet.uucp>
Source record: 13860

(space shuttle freqs, part two)

NASA Malabar (Palm Bay) HF Networks (in KHz)
==========
2405 Data Buoys 2622 SRB Recovery (Primary)
2664 Backup Mission Audio-Cape/Hou 2678 ETR Range Control
2716 Navy Harbor Cntl-Port Canav. 2764 SRB Recovery Channel
3024 Coast Guard SAR (Primary) 3187 SRB Recovery Ships Channel
4376 Primary Recovery Zone SAR 4510 SRB Recovery Ships Channel
4856 Cape Radio/Leader 4992 Cape Radio/Coast Guard Ships
5180 NASA Tracking Ships 5187 NASA Tracking Ships
5190 ETR Primary Night Channel 5350 Launch Support Aircraft
5680 Launch Support Ships 5810 ETR Secondary Night Channel
6720 SAR Primary Atlantic 6896 Cape Radio
6837 Cape Radio 7412 SAR Communications with
Bahamas
7461 Cape Radio/Launch Support A/C 7525 NASA Ground Tracking Net
7676 Launch Support Aircraft 7765 SRB Recovery Ships
7919 Data Channel 7985 Data Channel
9022 Launch Support Aircraft 9043 Launch Support Aircraft
9132 Launch Support Aircraft 10305 Space Missile Tactical Net
10310 Malabar-to-Ascension Is-MUX 10780 ETR Primary Day Channel
11104 Launch Support Ships 11252 Launch Support Ships
11407 SRB Recovery Ships 11414 Cape Radio
11548 Cape Radio 11621 SRB Recovery Ships
13227 Launch Support Aircraft 13237 Data Channel
13495 Data Channel 13600 Malabar-to-Ascension Is-MUX
13878 Launch Support Aircraft 14937 Ascension Is-to-Malabar-MUX
18009 Launch Support Ships 19303 Launch Support Ships
19640 Cape Radio 19966 Ascension Is-to-Malabar-MUX
20186 Launch Tracking Net 20192 Malabar-to-Ascension Is-MUX
20198 OCC Shuttle Mission Audio 20390 ETR-Secondary Day Channel
22755 Ascension Is-to-Malabar-MUX 23413 Cape Radio
27065 NASA CB Radios

Hope this helps you out, and also that it came to you in neat
columns. This should let you hear a lot of what's going on.
I don't think the "media" has wind of these freqs, or if they do,
possibly they don't monitor them much. I haven't heard the
shuttle directly, but I did hear the ham who went up a few years
ago on my scanner. Clear as a bell.

~ DeLuxe 1z11a20 #2989 Doctor my brain hurts!
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

666. Re: FCC regulation of radio f

Newsgroup: rec.ham-radio
Date: 1990-01-30 10:22:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <900201211419 41@masnet.uucp>
Source record: 13861

mu> Does anybody out there know the FCC regualtion of radio frequency
mu>usage?

Sun 01-28-1990 [21:48]
If you want to do it "on the cheap," go to Radio Shaft and get a copy
of the latest "Police Call," and it will tell you a lot of them.

~ DeLuxe 1z11a20 #2989 Arseniooooooooooooooooooooooooooooooooooooo Hall!
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

667. Re: Stock-Market Quote Transm

Newsgroup: rec.ham-radio
Date: 1990-01-30 10:22:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90020121141749@masnet.uucp>
Source record: 13862

>Warning, the #$%^& Electronics Communications Privacy Act has some
>restrictions on listening to SCA signals.

Sun 01-28-1990 [20:56]
I don't know how they'd stop you! The only caveat I'm aware of is the one about playing the "elevator music" in a business without subscribing to the service. My feeling is, if it's unscrambled, and it's passing through my body, then I have no guilt about listening to it. If it's scrambled, and isn't illegal to have descramblers, maybe I'll listen to it. Illegal scramblers? Won't touch them. There's a whole bunch of stuff in the ECPA relating to seizure of equipment and such, but I believe it's basically a toothless law. It will probably be used much as "another nail in the coffin" type of thing. If a bad guy is already under indictment for something, they can add the ECPA onto the charges.

~ DeLuxe 1z11a20 #2989 Acupuncturists do it with a small prick.
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

668. Re: 2004/2005 modifications

Newsgroup: rec.ham-radio
Date: 1990-01-30 10:22:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90020121141974@masnet.uucp>
Source record: 13863

gr>Can someone please post the mods for the PRO-2004 & PRO-2005 for
gr>continuous coverage through the 800 Mhz band, increased scan speed,
gr>etc. I know someone who is interested in buying a PRO-2004/2005 and
gr>would like more info on these mods.

Mon 01-29-1990 [07:38]
"Someone who is interested"??? Heh heh heh. Yeah, I don't listen to
the CMT band, either. That ECPA has got me just _petrified_, hi. :-)
I got these off a bulletin board.

ZDDDDDDDDDDDDDDDDDDDDDDDDDDD?
3 Modifications for the 2005 3
@DDDDDDDDDDDDDDDDDDDDDDDDDDDY
There is a socket that is not marked so it will be referred to as D501.

D501 and D503 removed : Scan rate of 6/12 cps
D501 only installed : Scan rate of 7/14 cps
*D503 only installed : Scan rate of 8/16 cps
D501 and D503 installed : Scan rate of 10/20 cps (horray!)
*D502 installed : Disable 823.95-850.95 MHz and
868.95-895.95 MHz
D502 removed : Full coverage from 760-1300 MHz
D504 installed : Normal spacing for all bands.
*D504 removed : Enable 30 kHz spacing in areas
restored by D502 removal

* = Stock US model configuration

ZDDDDDDDDDDDDDDDDDDDDDDDDDDD?
3 Modifications for the 2004 3
@DDDDDDDDDDDDDDDDDDDDDDDDDDDY

1. Remove diode from "513" to get excluded 800 MHz freqs.
2. Install a 1N914 diode in "514" to increase scan rate to 10/20
channels-per-second.
3. Install a 1N914 diode in "510" to get the extra 100 channels.
4. Remove diode from "D-44" to restore missing frequencies in th
806 to 960MHz band.
5. Remove diode from "D-45" to restore coverage from 68 to 88MHz.

In step 5 above, I have no idea what this is for. My 2004 came
from the store already scanning this range, and this was the first
I had ever heard of it. The same goes for step 4. When I removed
D513 (as in step 1), I got those freqs back. Perhaps the user who
originally posted these had a radio from a different production
run. All I can "vouch" for is steps 1, 2, and 3.

```
---
~ DeLuxe 1z11a20 #2989 pneumonoultramicroscopicsilicovolcanoconiosis
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO
```

669. Re: Resistance is useless!

Newsgroup: rec.ham-radio
Date: 1990-01-30 10:22:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90020121141782@masnet.uucp>
Source record: 13864

kp>Also, what kind of antenna will be most suitable for reception
kp>of very low frequency bands (< 100Kc). I have been experimenting
kp>with a long wire of about 30 meters length, without much succes.

Sun 01-28-1990 [21:13]
A longwire of about 30 meters in length is ideal for the 30-meter band,
grin. Actually, it's probably pretty good for 540 kHz to 30 MHz or
so. For longwave, the picture changes entirely. Check some recent
issues of Popular Electronics and 73 for longwave receivers and
their antennas, or write the Longwave Club of America, 45 Wildflower Road,
Levittown, PA 19057. In addition, there's a new BBS which is dedicated
to Longwave - the Long Wave DataBase System - it can be reached at
703-528-7753. It is PC Pursuitable, via the DCWAS pathway.

~ DeLuxe 1z11a20 #2989 Resistance Is Useless! (If < 1 ohm)
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

670. A message counter for you PK232

Newsgroup: rec.ham-radio
Date: 1990-01-30 11:29:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9001310802.AA10218@ucbvax.Berkeley.EDU>
Source record: 13739

Hello all you PK-232 fans out there...

I've added a LED display message counter to the PK-232's front panel.
It lets me know how many people connected to me since the last reset.
This allows me to leave the TNC and xcvr on without having to leave
the computer on constantly. When I come home, if I see any number
greater than "0", I know to turn on the computer and read the message
or messages friends have left for me. The principle is similar to a
telephone answering machine.
The 7 segment display sits nicely in what was once the space between
the ON-OFF switch and the logo in the upper right hand corner.

This is the way it works...

First...
Before you leave for work in the morning...
Designate MBX to be a call no one will ever connect to (E.G. 1G6XX).
This way, only info received after someone connected to you will be
stored in the '232's buffer.

Your '232 will only store data to it's buffer when someone connects to you.

Your CTEXT message should tell the station to leave a message if you fail
to respond directly within one minute (or something to this affect).

The circuit is quite simple. I used a 74LS90 decade counter and a 74LS47
decoder/driver into a 7 segment LED. 5V is taken from the PK232's regulator.

The actual schematic can be taken out of Radio Shack's "Engineer's Mini-
Notebook" series. Digital Logic Circuits - pg.26. (2 Digit BCD Counter).
I used only half the circuit. The input is connected to to CON LED and
the circuit counts up upon the station disconnecting.

Enjoy...

671. Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-30 12:42:14 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9001310807.AA10963@ucbvax.Berkeley.EDU>
Source record: 13741

Yes, the Southwest has very poorly-conductive "ground."
Years ago, I was in northern New Mexico. A night-time
storm pulled the 220-v line drop from the pole away from
its anchor on our house. The electric company line man
just walked up to the live 220-v wire, picked it up in his
bare hands, scraped it, and re-attached it. This was
one wire at a time, of course, but still I was amazed.
The dry New Mexico quartz sand doesn't conduct worth a toot.
Trying this in the moist East would immediately make your wife
a widow.

672. Warning From uucp

Newsgroup: rec.ham-radio
Date: 1990-01-30 13:24:36 UTC
From: uucp@ATT-IN.ATT.COM
Message-ID: <9001310806.AA10906@ucbvax.Berkeley.EDU>
Source record: 13745

We have been unable to contact machine 'att' since you queued your job.
The following file have not been delivered.

att!mail att!westbud!rosenberg (Date 01/28)

The job will be deleted in several days if the problem is not corrected.
If you care to kill the job, execute the following command:
Note: this command can only be executed on machine (att-in):

uustat -kattZb2db

Sincerely,
att-in!uucp

##
Data File:
From wsmr-simtel20.army.mil!INFO-HAMS Thu Jan 25 14:15:17 MST 1990 remote from att
Received: from WSMR-SIMTEL20.ARMY.MIL by mintaka.lcs.mit.edu id aa05566;
25 Jan 90 17:07 EST
Date: Thu, 25 Jan 90 14:15:17 MST
From: INFO-HAMS-REQUEST@wsmr-simtel20.army.mil
Reply-To: INFO-HAMS@wsmr-simtel20.army.mil
Subject: INFO-HAMS Digest V90 #101
To: INFO-HAMS@wsmr-simtel20.army.mil
Message-ID: <9001251708.aa05566@mintaka.lcs.mit.edu>

INFO-HAMS Digest Thu, 25 Jan 90 Volume 90 : Issue 101

Today's Topics:
6m band, 1.25m, 23 cm band: Usage? (2 msgs)
adjacent channel spacing
FCC regulation of radio frequency usage
WANTED: NASA Frequencies (Shuttle, Satellite, etc.)
WANTED: PRO-2004 & PRO-2005 mods

Date: 25 Jan 90 20:19:48 GMT
From: usc!pollux.usc.edu!kjh@ucsd.edu (Kenneth J. Hendrickson N8DGN)
Subject: 6m band, 1.25m, 23 cm band: Usage?
Message-ID: <22511@usc.edu>

In article <11289@ucsd.Edu> brian@ucsd.edu (Brian Kantor) writes:
>53 MHz is used for model control and links and suchlike too.

The officially sanctioned RC channels are now spaced 20 kHz from 50.8
MHz to 51 MHz. i.e.: 50.800, 50.820, 50.840, . . . 50.980 MHz.

Please avoid using this section of the band, as you could cause
somebodies model aircraft to crash (and destroy 100's of $), or worse to
hit some person and KILL them. Think about it: an airplane that weighs
5 to 15 pounds, moving between 80 and 120 mph, with a meat cleaver up
front rotating at 20,000 rpm. One of these could do some serious damage
to a car also. Please avoid using 50.8 MHz - 51 MHz for any purpose
other than RC control of model vehicles.

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

Date: 25 Jan 90 20:11:48 GMT
From: @decwrl.dec.com (Jim -- LTN1-2/H03 -- DTN 226-6905 25-Jan-1990 1514)
Subject: 6m band, 1.25m, 23 cm band: Usage?
Message-ID: <9001252011.AA08135@decwrl.dec.com>

In article <1990Jan24.213232.531@chinet.chi.il.us>, megabyte@chinet.chi.il.us (Dr.
Megabyte) writes...

>I was interested in hearing if anyone uses the 6 meter band. Of all the
>bands, I hear the least about the 6 meter band. Why is that? Why is
>it an unpopular band? Not only do I not hear much about it, but I see
>no new equipment for it and the used 6m rigs go for a song.

Well, I can try to answer some of your questions, I'm sure W9IP or someone
else will fill in the holes.

The 6 meter band is not unpopular, to the contrary for the hams who use it
it is very exciting. In the June VHF contest, for example, most stations
will have their highest QSO and multiplier totals on this band. 6 Meters
bridges the gap between HF and VHF - it has all of the standard VHF
propagation modes such as Aurora, Tropo, Scatter, E-skip, Meteor Scatter and
Moonbounce (earth-moon-earth), *plus* there are F2 openings that allow you
to work over paths between 5 and 10 *thousand* miles!

If you just go by the articles in this newsgroup, you'll come to the
conclusion that all hams either

1) tinker with gear,
2) have 440 rigs that are modified to listen out-of-band,
3) are active DXers or contesters, or
4) never get on the air and spend their time complaining about
the rules

True, 6 meters is hardly ever mentioned here. Few people, if any, use it in
their cars like the 2 or 440. You wouldn't want to use it for packet, the
baud rate is too slow. The antennas are bigger than you average 2 meter FM
antenna, but heck, they're smaller than a 20 meter beam! And true, there
isn't any really new gear coming out, but the functions that people need on
their new whiz-bang-smaller-than-a-credit-card handi talkies just aren't
needed or used on 6. 50 MHz attracts both DXers and VHFers, and it's a

great band for people who like both.

jim, AD1C (WAS, WAC and 55 countries worked on 6 meters)

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

Date: 25 Jan 90 20:33:37 GMT
From: usc!pollux.usc.edu!kjh@ucsd.edu (Kenneth J. Hendrickson N8DGN)
Subject: adjacent channel spacing
Message-ID: <22512@usc.edu>

I have recently petitioned the frequency coordination gods here for a 440 pair. Every pair is used in this area, but several pairs are shared by several repeaters. [Almost all the repeaters on 440 here are private, and closed. :-(] Several people have advised me that the frequency coordination gods may not smile upon me.

If the gods are not friendly, I plan to appropriate a frequency for myself anyway. [I am a rebel. :-)] There are no machines on the 12.5 kHz splinter channels here. I have thought about the possibility of putting up my machine on one of these channels, with my output near the input of other repeaters, and my input near the other repeater's outputs. Other than raising the noise floor on the band, I don't think there would be any problems since everything is PL'ed.

Has anybody had any experience with this? Is it better to invert the closely spaced repeater (input close to other repeater's output)? What do the commercial people do? Please post or e-mail your responses, and thank you very much in advance.

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. 1709 S. Bonnie Brae, LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

Date: 25 Jan 90 20:54:23 GMT
From: swrinde!zaphod.mps.ohio-state.edu!usc!pollux.usc.edu!mcyang@ucsd.edu (Mitch Yang)
Subject: FCC regulation of radio frequency usage
Message-ID: <22514@usc.edu>

Does anybody out there know the FCC regualtion of radio frequency usage ?
I want to know what range(s) are reserved for military, commercial and

civilian usages.

Please send your reply to mcyang@pollux.usc.edu

Thank you in advnace Mitch

Date: 25 Jan 90 15:34:43 GMT
From: galaxy.rutgers.edu!andromeda.rutgers.edu!gubernar@rutgers.edu (The Lurker)
Subject: WANTED: NASA Frequencies (Shuttle, Satellite, etc.)
Message-ID: <Jan.25.10.34.42.1990.10289@galaxy.rutgers.edu>

A few months back, someone posted a listing for all NASA frequencies
(shuttle, air-to-ground, satellite, etc.). I was just wondering where
one would have to look to get these frequencies (i.e. frequency guides,
periodicals, etc.). Any help would be appriciated. Thanks in advance.

=-=
John D. Gubernard Call: N2JSH | _ /| ACK! OOP! PHHT!
Rutgers University - NCAS | \'o.O' BLEAH!
E-MAIL: gubernar@andromeda.rutgers.edu | =(___)=
--| U BLOOM COUNTY FOREVER!
MEMBER: Major Armstrong Memorial ARC |-------------------------------
224.24 / 446.525 / 223.68 Mhz | Go Scarlet Knights #1!!!!

"Well...you can't expect to wield supreme executive power just 'cause some
watery tart threw a sword at you! - Dennis the Peasant

DISCLAIMER: These thoughts are not mine...so don't ask where they came from!
=-=

Date: 25 Jan 90 15:37:58 GMT
From: galaxy.rutgers.edu!andromeda.rutgers.edu!gubernar@rutgers.edu (The Lurker)
Subject: WANTED: PRO-2004 & PRO-2005 mods
Message-ID: <Jan.25.10.37.57.1990.10455@galaxy.rutgers.edu>

Can someone please post the mods for the PRO-2004 & PRO-2005 for
continuous coverage through the 800 Mhz band, increased scan speed,
etc. I know someone who is interested in buying a PRO-2004/2005 and
would like more info on these mods. Thanks in advance.

=-=
John D. Gubernard Call: N2JSH | _ /| ACK! OOP! PHHT!
Rutgers University - NCAS | \'o.O' BLEAH!
E-MAIL: gubernar@andromeda.rutgers.edu | =(___)=
--| U BLOOM COUNTY FOREVER!
MEMBER: Major Armstrong Memorial ARC |-------------------------------
224.24 / 446.525 / 223.68 Mhz | Go Scarlet Knights #1!!!!

"Well...you can't expect to wield supreme executive power just 'cause some

watery tart threw a sword at you! - Dennis the Peasant

DISCLAIMER: These thoughts are not mine...so don't ask where they came from!
=-=

End of INFO-HAMS Digest V90 Issue #101
****

673. Warning From uucp

Newsgroup: rec.ham-radio
Date: 1990-01-30 13:24:41 UTC
From: uucp@ATT-IN.ATT.COM
Message-ID: <9001310806.AA10948@ucbvax.Berkeley.EDU>
Source record: 13749

We have been unable to contact machine 'att' since you queued your job.
The following file have not been delivered.

att!mail att!westbud!rosenberg (Date 01/28)

The job will be deleted in several days if the problem is not corrected.
If you care to kill the job, execute the following command:
Note: this command can only be executed on machine (att-in):

uustat -kattZb2e5

Sincerely,
att-in!uucp

##
Data File:
From wsmr-simtel20.army.mil!INFO-HAMS Thu Jan 25 19:15:15 MST 1990 remote from att
Received: from WSMR-SIMTEL20.ARMY.MIL by mintaka.lcs.mit.edu id aa17271;
25 Jan 90 22:17 EST
Date: Thu, 25 Jan 90 19:15:15 MST
From: INFO-HAMS-REQUEST@wsmr-simtel20.army.mil
Reply-To: INFO-HAMS@wsmr-simtel20.army.mil
Subject: INFO-HAMS Digest V90 #102
To: INFO-HAMS@wsmr-simtel20.army.mil
Message-ID: <9001252217.aa17271@mintaka.lcs.mit.edu>

INFO-HAMS Digest Thu, 25 Jan 90 Volume 90 : Issue 102

Today's Topics:
6m band, 1.25m, 23 cm band: Usage?
Even more about 6 meters (LONG)
Legalities of Multiple Call Signs
Need info on rechargable Alkaline battery
New Icom Radios (Official Announcement) !!
Stock-Market Quote Transmissions

Date: 25 Jan 90 20:58:53 GMT
From: shelby!neon!bodega.stanford.edu!paulf@decwrl.dec.com (Paul Flaherty)
Subject: 6m band, 1.25m, 23 cm band: Usage?
Message-ID: <1990Jan25.205853.28326@Neon.Stanford.EDU>

In article <9001252011.AA08135@decwrl.dec.com> REISERT@VICTIM.enet.dec.com (Jim --
LTN1-2/H03 -- DTN 226-6905 25-Jan-1990 1514) writes:
>True, 6 meters is hardly ever mentioned here. Few people, if any, use it in
>their cars like the 2 or 440. You wouldn't want to use it for packet, the
>baud rate is too slow.

Eh? Between 50 and 220 MHz, the maximum symbol rate is 19.6 Kbaud. That's pretty respectable.

6m has a bum rap for causing TVI problems. Frankly, I have more problems on 20m operating 100w F1D than with keying a 5w 6m HT next to my TV...

--
-=Paul Flaherty, N9FZX | "Unix could use a more user-friendly interface.
->paulf@shasta.Stanford.EDU | Does anyone have a card punch handy?"

Date: Thu, 25 Jan 90 20:33:31 EST
From: Robert Carpenter <rc@cmr.ncsl.nist.gov>
Subject: Even more about 6 meters (LONG)
Message-ID: <9001260133.AA11840@cmr.ncsl.nist.gov>

This is extracted from a message I sent last July to someone who enquired about six meters. With the recent additional requests, I'm posting it for general information. Absolutely no endorsements are given, especially no endorsements from my employer.
****

Firstly, six is something of an acquired taste, I suppose. There is relatively little FM activity on six, and in any case I don't take part in it. I'm on the low end; the place where SSB/CW activity is concentrated. There is not much local rag-chewing on six. Except as mentioned below, there has been very little packet work on six.

Most of the SSB/CW operators on six are at least vaguely interested in radio propagation effects. One of the things that keeps many people on the band is that nearly every propagation mode know to hamdom happens on six at one time or another. It has held my interest for many years. Oh sure, I've done some operating on other bands, and have been pretty inactive for a year or so at times, but ....

OPERATION

Operation is mostly on SSB, but switching to CW is common for really weak sigs, and a few people operate nothing else. Per the FCC, SSB must be above 50.1 MHz. The DX calling frequency is 50.110 MHz. An attempt is underway to leave 50.100 to 50.125 clear from domestic QSOs, to give the DX stations a chance to be heard. With that in mind, a second (domestic) calling frequency of 50.125 MHz is in use. Only on the wildest of Es openings do you find SSB operation much above 50.200 MHz. On transatlantic opennings you find most French stations, and many of the Gs operating above 50.2 MHz. The are a few dozen

CW propagation beacons in the 50.060 to 50.080 MHz region in the US, and others elsewhere around the world in the 50.0 - 50.1 range. As well as signal reports, most stations exchange "grid square" information. On VHF and up bands, the world has been divided in 1-degree lat x 2-degree long "squares" which start at the south pole and date line and "read right up". I am in FM19, for example - actually FM19JB, each major "field" (FM) being divided 10x10 into 100 squares (19) and each "square" being divided 20x20 into 400 subsquares (JB). European stations like the subsquares; most US stations don't even know their own. In any case, the "squares" and their VUCC awards have been a wonderful interest builder, and have kept the QSL printers in business! I've now worked almost 400 squares on 6 since the "squares" business started on 1 January 1983.

RIGS

The equipment situation is easy to cover, so I'll do that now. Probably 50% of the active stations have 80 to 150 W output, either from old Icom 551D s (the 551 is 10 W), or from solid-state (brick) amplifiers following the many types of 10 W rigs. Perhaps 40% of the stations run just 10 to 20 W, but most of them either get an amplifier or drop out after a year or so. The remaining 10% have either tube rigs such as the Drake TR-6, Swan 250 (too drifty!), Heath SB110A (spurious sig 150 kHz or so from output), or high-power amplifiers. The kilowatt is quite rare on six (see below for why). The norm for "serious" stations is the 150 W amplifier. Last July I went through some of my grid-square cards for the station information contained thereon. Note that some of these cards go back six years and thus slight currently-available gear.
- "BAREFOOT" POWER - WITH AMPLIFIER
RIG <25W <100W >100W <kW kW
Drake TR6 7 2
Heath SB110 2 1
Homebrew 4 1 1
Icom 505 1
551 14 3 3
551D 21 2
560 2 1
Kenwood TS600 5 2 1
TS660 2 1
TS670 2 1
TS680 1
Swan 250 11 2
Transv/someHB 10 4
Yaesu FT620 6
FT625 6 2
FT690 3

FT726 4 1

TOTAL 56 25 21 12 15
(sum=102, 37 having < 25W, including amplifier)
(22 having 25-100W, incl. amplifier)
(43 having >100W, including amplifier)
I'm sure that this list slights the more recent rigs. It merely reports what has been on the air 1983-1989. No endorsements are given, your mileage may vary.

ANTENNAS

A beam is essentially necessary. Everyone is horizontally polarized, but cross-polarization doesn't matter for Es or F2. A few stations use 3-element beams, but a 4 or 5 element beam is so small that a LOT of people use them. Quite a few people have Cushcraft 6-element "Boomers". Mine really over-shadows the house with its 34-foot boom! There are a few other big beams, up to the M2 with a 50-foot boom, and the lunatic fringe stacks them, etc.. The higher the tower the better! RG8 or RG213 is plenty good enough cable for most people. Antenna-mounted preamps aren't needed. External noise is fairly high at 50 MHz. It overrides the front-end noise figure on about all the rigs on the market today unless you have a LOT of cable loss or a VERY quiet location.

Also from my cards: (largest beam = 44 elements!)
NUMBER OF ELEMENTS
<3 3 4 5 6 >6
this size 9 8 15 22 30 19
HEIGHT (FEET)
<26 26-55 56-100 >100
this height 10 35 18 3

PROPAGATION

Tropo - The ordinary ground-wave tropo range on six isn't quite as great as on two. There are a number of reasons. Since there are so many other prop modes on six, people don't try so hard on tropo. Antenna gain often is higher on two. Noise is lower on two. At least in the summer, stations like W3BWU (Pittsburgh), W3IDZ (northern NJ) are easily worked from here with the beam pointing at them, and can be heard at almost any pointing. They are in the 150-W class.

Meteors - Any area workable by meteors can be worked more easily by Es or aurora. Even though meteor sigs are much stronger and longer on six than on two, little use has been made of them. There has been a VERY little meteor-burst

packet work on six. I had the first such contact (with W0RPK). W3XO worked him a few years later.

Ionoscatter - Some people think it's really meteors, but every weekend morning there are a number of nearly-kilowatt stations working each other on SSB at distances of about 600 - 1000 miles by ionosperic scatter. Sigs are weak, and it takes good beams, height, and power, but it is very reliable. See the old NBS papers by Bailey, Bateman and Kirby, et al. Bateman and Kirby were/are hams. Ross Bateman died last year. Dick Kirby continues as head of CCIR in Geneva.

Aurora - Much easier than on two. SSB is usually intelligible. Point north about dusk, most commonly in March and October/November. Lots of people work this mode when it happens.

Es - You know something about Es from TV DXing and "short skip" on ten meters. Having much better antennas, modulation, and receivers, hams do a lot more with it on six than you are used to on channel two TV.
It is most common from May to August, and around Christmas, here in Northern latitudes. In addition to the common single-hop range of 500 - 1500 miles, there are quite a few double-and-more hop contacts on six. Now that a number of Europeans are on six (with LOW power), we find that they can be worked from the US east coast each summer. Likewise the Caribbean stations work all over the US. The US west coast has an easy time with Hawaii and Alaska.

F2 - This is the traditional world-wide F-layer propagation you know and love from 20 and 15 meters. At most sunspot maximum periods, a few years of each eleven, the MUF reaches above 50 MHz in the autumn and spring. It isn't every day, but even antipodal communication has happened. The leaders have now worked over 100 countries. But they have spent MANY hours over many years trying to catch the fleeting opening. F2 brings an influx of the lower-band DX operators. The normal rather gentle operating style gets somewhat lost at those times.

Transequatorial Propagation - The southern US gets a number of openings to South America by some kind of ionospheric aly-ducted propagation. The stations are generally about equidistant either side of the magnetic equator. Given exceptional luck, an Es opening linked into this mode can make it available to more northern stations. This mode has bad flutter fading and a touch of the auroral spectrum spreading. This mode also works sometimes on two meters if you use CW and really good

gear. It has been worked on 432 MHz.

EME - There have been a few EME contacts on six, but the
required extreme antenna size and transmitter power make it
out of the reach of most people.

Did I leave any modes out?

TVI, ITV

There is no doubt about it, six has TVI troubles. You
find a limited number of people on six in channel 2 areas
unless cable is widely subscribed-to. Many VCRs and
audio systems are also prone to six-meter pickup. The
common connecting or power cable is a quarter-wave
antenna for six .... The TV owners have their revenge
since the 13th harmonic of the color subcarrier, or
something, of TV sets and TV games puts out a birdy at
50.113 MHz to bother the six-meter operators in return....
There is also quite a bit of trouble from noisy power
distribution lines if they aren't buried (usually bad
insulators or poor guy bonding).

STILL INTERESTED?

That should be enough to hold you for a while. Listen
to 28.885 MHz, the ten-meter liaison frequency for
overseas six-meter DX.

73,
Bob W3OTC
WAS (#638), WAC, and 66 countries on six.

Date: 25 Jan 90 14:12:20 GMT
From: mcsun!ukc!strath-cs!cs.glasgow.ac.uk!willisa@uunet.uu.net (Mark Willis)
Subject: Legalities of Multiple Call Signs
Message-ID: <4345@vanuata.cs.glasgow.ac.uk>

In article <9001171628.AA04357@zit.cigy.> jcp@cgch.UUCP (Joseph C. Pistritto) writes:
>
> Does anyone know what the rules are if you are licensed in
>more than one country? I know that in each country you hold a license
>in, you must use the privleges and callsign assigned by that country,
>but what happens if you go to a third country to operate?

As far as I remember, you must abide by the restrictions in the other country,
further limited by the restrictions of you own licence. (In your case this
depends on which callsign you operate under).

Mark

--
JANet: willisa@uk.ac.gla.cs NSFnet: willisa@cs.glasgow.ac.uk

Date: 25 Jan 90 21:10:43 GMT
From: csusac!mmsac!jim@ucdavis.ucdavis.edu (Jim Lips Earl)
Subject: Need info on rechargable Alkaline battery
Message-ID: <3738@mmsac.UUCP>

I recently aquired an old Motorola VHF Hi lunchbox radio. It
is a one-channel FM receiver/transmitter, and it puts out about 1
watt. It has a rechargable 6-volt, 4 amp-hour battery in it, that is
dried out, and doesn't work. If I supply 6 volts at about 1.5 amps to
the radio externally, it works fine.

Now, the battery has little screw-top covers on each cell, and I can
see the little sheets of metal and what looks like cardboard inside,
but it is completely dry.

Can I make this battery work again? Would it work if I put
hydrochloric acid in the cells (like from a car battery)? It says on
the side of the battery that it is a rechargeable alkaline battery,
and should only be charged with an approved Motorola charger.

Is there some kind of alkaline liquid I could put in it to make it work?

Any info would be helpful.
--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==
The opinions stated herein are all mine.

Date: 25 Jan 90 14:21:55 GMT
From: att!chinet!megabyte@ucbvax.Berkeley.EDU (Dr. Megabyte)
Subject: New Icom Radios (Official Announcement) !!
Message-ID: <1990Jan25.142155.9621@chinet.chi.il.us>

Did the Icom annoucement say anything about Icom's new R-72 SW
receiver?
--
Mark E. Sunderlin: IRS Technocrat in Winchester, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
"We're very kinky, in a Republican sort of way." - Sue Pauloz

----

Date: 25 Jan 90 21:15:15 GMT
From: unmvax!ariel!hydra.unm.edu!ee5391aa@ucbvax.Berkeley.EDU (Duke McMullan n5gax)
Subject: Stock-Market Quote Transmissions
Message-ID: <1389@ariel.unm.edu>

One suggestion I haven't seen so far is de-imaging the stock quotes given on whatever the "business channel" is (I don't have/watch cable TV (yet))... I've seen this on other's cable-connected veletisions on occasion.

Now, from (dim) memory, I recall an article in 73 Magazine from back before direct ASCII transmission was legal on our bands...someone showed that you could put letters on a SSTV image, transmit it LEGALLY (Uncle Fox said so!) and pick the image apart at the end to get your text. It was an administrative kludge, rendered pointless by authorization to use ASCII, but the idea may be useful here.

The image (as I recall) has a small rectangular portion of the screen display-ing stock quotations in a moving-strip (ticker-tape?) fashion. A frame grabber could "grab" every few seconds, and only a small portion of the image would need to be processed, so it should go quickly, and you generate a nice little tickertape file.

I don't know:
o How much it would cost
o How quickly the processing REALLY could be done
o How "old" the televised quotes are
o If anyone really gives a damn

There's the idea. Now, kick it around a bit.

Have fun,
n5gax

"So much karst; so little time...."
Duke McMullan n5gax nss13429r phon505-255-4642 ee5391aa@hydra.unm.edu

----

End of INFO-HAMS Digest V90 Issue #102
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674. Warning From uucp

Newsgroup: rec.ham-radio
Date: 1990-01-30 13:25:13 UTC
From: uucp@ATT-IN.ATT.COM
Message-ID: <9001310803.AA10530@ucbvax.Berkeley.EDU>
Source record: 13744

We have been unable to contact machine 'att' since you queued your job.
The following file have not been delivered.

att!mail att!westbud!rosenberg (Date 01/28)

The job will be deleted in several days if the problem is not corrected.
If you care to kill the job, execute the following command:
Note: this command can only be executed on machine (att-in):

uustat -kattZb301

Sincerely,
att-in!uucp

##
Data File:
From wsmr-simtel20.army.mil!INFO-HAMS Fri Jan 26 01:15:15 MST 1990 remote from att
Received: from WSMR-SIMTEL20.ARMY.MIL by mintaka.lcs.mit.edu id aa00145;
26 Jan 90 4:08 EST
Date: Fri, 26 Jan 90 01:15:15 MST
From: INFO-HAMS-REQUEST@wsmr-simtel20.army.mil
Reply-To: INFO-HAMS@wsmr-simtel20.army.mil
Subject: INFO-HAMS Digest V90 #104
To: INFO-HAMS@wsmr-simtel20.army.mil
Message-ID: <9001260409.aa00145@mintaka.lcs.mit.edu>

INFO-HAMS Digest Fri, 26 Jan 90 Volume 90 : Issue 104

Today's Topics:
AMSAT news service bulletins, 1/23/90

Date: 26 Jan 90 06:48:20 GMT
From: ka9q.bellcore.com!karn@bellcore.com (Phil Karn)
Subject: AMSAT news service bulletins, 1/23/90
Message-ID: <19385@bellcore.bellcore.com>

Posted: Tue, Jan 23, 1990 10:24 PM GMT Msg: HGJA-4147-5482
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS-$0123

SB ALL @ AMSAT $ANS-023.01
SUCCESSFUL LAUNCH OF SIX NEW AMATEUR RADIO SATELLITES

HR AMSAT NEWS SERVICE BULLETIN 023.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990

TO ALL RADIO AMATEURS BT

After nearly three years of hard work by scores of dedicated AMSAT volunteers, there are finally six new amateur satellites in orbit. At 01:35:31 UTC on January 22, 1990, ESA successfully launched it's V35 mission, an Ariane 4 booster, from its launch facility in Kourou, French Guiana. On board were six amateur radio satellites, two built by the University of Surrey, UO14 and UO15 and four microsats built by AMSAT-NA, AO16, AO17, AO18, AO19. An errant tape recorder on the primary payload, SPOT-2 delayed the launch from January 9th and bad weather in the area brought about a scrub of the launch on January 21. However, the picture perfect launch occured at the beginning of the ten minute launch window Sunday evening local time.

The AMSAT Launch Information Network Service (ALINS) brought the launch "live" to thousand of amateurs and interested on-lookers world wide. Doug Loughmiller, KO5I, President of AMSAT-NA, anchored the net which could be heard on the ham bands covering 160 meters all the way up to AO10 and AO13. Also heard on the ALINS net were a number of the major contributors to this latest effort. Commentary prior to the launch was offered by Tom Clark, W3IWI, Jan King W3GEY, Martin Sweeting, G3YJO, Jeff Ward G0/K8KA, Harold Price NK6K, Dave Cowdin WD0HHU and Bob McGwire N4HY. It was noted that this was also an anniversary for the ALINS net. It was twenty years ago, on January 23, 1970, when the first ALINS net covered the launch of Australius-OSCAR 5.

Doug Loughmiller, watching the ESA video feed of the launch, counted down to ignition and liftoff. AMSAT's Dave Cowdin, who had been at the launch site for over 5 weeks gave updates on the progress of the mission from his position at ESA mission control. At about three minutes into powered flight (during the second stage burn), the launch commentary ceased. For over a minute, neither Dave Cowdin or Tom Clark, who was monitoring the launch from the NASA Goddard Space Flight Center in Greenbelt MD offered any information. This silence had certainly activated the adrenaline glands and stopped the breathing of those who were listening. One voice offered some comfort, explaining that ESA had never had a second stage failure in any of its missions. Finally Dave's voice came through indicating that all systems were "still GO" --- and with that message, those listening could begin to breath again. As part of the elation felt by the development team, Harold Price (a member of the software team) indicated his delight in recognizing that the satellites were no longer within the grasp of the hardware team, and that the satellites were "all theirs".

At 20:04 minutes of mission elapsed time, ESA issued a payload separation command to its launch vehicle and UO14 and UO15 were freed. A minute and a half later at 21:29 mission elapsed time, ESA issued two more payload separation commands and AO16, AO17, AO18, AO19 were released. Dave Cowdin reported that the six separation lights were "All Green" indicating confirmation that all six Amateur Satellites had successfully separated from the launch vehicle.

Dave Cowdin indicated that AMSAT was treated in a most professional manner by ESA. Although the primary payload, SPOT-2, (a $100 million observation satellite) was ESA's primary concern, applause from ESA mission control could

be heard over the ALINS net as the six satellites were separated from the main launch vehicle.

During the first orbit, AMSAT-LU in Buenos Aires commanded the CW beacon to commence transmitting, and it provided vital temperature and battery voltage information to the satellite command team. Although attempts by N4HY to turn on the PSK telemetry beacons during orbit 1 were unsuccessful, all of the Microsats were transmitting by the end of the last pass (orbit 3) over the west coast, around 0700. Spacecraft engineers Harold Price and Jan King, operating from W6TRW, indicated that the satellites had either responded to ground command or had switched on transmitters automatically in order to prevent battery overcharging. WEBERSAT was succesfully commanded on from Weber State College in Ogden, Utah during orbit 2. UO-14 and 15 were activated during the first opportunity visible from the University of Surrey on orbit 5.

/EX
SB ALL @ AMSAT $ANS-023.02
PRE-LAUNCH MICROSAT KEPLERIAN ELEMENT SET

HR AMSAT NEWS SERVICE BULLETIN 023.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

SPOT-2 / MICROSAT / UOSAT KEPLERIAN ELEMENT SET

The following element, originally provided by ESA as relayed by N4HY has been modified by W2RS to more closely predict observed AOS and LOS times:

Satellite: SPOT-2, UO-D, E, Microsat-A, B, C, D
Catalog number:
Epoch time: 90022.0778588
Element set: Kourou-1
Inclination: 98.73 deg
RA of node: 97.9558 deg
Eccentricity: 0.0013
Arg of perigee: 93.9 deg
Mean anomaly: 302.31 deg
Mean motion 14.28575 rev/day
Decay rate: 1.0e-05 rev/day^2
Epoch rev: 0
Appogee 816.0 km
Perigee 798.1 km

The following element set for PACSAT was provided by RGO via G3AAJ.

Satellite: AO-16
Catalog number:
Epoch time: 90022.77211779
Element set: RGO
Inclination: 98.7092 deg
RA of node: 99.2408 deg

Eccentricity: 0.0003323
Arg of perigee: 185.4669 deg
Mean anomaly: 178.4316 deg
Mean motion 14.28180195 rev/day
Decay rate 7.9248e-04 rev/day^2
Epoch rev: 10

Whatever element set you are using, allow some tolerance in pass times and antenna pointing until information starts to become available from the standard sources.

/EX
SB ALL @ AMSAT $ANS-023.03
MICROSAT AND UOSAT FREQUENCIES

HR AMSAT NEWS SERVICE BULLETIN 023.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

MICROSAT AND UOSAT FREQUENCIES AND DEPLOYMENT ORDER

The following are the Microsat and UoSat listening frequencies, data rates, and modes for the first few weeks of operation and check out.

Spacecraft OSCAR number Frequency, MHz Mode

UoSat D UO-14 435.070 1200 bps AFSK (FM)
UoSAT E UO-15 435.120 1200 bps AFSK (FM)
PACSAT AO-16 437.025 1200 bps PSK AX.25
DOVE AO-17 145.825 1200 bps AFSK AX.25 (FM)
WEBERSAT AO-18 437.075 1200 bps PSK AX.25
LUSAT AO-19 437.150 1200 bps PSK AX.25
LUSAT - CW LUSAT 437.125 12 WPM CW telemetry

Packet transmission from DOVE may be monitored with an unmodified TNC-2 or clone, using an FM receiver. The other microsats (PACSAT, WEBERSAT, and LUSAT) require an SSB receiver and TNC with a 1200 bps PSK demodulator (FO-12 compatible, NOT the 400 bps PSK demodulator used with AO-10 and AO-13). The modulation scheme used by the UoSats is compatible with UO-11.

/EX
SB ALL @ AMSAT $ANS-023.04
PREPARATION FOR SAREX OPERATIONS WELL UNDERWAY

HR AMSAT NEWS SERVICE BULLETIN 023.04 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

Although the past few months have seen much attention focused on the Microsat/UOSAT launch, there is yet another amateur space spectacular to take note of. In April Ron Parise (WA4SIR) will be an astronaut on the next flight of the shuttle Columbia. Ron will be flying a SAREX

(Shuttle Amateur Radio EXperiment) payload.

Ron will be taking the Motorola HT plus packet hardware. The SAREX packet hardware is a 1990 version of what we had hoped to fly in 1986 when the Challenger disaster caused a schedule setback. In 1986, we planned a radiation-hardened 16K TNC2 -- the 1990 version is a radiation-hardened Heath/Tasco HK-21 "Pocket Packet" with 32k of RAM. The Support computer has evolved from a small Radio Shack Model-100 (which we would have had to provide) to a Grid laptop PC clone (which is a standard item on the orbiter).

For the 1986 mission we had planned a "ROBOT" QSO machine which could work up to 9 people simultaneously, which had the capability for sending a long (1.7 kbyte) "Meta-beacon" and which could also be used as a "normal" TNC if there were real time QSOs. The 1986 firmware was tested in several locations and on two aircraft tests and proved to be very robust. The 1990 SAREX TNC firmware is an updated version of the earlier code. The major functional change is that the TNC now has enough RAM to store 650 QSOs, which in turn solves a major operational problem that would have existed in 1986 when the "worked" logs would have had to be downlinked in real time and assembled from beacons. As with the earlier software, stations only appear in the "worked" log the first time they complete a QSO -- no dupes! There has also been a minor change in the dupe definition in that the log drops any SSID, so a QSO with K9DOG-4 is a dupe if K9DOG has been worked earlier.

During the winter of 1985/6 there was a lot of interest in having SAREX demo stations in several parts of the country. Those stations who would like to offer their services a demo station should contact Tom Clark, W3IWI, or Courtney Duncan, N5BF, through AMSAT Headquarters.

/EX
SB ALL @ AMSAT $ANS-023.05
QSL CARDS FROM U2MIR HAVE ARRIVED

HR AMSAT NEWS SERVICE BULLETIN 023.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

Ray Soifer W2RS recently reported that he and KZ1Z have received QSL cards from U2MIR. They were mailed 29 DEC 89 from Moscow and was signed by UW3AX. Those stations who contacted U2MIR while he was in orbit should be checking their mailboxes over the next few days for this rare collector's item.

/EX
SB ALL @ AMSAT $ANS-023.06
MICROSAT'S EDAC COUNTER REFERENCES SET

HR AMSAT NEWS SERVICE BULLETIN 023.06 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

The current early orbit software for the four Microsats does not record EDAC errors (Error Detection And Correction circuitry for the on-board memory), it only reports the status of the EDAC counter. The counter comes up in a random

state when power is first applied. To determine the number of EDAC errors occuring during the first few days, the values of the counters at initial power up are listed here:

DOVE: 0xaa LUSAT: 0x0b PACSAT: 0xd8 WEBER: 0x22

Note that a large count value does not necessarily indicate a large number of radiation hits. Counters are incremented each time effected bytes are read from memory, but are only corrected when those bytes are written to memory during a memory wash cycle or ordinary data manipulations. If an effected byte is located in a part of software that is executed many times, many errors may be registered before the wash correction occurs.

/EX
SB ALL @ AMSAT $ANS-023.07
MICROSATS' FINAL PRE-LAUNCH TELEMETRY FRAMES

HR AMSAT NEWS SERVICE BULLETIN 023.07 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 23, 1990
TO ALL RADIO AMATEURS BT

Below are listed two consecutive telemetry frames downloaded from each Microsat during the final telemetry dump at Kourou.

DOVE-1>TIME-1:PHT: uptime is 004/20:40:46. Time is Tue Dec 19 11:09:40 1989

DOVE-1>TLM:00:58 01:5C 02:7E 03:29 04:40 05:5D 06:6A 07:3D 08:6D 09:5D 0A:A6
0B:B6 0C:E8 0D:DC 0E:04 0F:26 10:DC 11:86 12:00 13:0C 14:7C 15:7B
16:79 17:74 18:78 19:77 1A:78 1B:53 1C:7C 1D:76 1E:D0 1F:62 20:C6

DOVE-1>TLM:21:A8 22:76 23:10 24:0B 25:1E 26:00 27:00 28:00 29:00 2A:00 2B:01
2C:4C 2D:34 2E:3A 2F:7A 30:9B 31:7C 32:00 33:00 34:7D 35:7E 36:7D
37:7E 38:7D 39:7C 3A:01

DOVE-1>STATUS: 00 00 00 80 B0 18 55 00 00 B0 00 00 30 00 00 00 00 00 00 00

DOVE-1>WASH:wash addr:2500:0000, edac=0xaa
DOVE-1>TIME-1:PHT: uptime is 004/20:40:56. Time is Tue Dec 19 11:09:50 1989

DOVE-1>TLM:00:60 01:5B 02:7F 03:2A 04:3D 05:59 06:70 07:3D 08:6E 09:5E 0A:A4
0B:B6 0C:E8 0D:DC 0E:05 0F:26 10:DC 11:86 12:00 13:0C 14:7C 15:7C
16:76 17:74 18:76 19:77 1A:74 1B:53 1C:7C 1D:76 1E:D0 1F:62 20:C5

DOVE-1>TLM:21:AA 22:75 23:10 24:0C 25:1E 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:4B 2D:32 2E:3A 2F:7A 30:9A 31:7A 32:00 33:00 34:7C 35:7D 36:7E
37:7E 38:7D 39:7C 3A:01

DOVE-1>STATUS: 00 00 00 80 B0 18 55 00 00 B0 00 00 30 00 00 00 00 00 00 00

DOVE-1>WASH:wash addr:2740:0000, edac=0xaa

LUSAT-1>TIME-1:PHT: uptime is 004/20:09:50. Time is Tue Dec 19 11:01:43 1989

LUSAT-1>TLM:00:62 01:72 02:6E 03:5F 04:70 05:7A 06:6A 07:85 08:6A 09:71 0A:A5
0B:9D 0C:E7 0D:DD 0E:05 0F:51 10:DC 11:85 12:00 13:05 14:7D 15:7A

```
16:6E 17:6A 18:6D 19:70 1A:6A 1B:6B 1C:68 1D:65 1E:CE 1F:5F 20:A2

LUSAT-1>TLM:21:90 22:78 23:02 24:00 25:15 26:00 27:02 28:00 29:01 2A:00 2B:01
2C:3E 2D:35 2E:2E 2F:7A 30:77 31:77 32:00 33:00 34:7D 35:7A 36:7A
37:7A 38:80 39:7A 3A:7A 3B:FF 3C:FF

LUSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 00 00 00 30 00 00 00 00 00 00 00

LUSAT-1>WASH:wash addr:0d40:0000, edac=0x0b
LUSAT-1>TIME-1:PHT: uptime is 004/20:10:00. Time is Tue Dec 19 11:01:53 1989

LUSAT-1>TLM:00:62 01:75 02:70 03:5F 04:67 05:7D 06:6D 07:85 08:6A 09:75 0A:A5
0B:9F 0C:E7 0D:DD 0E:05 0F:50 10:DC 11:85 12:00 13:05 14:7D 15:7A
16:6D 17:70 18:6D 19:70 1A:6A 1B:6E 1C:65 1D:65 1E:CE 1F:5F 20:9D

LUSAT-1>TLM:21:90 22:78 23:02 24:01 25:15 26:00 27:02 28:00 29:01 2A:00 2B:00
2C:3E 2D:38 2E:2E 2F:7A 30:78 31:7A 32:00 33:01 34:80 35:7A 36:7A
37:7A 38:80 39:7A 3A:7A 3B:FF 3C:FF

LUSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 00 00 00 30 00 00 00 00 00 00 00

LUSAT-1>WASH:wash addr:0f80:0000, edac=0x0b

PACSAT-1>TIME-1:PHT: uptime is 004/22:46:30. Time is Tue Dec 19 11:15:31 1989

PACSAT-1>TLM:00:6A 01:82 02:6E 03:64 04:69 05:8C 06:5D 07:62 08:70 09:80 0A:A6
0B:98 0C:E7 0D:DC 0E:19 0F:30 10:E2 11:82 12:00 13:09 14:7C 15:7B
16:6F 17:5F 18:6F 19:6B 1A:70 1B:76 1C:6C 1D:6C 1E:CB 1F:5F 20:AA

PACSAT-1>TLM:21:8C 22:76 23:0C 24:08 25:1B 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:4C 2D:34 2E:47 2F:79 30:78 31:78 32:00 33:00 34:7E 35:7E 36:7D
37:7D 38:7D 39:9D 3A:01

PACSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 80 00 00 30 00 00 00 00 00 00 00

PACSAT-1>WASH:wash addr:10c0:0000, edac=0xd8
PACSAT-1>TIME-1:PHT: uptime is 004/22:46:40. Time is Tue Dec 19 11:15:41 1989

PACSAT-1>TLM:00:67 01:84 02:70 03:67 04:6B 05:90 06:5A 07:64 08:70 09:80 0A:A5
0B:98 0C:E7 0D:DE 0E:1A 0F:31 10:E2 11:82 12:00 13:09 14:7C 15:7A
16:6D 17:70 18:5F 19:5F 1A:70 1B:73 1C:70 1D:68 1E:CC 1F:5F 20:AA

PACSAT-1>TLM:21:8D 22:77 23:0D 24:08 25:1C 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:4C 2D:34 2E:48 2F:78 30:7A 31:7A 32:00 33:00 34:7D 35:7F 36:7E
37:7D 38:7D 39:9C 3A:00

PACSAT-1>STATUS: 00 00 00 80 B0 18 55 03 00 80 00 00 30 00 00 00 00 00 00 00

PACSAT-1>WASH:wash addr:1300:0000, edac=0xd8

WEBER-1>TIME-1:PHT: uptime is 004/21:50:10. Time is Tue Dec 19 11:20:40 1989

WEBER-1>TLM:00:74 01:6F 02:69 03:7B 04:70 05:8C 06:71 07:7F 08:6B 09:31 0A:8C
0B:9E 0C:BD 0D:A4 0E:06 0F:59 10:92 11:81 12:04 13:51 14:7C 15:7A
16:76 17:70 18:6B 19:74 1A:6B 1B:75 1C:6E 1D:75 1E:C8 1F:65 20:9C
```

```
WEBER-1>TLM:21:91 22:77 23:11 24:12 25:22 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:60 2D:43 2E:51 2F:79 30:78 31:79 32:28 33:28 34:7C 35:7C 36:7C
37:7C 38:BE 39:F6 3A:79 3B:94 3C:EF 3D:FF 3E:42 3F:BF 40:7D 41:7D
42:BF

WEBER-1>STATUS: 00 00 00 80 B0 18 55 03 00 FB EF FF 30 00 00 00 00 00 00 00

WEBER-1>WASH:wash addr:0c80:0000, edac=0x22
WEBER-1>TIME-1:PHT: uptime is 004/21:50:20. Time is Tue Dec 19 11:20:50 1989

WEBER-1>TLM:00:74 01:6E 02:68 03:7B 04:70 05:8C 06:70 07:7D 08:68 09:2E 0A:8C
0B:9E 0C:BD 0D:A4 0E:06 0F:5A 10:92 11:81 12:04 13:52 14:7C 15:7A
16:6D 17:6F 18:6C 19:74 1A:6A 1B:75 1C:6C 1D:75 1E:C8 1F:64 20:9C

WEBER-1>TLM:21:91 22:76 23:12 24:12 25:21 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:60 2D:43 2E:51 2F:7A 30:78 31:7A 32:28 33:26 34:7C 35:7C 36:7C
37:7C 38:BF 39:FD 3A:78 3B:94 3C:DF 3D:FF 3E:42 3F:BF 40:7D 41:7C
42:BF

WEBER-1>STATUS: 00 00 00 80 B0 18 55 03 00 FB EF FF 30 00 00 00 00 00 00 00

WEBER-1>WASH:wash addr:0ec0:0000, edac=0x22

/EX

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End of INFO-HAMS Digest V90 Issue #104
**************************************
```

675. Warning From uucp

Newsgroup: rec.ham-radio
Date: 1990-01-30 13:25:46 UTC
From: uucp@ATT-IN.ATT.COM
Message-ID: <9001310804.AA10765@ucbvax.Berkeley.EDU>
Source record: 13743

```
We have been unable to contact machine 'att' since you queued your job.
The following file have not been delivered.

att!mail att!westbud!rosenberg (Date 01/28)

The job will be deleted in several days if the problem is not corrected.
If you care to kill the job, execute the following command:
Note: this command can only be executed on machine (att-in):

uustat -kattZb31e

Sincerely,
att-in!uucp

##################################################
##### Data File: ################################
From wsmr-simtel20.army.mil!INFO-HAMS Fri Jan 26 13:01:51 MST 1990 remote from att
Received: from WSMR-SIMTEL20.ARMY.MIL by mintaka.lcs.mit.edu id aa22603;
26 Jan 90 15:53 EST
Date: Fri, 26 Jan 90 13:01:51 MST
From: INFO-HAMS-REQUEST@wsmr-simtel20.army.mil
Reply-To: INFO-HAMS@wsmr-simtel20.army.mil
Subject: INFO-HAMS Digest V90 #106
To: INFO-HAMS@wsmr-simtel20.army.mil
Message-ID: <9001261553.aa22603@mintaka.lcs.mit.edu>

INFO-HAMS Digest Fri, 26 Jan 90 Volume 90 : Issue 106

Today's Topics:
(still more) Microsat messages
10 meter pirates (was = Re: AM oper
6 meters
A new home is needed for the INFO-HAMS mailing list
ARRL January VHF Test
ARRL PFB NR 4
ARRL SPECIAL BULLETIN NR 2
J-pole Antennas.
radio control of models
Request for info ... solar sails.
Results of: 75 Foot Tower 30 feet f
Stock-Market Quote Transmissions
WANTED: NASA Frequencies (Shuttle, Satellite, etc.)
----------------------------------------------------------------------

Date: 26 Jan 90 09:13:09 GMT
From: ka9q.bellcore.com!karn@bellcore.com (Phil Karn)
Subject: (still more) Microsat messages
```

Message-ID: <19390@bellcore.bellcore.com>

Posted: Fri, Jan 26, 1990 9:07 AM GMT Msg: EGJA-4149-7841
From: PKARN
To: amsat
Subj: microsat elements

Here's a set of elements for what are being called 1990 005A and 1990 005H, since they were not included in Max White's list. These came from Kelso's Celestial BBS.

1990 005A
1 20436U 90 5 A 90 23.82409993 .00004306 00000-0 17953-2 0 77
2 20436 98.7217 100.2931 0003389 178.5625 181.5624 14.26691687 258
1990 005H
1 20443U 90 5 H 90 23.82219061 -.00030107 00000-0 -12187-1 0 73
2 20443 98.7165 100.2885 0010048 210.8523 149.2068 14.28223237 250

I didn't include his other sets because the ones Max White provided have later epochs.

I wouldn't make ANY assumptions about which of the 8 element sets correspond to which real objects, including SPOT and the launcher. At the moment 005B is well ahead of the pack and 005A is well behind, with the others bunched in the middle. C and E look almost identical. I'm not sure what all this tells us, since I don't know what maneuvers (if any) were done by SPOT and the launcher after separation, nor do I know the precise velocity vector of each separation.

If we could get radar cross section data we could narrow things down, but lacking this we'll have to wait for all the objects to spread out. Then we can tell NORAD which is which. (I note, rather wryly, that they're part of the same organization that says they'll have no problem telling, with absolute reliability, the difference between an incoming nuclear warhead and a decoy in a matter of minutes...but I digress. :-))

--Phil

Posted: Fri, Jan 26, 1990 8:45 AM GMT Msg: JGJA-4149-7790
From: HPRICE
To: amsat
CC: jking
Subj: First Microsat program load

The first post-launch software was uploaded to WEBERSAT this evening. The upload was started on the east coast by N4HY and completed by NK6K @ W6TRW on the west coast. We'll use this technique of uploading large programs over several passes by multiple command stations to counter the relatively short access times.

During the first pass over LA, the satellite was getting perfect copy of 152-byte packets while it was still near the horizon, with 25 watts into a klm-22c. We didn't try to see how low with RF we could go, as

we wanted to get the software in. It appears that the satellites will be
as easy to get into as we hoped. Receiver sensitivity and channel centers
will be calibrated in the days to come.

An improved loader in now running on WEBERSAT, although the new battery
control algorithm is not yet loaded.

The weber transmitter was off from Fri Jan 26 05:06:30 1990 UTC until
Thu Jan 26 06:37:06 1990 UTC. The UTC date on weber was set to 1989
by mistake, this will be corrected in the morning.

We are still in the process of installing factory field upgrades to
webersat in preparation of turning it over to the "customer" sometime
next week.

Harold
NK6K

Date: 25 Jan 90 17:28:02 GMT
From: cs.utexas.edu!asuvax!hrc!valley!pfluegerm@tut.cis.ohio-state.edu (Mike Pflueger)
Subject: 10 meter pirates (was = Re: AM oper
Message-ID: <483fcfa5.15840@valley.UUCP>

In article <30500365@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> > Does this include Amateur Electronic Supply? I notice that their catalog
> > lists a Hustler RM-11S. This is a 2 kw PEP resonator which is intended
> > for operation on 11 meters. I can't think of a legitimate purpose for this,
>
> It's legal to use an antenna capable of handling 2 kw PEP with your 12 watt
> PEP legal CB rig, as far as I know.
>

This kind of reminds me of the "monster cable", or something like that,
which is being advertised to "audiophiles" as being better for your stereo
system - less distortion, more power to your speakers, "you can hear the
difference". You know, the cables with like 1/4" copper conductors rated
at 10000 Amps or something ungodly. The word "overkill" becomes an
understatement...

Makes me laugh every time I see one of those ads. I actually have seen
people spend the $1 per foot for this stuff.

:-)
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

Date: Fri, 26 Jan 90 07:20:29 EDT
From: Mike Owen W9IP <MROWEN%STLAWU.BITNET@CUNYVM.CUNY.EDU>
Subject: 6 meters

In a recent posting, "Dr. MegaByte" asked about
usage of the 50-54 MHz (6 meter) band. I would
like to echo the response made by Jim, AD1C: Yes,
6 meters is very heavily used and is extremely
popular among VHFers. I'll bet that over 90%
of the weak-signal (i.e. SSB/CW, non-FM, non-ATV)
VHFers have 6-meter gear.

You may _perceive_ that 6 meters is unoccupied for
several reasons. First, its activity is strongly
seasonal. E-layer propagation is about nil during
most of the winter, so many 6-meter ops don't get on
the air except during the summer. Second, the "ground-
wave" [bad term, I know...] range on 6 meters is not
great, so unless you live within about 50-75 miles of
an active station, you may not hear much day-to-day
activity. Lastly, it takes a beam antenna to get good
results on 6 (just like on the higher VHF bands). So if
you're a casual listener, perhaps using just a scanner
and vertical antenna, you will not hear much of the activity
that's actually there.

6 meters is VERY alive and VERY well, thanks to recent F2
DX openings to Europe, Japan, and S. America. Concentrate
your listening in the range 50.1 - 50.150 (especially .110
and .125) and you may get a case of 6-meter fever, too.

Mike Owen, W9IP/2

Date: Fri, 26 Jan 1990 12:25 MST
From: Keith Petersen <w8sdz@WSMR-SIMTEL20.ARMY.MIL>
Subject: A new home is needed for the INFO-HAMS mailing list
Message-ID: <KPETERSEN.12561366260.BABYL@WSMR-SIMTEL20.ARMY.MIL>

SIMTEL20 is suffering from a serious overload of its network
services. We must find new homes for Info-Hams and other high-
volume mailing lists.

If your host is on the Internet and is willing to take on the
additional mail load and has disk space for the archives, please
contact me.

73,

--Keith Petersen W8SDZ
Info-Hams mailing list maintainer
Internet: w8sdz@WSMR-SIMTEL20.Army.Mil, w8sdz@brl.arpa BITNET: w8sdz@NDSUVM1
Uucp: {ames,decwrl,harvard,rutgers,ucbvax,uunet}!wsmr-simtel20.army.mil!w8sdz

---

Date: 26 Jan 90 10:59:00 EST
From: "V5120::ZWIRKO" <zwirko%v5120.decnet@nrl3.arpa>
Subject: ARRL January VHF Test

More observations of the ARRL January VHF SS (1-20/21):

Here in the Maryland D.C. area conditions were reported to be poor on all bands. 6m offered only a few meteor scatter contacts, while 2m and up offered only some slight enhancements to the south and west...At this QTH New England and W. NY were barely heard, which was highly unusual. Unfortunately no Aurora this far south on Sunday evening.
Some best DX on the various bands from FM18 were:
6m - K5CM (EM25) & WA0BWE (EN34)
2m - N4EQT (EM77) & VE3ASO (FN25)
70cm - VE3ASO (FN25) & K4LVV (EM96)

We were all quite fortunate here in the Mid-Atlantic, not to be hit by the ice/snow which plagued those north of us. As a matter of fact it was partly sunny on Sunday with temps. in the mid-50's.

The rough setup here was 300W & 6L@35' on 6m, 300W & 19L@40' on 2m and KW & 27L@ 45' on 70cm (lost my GasFet mid-test).

I, also like Dave (KM3T), used the K1EA ConTest logging program, which really is a pleasure! The 3Band score is as follows:

Band QSO QSO Points Grids
50 142 142 32
144 229 229 34
432 92 184 19
----
463 555 85 ------> 47,175 points

Some other (rumored) point scores from 5Band op's here in MD were:

K1RZ - 105.1K
NW5E - 93.9K
W3IP - 86.7K
W3ZZ - 81.2K

73 de Andy (KA1GD) andy.zwirko@v5120a.nrl.navy.mil

Date: 26 Jan 90 01:11:22 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: ARRL PFB NR 4
Message-ID: <1411@n8emr.UUCP>

==
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
==

PROPAGATION FORECAST BULLETIN 4 ARLP004
FROM ARRL HEADQUARTERS
NEWINGTON MT JANUARY 22, 1990
TO ALL RADIO AMATEURS

OVER THE PAST FOUR WEEKS AND ABOUT ONE COMPLETE ROTATION OF THE SUN, THE WRITERS CHARTS OF SOLAR DATA LOOKED VERY MUCH LIKE THEY DID FOR DECEMBER. THERE ARE ALWAYS SOME SIMILARITIES FROM ONE ROTATION TO THE NEXT, BUT WE HAD TO GO BACK TO SEPTEMBER 1987 TO SEE AS MUCH SIMILARITY AS WE HAVE OF LATE. OUR JANUARY CHART APPEARS TO BE NEARING ITS MUF PEAK AS THIS IS BEING WRITTEN, BUT WE COULD BE SEEING THE HIGHEST SOLAR ACTIVITY YET OF CYCLE 22 IF THE RISE CONTINUES AT ITS PRESENT RATE. THE FLUX ROSE FROM 198 TO 265 IN FOUR DAYS. A FEW MORE DAYS AT THIS RATE WOULD BRING A NEW HIGH FOR CYCLE 22.

NEW OUTBREAKS ON THE SUN ARE ACCOMPANIED BY BOTH HIGHER NOISE LEVELS AND A AND K INDICES, NONE OF WHICH ARE BENEFICIAL TO HF DX. ONCE THE PEAK IS REACHED AND THE SOLAR FLUX CURVE STARTS DOWN AGAIN, COMMUNICATIONS MAY IMPROVE, BUT WITH SOME LOSS OF MUF. OFTEN THERE MAY BE OPENINGS UP TO 50 MHZ, AT LEAST FOR SHORT PERIODS, ESPECIALLY ON TRANSEQUATORIAL PATHS.

LOOK FOR THE LOW POWER CW BEACONS BETWEEN 28200 AND 28300 KHZ AND 50 AND 50.1 MHZ. MOST OPERATE CONTINUOUSLY REGARDLESS OF PROPAGATION CONDITIONS.

AMERICAN SUNSPOT NUMBERS FOR JANUARY 11 THROUGH 17 WERE BETWEEN 126 AND 156 WITH A MEAN OF 137.1. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM/SWL/SCANNER BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 26 Jan 90 01:12:27 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: ARRL SPECIAL BULLETIN NR 2
Message-ID: <1412@n8emr.UUCP>

==========
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
==========

SPECIAL BULLETIN 2 ARLX002
FROM ARRL HEADQUARTERS
NEWINGTON CT JANUARY 23, 1990
TO ALL RADIO AMATEURS

THANKS TO THE APPROXIMATELY 200 OPERATORS WHO RESPONDED TO THE W1AW
TELEPRINTER CHARACTER SET TEST. A FULL REPORT WILL BE COMPLETED
IN
ABOUT SIX WEEKS. PRELIMINARY RESULTS ARE THAT ALMOST ALL STATIONS
USING EITHER BAUDOT, ASCII OR AMTOR CAN COPY MOST CHARACTERS SENT
IN
THE TEST. THE RESPONSE OF LISTENERS HAS BEEN MOST GRATIFYING. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM/SWL/SCANNER BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: Fri, 26 Jan 90 10:22:42 GMT
From: "Pete Lucas, NCS-TLC, Swindon U.K." <PJML@
Subject: J-pole Antennas.
Message-ID: <26 Jan 90 10:27:14 GMT #5043@UK.AC.NWL.IA>

The J-pole: yes it is esentially a 1/2 wave element with
a 1/4 wave matching stub at the base. As to the end impedance of a 1/2 wave,
well, there have been various claims for this, ranging between 500 and 5000
ohms.... There will be numerous factors affecting this - whether the element
is in free-space or not, the ratio of length to diameter of the element
(make it out of wire and its impedance will be higher than if it is of
large cross-section).
A 'fat' element will also have a wider bandwidth.
I have used 1/2 wave elements fed with conventional transformer matching,
i guessed the approximate ratio as being something like 15:1 and moved the
tap on the transformer to get maximum radiated field-strength.... It
worked!.
Remember, the *calculated* impedance and the *actual* impedance are only
ever the same if you are in free space (in other words theres nothing for
thousands of wavelengths in any direction...)

Anyone who expects to design and build an antenna and have it work 'straight
out of the computer', is grossly optimistic. Only fools calculate their
impedances, then expect to see a real antenna fit the theory!

If interested in the 'j-pole', also look up the 'Slim Jim' (a sort of
'folded j-pole') designed by Fred Judd G2BCX. It is about the same size as
the traditional j-pole, but about one and a half dB more efficient.

///Pete G6WBJ

Date: 26 Jan 90 17:39:51 GMT
From: cs.utexas.edu!samsung!brutus.cs.uiuc.edu!ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!m.cs.uiuc
.edu!irwin@tut.cis.ohio-state.edu
Subject: radio control of models
Message-ID: <13900015@m.cs.uiuc.edu>

I fly R/C and use 6 meters on some of my systems. Since the imports ran US companies under the table, it is tough to find 6 meter systems.

I got mine from Royal Electronics, in Denver, which no longer makes systems. I have quite a few spare servo gears, etc, so manage to keep them alive.

At this point in time, the only US manufacturer that I know of who might assist you in this is ACE R/C, in Higginsville, MO. I am at work and do not have any magazines handy, but I would think that if you called information, got their phone number and called, you could find out what is available.

ACE has kits, and the last time I knew, they still carried 6 meter equipment. As far as conversion of equipment on the market, I do not feel it would be worth it, I have built homebrew R/C hardware in the past and it gets costly to get the correct coil forms, crystals, etc, that fits the existing boards that you would find in the systems, especially when you are buying in low quantity. Additionally, all systems in this country (most anyway) come from across the pond and US parts just do not have the same sizes, etc.

Al Irwin W9LXP
Univ of Illinois
Dept of Comp Sci
Urbana, IL
irwin@m.cs.uiuc.edu

Date: 26 Jan 90 01:53:00 GMT
From: mirror!frog!cpoint!jjmhome!m2c!umvlsi!dime!ccs1.cs.umass.edu!shri@CS.BU.EDU (H.Shrikumar{shri@ncst.in})
Subject: Request for info ... solar sails.
Message-ID: <9124@dime.cs.umass.edu>

Read in recent Scientific American (Apr 89) about a solar sail race, a race in space for light crafts powered by the photon pressures.. Three entries are being planned etc. One each from Europe, Asia, and America.

I remember a blurb in a QST long time back about Ham interst in Solar Sails, for the amateur sattelites .. are any Hams involved in this too ?

The article also mentions India, among the countries with active groups working on solar sails. Anyone have pointers to such people in India ?

e-QSL (or post if thers is sufficient interest) . 73 es GB.

-- shrikumar (shri@ccs1.cs.umass.edu, shri@ncst.in)

Date: 26 Jan 90 06:08:00 GMT
From: brutus.cs.uiuc.edu!ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!phil@apple.com
Subject: Results of: 75 Foot Tower 30 feet f
Message-ID: <30500366@ux1.cso.uiuc.edu>

What kinds of testimony was given against allowing the variance?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

Date: 26 Jan 90 02:31:32 GMT
From: capmkt!shibumi@apple.com (Kenton A. Hoover)
Subject: Stock-Market Quote Transmissions
Message-ID: <405@capmkt.COM>

markz@ssc.UUCP (Mark Zenier) writes:

>In article <1990Jan20.215811.18908@hellgate.utah.edu>, liebchen@cs.utah.edu (Armin Liebchen) writes:
>> Does anyone know about the frequencies of online stock-market quote
>> transmissions in the air. They're supposed to transmit on FM, but in
...
>They are sent as a SCA subcarrier on an FM broadcast station. 88-108 Mhz.
>Since it's a subscription system, there is probably some level of protection
>in the form of custom modulation or encipherment.

>Warning, the #$%^& Electronics Communications Privacy Act has some restrictions
>on listening to SCA signals.

And if the exchanges find out that you have been recieving the data, they will come after you directly for theft. The exchanges are considered a quasi-govermental agency, and they *will* prosecute. Also, if you have executed any trades using this information, there are additional penalties. In theory, you could avoid this by paying the exchange fees. However, since the forms that must be filled out for the exchange fees include sections for *how* you are recieving the data, filling in "Intercepted from FNN Signal transmissions" would likely get you in hot water.

You might ask how you would be caught. And I don't have an answer for that. I do know that it wont go well for you if they do catch you, since the least you will have to do is pay all of the past fees you skipped on -- which are about $100+ a month PER EXCHANGE.

The FNN Signal broadcasts are encrypted, but I believe the method is trivial to crack. You will need to work out the transmission formats, which are much more complex.

Just a word of warning...

--
| Kenton A. Hoover |
| Weapons Specialist shibumi@capmkt.COM |
| Capital Market Technology +1 415 540 6400 |

| "Evil will always triumph over good because good is dumb" |

Date: 26 Jan 90 17:02:09 GMT
From: fe2o3!michael@mimsy.umd.edu (Michael Katzmann)
Subject: WANTED: NASA Frequencies (Shuttle, Satellite, etc.)
Message-ID: <291@fe2o3.UUCP>

In article <Jan.25.10.34.42.1990.10289@galaxy.rutgers.edu> gubernar@andromeda (The Lurker) writes:
>A few months back, someone posted a listing for all NASA frequencies
>(shuttle, air-to-ground, satellite, etc.). I was just wondering where
>one would have to look to get these frequencies (i.e. frequency guides,
>periodicals, etc.). Any help would be appriciated. Thanks in advance.
>

A few years ago there was a special issue of IEEE proceedings that gave a complete rundown on the shuttle and proposed space station. It was very thougher, with frequencies etc. (Some would probably have changed by now though)

---

email to
UUCP: uunet!mimsy!{arinc,fe203}!vk2bea!michael

```
_ _ _ _
Amateur | VK2BEA (Australia) ' ) ) ) / //
Radio | G4NYV (United Kingdom) / / / o _. /_ __. _ //
Stations| NV3Z (United States) / ' (_<_(__/ /_(_/|_</_</_
```

Michael Katzmann
Broadcast Sports Technology.
2135 Espey Ct. #4
Crofton Md. 21114 USA

Ph: +1 301 721 5151

End of INFO-HAMS Digest V90 Issue #106
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676. Warning From uucp

Newsgroup: rec.ham-radio
Date: 1990-01-30 13:26:00 UTC
From: uucp@ATT-IN.ATT.COM
Message-ID: <9001310805.AA10873@ucbvax.Berkeley.EDU>
Source record: 13748

```
We have been unable to contact machine 'att' since you queued your job.
The following file have not been delivered.

att!mail att!westbud!rosenberg (Date 01/28)

The job will be deleted in several days if the problem is not corrected.
If you care to kill the job, execute the following command:
Note: this command can only be executed on machine (att-in):

uustat -kattZb327

Sincerely,
att-in!uucp

##################################################
##### Data File: ##############################
From wsmr-simtel20.army.mil!INFO-HAMS Fri Jan 26 13:15:26 MST 1990 remote from att
Received: from WSMR-SIMTEL20.ARMY.MIL by mintaka.lcs.mit.edu id aa25097;
26 Jan 90 16:57 EST
Date: Fri, 26 Jan 90 13:15:26 MST
From: INFO-HAMS-REQUEST@wsmr-simtel20.army.mil
Reply-To: INFO-HAMS@wsmr-simtel20.army.mil
Subject: INFO-HAMS Digest V90 #107
To: INFO-HAMS@wsmr-simtel20.army.mil
Message-ID: <9001261657.aa25097@mintaka.lcs.mit.edu>

INFO-HAMS Digest Fri, 26 Jan 90 Volume 90 : Issue 107

Today's Topics:
Gateway 19-Jan-90
Love that DOVE!
----------------------------------------------------------------------

Date: 26 Jan 90 01:15:37 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: Gateway 19-Jan-90
Message-ID: <1413@n8emr.UUCP>

============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================

Gateway: The ARRL Packet Radio Newsletter - Stan Horzepa, WA1LOU - Editor

Volume 6 - Number 9 - January 19, 1990 - Part 1 of 4
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Published by the: American Radio Relay League
225 Main Street, Newington, CT 06111

HAM SATELLITES' LAUNCH DELAYED UNTIL JANUARY 21

On January 8, Arianespace officials announced that the V35 launch of the Amateur Radio Microsat and UoSAT satellites will be delayed further due to problems with the non-Amateur Radio SPOT-2 satellite, which is the primary payload of the mission. The problem with SPOT-2 was due to a magnetic tape recorder failure. The launch is now scheduled for January 21 at 01:35 UTC.

from Bob McGwier, N4HY and Eric Rosenberg, WA6YBT via CompuServe's HamNet

SKIPNET STA EXTENDED

The FCC has granted a one-year extension of the STA (special temporary authority) for automated packet-radio operations on HF for SKIPNET participants. This January 4 action is in direct response to an ARRL request.

ARRL AWARDS FIRST GRANT FOR HF PACKET-RADIO RESEARCH

The ARRL made its first technology grant of more than $1000 to a team of investigators headed by Stephen Hall, WM6P, for research in diversity reception of HF packet-radio signals. Co-investigators in the team are Andy Demartini, KC2FF, Wally Lindstruth, WA6JPR, Bill Lake, WB6RIJ, Herb Duncan, WE7L, and Peter LaCount, W8UXD.

The objectives of this work are to investigate the benefits of diversity reception for HF packet radio, design practical diversity antenna systems, modem characteristics and receiver design for diversity. Funds provided under this grant are for purchase of equipment, electronic parts and other out-of-pocket expenses in connection with this research. The team members donate their volunteer labor and much of their own equipment in carrying out this work.

NEW VERSION OF ARES/DATA AVAILABLE

Version 1.1 of ARES/Data is now available. The new version of this multiconnect, multiport, generic data base program for the IBM PC and compatible computers provides the following three new features.

A STATUS command provides a brief status of the system, ie, the current LABELS and WIDTHS settings and the current data base size.

An automatic Origin Indicator at the beginning of the MESSAGE field indicates which station last updated each record. The station's call sign or the word "SYSOP" will appear here, so in case of data entry errors or other questions, everyone will know who made each entry.

A WIDTHS command allows you to more neatly format output data on the screen. It does not change the data in any way, but provides a way for the column output to "look right." If the value for any field is shorter than the defined WIDTH for that field, when that record is displayed, spaces will be used to keep the fields aligned. If a given value is longer than

the specified WIDTH, then all of the value is displayed.

The program may be downloaded from CompuServe's HamNet or may be obtained by sending a blank disk (5-1/4-inch 360-kbyte or 3-1/2- inch 720-kbyte) and return postpaid disk mailer to:

W.E. Moerner, WN6I
1003 Belder Dr
San Jose, CA 95120-3302

ARES/Data may be distributed freely as long as distribution is on a nonprofit basis.

from W. E. Moerner, WN6I @ KB6OWT

PACKET RADIO MANUAL IN BRAILLE

Northern Nevada Braille Transcribers, a volunteer, nonprofit, tax-exempt group, now has the MFJ-1270 TNC 2 Packet Radio Owner's Manual available in braille. It is contained in six volumes of various lengths. It is also available on an Apple computer floppy disk. This braille manuscript is available without charge to anyone who can use it, however, contributions in any amount are gratefully accepted. Interested parties can write for additional information to Northern Nevada Braille Transcribers, 1015 Oxford Ave, Sparks, NV 89431.

from The ARRL Letter

Volume 6 - Number 9 - January 19, 1990 - Part 2 of 4

RESTRUCTURING OF THE PACKET BULLETIN BOARD SYSTEM PROPOSED

Much grumbling is heard these days about bulletins in the PBBS network. The complaints include such things as there are just too many bulletins for PBBS users to sift through, many of them have inappropriate distribution (items of purely local or regional interest being propagated around the world), you often can't tell what the subject matter is without reading them, important local items are missed in the hodgepodge of bulletins from afar and so on. To a certain extent, these are problems of user education. PBBS users need to be informed more emphatically not to send "for sale" items to @ALLBBS, to use more informative Subject lines, etc. The real problem, however, is that PBBS SYSOPs lack the bulletin management tools which would allow them to bring some order to this chaos.

Anyone who uses landline BBSs, information utilities such as CompuServe, or computer networks such as USENET, already has an appreciation for one major shortcoming of PBBSs. Unlike those systems, the packet-radio systems have no means of subdividing the bulletins (which usually go by different names on other systems) into different categories or special interest areas. Therefore, users have to wade through everything from soup to nuts (especially the latter!) to find the few items of interest to them. This wastes time and precious channel bandwidth. One partial solution to the problem is to use the To: field of bulletins to categorize them; then astute PBBS users can use commands like "L> XXXX" to find bulletins related

to the area designated by "XXXX." KA1NNN has proposed a list of categories (as published in Gateway, Volume 6, Number 2, and also distributed on the PBBS circuit) and some categories are already in use in some areas. This is by no means a complete solution, but it is a good first step and one which PBBS SYSOPs should strongly support.

In considering what other changes might be made to the packet- radio bulletin distribution system, it is useful to examine how those other systems mentioned above handle similar tasks. I would like to focus on USENET because I believe it offers the most useful model from which we can learn, but there are certainly others worth examining, such as the Fidonet BBS network.

Although USENET is not a BBS, it has some notable similarities to the PBBS network. It has been described as "a kind of grass roots network based on controlled anarchy." Sound familiar? The network consists of more than 5000 computer sites, ranging from huge mainframes to lowly PCs. What they have in common is the UNIX operating system (or at least the ability to communicate with UNIX systems). In USENET, "bulletins" are articles posted by users of these systems and the articles collectively make up the USENET "news." The news is subdivided into approximately 300 different "newsgroups" and articles are propagated amongst the participating systems by a flood routing scheme very similar to that used for packet-radio bulletins. Of course, the medium of propagation is different, typically being telephone dial-up or leased lines, and the volume of news is considerably greater.

A USENET user accesses the news by logging into his host system and running a "newsreader" program. Most systems have several such programs available, each with a different user interface. They all make use of a configuration file in the user's home directory, which lists all of the newsgroups. For each newsgroup, this file indicates whether the user has "subscribed" to it (ie, whether the newsreader will show him articles from that newsgroup) and which article numbers he has read. While reading an article, the user has options such as sending a copy to a file or to a printer, posting a follow-up article or sending private e-mail to the author.

Articles can also be posted without running the newsreader by using a different program, usually called "postnews." This is typically used when the article is not a follow-up to a previous article. The program first asks for a subject, then some key words that can be used for searching and then the name of the newsgroup in which to post it. More than one newsgroup can be selected ("cross-posting") in instances where the article's content spans several areas of interest. If the user is unsure of what newsgroups are available, the program can provide him with a list. The program then prompts for a distribution area for the article. There are usually about six choices (eg, local site only, metropolitan area, state or province, country, continent, worldwide); each newsgroup will have a pre-defined default distribution area which can be accepted by simply hitting Enter. Then the user is transferred to an editor to create the body of the article. Doing a follow-up article is easier because all of

the preliminary details (newsgroup, key words, subject, distribution) are picked up from the article to which the user is replying.

One other interesting aspect of newsgroups is that some of them are moderated. This means that users are not allowed to post articles directly from their site into that group; instead, they must be mailed to a moderator, who posts them only after determining that the contents are actually a useful contribution to the discussion. This sounds like censorship, and moderated groups are in the minority on USENET, but a good moderator can really keep the noise level down and the quality level up.

(continued next message)

Volume 6 - Number 9 - January 19, 1990 - Part 3 of 4

RESTRUCTURING OF THE PACKET BULLETIN BOARD SYSTEM PROPOSED
(continued from preceeding message)

Since there are a great number of USENET newsgroups running the gamut from highly technical and specialized to completely frivolous, a hierarchical naming system has been developed to make them easier to handle. A newsgroup name consists of two to four sections, separated by periods, proceeding left to right from the general to the specific. At the top of hierarchy are some broad topic areas such as "rec." (recreation/arts/leisure), "sci." (science and technology), and "comp." (computers). The newsgroup that deals with general topics of interest to hams is rec.ham-radio, but there is also a more specific newsgroup devoted to packet radio, known as rec.ham-radio.packet. The group for discussing IBM PC compatibles is comp.sys.ibm-pc, and so on. A few of the newsgroup names indicate geographical or institutional areas rather than topic areas. Since many of the USENET sites do not want to carry all of the newsgroups, the hierarchical naming system makes it much easier to specify which groups will be accepted by a particular site.

An interesting aspect of the anarchic nature of USENET is the way in which new newsgroups are created. There is no central authority to organize such things, so it is up to the initiative of individual users to start the process. Proposals for new newsgroups are discussed, often heatedly, in a particular newsgroup which was created for that purpose. After a suitable period, if there appears to be enough support for the new group, someone will begin collecting votes, which are sent in by e-mail. After the prescribed period, the results are posted to the net, usually accompanied by a list of the voters and how they voted. If there are at least one hundred more "yes" votes than "no" votes, the newsgroup is declared to be created. Control messages are sent out, which cause the Netnews software to automatically add the new newsgroup to the USENET distribution. Most users will have their newsreaders configured so that they will see new newsgroups when they appear. They then can "unsubscribe" if they do not wish to continue reading the new additions.

How does this relate to the PBBS network? There are obviously some aspects of USENET which don't apply, but there are also some useful lessons we can

learn. The notion of newsgroups is embodied in the To: field categories mentioned earlier. The limitation of six characters should be removed, possibly making way for a hierarchical naming scheme. The naming of the newsgroups will probably continue to evolve haphazardly for a while with some catching on and becoming popular and others falling by the wayside through lack of use. At some point, it would be desirable to formalize the list of existing newsgroups, and institute some sort of voting procedure for adding new ones. Since the packet-radio news network will presumably continue to emphasize topics related to ham radio, as opposed to everything under the sun as on USENET, I don't expect that the number of newsgroups needed will be nearly as large.

The other important aspect of bulletin/news distribution is the geographical distribution areas, which belong in the @PBBS field of bulletin-type messages. I would like to see a clean division between newsgroups and distribution areas so that the @PBBS field is used for the latter function only. This means that bulletins that are presently distributed to ALL@AMSAT, for instance, would instead be addressed to AMSAT@ALLBBS or, perhaps, SPACE@ALLBBS. If you were entering news on satellite passes in your own area, you would then address it to SPACE@LOCAL (where LOCAL is replaced by whatever is appropriate for distribution in your area). I believe that half a dozen or so distribution areas, ranging from local to worldwide, is all we really need in the @PBBS field. This would be supplemented by a file listing all of the newsgroups, along with various attributes which control how they should be handled by the PBBS.

Among the possible attributes for a given newsgroup are: don't accept articles for that newsgroup; accept articles, but don't retain them locally (for feeding other PBBSs who want that newsgroup); accept articles and make them available to users; archive articles in that group into a text file, etc. The newsgroup file would also be referenced for forwarding purposes, if there is a need to forward only selected newsgroups to other PBBSs.

In order to effectively manage the news (I'd like to get away from calling it "bulletins"), some major changes in the PBBS software is needed. There should be more help available to users entering news articles, so that they can easily get a list of available newsgroups and distribution areas that can be used. The SYSOP needs tools which allows him or her to define these items and also to establish linkages between them which can be used to prevent inappropriate distribution. It should be possible, for example, for the SYSOP to set a limit on distribution area for "for sale" items, and thus prevent the 4SALE@ALLBBS sort of abuse that we have been seeing lately. It should also be possible to set up controls so that articles from users that have very wide distribution are flagged and put on hold so that the SYSOP can review them before deciding whether they should be unleashed on the world. This adds a burden to the SYSOP, but seems to be the only solution to curbing the abuse we are currently experiencing. The situation should improve in time, as the level of user education improves.

Volume 6 - Number 9 - January 19, 1990 - Part 4 of 4

RESTRUCTURING OF THE PACKET BULLETIN BOARD SYSTEM PROPOSED
(continued from preceeding message)

Another control which is needed is the ability to flag a given newsgroup as "moderated." In such cases, users would not be allowed to post articles directly to that newsgroup. Instead, they would get a message giving them the name and e-mail address of the moderator for that group and be allowed to mail the article to the moderator if they wish to continue.

For reading the news, the PBBS user interface should provide some of the functions of the USENET newsreaders. The most important function is the ability to allow users to select which newsgroups they want to see. The selection, along with other preferences, would then be part of the user profile stored in the user file. There would be at least one obligatory newsgroup for important local announcements, which cannot be unsubscribed. The news should be kept entirely separate from mail, the two areas being entered with different commands.

In general, the user interface should not only make it easier to selectively find and read news items, but also to interact with them by facilitating the process of responding to them. For instance, the PBBS Send commands should be supplemented with a Follow-up command which would accept as an argument, a message number. It would create a new news article having the same newsgroup, distribution, and subject (prefixed by "Re:" if it isn't already) and the user just has to enter the text. Some means of tracking message threads would be handy too (or at least a command to list articles having the same subject as a particular article). One of the reasons I don't like the term "bulletin" is that it implies a one-way flow of news. I want to see more interactive discussions taking place by means of the PBBS network and software which facilitates such interaction.

There are many possibilities for enhancing the news reading interface, but the important thing right now is to start the evolutionary process in the right direction. Start using the To: field categories which have been suggested, along with others that appear as needed. After this usage has become well entrenched, we can try to standardize a basic set of newsgroups, a method for adding new ones and discuss how the newsgroup name field might best be extended. At the same time, we should only use the @PBBS field for geographical distribution areas. Then the PBBS software writers can have at it and create some of the new tools we need to make the news distribution system work the way it should.

The PBBS network provides a very useful e-mail service for its users, but the bulletin distribution system is degenerating into chaos. We have an opportunity to build it into a truly useful system for distributing and exchanging information, but we must act now. Let's get on with the job!

Comments are welcome.

by Barry McLarnon, VE3JF @ VE3JF

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail to:

Gateway
Stan Horzepa, WA1LOU
75 Kreger Drive
Wolcott, CT 06716-2702

or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS or IP address 44.88.0.14.)

The deadline for each issue of Gateway is the Saturday preceding the issue date (which is typically a Friday).

REPRODUCTION OF GATEWAY MATERIAL

Material may be excerpted from Gateway without prior permission, provided that the original contributor is credited and Gateway is identified as the source.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM/SWL/SCANNER BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 26 Jan 90 17:56:18 GMT
From: idacrd!mac@princeton.edu (Robert McGwier)
Subject: Love that DOVE!
Message-ID: <575@idacrd.UUCP>

From article <11288@ucsd.Edu>, by brian@ucsd.Edu (Brian Kantor):
> In article <1990Jan25.070344.22025@Neon.Stanford.EDU> paulf@bodega.stanford.edu (Paul Flaherty) writes:
>>... packets from DOVE. But, if you have a way of saving packets, just leave
> And not only that, you'll get to watch the unwashed multitudes trying to
> connect to it, beacon through it, and those who left their BBS and
> net/rom beacons turned on when they switched the channel....
>
> - Brian
> (No, the DOVE-1 satellite does not listen on 145.825.)

Brian is quite correct. The DOVE-1 does NOT listen to 145.825. It will never be a packet radio digipeater or any of that stuff. In the VERY NEXT upload, messages will be sent which tell the poor folks who are suffering from our lack of pre-flight publicity, that 145.825 Mhz is in the Amateur Space allocation and that this is an educational satellite. It is just so loud people don't realize that it is a satellite. Hell,

it is louder than most of the digi's I connect to around here.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

End of INFO-HAMS Digest V90 Issue #107
****

677. EMS Radio Service

Newsgroup: rec.ham-radio
Date: 1990-01-30 13:38:23 UTC
From: Jim.Grubs@f218.n260.z1.fidonet.org
Message-ID: <11635.25C59A10@stjhmc.fidonet.org>
Source record: 13729

* Forwarded from "FCC"
* Originally from David Stark
* Originally dated 27 Jan 90 0:09:00

I would like to propose the following amendment to Part 90 and am interested in comments from potentially affected parties:

To amend Part 90 creating a new "Emergency Medical Radio Service". This service would differ from the current "Special Emergency Radio Service", in which most ambulance services are licensed now, in that it would be an exclusive allocation for use only by those organizations whose primary mission is providing emergency care and transportation of the sick and injured.

At the present time, spectrum for new users is scarce in populated areas. Existing channels are shared with school buses (ever hear the CB-like chatter from them?), veterinarians, hospital security departments (some use up enough air time for a small police department), ski patrols and even handicapped individuals (why?).

While many Public Safety agencies are making or planning moves to newly opened 800 MHz spectrum, in many areas such a move is not desirable. Existing communication systems and area bandplans can make it preferable to stay on VHF-High Band or UHF. Moving some incompatible services to 800 MHz would just transplant an existing interoperability problem to a new frequency range.

Since it appears that some spectrum is being deallocated from the Federal Government's exclusive use, I propose using some of it for this "new" service. While it was not technically feasible in years past, new radio equipment has sufficient bandwidth to use new frequencies in the 138 to 144 MHz or 162 to 174 MHz bands as well as existing EMS channels in the 155 MHz band.

I would be very interested in comments and suggestions from other persons in the EMS field that might be affected by this idea. I am also interested in informed comments from FCC-type people on how likely a Rulemaking Petition would be to have any success.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!260!218!Jim.Grubs
Internet: Jim.Grubs@f218.n260.z1.fidonet.org

678. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-30 14:02:21 UTC
From: rfc@briar.philips.com
Message-ID: <77176@philabs.Philips.Com>
Source record: 13727
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Many years ago, I built the SCA demodulator with the 565 chip. It did work. What you need to do is get the signal before it is de-emphasized at the main FM demodulator. This is fairly easy to do in an all discrete FM radio, but may be non-obvious in a chip design. Anyway, the problems I've had with SCA demodulators is the main program signal leaking into the demodulated SCA program. I've tried 67KHz filters, etc, which helped some, but I still had interference. Probably the bandwidth of the IF strip has an effect. Sometimes, at hamfests, someone might have SCA radios to sell. Usually surplus from store paging systems, blind radios, doctor network radios, etc. These also suffer some from the above interference problem, so it may not be a fixable thing. Though a good antenna helps here. Like directional, pointing at the station (to avoid multipath?).

73 de WA2ISE

I also did a SCA demodulator with a CA3089 (?) FM IF and demod chip. This worked better than the 565.

679. Re: Voice Mail Box For Repeaters ?

Newsgroup: rec.ham-radio
Date: 1990-01-30 14:10:30 UTC
From: rfc@briar.philips.com
Message-ID: <77177@philabs.Philips.Com>
Source record: 13728

A feature of a voice mail box in a repeater that might be of some use would be a delayed (by on the order of a minute) playback of someone testing his FM rig. Enter a special code via touch-tone to activate this. That way, you would be more confident that your rig is modulating w/o distorting, etc. Limit this feature to non-prime time hours, though.

73 de WA2ISE

680. Flourescent Dimmers

Newsgroup: rec.ham-radio
Date: 1990-01-30 15:23:08 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <197179@Wayne-MTS>
Source record: 13740

Yes, they *are* made- but only for large loads, and I'm told they're
very expensive. This from a local ham who used to install them in
theaters, large office buildings, etc.
--mike ke8yy

681. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-30 16:37:12 UTC
From: elliott@optilink.UUCP
Message-ID: <3055@optilink.UUCP>
Source record: 13736
Cross-posted to: sci.electronics,rec.ham-radio

An engineer I once worked with told me that the tunnels near the Presidio (military base in San Francisco) had these wires installed during WW2 so the base commander (or whatever the military title is) could stay in contact via two-way radio while driving around. I believe that the tunnel wires originally had a tuned external antenna feeding the wire. You can see what looks suspiciously like a diplole cut for the middle of the FM broadcast band on the outside face of some tunnels. It probably works as an untuned antenna for the AM band.

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{pyramid,pixar,tekbspa}!optilink!elliott
"The dog ate my disclaimer."

682. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-30 17:12:51 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250118@hpnmdla.HP.COM>
Source record: 13754

Seems to me that this whole discussion on good earth grounds is
kind of moot. Even if you get a .001 ohm ground connection, you still
have to connect it to the radio with a wire. On 10 meters, anything
over 3 or 4 feet will almost certainly have more impedance than
the ground itself.

Earth grounds are for lightning protection, not RF ground.

To get an RF ground, use a 1/4 wave counterpoise wire, one for each
band, attached directly to the point you want "grounded".

Al N1AL

683. PACSAT DOVE LUSAT decoding software

Newsgroup: rec.ham-radio
Date: 1990-01-30 17:30:00 UTC
From: joehol@microsoft.UUCP
Message-ID: <10404@microsoft.UUCP>
Source record: 13732
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

PACSAT DOVE and LUSAT CW decoding software is available from AMSAT
via me, Joe Holman KA7LDN.

I've written software to decode LUSAT's CW beacon; and, i will be
performing additional work to N4HY's PACSAT decoding software
for the PACSATs (including DOVE).

To get the stuff:

o Send a SASE 5 1/4 diskette mailer to:

Joe Holman, KA7LDN
22909 NE 24th Pl.
Redmond, WA 98053

o or, send a $5 check donation (or more!) to AMSAT
at the above address, to cover diskette
and mailer if you can't provide...

73 Joe Holman, KA7LDN

684. Modifying Radio Shack Weatheradios for Dove Reception

Newsgroup: rec.ham-radio
Date: 1990-01-30 17:51:10 UTC
From: LANG@UNB.CA
Message-ID: <ID6021.D900130.T135110.LANG@UNB.CA>
Source record: 13742

Is it feasible to modify Radio Shack Weatheradios (e.g. 12-115) for
Dove reception? Is more than a crystal change and re-tuning
necessary? This might be an economical way to get high school students
(and others) interested in the amateur satellite program.
The 12-115 was $21.95 in the 89 U.S. catalogue; currently $29.95 in
Canada. I vaguely remember a QST article sometime back on converting
Weatheradio Cubes for 2m (now lost in my "archives" somewhere!)

==
Richard B. Langley BITnet: LANG@UNB.CA or SE@UNB.CA
Geodetic Research Laboratory Phone: (506) 453-5142
Dept. of Surveying Engineering Telex: 014-46202
University of New Brunswick FAX: (506) 453-4943
Fredericton, N.B., Canada E3B 5A3
==

685. Re: naive question about RF propagation

Newsgroup: rec.ham-radio
Date: 1990-01-30 18:03:53 UTC
From: julian@bongo.UUCP
Message-ID: <300@bongo.UUCP>
Source record: 13734

In article <30500371@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> So in addition to your broadcast receiver, won't most else be dead as well
> such as your 144, 220, 440 Mhz, and your cellular? What if someone needs
> emergency medical aid down there when the traffic is jammed?
>
Back in the old days, when we had not heard of Yuppies, and
german cars were all called "beetles", most long tunnels had
emergency telephones so that if there was a breakdown or fire,
someone could call for help. Maybe, rather than reach for the
cellular, the yuppies can join the peasants and walk to a phone
booth.

But apart from that, I would assume that the short wavelength of
cellular (ca 37 cm) would penetrate farther down tunnels than FN
Broadcast (3 M).

About 10-15 years ago Wireless World ran a good series of
articles on propagation in tunnels and mines. They covered,
wavelength considerations, leaky coax and wires with antennas
above ground. Plus as I recall, selectively unbalanced balanced
feeders.

All of the above maybe should have been read by the London Fire
brigade who had radio problems when fighting an underground fire
in the London subway (Kings Cross). Note that in High Rise
buildings in the US, the fire brigade have prewired telephones.
Look for 1/4 ins jacks near elevators etc. Seems that they trust
a simple phone system more in concrete buildings.

Yours
--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

686. Re: Looking for tracking software

Newsgroup: rec.ham-radio
Date: 1990-01-30 18:17:30 UTC
From: mac@idacrd.UUCP
Message-ID: <582@idacrd.UUCP>
Source record: 13730

From article <28268@sequent.UUCP>, by brians@sequent.UUCP (Brian Sheets):
> I am looking for AMSAT tracing software for a PC-XT.
>

You can `roll your own' from the early programs printed in Orbit magazine,
in basic, which is available on most PBBS's around the country. It is
rudimentary but does the actual job you want which is to track the satellites.
If you want fancy graphics, scheduling algorithms of many varieties,
star maps showing the satellite against the background, and other real
goodies, these are available from AMSAT for a fee. They have Quiktrak
(written by me) for a multitude of computers, and Instanttrack 1.0 for
the PC. Both of these programs are good tracking software packages.
Instanttrack is probably the fancier of the two for the IBM PC <<BUT>>
it does require EGA or better. It is a nice piece of work.

AMSAT
P.O. Box 27
Washington, D.C. 20044
(301)-589-6062

73
Bob N4HY

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
---

687. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-30 18:20:03 UTC
From: julian@bongo.UUCP
Message-ID: <302@bongo.UUCP>
Source record: 13735

In article <1990Jan30.023801.5385@IDA.ORG>, roskos@IDA.ORG (Eric Roskos) writes:
> julian@bongo.UUCP (julian macassey) writes:
>
> > What I have always used to improve ground conductivity is Copper
> >Sulphate.
>
> Isn't CuSO4 toxic to fish?
>
>
> What about conventional fertilizer? It seems as if what you need is just
> a good supply of free ions in the water around the ground.
Lotsa good stuff deleted above.

Oh, boy have we opened a can of worms here. Well I know copper sulphate is toxic to algae, and is used to clear alga from some water systems. And yes, Nitrate fertilizer causes algal blooms in water. It is also considered harmful in drinking water above certain concentrations, as is salt. So that leaves us with ferrous sulphate which is probably less toxic but makes drinking water taste bad. Then there is Epsom salts (magnesium Sulphate), so called because they are the chemical that contaminates the spa water in Epsom, Surrey, England. Epsom salts taste foul and give you the runs.

All looks pretty grim whatever we use.

One final suggestion: Use Nitrate fertilizer until the local water turns green, then use Copper Sulphate until, it clears up. -:) Or, use Ferrous and Magnesium Sulphate until you can't stand the taste and are tired of having the runs. -:)

Perhaps we should just leave it alone. Maybe moderation is what is called for.

--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

688. Re: IS THERE A DSP-232 ON THE HORIZON ??

Newsgroup: rec.ham-radio
Date: 1990-01-30 18:28:31 UTC
From: mac@idacrd.UUCP
Message-ID: <584@idacrd.UUCP>
Source record: 13731

From article <9001300802.AA16542@ucbvax.Berkeley.EDU>, by RHAREL%FAB8@SC.INTEL.COM ("RICHARD HAREL CAL.LAB INTEL"):
> Even though AEA has made no information public about the rumored "DSP 232"...
>
>
> 73,
> 4X1DA @4XNET
>

Richard:

Wow, the rumor mill is world wide. I am a perfectionist. Until the thing is near perfect, I am just going to keep working on it. The latest problem is a noise source that gets into the AGC circuit. There is always a fine balance between perfection and cost and I am turning over the best product I can. It will not be cheap but it will be a work horse and it is expandable in that the modems are DSP. Brooks, KB2CST, Pat KA2MOV, and I are DSS, the designers of the box. We are targetting Dayton, parts are being ordered by AEA to do the first run and we are keeping our fingers crossed that it will in fact be ready in time for Dayton. I make no promises that I can't keep. This is the reason there is NO delivery date in our contract with AEA.
--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
---

689. Dave's info Re: 99/4A emulator

Newsgroup: rec.ham-radio
Date: 1990-01-30 19:23:12 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9001302015.AA21401@ti.com>
Source record: 13750

Dave, thanks for your info. Mail to you bounced. Where can I get one of the TELCO emulators you mentioned?

-73 Dube Todd N5PDK

690. Looking for pro2005 Mods

Newsgroup: rec.ham-radio
Date: 1990-01-30 19:39:29 UTC
From: rfc@briar.philips.com
Message-ID: <77185@philabs.Philips.Com>
Source record: 13870

Anyone know how to do the mods to the radioshack pro2005 scanner? Like the 800Mhz continious coverage? Which diode to remove?

73 de WA2ISE

691. NEED HELP PLEASE!! IC04 MODS

Newsgroup: rec.ham-radio
Date: 1990-01-30 20:20:31 UTC
From: marke@hpscdc.scd.hp.com
Message-ID: <5490088@hpscdc.scd.hp.com>
Source record: 13755

The subject of "mod's" for the IC-04AT have probably been brought up before here on the NET, but for some reason I have managed to miss them all. So, if some kind ol radio amateur could dig in to his or her files one more time, and post them for me, it would be muchly apprieciated. I am specifically looking for the mod's that pertain to out of band operation, and RX audio volume improvement.

Please post or e-mail, and thanks.

Mark Espinosa/WA6RGD

692. Re: cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-01-30 20:39:44 UTC
From: rjd@dell.dell.com
Message-ID: <5314@dell.dell.com>
Source record: 13733

In article <9001300803.AA16558@ucbvax.Berkeley.EDU> TROTH@RICEVM1.RICE.EDU (Rick Troth) writes:
| Does anyone have a list of cordless telephone "channels"?
|
| I have a UNIDEN pulse dialer with a "CH19A" sticker on it.
|I doubt I'll find much use for this other than as a phone, but I'd be
|interested in listening to it with other gear.

I don't have a list, yet I know that a lot of them are in the 49 MHz range. For instance, the Panasonic we quit using a while back is at 49.900 MHz. Try scanning through that area....

Randy Davis UUCP: dell.dell.com!rjd

693. Re: cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-01-30 22:25:38 UTC
From: max@magicastle.Central.Sun.COM
Message-ID: <1107@male.EBay.Sun.COM>
Source record: 13876

In article <9001300803.AA16558@ucbvax.Berkeley.EDU> TROTH@RICEVM1.RICE.EDU (Rick Troth) writes:
| Does anyone have a list of cordless telephone "channels"?
|
| I have a UNIDEN pulse dialer with a "CH19A" sticker on it.
|I doubt I'll find much use for this other than as a phone, but I'd be
|interested in listening to it with other gear.

I have a Cobra cordless pulse dialer. The O.M. has the following:

Channel # Handset TX Freq Base TX Freq

1A 49.83Mhz 1.69Mhz
7A 49.845Mhz 1.71Mhz
13A 49.860Mhz 1.73Mhz
19A 49.875Mhz 1.75Mhz
25A 49.890Mhz 1.77Mhz

Keep in mind that its using 49Mhz from the handset to the base
and 1Mhz from the base to the handset.

You may also find more by scanning from 49.8 to 49.9 and 1.6 to 1.8Mhz.

Jeff Cohn
N6QOP

694. Re: ICOM IC-24AT info needed.

Newsgroup: rec.ham-radio
Date: 1990-01-30 23:41:34 UTC
From: pfluegerm@valley.UUCP
Message-ID: <485a42e6.15840@valley.UUCP>
Source record: 13738

In article <7245@dtseng.UUCP>, rps@dtseng.UUCP (Robert P. Scott) writes:
> First a few of questions:
>
> 1. Does this sucker have a cross-band repeater type mode? If so,
> anyone know how to turn it on and off?
>
> 2. Can the VHF receiver be pulled down into the aircraft band like
> the 2SAT? If so, what is the mod?
>
> 3. Anyone have the service manual for this one yet?

I have heard that with mods, the 24AT will cover something like 70-900 MHz,
including switching to AM when in the air band. I suspect the receiver is
closely related to the RZ-1 (or whatever the new handheld is, 150KHz-1300MHz).
And I believe the 24AT comes configured to do crossband full duplex.

I'll know more when I get mine :-) It's on order and should be here in
the next week or so. I expect to get the mods also. I'll post them if
they work.
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

695. Re: Voice Mail Box For Repeaters ?

Newsgroup: rec.ham-radio
Date: 1990-01-31 00:03:45 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <2056@ultb.isc.rit.edu>
Source record: 13763

I have been working on this project for K2GXT/R for some time.
What I came up with as the best hardware solution is made by
a Canadian company, called "Computer Age Limited."

Computer Age Ltd. makes a board that digitizes at 8KHz which
only costs $99 US, which runs on an IBM P.C. They suggest
using it with a 4KHz sampling rate (not very good, but 8K is
more than enough) for 170 minutes on 20MB hard disk.

The card utilizes one hardware interrupt and one DMA channel.
It works better on an XT than on an AT, so I'd suggest getting
a (cheaper) AT.

Writing software for it is a dream, it's so easy...can be done
in C quite nicely. (It even could be done in BASIC, though
I'd be embarassed to put a repeater up in BASIC) (no smiley)

The address for Computer Age Limited is:

P.O. Box 730
Nobleton, Ontario L0G 1N0
CANADA

As soon as I finish this project, I'm going to send it to either
QST or 73 magazine -- Frankly, I like the RC-850 a lot and I
think it's a neat controller, but if I were putting up a repeater
there's no way I'd do it on anything other than an XT. I find
this ESPECIALLY true when it comes to voice mail - what many
commercially-bought repeaters call "voice mail" is a pre-programmed
set of ten or so computer-generated messages. ex you punch tone 20
for the message "Call me tonite" -- neat, but you can get an XT
up w/ a 20MB hard drive for little money these days (even when
you include an NEC V20 microprocessor upgrade and RLL controller).

Let me know how you make out and best 73's,

Chris, N2JGW

696. Capacitive Keying

Newsgroup: rec.ham-radio
Date: 1990-01-31 02:34:53 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <2057@ultb.isc.rit.edu>
Source record: 13764

Hello, world! (K&R)

I finally built an electronic keyer...now, all I need is
a paddle for it :-)

I have been thinking about trying touch-sensitive, like the
Heathkit keyer uses - touch-sensitive FIXED paddles. Does anybody
know a good circuit to accomplish this? I am told that there is a
good design using an LM2917 but I couldn't find it anywhere (and the
LM2917 is in a databook which I don't have).

I think I could get used to the lack of tactile feedback
associated with fixed paddles - I usually adjust the ordinary kind
very close to contact, anyhow. Has anybody out there used the Heath
set before, and if so, any thoughts? Any ideas on how to BUILD one?

(Must admit ... one major part of the appear here is *CHEAP*)

Chris N2JGW

697. Re: Stock-Market Quote Transmissions

Newsgroup: rec.ham-radio
Date: 1990-01-31 05:41:00 UTC
From: die@cpoint.UUCP
Message-ID: <3790@cpoint.UUCP>
Source record: 13746

In article <433@ssc.UUCP> markz@ssc.UUCP (Mark Zenier) writes:
>were two flavors. The realtime data stream that the brokerages got and
>a 15 minute delayed stream that the rest of the world could used.
>
>What restrictions are there on the time delayed version, and what does the
>SCA service use?

My understanding is that both PocketQuote and Lotus Signal supply
both delayed and real time data in the data stream under different keys, with
a higher price charged for the real time version of course.

PocketQuote also includes Dow Jones News, also for an additional fee.

There are some exchange rules regarding the uses that real time
streams can be put to, and I think users have to sign an agreement
stating that they won't violate those rules before they can get the
real time feed.

--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

698. Re: SCA - not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-31 06:15:56 UTC
From: die@cpoint.UUCP
Message-ID: <3791@cpoint.UUCP>
Source record: 13747

In article <9001291324.AB00031@adam.DG.COM> <PZS@MERCURY.MCEO.DG.COM> writes:
>all kinds of SCA transmissions but the universal feature they all had
>was a fairly high S/N ratio. The carriers are transmitted at very low
>modulation levels compared to the program audio (someone will
>enlighten us with the exact percentage, no doubt).

Couple of points:

1. I beleive that only 1% or so of the power of an FM station
is allowed to go into the SCA sidebands (I don't have the rules handy
so that is from memory).

2. Most SCA signals carrying audio programs rather than FSK or
PSK or VSB AM data are compandored with 2:1 or 3:1 compression ratios.
This means that a proper receiver should incorperate an expander
(a la DBX). This will get rid of most of the background noise in
quiet passages.

3. The best simple SCA demodulator circuit I've run across uses
a multi-pole LC linear phase bandpass filter ahead of a CA3089 limiter/
quadrature demod. It works lots better than 565 Plls with no selectivty
ahead of the phase detector.

4. SCA performance is a function of IF bandpass filter quality
amoung other things. Filters that have poor group delay linearity
actually modulate the SCA carrier with the main channel audio. The
effect is main channel bleed into the SCA. Real SCA tuners (which show up from
time to time around here at flea markets) seem to use much better
IF filters than regular hifi tuners (although best stereo separation
and distortion requires good IF characteristics).

5. As is the case with any FM system, the higher frequency components
of the signal see more FM noise at a given CNR, so signals which quiet
pretty well on the main channel are not guaranteed to produce good
results on SCA. Good antennas help.

--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

699. Re: Save the WWVH Aloha!

Newsgroup: rec.ham-radio
Date: 1990-01-31 07:24:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500372@ux1.cso.uiuc.edu>
Source record: 13753

Also write to all the Congresspersons from Hawaii. I'm sure they would be most interested in this. Include the Governor of Hawaii, too :-)

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

700. More on Microsat identifications

Newsgroup: rec.ham-radio
Date: 1990-01-31 09:17:00 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19560@bellcore.bellcore.com>
Source record: 13757

Posted: Wed, Jan 31, 1990 12:25 AM GMT Msg: GGJA-4153-2767
From: EOGRADY
To: amsat
CC: pkarn, rsoifer
Subj: New object info

Good evening all.

I received a phone call late Tuesday afternoon from Max White at RGO. He has forwarded a late set of elements to me and I will post them as soon as they arrive via Email--hopefully sometime tonight. However, Max informs me that the "boys under the dome" have definitely identified the B object as being the Ariane final stage and the H object as a Uosat. However, the report is that H is Uosat D or UO14--This is almost certainly incorrect. There is no reason to believe that H is a TRANSMITTING object. It therefore follows that H must be UO15 or Uosat E. Observations by Phil Karn and Ray Soifer indicate that both B and H are non-transmitting and Max assures me that B is the launcher based on Radar x sections.

The severe weather in the UK is probably behind the delays in email coming across, so bear with us--flooding/line outages etc. It may very well appear via Surrey on tmail before I can get it here.

73
Ed O'Grady
KC2ZF

701. Amsat news service bulletins

Newsgroup: rec.ham-radio
Date: 1990-01-31 09:19:13 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19561@bellcore.bellcore.com>
Source record: 13758

Posted: Tue, Jan 30, 1990 9:44 PM GMT Msg: DGJA-4153-1532
From: CDUNCAN
To: is
CC: W1AW
Subj: ANS$030

SB ALL @ AMSAT $ANS-029.01
AMSAT'S BUSIEST WEEK, PART 1

HR AMSAT NEWS SERVICE BULLETIN 029.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990
TO ALL RADIO AMATEURS BT

This week has been the busiest in AMSAT history. It started on Sunday evening when ESA launched six amateur radio satellites on an Ariane IV launch vehicle. After successfully separating each of the new OSCARs (14 through 19) from the launch vehicle, the AMSAT engineering team successfully commanded ON the telemetry beacons on LUSAT, PACSAT, and WEBERSAT. The DOVE satellite turned itself on (each of the microsats are running software that will turn on the transmitter when the on-board battery voltage exceeds a specified value). AMSAT-UK commanded ON the beacons of the two UOSATs during their fourth orbit.

Through out the week, the AMSAT engineering team has been busy transmitting commands to the satellites and decoding telemetry to determine the status of each. All of the various functions and experiments on each satellite must be exercised prior to commissioning the birds for general use. Other members of the engineering team have been attempting to characterize the orbit of each of the birds by evaluating AOS (Acquisition of Signal), TCA (Time of Closest Approach), and LOS (Loss of Signal) along with Doppler shift variations. Because the OSCARs do not carry RADAR transponders, it will be a week or two before NASA and NORAD can accurately identify each of the objects.

Bob McGwier N4HY and Harold Price NK6K are taking lead roles in commanding the microsats and analyzing the telemetric data provided by each bird. The amount of work to accomplish over the next few weeks is nothing short of staggering. Caring for a new satellite during the early part of its life span is very analogous to caring for a new baby, and in this case Bob and Harold have got to care for quadruplets. Rumor has it that they are not getting much sleep!

/EX
SB ALL @ AMSAT $ANS-029.02
AMSAT'S BUSIEST WEEK, PART 2

HR AMSAT NEWS SERVICE BULLETIN 029.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990

TO ALL RADIO AMATEURS BT

Although their transmitters run only 0.5 - 4 watts, each of the satellites has an extremely strong signal that is easily received using an HT with a rubber duck antenna. The telemetry on each of the microsats is in 'packetized' form (AX.25). PACSAT, LUSAT and WEBERSAT are using a PSK modulation technique transmitting above 437 MHz and DOVE, transmitting on 145.825 MHz, is using an AFSK modulation technique identical to standard amateur TNCs. Initial check-out of the S-Band (2401 MHz) packet beacon on PACSAT shows it to be operating nominally and the 100+ KHz of Doppler shift makes for an interesting decoding challenge.

Over the next few weeks it will be critical that accurate records of satellite telemetry be recorded. Bob McGwier has requested that interested amateurs "... continue to gather and store telemetry for the next couple of weeks minimum while we learn (how) to control these birds and how they like their new home. An announcement will be made shortly concerning a collation and archiving center for this data.

Finally, the AMSAT engineering team requests in the strongest possible terms "DO NOT ATTEMPT TO TRANSMIT TO ANY OF THE NEW SATELLITES" They have not been commissioned for general use and unauthorized transmission to the satellites could cause serious harm to its operation while interrupting important testing of each bird. By letting the engineering team do their job without interference, they will be able to deliver healthy satellites to the amateur community that much sooner.

/EX
SB ALL @ AMSAT $ANS-029.03
UPDATE ON UO-14 AND UO-15

HR AMSAT NEWS SERVICE BULLETIN 029.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990
TO ALL RADIO AMATEURS BT

The two UOSATs were successfully commanded ON during the first day from the University of Surrey, where they were designed and constructed. Later in that day, the on-board computer operating system (DIARY) - 17 k-bytes of computer code - was uploaded to both satellites. One of the important features of the DIARY is its ability to store telemetry data during one or more orbits and to relay this data to the ground station. This technique was first used on UoSAT-OSCAR-9, and dubbed "Whole Orbit Data" or WOD. The next step in the commissioning of UO-14 is to deploy the navigation magnetometer and gravity gradient boom. After this has been accomplished, software to attain Earth-pointing lock will be executed. These maneuvers should be undertaken during the next 10-14 days, if all goes well.

UO-15 was also loaded with the FORTH DIARY on the 2025 UTC pass on 22 JAN 90. The DIARY executed as expected, telemetry values were nominal, and a WOD survey was started during the 2206 UTC pass. Telemetry from the DIARY was automatically recorded at the UoSAT Control Station during the 2330 UTC pass, and no unexpected values were observed. During the 1010 pass on 23 JAN 90

(approximately 25 hours after the satellite was initially commanded to life) no downlink was received at Surrey from UoSAT-OSCAR-15. Since that time, there have been no signals that could be attributed to UO-15 received by the University of Surrey. Anyone who copied UO-15 telemetry during 22/23 JAN is requested to contact AMSAT-UK in Surrey, or AMSAT-NA so that the telemetry can be studied to determine the cessation of transmission from UO-15.

/EX
SB ALL @ AMSAT $ANS-029.04
THE "OUTSIDE" WORLD WATCHES THE LAUNCH

HR AMSAT NEWS SERVICE BULLETIN 029.04 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990
TO ALL RADIO AMATEURS BT

There has been a fair amount of media coverage of the launch of the Ariane IV V-35 mission including specific coverage of the amateur satellites. CNN Headline News had a story within 30 minutes of the launch and subsequent reports went into some detail about the Microsats. German ARD Television had an interview with Junior DeCastro PY2BJO about DOVE. Leo RA3AT reported that the Soviet news agency TASS, Central Radio and TV also carried a story on the launch and specifically mentioned the amateur radio satellites. Space News and InfoWorld have apparently written articles on the launch to be published soon.

To show the extent to which "outsiders" have shown interest in the launch of the the six satellites, consider the following story from Chris Williams, WA3PSD:

Faculty and students at Weber State College have provided a significant amount of time and materials toward the Microsat program as well as the upcoming Phase IV program. It was announced this week that the State of Utah's Board of Regents voted against the heated objections of the University of Utah and Utah State University to change the status of Weber State College. The matter had been under consideration for some time. The school will henceforth be called Weber State University. The successful launch of Webersat was called "significant" as an influence on the decision.

/EX
SB ALL @ AMSAT $ANS-029.05
APPOINTMENT OF DIGITAL GATEWAY COORDINATOR

HR AMSAT NEWS SERVICE BULLETIN 029.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990
TO ALL RADIO AMATEURS BT

AMSAT Vice President for Operations, Courtney Duncan, N5BF, announces the appointment of Harry Morton III, WB2IBO, AMSAT-NA Technical Coordinator for Digital Gateways. Harry will be close to developments in packet message forwarding via the recently launched pacsats. He will be the AMSAT point of contact for those wishing to participate by 1) configuring packet bulletin boards for pacsat access and automatic pacsat forwarding, 2) establishing

pacsat relays for use by terrestrial packet bulletin boards, or 3) establishing pacsat relays for use by terrestrial end users who do not have their own satellite capability.

Harry is now establishing a mailing list consisting of those who intend to set up such stations. He will be operating a pacsat node himself and will be available for consultation with those who wish to put other nodes on the air and maintain them for reliable amateur radio satellite access. He may be contacted at 261 N. Chestnut Street, North Massapequa, New York, 11758 for additional information.

/EX
SB ALL @ AMSAT $ANS-029.06
MICROSAT NAMING CONVENTION CLARIFIED

HR AMSAT NEWS SERVICE BULLETIN 029.06 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990
TO ALL RADIO AMATEURS BT

In recent weeks there has been some confusion as to the on-orbit designators for the four Microsats launched January 22. AMSAT-NA President and General Manager Doug Loughmiller, KO5I, has reviewed relevant agreements and other AMSAT-NA documents and has determined that the following designators are to be used:

PACSAT AMSAT-OSCAR-16 AO-16
DOVE DOVE-OSCAR-17 DO-17
WEBERSAT WEBERSAT-OSCAR-18 WO-18
LUSAT LUSAT-OSCAR-19 LO-19

Each of the Microsats except PACSAT was built by AMSAT-NA engineers for and in cooperation with amateurs from other organizations: BRAMSAT (AMSAT-Brazil); Weber State University, Ogden, Utah; and AMSAT-Argentina respectively. Each of the projects has been governed by its own "Memorandum Of Understanding." These MOUs specify the names to be given to the satellites before and after placement in orbit and other relevant technical and administrative details.

The AMSAT News Service regrets any confusion that may have been caused through previous errors in the use of satellite designators.

Courtney Duncan, N5BF, AMSAT VP Operations

/EX
SB ALL @ AMSAT $ANS-030.07
KUDOS FOR AMSAT MICROSATS, PART 1

HR AMSAT NEWS SERVICE BULLETIN 030.07 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990
TO ALL RADIO AMATEURS BT

Congratulatory Messages Pour In For The New OSCARs

Almost immediately after the launch of the AMSAT MICROSATs on January 21, 1990, messages of congratulations and praise started to pour in from around

the world. Here are brief summaries of the messages received at AMSAT Headquarters:

ARRL: "Congratulations to AMSAT for the successful orbiting of four MICROSATs. What the AMSAT team has done reflects credit on the entire Amateur Radio community ... As a engineering project, it was nothing short of spectacular ... AMSAT can justifiably take pride in providing the Amateur Radio community with a new communications capability. The ARRL shares in your pride and is pleased to have had the opportunity of contributing to the project." K1ZZ

PROJECT OSCAR: "Congratulations to everyone for a job well done adding the MICROSATs to the Amateur Radio Space program. Everyone here at Project OSCAR is pleased to see the progress being made by the latest addition to the OSCAR line!" WB6GFJ

AMSAT-DL: "We congratulate all team members of MICROSAT and UoSAT for the successful launch and the great work they all have done -- well done!" DB2OS

"AMSAT-DL congratulates UoSAT, AMSAT-NA, and all participants to the successful launch and opening of all MICROSATs and UoSats. Our best wishes for the future operations and may the new satellites have a long life." DJ4ZC & DJ5KQ

/EX
SB ALL @ AMSAT $ANS-030.08
KUDOS FOR AMSAT MICROSATS, PART 2

HR AMSAT NEWS SERVICE BULLETIN 030.08 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1990
TO ALL RADIO AMATEURS BT

AMSAT-UA: "I and all AMSAT-U people congratulate MICROSAT Team on successful launch of the 4 MICROSATs. Soviet news agency TASS, Central Radio and TV first reported about launch of six satellites for radio amateur application ... Best regards to all my friends." RA3AT

AMSAT-I: "WOW! We made it! Best congratulations to all of you guys for the new birds which will soon be chirping!" I2KBD & IW2ECL

JARRL: "Congratulations for the successful launch of MICROSAT and UoSAT to all you made this happen ... This is great." JA2PKI

VITA: "What a superb job everybody did ... the launch was flawless and for me personally quite an experience as it was the first time. Congrats to AMSAT for hanging in there. It was truly an inspirational moment." Gary Garriott

DRIG: "The members of the Dallas Remote Imaging Group, and the local Dallas AMSAT group congratulate the entire team for an outstanding effort." N5ITU

AMSAT-SA: "Congratulations to all! The launch of the 6 satellites is another triumph for Amateur Radio." ZS6AKV

The Board of Directors of the ARRL proclaim: "... Therefore be it resolved, that in recognition of the contribution of the amateur satellite program to the

Amateur Radio service and the significant events which are to occur during the course of the year 1990 within this discipline of amateur radio, we hereby declare: 1990 THE YEAR OF THE AMATEUR RADIO SATELLITE PROGRAM"

/EX

702. Source for decoding UO-14 telemetry

Newsgroup: rec.ham-radio
Date: 1990-01-31 09:20:20 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19562@bellcore.bellcore.com>
Source record: 13756

```
Posted: Tue, Jan 30, 1990 2:48 PM GMT Msg: CGJA-4152-5495
From: UOSAT
To: DOCS
Subj: UOSAT-OSCAR-14 SOURCE CODE FOR TLM

/*---------------------------------------------------------------------------
Author: JW Ward, G0/K8KA
Date : 30/1/90
Action : This simple program reads UoSAT-OSCAR-14 telemetry from a
file and displays each channel with its raw value. It is
provided as an example of how to decode the FORTH Diary
frames.

A full UoSAT-OSCAR-14 telemetry display program
will be available from AMSAT-UK.

The input to this program must be a BINARY log file, with
all binary bytes preserved. Watch out: Procomm seems to
not log zeros!

The program compiles and runs with Microsoft C 5.0
---------------------------------------------------------------------------*/
#include <stdio.h>
#include <stdlib.h>

#define SYN0 0x45
#define SYN1 0x34

/*---------------------------------------------------------------------------
Funct : process
Date : 30/1/90
Action : A simple display routine for the demo telemetry program.
RETURNS : Nothing.
GLOBALS : None.
---------------------------------------------------------------------------*/
void process(int chan, int value)
{
/* channels 0-48 are valid analog channels */
if (chan < 49)
printf("Channel %02d = %03d\n", chan, value);

/* channels 64 through 72 contain the valid digital status points */
/* As a further note on the status points: they are numbered from */
/* 0 to 71, with status bit 0 being the most significant bit of */
/* channel 64, and status bit 11 being the least significant bit */
/* of channel 64. Status bit 12 is the MSB of channel 65, and so */
```

```
/* on. */
else if ((chan >= 64) && (chan < 73) )
printf("Channel %02d = 0x%03x\n", chan, value);
}

/*-------------------------------------------------------------------------
fad_tlm
Decodes telemetry from a FAD telemetry packet. The first three bytes
in any FAD packet are the Frame ID and two bytes of FRAME Number.
The Frame ID for telemetry frames must be 3.
The Frame Number is used to determine what channel is the first in the
current frame.

GLOBALS:
-------------------------------------------------------------------------*/
void fad_tlm(unsigned char * fb)
{
unsigned int bin_val;
int value, chan, i;

/* calculate number of first channel in this frame, using the */
/* fact that there are 32 channels in each frame */
/* fb[1] is Frame Number MSB */
/* fb[2] is Frame Number LSB */
chan = 32 * ((fb[1] * 0x100) + fb[2]);

/* take all the bytes in the frame */
for (i=0; i<32; i++) {

/* from stored 2 byte BCD/binary <MSB><LSB>
** create 2 byte BCD integer in intel format.
** The (i*2) factors skip previously displayed i channels.
** The +3 and +4 make sure we skip the ID and Frame number bytes.
*/
value = (fb[(i*2)+3] * 0x100) + fb[(i*2)+4];

/* Analog channels get converted from BCD to binary,
** whereas digital status channels already come in binary.
** In either case, bin_val gets the binary value for the channel.
** The first 64 channels are analog, and all others are digital
** status points.
*/
if (chan < 64) {
bin_val = value & 0x0f;
bin_val += ((value & 0x0f0) >> 4) * 10;
bin_val += ((value & 0x0f00) >> 8) * 100;
value = bin_val;
}
/* now pass it to your display routine */
process(chan, value);

++chan;
```

```
}

}

/*---------------------------------------------------------------------------
get_fad_packet
Scans through the serial input stream until something looking
like a FAD telemetry packet arrives.

FAD packets are currently
<SNY0> <SYN1> <ID> <COUNT MSB> <COUNT LSB> <DATA0> ... <DATA63>
<CHECKSUM MSB> <CKSUM LSB>

There are 64 data bytes.

GLOBALS:
---------------------------------------------------------------------------*/
void get_fad_packet(FILE *fp, unsigned char *frame)
{

int i,
done = 0;
unsigned int checksum;

while(!done) {

/* zero the checksum register */
checksum = 0;

/* get bytes until we get the first sync byte */
while( (!feof(fp)) && (fgetc(fp) != (unsigned char) SYN0) );

/* if the next byte is the second sync byte, keep going */
if ( fgetc(fp) == (unsigned char) SYN1 ) {

/* get 1 ID byte, 2 Frame Number bytes and 64 data bytes */
/* into the frame buffer starting at index 0. */
for (i=0; (i<67) ; i++) {

frame[i] = (unsigned char) fgetc(fp);

/* the <Frame Number msb> must be treated as the msb of a
2-byte integer because that is what the DIARY
does. Hey, don't look at me, I didn't write
the )(*&^%$ DIARY. We check for Frame Number MSB because
we know it is at index 1.
*/
if (i == 1)
checksum += ((unsigned) 0x100) * frame[i];
else
/* all other bytes simply treated as bytes. */
checksum += frame[i];

}
```

```
/* now check the Checksum MSB */
if (fgetc(fp) == (checksum >> 8))
/* and the Checksum LSB */
if (fgetc(fp) == (checksum & 0xff))
/* if they're good, we have a frame, check to see */
/* that it is a type 3 frame (telemetry) */
if (frame[0] == 3)
fad_tlm(frame);
}

/* check for EOF. We'll run off the end of the file sometime. */
if (feof(fp))
done = 1;
}
}

void main(int argc, char *argv[])
{
FILE *fp;
unsigned char frame[70];

if (argc < 2) {
printf("simple14: an example of how to decode UoSAT-14 FORTH frames.\n");
printf("useage: simple14 <filename>\n");
exit(1);
}

if ( (fp = fopen(argv[1], "rb")) == NULL) {
printf("Your input file (%s) doesn't seem to exist.\n", argv[1]);
exit(1);
}

/* reads all packets from the file and displays them */
get_fad_packet(fp, frame);
exit(0);
}
```

703. UO-14 Telemetry Formats

Newsgroup: rec.ham-radio
Date: 1990-01-31 09:21:53 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19563@bellcore.bellcore.com>
Source record: 13759

Posted: Tue, Jan 30, 1990 2:55 PM GMT Msg: NGJA-4152-5590
From: UOSAT
To: DOCS
Subj: UO-14 TLM CALIBRATIONS

UoSAT-3 TELEMETRY CHANNEL ALLOCATIONS AND EQUATIONS

ANALOG CHANNELS.

Channel	Name	Equation
0	Array +X Curr. (mA)	(N * 1.80388)+0.649398
1	Array Volts (V)	(N * 0.0560561)-0.183998
2	+5V Current (mA)	(N * 3.20354)-29.6648
3	+14V Current (mA)	(N * 4.454)-87.93
4	-X Array Temp. (Deg C)	(N * -0.3)+95.1
5	PCE CPU Temp. (Deg C)	(N * -0.3)+95.1
6	Transmitter Temp (Deg C)	(N * -0.3)+95.1
7	Tx. 0 Output (V eqv)	(N * 0.005)+0
8	Array -X Curr. (mA)	(N * 1.76691)-10.6721
9	+10V Voltage (V)	(N * 0.014268)+0
10	-10V Current (mA)	(N * 0.142022)-7.63663
11	Battery Current (mA)	(N * 2.8863)+0
12	+X Array Temp. (Deg C)	(N * -0.3)+95.1
13	Battery Temp. (Deg C)	(N * -0.3)+95.1
14	Tx. 1 Output (V eqv)	(N * 0.005)+0
15	Batt Cell Volt. (V)	(N * 0.0023502)+0
16	Array +Y Curr. (mA)	(N * 1.75297)-0.806367
17	+10V Current (mA)	(N * 0.142735)+0.371105
18	-10V Voltage (V)	(N * -0.016609)+0
19	PCM Input Curr. (mA)	(N * 2.23267)-1.17377
20	-Y Array Temp. (Deg C)	(N * -0.3)+95.1
21	OBC 1802 Temp. (Deg C)	(N * -0.3)+95.1
22	Nav. Mag X (uT)	(N * 0.115)-57.7543
23	Nav. Mag Z (uT)	(N * 0.1103)-55.478
24	Nav. Mag Y (uT)	(N * -0.113)+57.7359
25	Array -Y Curr. (mA)	(N * 1.7854)-10.5338
26	+5V Voltage (V)	(N * 0.0073268)+0
27	Battery Voltage (V)	(N * 0.0176724)-0.1033
28	Boom Motor Temp. (Deg C)	(N * -0.3)+95.1
29	+Y Array Temp. (Deg C)	(N * -0.3)+95.1
30	ADCS Box Temp. (Deg C)	(N * -0.3)+95.1
31	MagTorq +/- Mag. (V)	(N * 0.005)+0
32	Boom Deployment (m)	(N * 0.01818)-1.109
33	Spare	

34 Rx. 1 Strength (V) (N * 0.005)+0
35 Rx. 2 Strength (V) (N * 0.005)+0
36 Spare
37 Rx. 1 Discrimin. (V) (N * 0.005)-2.7
38 Rx. 2 Discrimin. (V) (N * 0.005)-2.7
39 TDE/CPE (V) (N * 0.005)+0
40 RAMUNIT Bank 0 (mA) (N * 0.0481203)-0.0039217
41 RAMUNIT Bank 1 (mA) (N * 0.0496267)+0.000174239
42 RAMUNIT Bank 2 (mA) (N * 0.0496976)-0.00801862
43 RAMUNIT Bank 3 (mA) (N * 0.0491288)+0.00596549
44 PCE CPU Curr. (mA) (N * 0.416155)-0.024982
45 BCR DAC Voltage (V) (N * 0.005)+0
46 Rx. 1 AFC (V) (N * 0.005)+0
47 Earth Detector (V) (N * 0.005)+0
48 Rx. 2 AFC (V) (N * 0.005)+0

DIGITAL STATUS POINTS
Bit Meaning 1 0
----- ------------------------ -------------------- --------------------
0 Downlink On Off
1 PCE Downlink keying On Off
2 1802 load WaitL WaitH
3 Digital MUX Bit 2 = 1 0
4 Rx 0 Demod FSK AFSK
5 Magnetorquer Power +5V On Off
6 Pyros Enable Disable
7 BCR 1 DAC Enable On Off
8 Command MUX Bit 0 = 1 0
9 VLSI Chip Select 1 0
10 Uplink Multiplexer DASH0 Enable Disable
11 SPARE DASH0 Enable Disable
12 Downlink Select 1 0
13 RAMDISK power On Off
14 1802 boot Addr0000 Addr8000
15 Digital MUX Bit 1 = 1 0
16 Rx 1 Demod FSK AFSK
17 Magnetorquer Power -10V On Off
18 Pyros Fire NoFire
19 BCR 2 DAC Enable On Off
20 Command MUX Bit 1 = 1 0
21 Telemetry reset Reset Run
22 Uplink Mutliplexer DASH1 Enable Disable
23 SPARE DASH1 Enable Disable
24 Downlink Frequency VITA 435.070
25 Bank 0 On Off
26 1802 Prom/Ram RAM ROM
27 Digital MUX Bit 0 = 1 0
28 Rx 2 Demod FSK AFSK
29 Magnetorquer Str 1 0
30 Boom Power +14V On Off

31 EUD Power On Off
32 Command MUX Bit 2 = 1 0
33 Telemetry RAT select 1802 PCE
34 1802 DASH0 Enable Disable
35 DASH Rx/TLM MUX Bit 0 1 0
36 Downlink Power High Low
37 Bank 1 On Off
38 1802 EDAC Disable Enable
39 Audio MUX Bit 2 = 1 0
40 Downlink Select DASH0 SPARE0
41 Magnetorquer B4 1 0
42 Boom Enabled Disabled
43 PCE EDAC Enable Disable
44 Serial Command Watchdog Reset Run
45 Telemetry dwell select DASH0 DASH1
46 1802 DASH1 Enable Disable
47 DASH Rx/TLM MUX Bit 1 1 0
48 PCE CPU power On Off
49 Bank 2 On Off
50 CPE/TDE Power On Off
51 Audio MUX Bit 1 = 1 0
52 Downlink Select SPARE1 DASH1
53 Magnetorquer B3 1 0
54 Boom Extend Moving! Off
55 PCE ROM Hi Low
56 1802 DMA Select Bit 0 1 0
57 Telemetry frame counter Inhibit Advance
58 PCE DASH0 Enable Disable
59 SPARE PROM Select Hi Low
60 Rx 1 AFC On Off
61 Bank 3 On Off
62 CPE Code Copy 1 Copy 0
63 Audio MUX Bit 0 = 1 0
64 Telemetry Power On Off
65 Magnetorquer B2 1 0
66 Boom Retract Moving! Off
67 TDE Mode Read Measure
68 1802 DMA Select Bit 1 1 0
69 Telemetry dwell read On Off
70 PCE DASH1 Enable Disable
71 SPARE Reset Run Reset
72 Rx 2 AFC On Off
73 1802 power On Off
74 CPE Code Bootloader CPE
75 Rx 1 Frequency VITA 145.975
76 Nav Mag Power On Off
77 Magnetorquer B1 1 0
78 Redundant PCM Toggle Toggle
79 SPARE Computer Power On Off
80 Telemetry Mode Serial RAT

81 Telemetry dwell write On Off
82 CPE/TDE DASH0 Enable Disable
83 SPARE EDAC Disable Enable
84 PCE Reset Run Reset
85 1802 Reset ClearL ClearH
86 CPE Reset Reset Run
87 Rx 2 Frequency VITA 145.900
88 Magnetorquer Power +14V On Off
89 Magnetorquer B0 1 0
90 BCR Select Toggle Toggle
91 Downlink Mode Sync Asynch
92 Telemetry Rate 9600 1200
93 Telemetry VLSI Power On Off
94 CPE/TDE DASH1 Enable Disable
95 SPARE CPU Speed Select 4 Mhz 1 MHz
96 1802 'Q' output 1 0
97 Pyros Not Fired Fired
98 BCR Selected B A
99 Batteries Discharge Charge
100 PCM Selected B A

Posted: Tue, Jan 30, 1990 3:10 PM GMT Msg: HGJA-4152-5822
From: UOSAT
To: DOCS
Subj: UoSAT BINARY FORMATS

UoSAT-3 and 4 FORTH Diary Binary Data Formats

Beware: Some changes to this packet format are likely. The first change will be the addition of a timestamp to each packet. This will be 5 bytes between the ID byte and the Frame Number.

1.0 General Packet Format

The various types of data available from the FORTH Diary operating on UoSAT-3 and 4 can be sent to the downlink using packets made up from asynchronous bytes. The basic packet format is the same for all types of data, with an identification byte used to differentiate different types of data. Currently, the data is transmitted at 1200 baud, with 8 data bits, no parity and 2 stop bits.

Each packet is made up of 71 bytes, as shown below.

Bytes	Function
1	Sync1
2	Sync2
3	ID Byte
4	Frame Number MSB
5	Frame Number LSB
6	Data0

7	Data1
.	
.	
.	
68	Data62
69	Data63
70	Checksum MSB
71	Checksum LSB

Detailed Description

2.0 Sync Bytes

The Sync bytes used for each version of the FORTH Diary are shown below

---
| Version | Uo-2 | Uo-3 | Uo-4 |

| Sync 1 | 50h | 45h | 55h |
| Sync 2 | 41h | 34h | 38h |

2.1 ID Bytes

The ID byte is used to indicate what type of data is contained in the packet. The following values are currently defined.

| ID Byte | Type of Data | No. of Frames |

0	Binary Whole Orbit Data	352
1	Engineering Data	1
2	Binary RAM dump	Variable
3	Telemetry	3
4	Solar Cell Expt. Data	64

2.2 Frame Number

The frame number is a 16 bit value, transmitted as 2 bytes, most-significant byte (MSB) first. The maximum frame number sent is dependent on the type of data being transmitted. The number of frames for each type of data is shown in the table above. For example, when telemetry is transmitted frame numbers 0,1 and 2 are repeated continuously. WOD dumps take more than 300 frames.

2.3 Checksum

The checksum is the 16 bit addition of the all bytes in the packet, excluding the sync bytes. With one exception, each byte is treated as an integer, and added to a 16-bit accumulating value. Overflow of this accumulator is ignored. The value of the accumulator after the reception of data byte 63

should be equal to the received checksum.

The exception to the above simple addition is the Frame Number. The two bytes of the Frame Number are treated as a 16-bit value and added to the accumulator register. For example, upon receiving a frame with ID Byte 0, Frame Number 1234 (hex) and all 0 data bytes, the checksum should be 1234 (hex), and NOT 12+34=46 (hex).

2.4 Data Bytes

The data bytes when stored contiguously provide a copy of the spacecraft data buffer being dumped. The format of actual information within this buffer depends on the type of data being dumped.

2.4.1 Binary Whole Orbit Data

Whole orbit data is made up of telemetry samples from a relatively small number of channels stored sequentially in the buffer. The number of channels being surveyed is adjustable between 1 and 10 channels. The Engineering Frame tells which channels are contained in the survey (see Section 2.4.2).

Each telemetry sample is 12 bits wide, made up of three BCD digits for analogue channels and 12 bits for status channels. These are packed tightly into memory with 2 channel samples in every 3 memory bytes. For example a 3 channel survey is packed as follows:-

Byte 0 1 3 4 5 6 7 8 9
|H1M1|L1H2|M2L2|H3M3|L3H1|M1L1|H2M2|L2H3|M3L3| etc.

|------ Sample 1 -----||------ Sample 2 -----|

where H1 is the High Order Digit of the 1st sampled channel
M1 is the Middle Digit of the 1st sampled channel
L1 is the Low Order Digit of the 1st sampled channel
H2 is the High Order Digit of the 2nd sampled channel etc.

H1 is stored in the most-significant nibble of byte 0.

2.4.2 Engineering Frame

The engineering frame contains 64 bytes of FORTH system variables. These include many of those which are transmitted in the normal status messages. The first 32 bytes of the frame are defined below. The second 32 bytes contain variable associated with the attitude control system and liable to frequent alteration as the code is refined.

Byte Function

0 Clock Seconds (BCD)
1 Clock Minutes (BCD)
2 Clock Hours (BCD)
3 Day of month (BCD)
4 Month
5 Day of Week (1=Sunday)
6 0

7 0
8 0
9 WOD Start time seconds (BCD)
10 WOD Start time minutes (BCD)
11 WOD Start time hours (BCD)
12 WOD Start time day (BCD)
13 WOD Start time month (BCD)
14 Diary mode (1=manual, 0=auto)
15 Last command number
16 Last command sense
17 Last command data
18 Attitude Control state (1=enable)
19 Attitude Control Mode
20 WOD collect in progress (1=true)
21 WOD number of channels
22 WOD Channel position 1
23 WOD Channel position 2
24 WOD Channel position 3
25 WOD Channel position 4
26 WOD Channel position 5
27 WOD Channel position 6
28 WOD Channel position 7
29 WOD Channel position 8
30 WOD Channel position 9
31 WOD Channel position 10

2.4.3 Binary RAM Dump

This format is a direct dump of any part of the 1802 memory and is used for diagnostic purposes. The data is dumped in 64 byte blocks from the specified starting address up to the specified finish address.

2.4.4 TELEMETRY

In this mode each frame contains 32 telemetry channels, with each channel occupies 2 bytes. The 1st byte of each channel contains the most-significant 4 bits of the telemetry value, and the 2nd byte contains the remaining 8 bits. For analog channels each 4 bits is a BCD digit. For digital status points, each bit represents one status point.

The Frame Number tells which channels are contained in the frame. Frame Number 0 contains channels 0 to 31, Frame 1 has channels 32-63 and Frame 2 has channels 64-80. The remaining 16 bytes in Frame 2 do not contain valid data.

For example the beginning Frame 0 is as follows:-

Byte 0 1 3 4 5 6 7 8 9 10
|00H0|M0L0|00H1|M1L1|00H2|M2L2|00H3|M3L3|00H4|M4L4| etc.

|--Ch.0---|--Ch.1---|--Ch.2---|--Ch.3---|--Ch.4---|

where H0 is the High Order Digit of Channel 0
M0 is the Middle Digit of Channel 0

L0 is the Low Order Digit of Channel 0
H1 is the High Order Digit of Channel 1

704. UoSAT Bulletin

Newsgroup: rec.ham-radio
Date: 1990-01-31 09:22:47 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19564@bellcore.bellcore.com>
Source record: 13760

Posted: Tue, Jan 30, 1990 2:58 PM GMT Msg: KGJA-4152-5629
From: UOSAT
To: AMSAT
Subj: UoSAT-3/4 Report #005

UOSAT-OSCAR-14 and UOSAT-OSCAR-15 REPORT #005 1300 UTC 30 January 1990

** UoSAT-OSCAR-14 **

On 29 January, in aid of efforts by KA9Q, W2RS, and others to identify conclusively the orbits of the OSCARs-14 through -19, we monitored "sunrise" at UO-14. The sunrise time was 18:57:41 UTC, measured using the onboard hardware telemetry system; this time may be a bit later than the actual sunrise, as the telemetry system takes 3 seconds to sample all channels. We monitored the solar array voltage, which is the first telemetry point to respond to sunlight. The measured time corresponds closely with the "object D" in current Keplerian element sets.

On 26 January, the OBC collected a WOD survey of the magnetometer channels. Before describing this survey, we must review the satellite axis system: the Z axis is the long axis of the satellite, which will eventually point toward the earth; the X and Y axes are the axes through the satellites solar panels.

Qualitatively, the WOD survey shows that the Z axis and the Y axis are measuring the same magnetic fields. The Y axis shows a decidedly different pattern, with two magnetic maxima per orbit. After some analysis, this is interpreted as follows:

1) UO-14 is not spinning about the Z (long) axis.

2) It is, spinning about the Y axis, which is called a 'flat spin'.

3) This flat spin has inertially stabilised the satellite in a plane parallel to the Earth's equatorial plane, i.e. with the Y axis pointing north-south.

To visualise this, take a shoe box and place it on a table. The Y axis passes through the top of the box. Stick a pencil through this. The X axis is through the sides, and the Z axis through the ends. The satellite is spinning around on the pencil, the Y axis. As the satellite orbits, this axis

remains pointing north-south.

This analysis can be confirmed by watching the solar panel currents when UO-14 is in sunlight. As it spins about the Y axis, the sun strikes the +X panel, an end of the satellite, the -X panel, the other end of the satellite. The Y panels get very little illumination. This also keeps the X panels warmer than the Y panels.

This inertial stabilisation is not having any ill effects on UO-14, though internal temperatures are somewhat lower than final operating temperatures. The next step in acquisition of gravity-gradient lock is to break the flat spin, and line the satellite up with the Earth's magnetic field. This requires active magnetorquing under control of the 1802 OBC.

** UoSAT-OSCAR-15 **

We are attempting to determine what has kept UO-15 silent for the past week. Most subsystems on the satellite have redundant backups, and so this silence is puzzling. Many simple failure scenarios (e.g. that there is an uplink problem similar to that experienced on UO-11), are not likely, since the Z-80 OBC should still be commanding the UO-15 beacon on and off even if we are not getting commands in from the ground. The UO-14/15 command system processes all commands from all sources "simultaneously", so a runaway OBC could not be blocking ground commands. We are trying all possible command sequences.

We still urgently need any reception reports from 435.120 MHz after 2300 on 23 January.

- de G0/K8KA.

705. A Day in the Life...

Newsgroup: rec.ham-radio
Date: 1990-01-31 09:23:53 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19565@bellcore.bellcore.com>
Source record: 13761

Posted: Wed, Jan 31, 1990 1:34 AM GMT Msg: JGJA-4153-3176
From: HPRICE
To: docs
Subj: Microsat software development

Some of you might be wondering what we're doing with the microsats, and why you can't connect up yet.

The development cycle for these launches was very short. Most of the time available for software development, beyond getting the basic operating system and I/O drivers running, was in writing support code for ground-based hardware checkout. A fully operational CPU wasn't mated to a fully operational spacecraft until very late in the game. Much of the available software time after that went into qualifying the rom-based bootloader. Given the short time available, the goals were :

1) Check out all of the hardware on the ground.
2) Have the best chance possible of getting good telemetry as soon as possible once the spacecraft reached orbit.

This resulted in a limited-feature, but very reliable set of launch support software. This is the software that was running when the transmitter on commands were sent.

Once the spacecraft were in orbit, several shortcomings in the high-level software loader and in the battery management routines were seen. Bob and I have been working to fix these, in addition to commissioning groundstations which have never talked to microsats before, and spacecraft which have never talked to the ground before, times 4.

Once procedures are worked out, they are documented so that new command stations can be brought on line.

Here is a typical day in the life of Bob and Harold. Each day has been like this since launch. Times approximate.

12:00-16:00 UTC
Bob wakeup, read mail from Harold for previous night's passes. Copy early passes, check action of software loaded last night. Reconfigure s/c as required. Finish testing new command and control software for next spacecraft. Send to Harold.

15:00-18:00 UTC
Harold wakeup, read mail from Bob, get new command and

control software from bob. Integrate with new loader code, test on spacecraft CPU simulator.

18:00-20:00 UTC
Harold to TRW. Start upload of new software to spacecraft. This is a bit tricky, which is why a new loader is being sent. TRW ARC crew tapes or copies other spacecraft in realtime. Review of all telemetry for all spacecraft.

22:00 UTC
Harold sends .EXE which was partially uploaded to Bob to finish uploading. Sends a list of diagnostic variables to WEBER ground station crew to download on their next orbits, or calls to coordinate use of uplinks for Weber access to their experiments.

22:00 UTC
Bob prepares and tests new command and control software for next spacecraft. Harold works on making ground upload software distribution. Weber tests final camera code on software simulator at Weber, in preparation for sending to Harold to run on the hardware simulator.

01:00-04:00 UTC
Bob completes upload of new software. Prepares source for next spacecraft for start of new cycle. Answers fan mail. Calls Harold to confirm software uploaded.

04:00-06:00 UTC
Harold back to TRW. holds breath, tells spacecraft to terminate the old program and start the new one. Calls Bob to discuss the day. Gets call from Weber on the diagnostic values. Bob to bed.

06:00 - 08:00 UTC
Harold and TRW ARC crew tapes or copies other spacecraft in realtime. Review of all telemetry for all spacecraft. Harold puts status message on telemail.

12:00 UTC
Bob up, start again.

Coming events:
Harold and Bob polish resumes, as above schedule leaves no time to pick up paycheck, let alone do work.

Once the basic hardware is checkout, and the batteries are in good shape, this frantic schedule will change. Once the loader and the command software are done being tweaked, they will be turned over to the production command groups, hopefully by the end of this week.

The next goal is to load the application software. Weber will be ready to do that is a few days. I have to take a business trip, and more development needs done, which will delay the uploading of the first user-access software until late February. This will allow time for the final hardware checkout, which will include memory tests on the 8MB mass memory, determination of channel center frequencies, required uplink power, and the like.

hp

706. Microsat lifetime estimates

Newsgroup: rec.ham-radio
Date: 1990-01-31 09:24:54 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19566@bellcore.bellcore.com>
Source record: 13762

Posted: Wed, Jan 31, 1990 1:35 AM GMT Msg: BGJA-4153-3196
From: HPRICE
To: docs
Subj: Lifetime

I've been asked by several people what the expected lifetime of the Microsats is. There are probably three main limiting factors: orbital decay, battery life, and radiation total dose.

1) Orbit lifetime. A chart in the Satellite Experimenter's Handbook shows a lifetime of 40000-50000 days at our altitude, or somewhere around 120 years; so orbital decay is not our main worry. The most recent Oscar to succumb to orbital decay while still active was UO-9. It was launched into a 500km orbit, and lasted eight years.

2) Battery lifetime. This has been the limit to lifetime for the majority of amateur spacecraft. The early OSCARs where limited to whatever charge was in the batteries at launch, as they didn't have solar cells. Later, the limit was in the number of charge/discharge cycles that could be performed. The microsat/uosat orbit gives 14 charge/discharge cycles each day, although the discharge is not very deep. All the spacecraft have variable transmit power levels, so as the solar cells weaken over time (due to radiation damage), and it takes longer to recharge, we can reduce the transmitter power to proportionately reduce the depth of the discharge. The microsats can be varied in 15 steps from tens of milliwatts to 3-4 watts.

The batteries in OSCAR spacecraft in low orbit have lasted between five and eight years. UO-9 was still looking good as it re-entered after 8 years. The spacecraft that most closely models Oscars 14 through 19 is UO-11. UO-11, launched in March, 1984, has batteries with the same part number as the current spacecraft. They were procured in much the same manner, and where matched and tested by the same group of VITA volunteers in Canada, led by Larry Kayser. These batteries have shown no signs of weakening after almost six years in orbit.

3) Radiation Damage.

Anything above the protection of the atmosphere is subjected to radiation exposure. This is due to the direct and secondary effects of high energy particles, from the sun and elsewhere. In addition to possible immediate affects, such as flipping a bit from 0 to 1 or 1 to 0, which is correctable, a particle hitting

in just the wrong place can cause uncorrectable errors, such as a wrong operation internal to the microprocessor, or worse case a cmos latchup, resulting in high current draw and overheat/fry. The bit flipping is common, the latter events are very unlikely.

We are more likely to fail due to the cumulative effects of this constant bombardment, something called total dose. Once the total dose reaches a certain point, the gates in the transistors that make up the computer and its memories will no longer switch, and that's it. As far as predictions on when this might occur, it would be easy except for two things, we don't know what the total dose in this orbit is, and we don't know the limits for the parts used. That is one of the many things this mission will tell us. UO-14 and UO-15 both carry a package that will measure the total does received. That way, providing non-critical parts fail first, we can begin to characterize the radiation susceptibility of the non-radiation hardened parts we use.

It should be noted that the microsats are in a much more benign orbit than is AO-10. AO-10 did not quite reach the desired orbit, and with its 4000k perigee, spends more time in the Van Allen radiation belts than was planned. AO-10's memories therefore failed sooner than hoped, but the other electronics, the transponders, batteries, and solar arrays live on. Through no-longer actively attitude control, and therefore subject to seasonal variations is solar power, transponders are still usable many weeks of the year.

AO-13 is in a better orbit with a lower perigee, and should have a longer life.

A fourth reason for failure, random failures, won't be treated here. See the Satellite Experimenter's Handbook, available from AMSAT, ARRL, and better equipmented ham stores, for more discussion on the subject of lifetime.

In summary, we have no practical limits to life from orbital decay, the same batteries have worked for 5+ years with no degradation yet apparent on UO-11, and we don't know how long the high density chips that make up most of the microsat CPU will last. Based on rough estimates of the dose in this orbit, and what the chips can take, we would not expect any problems in this area for two to three years. Since the mass memory is byte-wide, many types of single-chip failures can be avoided in a manner analogous to locking out bad sectors on a hard disk.

UO-11, which uses somewhat similar technology chips, has survived almost six years with a failure of only one small section of memory, and that was several years ago.

We shouldn't hear a fat lady singing on 145.825 for some years to come.

Harold Price
NK6K

707. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-31 10:22:00 UTC
From: richard.dale@canremote.uucp
Message-ID: <90020219445813@masnet.uucp>
Source record: 13737

tm>And more important, won't the brine kill all the vegetation in the
tm>area, and create an underground "plume" of brine that will foul the
tm>ground water in that area? I know for sure you could get into big

Tue 01-30-1990 [21:59]
It doesn't in Florida, apparently. My mom and stepdad live in the
panhandle (near Panama City). The whole area is such that you can't
dig down more than three or four feet without hitting water. I
don't know if it's salt water, but some of it is (or brackish).
That's why there aren't any basements! Gee, tornado watches are
real fun, grin! I'd rather have the midwest winters and a
BASEMENT. I got caught in a tornado while working at a TV station
in an old Marine barracks a few years ago. No fun at all :-(
My stepdad is putting up an 85-foot crankup. I couldn't believe
the FM and TV DX that thing got at another location while it was at
it's lowest level (before crank-up). He should do pretty good with
a 2-meter, scanner, and FM antenna, not to mention his beams.

~ DeLuxe 1.11a20 #2989
~ QNet 2.03: NorthAmeriNet: Sound Advice BBS ~ Gladstone ~ MO

708. More on Commo Act of 1934 and the news

Newsgroup: rec.ham-radio
Date: 1990-01-31 14:08:26 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9002010803.AA09835@ucbvax.Berkeley.EDU>
Source record: 13751

Another blatant example of the divulging of the contents of intercepted non-broadcast communications has been spread all over the national news in regard to the crash of the Avianca jet near New York. I heard broadcasts of tapes of conversations with people variously identified as "hams" (no idea if they really were) or "scanner listeners" who were reciting what they heard of the plane-to-controller communications.

This is a clear and explicit violation of the law. If the FCC doesn't do anything in this case, then everyone should consider the law meaningless and ignore it from now on.

Will

709. More on Commo Act of 1934 and the news

Newsgroup: rec.ham-radio
Date: 1990-01-31 14:08:26 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9002021341.AA23193@ucbvax.Berkeley.EDU>
Source record: 13752

Another blatant example of the divulging of the contents of intercepted non-broadcast communications has been spread all over the national news in regard to the crash of the Avianca jet near New York. I heard broadcasts of tapes of conversations with people variously identified as "hams" (no idea if they really were) or "scanner listeners" who were reciting what they heard of the plane-to-controller communications.

This is a clear and explicit violation of the law. If the FCC doesn't do anything in this case, then everyone should consider the law meaningless and ignore it from now on.

Will

710. DOVE fading

Newsgroup: rec.ham-radio
Date: 1990-01-31 14:27:23 UTC
From: jcp@cgch.UUCP
Message-ID: <9001311404.AA21428@zit.cigy.>
Source record: 13779

>Mailer: Elm [revision: 64.9]

I've been taking a lot of DOVE telemetry lately, and noticed
that it always has this fading characteristic. It seems as if the
antenna is directional, and rotating. The doppler seems well behaved,
just the signal strength increases/decreases in a sine wave like pattern.

Is this an artifact, or have others noticed it too? On a low
pass (20 degrees), this will knock out about one packet in 5 on the
telemetry channel. Not a problem, mind you, just interesting. Also,
I notice that the satellite is putting out 3.6 watts on average, although
last night (1/30), it seemed to have dropped to 3.25 or so. Is it intended
to run at the power all the time, or be decreased when other modes are
enabled?
-jcp-

HB9NBB
QTH: Basel, Switzerland

711. Re: Ham II / CD44 Repairs

Newsgroup: rec.ham-radio
Date: 1990-01-31 15:56:48 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120108@hpcupt1.HP.COM>
Source record: 13786

Sounds like the phase splitter capacitor is bad. It is the big
capacitor in the control head. The motor is a two-phase affair
to get a spinning field to make the armature turn. If the capacitor
goes bad, the motor doesn't run. If you have a manual with a
schematic, you should be able to pick out the capacitor and get the
appropiate replacement.
Jim
jholly@hpcupt1.hp.com
WA6SDM@WB6ASR

712. Re: cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-01-31 17:41:20 UTC
From: pfluegerm@valley.UUCP
Message-ID: <485e0851.15840@valley.UUCP>
Source record: 13772
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1107@male.EBay.Sun.COM>, max@magicastle.Central.Sun.COM (Jeff Cohn) writes:
>
> In article <9001300803.AA16558@ucbvax.Berkeley.EDU> TROTH@RICEVM1.RICE.EDU (Rick Troth) writes:
> | Does anyone have a list of cordless telephone "channels"?
> |
> | I have a UNIDEN pulse dialer with a "CH19A" sticker on it.
> |I doubt I'll find much use for this other than as a phone, but I'd be
> |interested in listening to it with other gear.
>
> I have a Cobra cordless pulse dialer. The O.M. has the following:
>
> Channel # Handset TX Freq Base TX Freq
>
> 1A 49.83Mhz 1.69Mhz
> 7A 49.845Mhz 1.71Mhz
> 13A 49.860Mhz 1.73Mhz
> 19A 49.875Mhz 1.75Mhz
> 25A 49.890Mhz 1.77Mhz
>
>
> Keep in mind that its using 49Mhz from the handset to the base
> and 1Mhz from the base to the handset.
>
> You may also find more by scanning from 49.8 to 49.9 and 1.6 to 1.8Mhz.

All (I believe) of the newer phones use one of 10 channels in the
46.61-46.97 MHz range, 30 KHz spacing. Like the older ones, the
base transmits both sides of the conversation. Handsets are still in
the 49 MHz range, but I don't bother with them... :-)
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

713. To ridicule

Newsgroup: rec.ham-radio
Date: 1990-01-31 18:08:12 UTC
From: "4.8": <>;
Message-ID: <9001311808.AA01708@mmlai.LOCAL>
Source record: 13793

In article <3016@optilink.UUCP>, Paul Elliott writes (taken completely out of context):

. . . Sorry, I don't have any dates. . .

This must be pretty common in the ham world . . . I haven't had many lately myself! :-) :-)
HI HI es 73s

Bill Ferrell
(ferrell@mmlai)
N3HIV

(With a call like this it's no wonder I haven't had many dates lately!)

714. Re: cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-01-31 19:13:18 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <12834@cbnewse.ATT.COM>
Source record: 13765

In article <9001300803.AA16558@ucbvax.Berkeley.EDU>,
TROTH@RICEVM1.RICE.EDU (Rick Troth) writes:

> Does anyone have a list of cordless telephone "channels"?
>
> I have a UNIDEN pulse dialer with a "CH19A" sticker on it.

Search for the base units between 46.61 and 46.97 MHz.

I think the new FCC regulations specify frequency ranges
rather than discrete channels for cordless telephones, but here
is a list of the channels used to date.

telephone, cordless, base, fm
[newer sets]________ 46.6100____ch 1 (B. Parnass)
" " 46.6300____ch 2 (B. Parnass)
" " 46.6700____ch 3 (B. Parnass)
" " 46.7100____ch 4 (B. Parnass)
" " 46.7300____ch 5 (B. Parnass)
" " 46.7700____ch 6 (B. Parnass)
" " 46.8300____ch 7 (B. Parnass)
" " 46.8700____ch 8 (B. Parnass)
" " 46.9300____ch 9 (B. Parnass)
" " 46.9700____ch 10 (B. Parnass)
" [older sets]________ 1.6900____ch 1/1A (B. Parnass)
" " 1.7100____ch 2/7A (B. Parnass)
" " 1.7300____ch 3/13A (B. Parnass)
" " 1.7500____ch 4/19A (B. Parnass)
" " 1.7700____ch 5/25A (B. Parnass)
telephone, cordless, handset, fm
[newer sets]________ 49.6700____ch 1 (B. Parnass)
" " 49.7700____ch 4 (B. Parnass)
" " 49.8300____ch 6 (B. Parnass)
" " 49.8450____ch 2 (B. Parnass)
" " 49.8600____ch 3 (B. Parnass)
" " 49.8750____ch 5 (B. Parnass)
" " 49.8900____ch 7 (B. Parnass)
" " 49.9300____ch 8 (B. Parnass)
" " 49.9700____ch 10 (B. Parnass)
" " 49.9900____ch 9 (B. Parnass)
" [older sets]________ 49.8300____ch 1/1A (B. Parnass)
" " 49.8450____ch 2/7A (B. Parnass)
" " 49.8600____ch 4/13A (B. Parnass)
" " 49.8750____ch 4/19A (B. Parnass)
" " 49.8900____ch 5/25A (B. Parnass)

--
==
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

715. Re: SCA - not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-01-31 19:19:15 UTC
From: markz@ssc.UUCP
Message-ID: <448@ssc.UUCP>
Source record: 13781

In article <9001291324.AB00031@adam.DG.COM>, Pete_Simpson@DGC.MCEO.DG.COM writes:
> I found that there were
> all kinds of SCA transmissions but the universal feature they all had
> was a fairly high S/N ratio. The carriers are transmitted at very low
> modulation levels compared to the program audio (someone will
> enlighten us with the exact percentage, no doubt). The point is that
> maybe you need more signal level, or, ideally, a high pass filter
> with a cutoff around 50Khz (since 38Khz is the L-R stereo subcarrier
> which you don't want, and 67KHz, I believe, is the first SCA carrier).

Another look at the August 1987 Radio-Electronics SCA rcvr. project shows
that they have a one transistor amp between the LM3189 FM IF and the 565 PLL.
The filter is also much more complex than the one Eric posted.
A good place to start.

markz@ssc.uucp

716. AM Returns are in...

Newsgroup: rec.ham-radio
Date: 1990-01-31 19:55:12 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <197715@Wayne-MTS>
Source record: 13780

To all AM fans: Thanks for your patience. I recieved a number
of interesting replies, most of which are gived in edited form
below. However...the ever loquatious WA6NCX supplied the entire
text of a very interesting article he wrote a while back, along
with permission to repost it, which I have done. So thanks to all
to answered my query.

My main AM transmitter right now is a old Heathkit Apache, although I
have a homebrew 833 rig, gonset G76, and a military TBW4 which all
operate AM. I have used a kenwood ts680 on AM in the past with good
results.
Chuck (WB3FJJ)

...I run AM occaisionally on 10 m (29.0 MHz and above)
using my TS930S and Ameritron AL80A amp. I drive the AL80A for about 150
to 200 W acrrier, giving me about 6 dB headroom. I'd love to have my Dad's
Globe Champion (350 W of plate-modulated AM that will also heat a small home)
or one of those beautiful Johnson Viking II's, but just don't have the room
right now. (Kim N5OP)

I have a converted Radio Shack TR452, modified for CW (tho it
still does AM). I never use the thing but would like to ... [sigh]
time is a tyrant.

Rick Troth

...I haven't operated much but I do have an AM rig.
I plan to use my Johnson Viking II ($10 at Ham swap) with my Sony 2010
receiver. The Viking II was made in 1953, has 10 tubes (VFO's excluded).
Its output is rated at 130 watts for CW and 100 watts for AM (at 10 m freq.).
It covers 160 m through 10 m (no 17 m band). Final PA uses 2 6146's.
I'm putting up my 40 m dipole tonight, hopefully.
Thang Le/AA6SV

I operate AM 29.000 to 29.100 MHZ on 10 meters. Equipment is a Drake T4XC/R4C
combination. Also, 14.286 is good, as well as 7160, 7290, 3870-3890 khz.

I am not really what you'd call an old-timer, just drawn to it for some reason.
Can't beat the fidelity, and a friendlier bunch of hams you'll never meet.
Bob (N4CDO)

....I operate several stations using this mode:
XMTR's: Heath TX-1 Apache, Johnson Ranger, Johnson Viking I, Harvey-Wells
TBS-50, Homebrew plate-modulated rig. Am also building a pulse-
width modulated AM transmitter using a 4-400A as the class D
modulator in the negative lead of a 4-400A class C RF PA.
RCVR's: R390/URR, NC-100XA, SX-28, HQ-170A.

Also I operate a 6&2 meter AM station consisting of a Johson Viking 6N2 powered by the modulator/power supply from a DX-100, Johnson 6N2 receiving converter, and BC-312 receiver.

In all cases the moduator sections have been modified to various degrees for better frequency response and lower distortion of the audio.

AM frequencies I can be found on: 1.885-1.890, 1.945, 3.875-3.895, 7.285-7.295, 14.285, 21.385, 29.0-29.1, 50.25, 50.40 MHz.

I would just like to add that although AM is one of my favorite modes I also enjoy CW, SSB, various RTTY modes, and packet. Isn't ham radio great?
73, and thanks for your interest,
Larry, NE1S

Though it's just a toy, and i've yet to make a contact with it, I moved a toy superregnerative 49Mhz walkie talkie to 50.585Mhz. That's in the ssb and Am subband. Why 50.585? I found that xtal in my junk box.
73 de WA2ISE

717. AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-01-31 19:56:36 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <197717@Wayne-MTS>
Source record: 13785

----------cut here----------

The Lure of Amplitude Modulation:
A Relaxing Change from Quack Quack SSB and Packet Racket

Rick Ferranti WA6NCX

Introduction

What's the difference between just communicating with another ham, and actually enjoying the contact? Between plugging in a kilobuck solid-state computerized rice-radio, and really operating an inexpensive 30- or 50-year-old classic transmitter and receiver, with all their tuning and loading controls, crystal phasing, drifting, heat, and wonderful smells? Between restricted, sterile telephone-quality voices (or worse, little characters appearing impersonally on a computer terminal), or full-quieting, full-blown good fidelity audio, so clear that you can actually recognize whom you've QSO'd just by hearing their voice at a flea market?

The difference is the modulation mode -- not SSB or Packet or other modern ``advanced communication'' methods, but full-carrier double-sideband amplitude modulation, otherwise known as AM. Its characteristics of fine voice fidelity, noise quieting, and non-critical tuning give it a classic appeal. Simple, inexpensive equipment is all that's needed. And there's romance in hearing the static break through a slowly fading carrier while you fiddle to get the last bit of oomph out of your receiver, until the signal builds up again and the QSO continues. Then it's your turn to transmit, with a clunk of several relays and a long, relaxed transmission, so unlike the hyperspace machine-gun contest-like exchanges of the SSB crowd.

I have held a fascination for AM operation for years, and have owned or operated much of the classic equipment from the 30's to 50's. More and more I seem attracted by radios that glow in the dark and don't slide off the operating table when I plug in a set of headphones! If you'd like a change from the rat-race tinny sound of SSB and the digital rf garbage, consider switching to a mode as old as radio itself. Here are some of my impressions of the equipment and operating practices of the group using Amplitude Modulation.

Receivers

There are many fine AM receivers, some reaching back more than 50 years. The National HRO and Hammarlund Super-Pro are excellent examples, both having been designed in the early 1930's. My current favorite is a National NC-100X from 1936, a sort of streamlined HRO

with built-in coil sets and power supply. Waiting in the wings for my restoration in an RCA ACR-175, another great communications receiver from the mid-thirties. Good quality 1940's and 1950's descendants of these receivers, like the HQ-129X or the NC-300, are also favorites of the AM operator. I'd stay away from lesser makes like Hallicrafters, unless you latch onto their top-of-the-line models like the SX-28. Whatever you do, don't try to use a sideband transceiver as an AM receiver -- the narrow SSB filter kills all the nice audio fidelity. Quality vintage receivers are often sold for $50 - $100 at flea markets; my NC-100X was simply given to me!

Transmitters

Many AM'ers pride themselves on their homebrew transmitters, often with audio fidelity rivalling that of a shortwave broadcast station. (No, I'm not interested in arguments about ``wasting bandwidth'' by using AM. The same argument says we are wasting bandwidth on SSB -- we should all be on CW or narrow-shift RTTY. Anyway, if you think about it, all recreational use of amateur radio is ``wasting bandwidth.'') Some homebrew rigs are truly amazing -- a 4-1000 modulated by a pair of 4-400's, for example, or one Northeast ham who runs a homebrew kilowatt pulse-duration modulated transmitter!

But that's all a little exotic. Most AM'ers run classic commercial rigs, all the way from the beautiful kilowatt Collins KW-1 to the minuscule Gonset Commander. Several Collins KW-1 transmitters are quite alive and on the air; three hams I can think of who use theirs regularly are K1MAN in Maine, W8AHB in Michigan, and KW1I (really, that's his call) in New Hampshire. The KW-1 is pretty much in a class by itself as far as quality and sheer power; the Johnson Desk Kilowatt comes next, and then the relatively cut-rate Globe King 500 series. Lots of Johnson Valiants, Vikings, Heath DX-100's, and even surplus behemoths like the BC-610 also show up. A favorite for fine quality modulation, without breaking the back or the electric meter, is the Johnson Ranger. It runs about 50-60 watts output with built-in VFO, covering 160-10 meters. Lots and lots of these are heard with excellent results. I've contacted AM'ers all over the country with mine (and yes, I got it for free too!)

Listening In

As you may gather, there are pockets of AM activity all over the country, though most of what I monitor originates east of the Rockies. Typical frequencies used by the AM crowd are 1885, 1945, 3860-3890, 7290-7295, 14286, and 29000-29100 kHz. The 20 meter frequency comes alive at 9 pm here in the East; in California listen at 6 pm to hear some really big signals from all over the U.S. The 10 meter ``AM window'' is full of signals when the band is open; it's great for low-power work, even with converted AM CB sets. (I recently had a long QSO with a Texan running a converted CB at 2 watts output -- his signals were strong enough to close the tuning eye on my NC-100X and quiet the background noise, and I was 20 over 9 down there with the

Johnson Ranger from my QTH near Boston).

More Information

If you're interested in learning more about the AM scene in the country, a very nice monthly 16-page newsletter is the AM Press/Exchange, 2116 Old Dover Road, Woodlawn, Tenn. 37191, published by Don Chester K4KYV. A year's subscription is only $10, and even if you aren't a subscriber you can still run free AM-related want/sell ads every month. Good place to try to find a KW-1!

Personal Beginnings

I got interested in amateur radio over 20 years ago, listening with my 4-tube Knight-Kit ``Star Roamer'' (which I still have) to a 160 meter AM net called the ``Igeroties'' (the name is reputed to mean ``head hunter'' in Swahili). It was run by Fred K6YT (then W6QWF), and its members comprised a fascinating collection of characters, including W6EAJ, who lived on the side of a mountain somewhere in far Northern California (Horse Mountain Ridge), and whose house and station were powered by a water wheel. When I got licensed in the early 70's I would chat with these folks using an old DX-100 or a surplus TCS transmitter. Since I moved from the San Francisco area to the East Coast some 13 years ago, I've often wondered whatever happened to the infamous ``Igeroties.'' Now I listen to Eastern 160 meter AM activities, including the ``Grey Hair'' Net on 1945 KHz. And, the Society for the Promotion of Amplitude Modulation (SPAM) has an 80 meter AM net as well.

Conclusion

Even if you think all this is quite antiquated and doesn't meet current notions of high-technology, you'll have to admit that the clean, opulent tones of a well-modulated amateur AM phone station sound just wonderful, especially when they emanate from a classic receiver of ham radio's golden age. You can participate in that quality and enjoyment with little expense and a bit of digging, and join the fun of operating with Amplitude Modulation.

****

718. HQ-180 data sought

Newsgroup: rec.ham-radio
Date: 1990-01-31 19:57:58 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <197719@Wayne-MTS>
Source record: 13784

ANyone out there have the schematic and related notes on a Hammerlund
HQ-180? Help put a poor ex-psycholinguist on AM...
--mike ke8yy
michael_edelman%Wayne-MTS@um.cc.umich.edu
medelma@waynest1

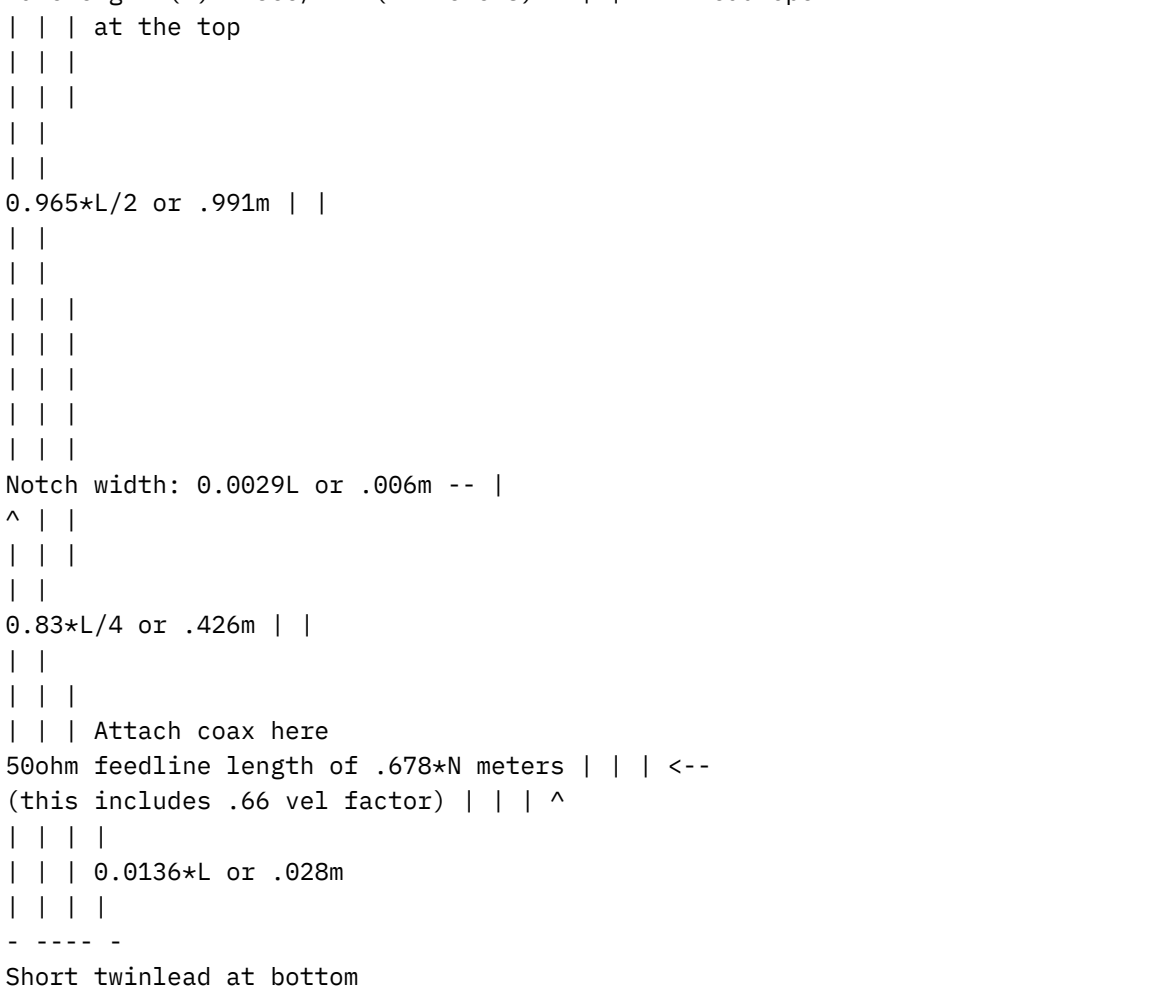
719. Ribbon J-pole Correction

Newsgroup: rec.ham-radio
Date: 1990-01-31 20:06:15 UTC
From: jsb@hpfinote.HP.COM
Message-ID: <16170012@hpfinote.HP.COM>
Source record: 13766

After reading the discussion about 300 ohm ribbon j-poles recently, I thought it would be fun to build one. However, the finished product was resonant around 116Mhz, resulting in a 15-20db worse signal than my rubber duck on 2 meters!

Some investigation revealed a mistake in the construction plans. This was confirmed by an paper published in April '82' QST.

The following plan is for a j-pole resonant at 146Mhz and a bandwidth of 4Mhz, for a SWR < 2:1. Velocity factors can be critical here and I used .83 as specified for Belden 8230. Also the feedline must be an integer muntiple of 1/2 wavelength to mininize rf currents on the shield. Connect the center conductor to the unnotched side and the shield to the notched side at the 0.0136*L point.


Wavelength (L) = 300/Mhz (in meters)
twinlead open
at the top
0.965*L/2 or .991m
Notch width: 0.0029L or .006m --
0.83*L/4 or .426m
Attach coax here
50ohm feedline length of .678*N meters
(this includes .66 vel factor)
0.0136*L or .028m
Short twinlead at bottom

After I get one of these put together I'll let you know if it works.

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

720. Nasty AMSAT letter

Newsgroup: rec.ham-radio
Date: 1990-01-31 20:13:10 UTC
From: mac@idacrd.UUCP
Message-ID: <593@idacrd.UUCP>
Source record: 13769
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

The following letter (with all its mispelling and poor grammar) was sent to lots of folks on the west coast of the U.S. Several in LA and San Diego received it. It appears as if it were sent from AMSAT. I can assure (as a director of AMSAT) that this letter has NOTHING to do with AMSAT. We just don't play the game this way, feeling it is all ways better to play it straight and face-to-face when we have these problems. 145.825 Mhz in particular has come to be `the educational channel' in satellite communications and I would presonally appreciate it if people could stay off this frequency with their transmitters so that we can copy the weak (and not so weak in the case of DOVE) transmitters. I wish to repeat myself, AMSAT had nothing to do with this letter.

73 and thanks for your support,

Bob McGwier, director AMSAT

Misleading letter follows:

Dear Amateur Radio Licensee

No doubt you are now familiar with the fact that our community has six new satellites in orbit.

While some of these satellites can be commanded using specially designed packet radio modem units, most are for experimental and educational uses.

The DOVE Microsat and it's [sic] telemetry on 145.825 MHz is such a satellite. It is not a BBS, nor is it an orbiting digipeater.
It's [sic] telemetry on the 2 Meter band was designed for those with existing packet radio equipment interested in satellite activity to monitor satellite parameters without buying and installing specialized 9600 Baud Phase-Shift-Keyed modems and using SSB radios.

Your callsign was recently monitored by a governmental station on the above frequency. Not only is this bad operating practice, but also illegal.

Please bear in mind that the 2 Meter band from 145.8 to 146.0 is an internationally recognized amateur satellite band. In addition to the DOVE telemetry, there are several linear satellite up- and downlinks in this frequency range that are still being used.

We realize that this may be a new mode of operation among some within the amateur radio community. When leaving your station unattended to

monitor the DOVE satellite, we recommend that you set the XMITOK command OFF. This will keep you, or another station from activating your 2 Meter transmitter and subjecting your station to further action.

For information about the Amateur Satellite program, please send a stamped, self-addressed envelope to:

AMSAT, PO Box 27, Washington DC, 20044
--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
---

721. Re: PACSAT DOVE LUSAT decoding software

Newsgroup: rec.ham-radio
Date: 1990-01-31 20:24:07 UTC
From: mac@idacrd.UUCP
Message-ID: <594@idacrd.UUCP>
Source record: 13771

From article <10404@microsoft.UUCP>, by joehol@microsoft.UUCP (Joseph HOLMAN):
>
>
> PACSAT DOVE and LUSAT CW decoding software is available from AMSAT
> via me, Joe Holman KA7LDN.
>
> I've written software to decode LUSAT's CW beacon; and, i will be
> performing additional work to N4HY's PACSAT decoding software
> for the PACSATs (including DOVE).
>

I have made my last posting of the decoding of the raw telemetry values
to CI$ and to DRIG (AMSAT BBS). The stuff that Joe will be working on
is taking this rudimentary package and adding all the DERIVED values
that you REALLY want to see, graphing of particular channels and easy
data collection for particular channels. Now that I have my own
serial interrupt drivers in the code, and Joe has taken over to clean
up my mess, this should be a nice package. I envision helping Joe
add UOSAT and FUJI OSCAR <<<20>>> which will go up February 7 (who
said that amateur radio satellites were dead because they couldn't
get launches) as well as the earlier UOSAT's if there is time. In
the end it should be a very nice package and Joe is the right person
to do the job.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

---

722. POCSAG protocol info

Newsgroup: rec.ham-radio
Date: 1990-01-31 22:00:26 UTC
From: dg2kk@infodn.rmi.de
Message-ID: <294@infodn.rmi.de>
Source record: 13773
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I am looking for details on a protocol called POCSAG which is used to
send messages to paging receivers.

Things I would like to know:

- What type of modulation is used ((A)FSK, MSK, etc.)?
- What bitrate is used to transmit the messages?
- What is the format of a message sent out over radio?.
(Ideally this would be some kind of hex-dump with a short description
what each byte means.)
- Are the messages sent synchronously or with start/stopbits?
- How are the messages encoded (ASCII)?
- What kind of checksum is used (CRC, parity bits)?

Motorola and other manufacturers of paging receivers use this protocol,
so it must be fairly standard.

Thanks in advance!

-Walter

723. ICOM IC-R1

Newsgroup: rec.ham-radio
Date: 1990-01-31 22:09:24 UTC
From: dg2kk@infodn.rmi.de
Message-ID: <295@infodn.rmi.de>
Source record: 13774
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Has anybody out there any first hand experience with ICOM's new hand-held
receiver IC-R1?

For those of you who don't know: the IC-R1 is a communications receiver
which covers 100kHz-1300MHz. The design is similar to the IC-2S series.
It has a built-in clock and timer, 100 memory channels, search scan,
a tuning knob, S-meter, power save function and probably other features
which the ad I am looking at does not mention.

-Walter

724. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-01-31 22:34:00 UTC
From: hays@apollo.HP.COM
Message-ID: <485f0e8b.20b6d@apollo.HP.COM>
Source record: 13775
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I think FEMA has come up with a spec too. Seems it was like 3 legs of 20 feet of thick copper spaced at 15 degrees of seperation and joined at the end where you attach your ground wire ... A few inches below the ground.

I don't know of a publication but I am told the Local police comm center has this setup .... took a direct HIT from lightening and there commercial VHF/UHF stuff kept working.

John

725. Re: J-pole verticals

Newsgroup: rec.ham-radio
Date: 1990-01-31 23:41:53 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880115@hpfcdc.HP.COM>
Source record: 13767

The upper end of a J-pole is an end-fed halfwave (Z approx 1 Kohm). The lower part is a shorted quarter-wave matching section. I suppose the Z along the matching section varies from 0 to 1K. The trick is to find the 50 ohm point.

At VHF, I found that coax had too much shield current (SWR varied wildly depending on where the coax was). I looped three turns of the RG-8X feedline in a 1" diameter coil (a choke balun) close to the feedpoint to overcome this.

Neat antenna. No need for a groundplane, because it is halfwave. I have a couple of the 300-ohm twinlead versions for portable use. Packs well in a suitcase. Hang them in any convenient corner and you're in business.

Perry Scott

726. A New Twist for Antennas

Newsgroup: rec.ham-radio
Date: 1990-01-31 23:49:04 UTC
From: selden@hpspkla.spk.hp.com
Message-ID: <4630009@hpspkla.spk.hp.com>
Source record: 13778

And now for something totally different...

I need some weird adapters:

```
+------ BNC-MALE BNC-FEMALE ------+
| | (both right-angle)
| |
TNC-FEMALE TNC-MALE
```

Any ideas for sources?

[I know you're curious... I need a "folding" antenna for my wife's portable cellular phone so she can fit it in her purse. I currently have two TNC-TNC right angles, but they either bind up, if they're too tight, or flop all over the place, if they're too loose. I tried using TNC-BNC barrels with BNC-BNC right angles, but that got pretty bulky, heavy, and ugly. (I'm also open to any other suggestions.)]

Thanks.

727. Re: 10m info

Newsgroup: rec.ham-radio
Date: 1990-01-31 23:49:45 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880116@hpfcdc.HP.COM>
Source record: 13768

You could probably buy a good multi-band 100W used radio for $400. I got my Kenwood TS-520 for $250. While not new and whizzy, it gets the job done. Check recent QST for an idea of what's available.

I have a friend that says you should spend the big bucks on antennas, not transmitters.

Good luck on 10 meters. Most fun/Hz of any of the bands, when it's up.

Perry Scott
KF0CA

728. Re: cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-02-01 01:52:17 UTC
From: jim@mmsac.UUCP
Message-ID: <3919@mmsac.UUCP>
Source record: 13783

Here's a list of cordless phone freqs/baby "listener" freqs:

49.670 49.845 49.860 49.770 49.875 49.830 49.890 49.930 49.990 49.970
46.610 46.630 46.670 46.710 46.730 46.770 46.830 46.870 46.930 46.970
--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==========
The opinions stated herein are all mine.

729. Re: EMS Radio Service

Newsgroup: rec.ham-radio
Date: 1990-02-01 01:52:29 UTC
From: jay@splut.conmicro.com
Message-ID: <NAT
Source record: 13776
Cross-posted to: rec.ham-radio,misc.emerg-services

In article <11635.25C59A10@stjhmc.fidonet.org> Jim.Grubs@f218.n260.z1.fidonet.org (Jim Grubs) writes:
>I would like to propose the following amendment to Part 90 and am interested
>in comments from potentially affected parties:
>To amend Part 90 creating a new "Emergency Medical Radio Service". This service
>would differ from the current "Special Emergency Radio Service", in which most
>ambulance services are licensed now, in that it would be an exclusive
>allocation for use only by those organizations whose primary mission is
>providing emergency care and transportation of the sick and injured.

There are already national EMS groups working on just such a thing.
There was a mention in a recent issue of _Emergency_ magazine about it.
(No, I don't recall which one; next time I'm at the station, I'll look.)

The need is certainly there: our unit, for example, shares a frequency
with all of the miscellaneous departments of our city. They treat the
pager tone as a call to all start talking at once; I raised hell with
the director of public safety, and he got the city manager to write a
policy letter stating that all other users are to get off the channel
during ambulance calls, but that's being somewhat ignored. Our police
and fire departments are moving to 800 (it's been "two weeks now" since
last October... :-( ), and we'll inherit the old PD repeater. That will
be nice. Still, other EMS units are in the same or worse shape, and they
need the new frequencies.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
{attctc,bellcore}!texbell!splut!jay +--
Free the DC-10!

730. Re: A New Twist for Antennas

Newsgroup: rec.ham-radio
Date: 1990-02-01 06:38:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500373@ux1.cso.uiuc.edu>
Source record: 13792

> And now for something totally different...
>
> I need some weird adapters:
>
> +------ BNC-MALE BNC-FEMALE ------+
> | | (both right-angle)
> | |
> TNC-FEMALE TNC-MALE
>
> Any ideas for sources?
>
> [I know you're curious... I need a "folding" antenna for my wife's
> portable cellular phone so she can fit it in her purse. I currently
> have two TNC-TNC right angles, but they either bind up, if they're too
> tight, or flop all over the place, if they're too loose. I tried
> using TNC-BNC barrels with BNC-BNC right angles, but that got pretty
> bulky, heavy, and ugly. (I'm also open to any other suggestions.)]
>
> Thanks.

I once saw a catalog of some military grade connectors (I don't remember the manufacturer) but there were some various connectors that had rotatability to them. I don't remember if an angled TNC one was in there that would suit your needs. But you might call up places like Amphenol and ask them if they have any such connectors.

I have used BNC-BNC/BNC-BNC folding connections like you described for my 2 meter HT. After a few months of use, I found the connection points to be wearing rather bad. I'll try again with high quality silver connectors at a later date. I quit using them. I was also getting so rather distorted radiation patterns. Towards the end of my usage, horizontal was at least 6db lower with the double-angle folder than without it. Usage was always with rubber duck sold with the radio (IC-2GAT) or the mini one (for IC-2SAT).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

731. Folding Cellular Antenna (was Re: A New Twist for Antennas)

Newsgroup: rec.ham-radio
Date: 1990-02-01 09:28:13 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1374@rsiatl.UUCP>
Source record: 13770

In article <4630009@hpspkla.spk.hp.com> selden@hpspkla.spk.hp.com (Jon L. Selden) writes:

>
>[I know you're curious... I need a "folding" antenna for my wife's
>portable cellular phone so she can fit it in her purse. I currently
>have two TNC-TNC right angles, but they either bind up, if they're too
>tight, or flop all over the place, if they're too loose.

Try this. Use your 2 TNC-TNC connectors. Get some blue Loctite (the
weakest grade.) Apply a bit to each threaded surface. Tighten
the connectors up until it no longer flops but does not bind. Allow
to sit a half hour or so until the Loctite cures. Enjoy. I tried
this setup here on my phone and it works just fine. The blue loctite
is weak enough that the connectors can easily be broken loose if
necessary.

John

--
John De Armond, WD4OQC | We can no more blame our loss of freedom on congress-
Radiation Systems, Inc. | men than we can prostitution on pimps. Both simply
Atlanta, Ga | provide broker services for their customers.
emory!rsiatl!jgd | - Dr. W Williams | **I am the NRA**

732. Re: Save the WWVH Aloha!

Newsgroup: rec.ham-radio
Date: 1990-02-01 10:34:35 UTC
From: querubin@uhccux.uhcc.hawaii.edu
Message-ID: <6447@uhccux.uhcc.hawaii.edu>
Source record: 13782

And you might also want to write to Kaua`i's mayor, Joanne Kunimura.

-AH6BW

733. FCC Snippets

Newsgroup: rec.ham-radio
Date: 1990-02-01 12:55:17 UTC
From: pescatore_jt%ncsd@gte.COM
Message-ID: <9002011255.AA21646@bunny.gte.com>
Source record: 13777

FCC EXPECTED TO MOVE
ON AIRFONE ALLOCATION

STATUS: The FCC will take long-awaited action during its March open meeting on the allocation of spectrum for air-to-ground service.

COMMENTS: The Commission is expected to make a decision on allocating radio spectrum to air-to-ground use and how many entities will be licensed to provide the service. The FCC will decide, in a separate proceeding, who those licensees will be.

The Commission is weighing the benefits of two providers vs. a single provider or a system in which the air-to-ground provider(s) would share the spectrum with other radio services.

ENHANCED WIRELESS
PROPOSAL TAKES SHAPE

STATUS: Responding to criticism of its request for spectrum allocation for enhanced wireless technology, PCN America has filed reply comments with the FCC.

In its reply PCN America provided additional information on its proposal. The proposed system will utilize spread spectrum technology and use 100 MHz of spectrum in the 1850-1990 bands. Original comments filed with the Commission by other parties condemned the proposal as too vague to warrant FCC action.

COMMENTS: It has been suggested that PCN America did not have detailed information on the proposal at the time of its initial petition. During the two months between the filing of its original petition and its recent reply comments PCN America has gathered considerably more information on which to base its request for spectrum allocation. That new information is reflected in its reply comments.

The FCC is reportedly very interested in reviewing the PCN America proposal because it could provide additional spectrum for new uses without displacing current users.

At a recent seminar on enhanced wireless technology, Tom Stanley, head of the FCC's Office of Engineering and Technology, said that the FCC would issue a paper on this subject later this spring. The paper is expected to describe the various types of enhanced wireless technologies.

The FCC will have to take subsequent action, either a Notice of Inquiry or a Notice of Proposed Rulemaking, to respond to PCN America's Petition.

COMMISSION TO FORM 1992
WARC ADVISORY COMMITTEE

STATUS: FCC Commissioner Sherrie Marshall and BellSouth Director of International and Agency Relations Frank Urbany have been named co-chairs of an FCC Advisory Committee for the World Administrative Radio Conference (WARC-92).

The Advisory Committee will advise the Commission on preparations for WARC-92. The committee also will propose U.S. positions on issues that may arise at the conference.

734. f-series connectors

Newsgroup: rec.ham-radio
Date: 1990-02-01 15:01:14 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9002020813.AA08691@ucbvax.Berkeley.EDU>
Source record: 13787

Recent postings regarding odd connectors reminded
me that I need a strange coaxial connector, too.

I'm looking for a F-series 3-way female T, or perhaps
a T with two females and one male. I'm not talking
about a 70-ohm splitter (that's easy). I want to
add a stub filter right at the CATV input to a TV.
Any ideas?

Thanks -

735. Looking for information . . .

Newsgroup: rec.ham-radio
Date: 1990-02-01 15:10:50 UTC
From: pv9y@vax5.cit.cornell.edu
Message-ID: <3392.25c8193a@vax5.cit.cornell.edu>
Source record: 13788

Hi All,
I am looking for some information which may border on the sorts of things that people are doing with ham radio, so even though I know nothing about what I'm saying, here goes . . .

A friend mentioned that AppleTalk could be transmitted over radio frequencies as well as phone cable. He said that you just had to pick the frequency and use a low enough power so the FCC didn't get upset. My questions start with this: How low power must the transmitter be to comply with FCC regulations? Also, what kind of distance could such a transmitter hope to achieve, preferably not line of sight (it's a hilly area)? I gather that to avoid the line of sight problem requires using a fairly high end of the spectrum, somewhere in the FM range. Is this true? Assuming all of this is possible, I'm also curious about the KA9Q package which allows TCP/IP communications over some sort of line. What type of physical connections are required for KA9Q and also where can I find the software? I gathered that it is public domain/shareware but I haven't seen it on the sumex-aim server.

Thanks a lot and please reply by mail if possible since I don't read the ham radio groups too often.

Adam Engst pv9y@vax5.cit.cornell.edu pv9y@cornella.cit.cornell.edu pv9y@crnlvax5.bitnet pv9y@cornella.bitnet

736. NEED HELP PLEASE!! Need IC-04 Mods

Newsgroup: rec.ham-radio
Date: 1990-02-01 15:32:12 UTC
From: marke@hpscdc.scd.hp.com
Message-ID: <5490089@hpscdc.scd.hp.com>
Source record: 13789

The subject of "mod's" for the IC-04AT have probably been brought up before here on the NET, but for some reason I have managed to miss them all. So, if some kind ol radio amateur could dig in to his or her files one more time, and post them for me, it would be muchly apprieciated. I am specifically looking for the mod's that pertain to out of band operation, and RX audio volume improvement.

Please post or e-mail, and thanks.

Mark Espinosa/WA6RGD

737. Test

Newsgroup: rec.ham-radio
Date: 1990-02-01 15:43:20 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002011547.AA00220@ti.com>
Source record: 13790

This is a test. Do Not Answer Break break...

738. Re: 30-50 MHZ

Newsgroup: rec.ham-radio
Date: 1990-02-01 15:57:36 UTC
From: whs70@pyuxe.UUCP
Message-ID: <944@pyuxe.UUCP>
Source record: 13791

Here in northwest New Jersey, many towns still have police, emergency
and other municipal services in the 30-50 mhz band.

739. Microsat telemetry equations

Newsgroup: rec.ham-radio
Date: 1990-02-01 16:06:16 UTC
From: mac@idacrd.UUCP
Message-ID: <595@idacrd.UUCP>
Source record: 13796
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I will post the equations for decoding the microsat telemetry. I forgot
to bring in the status bits (but they are changing about once per week
whereas the analog telemetry is NOT). This will all settle down soon.
I apologize for this taking so long to get out.

Spacecraft: PACSAT-1: Rev: 1
Date: 1/7/90

Equations are in the form: Y = A*N^2 + B*N + C

where:

N = Telemetry Count (00 - FF)

A, B, C = Equation Coefficients

Y = Result (In Specified Units)

HEX Descripion: C: B: A: Units:
ccccccccc bbbbbbbbbb aaaaaaaaaa uuuuuu

0 Rx D DISC: +9.202 -0.08990 0.000 kHz
1 Rx D S meter: +0.000 +1.000 0.000 Counts
2 Rx C DISC: +9.179 -0.09277 0.000 kHz
3 Rx C S meter: +0.000 +1.000 0.000 Counts
4 Rx B DISC: +9.837 -0.08838 0.000 kHz
5 Rx B S meter: +0.000 +1.000 0.000 Counts
6 Rx A DISC: +9.779 -0.09144 0.000 kHz
7 Rx A S meter: +0.000 +1.000 0.000 Counts
8 Rx E/F DISC: +10.817 -0.09911 0.000 kHz
9 Rx E/F S meter:+0.000 +1.000 0.000 Counts
A +5 Volt Bus: +0.000 +0.0305 0.000 Volts
B +5V Rx Current:+0.000 +0.000250 0.000 Amps
C +2.5V VREF: +0.000 +0.0108 0.000 Volts
D 8.5V BUS: +0.000 +0.0391 0.000 Volts
E IR Detector: +0.000 +1.000 0.000 Counts
F LO Monitor I: +0.000 +0.000037 0.000 Amps
10 +10V Bus: +0.000 +0.0500 0.000 Volts
11 GASFET Bias I: +0.000 +0.000026 0.000 Amps
12 Ground REF: +0.000 +0.0100 0.000 Volts
13 +Z Array V: +0.000 +0.1023 0.000 Volts
14 Rx Temp: +101.05 -0.6051 0.000 Deg. C
15 +X (RX) temp: +101.05 -0.6051 0.000 Deg. C
16 Bat 1 V: +1.8225 -0.0038046 0.000 Volts
17 Bat 2 V: +1.9418 -0.0046890 0.000 Volts
18 Bat 3 V: +1.8699 -0.0041641 0.000 Volts

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19 Bat 4 V: +1.7403 -0.0032880 0.000 Volts
1A Bat 5 V: +1.8792 -0.0042492 0.000 Volts
1B Bat 6 V: +2.0499 -0.0054532 0.000 Volts
1C Bat 7 V: +1.9062 -0.0045331 0.000 Volts
1D Bat 8 V: +1.7536 -0.0033192 0.000 Volts
1E Array V: +8.055 +0.06790 0.000 Volts
1F +5V Bus: +2.035 +0.0312 0.000 Volts
20 +8.5V Bus: +5.464 +0.0184 0.000 Volts
21 +10V Bus: +7.650 +0.0250 0.000 Volts
22 BCR Set Point: -6.1130 +1.1270 0.000 Counts
23 BCR Load Cur: -0.0477 +0.00767 0.000 Amps
24 +8.5V Bus Cur: -0.00179 +0.000894 0.000 Amps
25 +5V Bus Cur: -0.00104 +0.00406 0.000 Amps
26 -X Array Cur: -0.00995 +0.00243 0.000 Amps
27 +X Array Cur: -0.02370 +0.00254 0.000 Amps
28 -Y Array Cur: -0.02220 +0.00273 0.000 Amps
29 +Y Array Cur: -0.01810 +0.00259 0.000 Amps
2A -Z Array Cur: -0.02230 +0.00221 0.000 Amps
2B +Z Array Cur: -0.02000 +0.00232 0.000 Amps
2C Ext Power Cur: -0.02000 +0.00250 0.000 Amps
2D BCR Input Cur: -0.02345 +0.00355 0.000 Amps
2E BCR Output Cur:+0.00869 +0.00303 0.000 Amps
2F Bat 1 Temp: +101.05 -0.6051 0.000 Deg. C
30 Bat 2 Temp: +101.05 -0.6051 0.000 Deg. C
31 Baseplt Temp: +101.05 -0.6051 0.000 Deg. C
32 PSK TX RF Out: -0.0291 +0.00361 +0.0000869 Watts
33 RC PSK TX Out: +0.0055 +0.00172 +0.0001180 Watts
34 PSK TX HPA Temp+101.05 -0.6051 0.000 Deg. C
35 +Y Array Temp: +101.05 -0.6051 0.000 Deg. C
36 RC PSK HPA Temp+101.05 -0.6051 0.000 Deg. C
37 RC PSK BP Temp:+101.05 -0.6051 0.000 Deg. C
38 +Z Array Temp: +101.05 -0.6051 0.000 Deg. C
39 S band TX Out: -0.0088 +0.00435 0.000 Watts
3A S band HPA Temp 0.000 +1.000 0.000 Counts

ADC Equations: V = 0.01028 N - 0.02055
N = 97.31 V +2.000

Spacecraft: DOVE-1: Rev: 1
Date: 1/7/90

Equations are in the form: Y = A*N^2 + B*N + C

where:

N = Telemetry Count (00 - FF)

A, B, C = Equation Coefficients

Y = Result (In Specified Units)

HEX Descripion: C: B: A: Units:
ccccccccc bbbbbbbbbb aaaaaaaaaa uuuuuu
```

```
0 Rx E/F Audio(W)+0.000 +0.0246 0.000 V(p-p)
1 Rx E/F Audio(N)+0.000 +0.0246 0.000 V(p-p)
2 Mixer Bias V: +0.000 +0.0102 0.000 Volts
3 Osc. Bisd V: +0.000 +0.0102 0.000 Volts
4 Rx A Audio (W):+0.000 +0.0246 0.000 V(p-p)
5 Rx A Audio (N):+0.000 +0.0246 0.000 V(p-p)
6 Rx A DISC: +10.427 -0.09274 0.000 kHz
7 Rx A S meter: +0.000 +1.000 0.000 Counts
8 Rx E/F DISC: +9.6234 -0.09911 0.000 kHz
9 Rx E/F S meter:+0.000 +1.000 0.000 Counts
A +5 Volt Bus: +0.000 +0.0305 0.000 Volts
B +5V Rx Current:+0.000 +0.000100 0.000 Amps
C +2.5V VREF: +0.000 +0.0108 0.000 Volts
D 8.5V BUS: +0.000 +0.0391 0.000 Volts
E IR Detector: +0.000 +1.000 0.000 Counts
F LO Monitor I: +0.000 +0.000037 0.000 Amps
10 +10V Bus: +0.000 +0.05075 0.000 Volts
11 GASFET Bias I: +0.000 +0.000026 0.000 Amps
12 Ground REF: +0.000 +0.0100 0.000 Volts
13 +Z Array V: +0.000 +0.1023 0.000 Volts
14 Rx Temp: +101.05 -0.6051 0.000 Deg. C
15 +X (RX) temp: +101.05 -0.6051 0.000 Deg. C
16 Bat 1 V: +1.7932 -0.0034084 0.000 Volts
17 Bat 2 V: +1.7978 -0.0035316 0.000 Volts
18 Bat 3 V: +1.8046 -0.0035723 0.000 Volts
19 Bat 4 V: +1.7782 -0.0034590 0.000 Volts
1A Bat 5 V: +1.8410 -0.0038355 0.000 Volts
1B Bat 6 V: +1.8381 -0.0038450 0.000 Volts
1C Bat 7 V: +1.8568 -0.0037757 0.000 Volts
1D Bat 8 V: +1.7868 -0.0034068 0.000 Volts
1E Array V: +7.205 +0.07200 0.000 Volts
1F +5V Bus: +1.932 +0.0312 0.000 Volts
20 +8.5V Bus: +5.265 +0.0173 0.000 Volts
21 +10V Bus: +7.469 +0.021765 0.000 Volts
22 BCR Set Point: -8.762 +1.1590 0.000 Counts
23 BCR Load Cur: -0.0871 +0.00698 0.000 Amps
24 +8.5V Bus Cur: -0.00920 +0.001899 0.000 Amps
25 +5V Bus Cur: +0.00502 +0.00431 0.000 Amps
26 -X Array Cur: -0.01075 +0.00215 0.000 Amps
27 +X Array Cur: -0.01349 +0.00270 0.000 Amps
28 -Y Array Cur: -0.01196 +0.00239 0.000 Amps
29 +Y Array Cur: -0.01141 +0.00228 0.000 Amps
2A -Z Array Cur: -0.01653 +0.00245 0.000 Amps
2B +Z Array Cur: -0.01137 +0.00228 0.000 Amps
2C Ext Power Cur: -0.02000 +0.00250 0.000 Amps
2D BCR Input Cur: +0.06122 +0.00317 0.000 Amps
2E BCR Output Cur:-0.01724 +0.00345 0.000 Amps
2F Bat 1 Temp: +101.05 -0.6051 0.000 Deg. C
30 Bat 2 Temp: +101.05 -0.6051 0.000 Deg. C
31 Baseplt Temp: +101.05 -0.6051 0.000 Deg. C
32 FM TX#1 RF OUT:+0.0256 -0.000884 +0.0000836 Watts
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33 FM TX#2 RF OUT:-0.0027 +0.001257 +0.0000730 Watts
34 PSK TX HPA Temp+101.05 -0.6051 0.000 Deg. C
35 +Y Array Temp: +101.05 -0.6051 0.000 Deg. C
36 RC PSK HPA Temp+101.05 -0.6051 0.000 Deg. C
37 RC PSK BP Temp:+101.05 -0.6051 0.000 Deg. C
38 +Z Array Temp: +101.05 -0.6051 0.000 Deg. C
39 S band TX Out: -0.0451 +0.00403 0.000 Watts
3A S band HPA Temp+101.05 -0.6051 0.000 Deg. C

ADC Equations: V = 0.01028 N - 0.05138
N = 97.31 V +5.000

Spacecraft: WEBER-1: Rev: 1
Date: 1/7/90

Equations are in the form: Y = A*N^2 + B*N + C

where:

N = Telemetry Count (00 - FF)

A, B, C = Equation Coefficients

Y = Result (In Specified Units)

HEX Descripion: C: B: A: Units:
ccccccccc bbbbbbbbbb aaaaaaaaaa uuuuuu

0 Rx D DISC: +11.087 -0.08949 0.000 kHz
1 Rx D S meter: +0.000 +1.000 0.000 Counts
2 Rx C DISC: +10.322 -0.09448 0.000 kHz
3 Rx C S meter: +0.000 +1.000 0.000 Counts
4 Rx B DISC: +10.348 -0.09004 0.000 kHz
5 Rx B S meter: +0.000 +1.000 0.000 Counts
6 Rx A DISC: +11.387 -0.09535 0.000 kHz
7 Rx A S meter: +0.000 +1.000 0.000 Counts
8 Rx E/F DISC: +10.746 -0.09348 0.000 kHz
9 Rx E/F S meter:+0.000 +1.000 0.000 Counts
A +5 Volt Bus: +0.000 +0.03523 0.000 Volts
B +5V Rx Current:+0.000 +0.000234 0.000 Amps
C +2.5V VREF: +0.000 +0.0133 0.000 Volts
D 8.5V BUS: +0.000 +0.0524 0.000 Volts
E IR Detector: +0.000 +1.000 0.000 Counts
F LO Monitor I: +0.000 +0.000033 0.000 Amps
10 +10V Bus: +0.000 +0.0767 0.000 Volts
11 GASFET Bias I: +0.000 +0.000026 0.000 Amps
12 Ground REF: +0.000 +0.0100 0.000 Volts
13 +Z Array V: +0.000 +0.1023 0.000 Volts
14 Rx Temp: +100.01 -0.5980 0.000 Deg. C
15 +X (RX) Temp: +100.01 -0.5980 0.000 Deg. C
16 Bat 1 V: +1.8292 -0.0037196 0.000 Volts
17 Bat 2 V: +1.8202 -0.0036943 0.000 Volts
18 Bat 3 V: +1.8050 -0.0036721 0.000 Volts

19 Bat 4 V: +1.8576 -0.0038979 0.000 Volts
1A Bat 5 V: +1.8095 -0.0037439 0.000 Volts
1B Bat 6 V: +1.8979 -0.0041754 0.000 Volts
1C Bat 7 V: +1.8246 -0.0038126 0.000 Volts
1D Bat 8 V: +1.7486 -0.0030475 0.000 Volts
1E Array V: +7.800 +0.06790 0.000 Volts
1F +5V Bus: +1.838 +0.0312 0.000 Volts
20 +8.5V Bus: +5.793 +0.0184 0.000 Volts
21 +10V Bus: +7.650 +0.0250 0.000 Volts
22 BCR Set Point: -6.1963 +1.1277 0.000 Counts
23 BCR Load Cur: -0.0405 +0.00620 0.000 Amps
24 +8.5V Bus Cur: +0.00384 +0.000830 0.000 Amps
25 +5V Bus Cur: -0.00763 +0.00394 0.000 Amps
26 -X Array Cur: -0.00140 +0.00210 0.000 Amps
27 +X Array Cur: +0.00946 +0.00226 0.000 Amps
28 -Y Array Cur: -0.01018 +0.00224 0.000 Amps
29 +Y Array Cur: -0.01168 +0.00239 0.000 Amps
2A -Z Array Cur: -0.01516 +0.00237 0.000 Amps
2B +Z Array Cur: -0.02111 +0.00239 0.000 Amps
2C Ext Power Cur: -0.02000 +0.00250 0.000 Amps
2D BCR Input Cur: -0.02189 +0.00332 0.000 Amps
2E BCR Output Cur:-0.03019 +0.00327 0.000 Amps
2F Bat 1 Temp: +100.01 -0.5980 0.000 Deg. C
30 Bat 2 Temp: +100.01 -0.5980 0.000 Deg. C
31 Baseplate Temp:+100.01 -0.5980 0.000 Deg. C
32 PSK TX RF Out: +0.2104 -0.01203 +0.0001786 Watts
33 RC PSK TX Out: +0.0340 -0.00969 +0.0002198 Watts
34 PSK TX HPA Temp+100.01 -0.5980 0.000 Deg. C
35 +Y Array Temp: +100.01 -0.5980 0.000 Deg. C
36 RC PSK HPA Temp+100.01 -0.5980 0.000 Deg. C
37 RC PSK BP Temp:+100.01 -0.5980 0.000 Deg. C
38 +Z Array Temp: +0.0000 +1.0000 0.000 Counts

ADC Equations: V = 0.01016 N - 0.05080
N = 98.43 V +5.000

Spacecraft: LUSAT-1: Rev: 1
Date: 1/7/90

Equations are in the form: Y = A*N^2 + B*N + C

where:

N = Telemetry Count (00 - FF)

A, B, C = Equation Coefficients

Y = Result (In Specified Units)

HEX Descripion: C: B: A: Units:
ccccccccc bbbbbbbbbb aaaaaaaaaa uuuuuu

0 Rx D DISC: +9.802 -0.08779 0.000 kHz
1 Rx D S meter: +0.000 +1.000 0.000 Counts
2 Rx C DISC: +8.429 -0.09102 0.000 kHz
3 Rx C S meter: +0.000 +1.000 0.000 Counts
4 Rx B DISC: +9.291 -0.08317 0.000 kHz
5 Rx B S meter: +0.000 +1.000 0.000 Counts
6 Rx A DISC: +9.752 -0.08310 0.000 kHz
7 Rx A S meter: +0.000 +1.000 0.000 Counts
8 Rx E/F DISC: +10.110 -0.08610 0.000 kHz
9 Rx E/F S meter:+0.000 +1.000 0.000 Counts
A +5 Volt Bus: +0.000 +0.0305 0.000 Volts
B +5V Rx Current:+0.000 +0.000250 0.000 Amps
C +2.5V VREF: +0.000 +0.0108 0.000 Volts
D 8.5V BUS: +0.000 +0.0391 0.000 Volts
E IR Detector: +0.000 +1.000 0.000 Counts
F LO Monitor I: +0.000 +0.000037 0.000 Amps
10 +10V Bus: +0.000 +0.0508 0.000 Volts
11 GASFET Bias I: +0.000 +0.000026 0.000 Amps
12 Ground REF: +0.000 +0.0100 0.000 Volts
13 +Z Array V: +0.000 +0.1023 0.000 Volts
14 Rx Temp: +93.24 -0.5609 0.000 Deg. C
15 +X (RX) Temp: +93.24 -0.5609 0.000 Deg. C
16 Bat 1 V: +1.7343 -0.0029740 0.000 Volts
17 Bat 2 V: +1.7512 -0.0032113 0.000 Volts
18 Bat 3 V: +1.7790 -0.0034038 0.000 Volts
19 Bat 4 V: +1.7286 -0.0030036 0.000 Volts
1A Bat 5 V: +1.8114 -0.0036960 0.000 Volts
1B Bat 6 V: +1.7547 -0.0032712 0.000 Volts
1C Bat 7 V: +1.7151 -0.0030739 0.000 Volts
1D Bat 8 V: +1.6846 -0.0028534 0.000 Volts
1E Array V: +8.100 +0.06790 0.000 Volts
1F +5V Bus: +2.035 +0.0312 0.000 Volts
20 +8.5V Bus: +5.614 +0.0184 0.000 Volts
21 +10V Bus: +7.650 +0.0250 0.000 Volts
22 BCR Set Point: +3.7928 +1.0616 0.000 Counts
23 BCR Load Cur: -0.0244 +0.00628 0.000 Amps
24 +8.5V Bus Cur: +0.00412 +0.000773 0.000 Amps
25 +5V Bus Cur: +0.02461 +0.00438 0.000 Amps
26 +X Array Cur: -0.01614 +0.00232 0.000 Amps
27 -X Array Cur: -0.01158 +0.00238 0.000 Amps
28 -Y Array Cur: +0.00278 +0.00206 0.000 Amps
29 +Y Array Cur: +0.00136 +0.00218 0.000 Amps
2A -Z Array Cur: +0.00370 +0.00209 0.000 Amps
2B +Z Array Cur: -0.00793 +0.00216 0.000 Amps
2C Ext Power Cur: -0.02000 +0.00250 0.000 Amps
2D BCR Input Cur: -0.00901 +0.00283 0.000 Amps
2E BCR Output Cur:+0.00663 +0.00344 0.000 Amps
2F Bat 1 Temp: +93.24 -0.5609 0.000 Deg. C
30 Bat 2 Temp: +93.24 -0.5609 0.000 Deg. C
31 Baseplt Temp: +93.24 -0.5609 0.000 Deg. C
32 PSK TX RF Out: +0.1059 +0.00095 +0.0000834 Watts

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33 RC PSK TX Out: +0.0178 +0.00135 +0.0000833 Watts
34 PSK TX HPA Temp+93.24 -0.5609 0.000 Deg. C
35 +Y Array Temp: +93.24 -0.5609 0.000 Deg. C
36 RC PSK HPA Temp+93.24 -0.5609 0.000 Deg. C
37 RC PSK BP Temp:+93.24 -0.5609 0.000 Deg. C
38 +Z Array Temp: +93.24 -0.5609 0.000 Deg. C
39 LU Bcn Temp A: +93.24 -0.5609 0.000 * Deg. C
3A LU Bcn Temp D: +93.24 -0.5609 0.000 ** Deg. C
3B Coax Rly Stat: +0.000 +1.0000 0.000 Counts
3C Coax Rly Stat: +0.000 +1.0000 0.000 Counts

ADC Equations: V = 0.00953 N
N = 104.94 V

* Note 1: Thermistor located near box center adjacent to LU
thermistor channel no. 5.

** Note 2: Thermistor located near -X face of box on the
experiment baseplate.

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_______________________________________________________________________
My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
-----------------------------------------------------------------------
```

740. Re: DOVE fading

Newsgroup: rec.ham-radio
Date: 1990-02-01 16:51:00 UTC
From: mac@idacrd.UUCP
Message-ID: <596@idacrd.UUCP>
Source record: 13798

From article <9001311404.AA21428@zit.cigy.>, by jcp@cgch.UUCP (Joseph C. Pistritto):
>>Mailer: Elm [revision: 64.9]
>
> I've been taking a lot of DOVE telemetry lately, and noticed
> that it always has this fading characteristic. It seems as if the
> antenna is directional, and rotating. The doppler seems well behaved,
> just the signal strength increases/decreases in a sine wave like pattern.
>
> Is this an artifact, or have others noticed it too? On a low
> pass (20 degrees), this will knock out about one packet in 5 on the
> telemetry channel. Not a problem, mind you, just interesting. Also,
>
> HB9NBB

Hello Joseph:

You are correct about this fading. The Microsats are all still tumbling
and are slowing down nicely. Soon the interaction of the photonic pressure
on the antennas (hanging down like four legs at an angle from the bottom
of the spaceraft), with one side painted white and the other black, and
the bar magnets on each of the four corners will induce a twice per orbit
rotation with a spin about the 'Z' axis. The downlink antennas are
circularly polarized. This is in order that LINEAR antennas on the
ground would optimal and has worked well on the early oscar's. The complex
interaction between bar magnets and photon pressure spin has been damped
to prevent much wobbling by hysteresis dampers. This all sounds great
right? Weeellllllll.. . . being a fly for free organization, this was
all designed seat of the pants, and even though it has worked well in the
past, we hope to be ABLE to claim that it is working well again.

In regards to the power, the algorithm on board, which I wrote, is a smart
battery charger. It does the charging by load side management, not supply
side as has been done on ALL previous oscars. When we turn on the S band
transmitter later, you will definitely see this power go down along with
your ability to decode these packets. The other microsats decode at
0.5 watts out (when that is necessary) and low on the horizon because
we used PSK and not AFSK on them. The final analysis is that the power
is determined by an algorithm which is trying to maintain a net positive
power budget on the spacecraft while charging ALWAYS at the maximum
possible efficiency.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY

who I work for! ;-) | CCR, AMSAT, etc.
----

741. Sony-2010 - Noise

Newsgroup: rec.ham-radio
Date: 1990-02-01 16:57:35 UTC
From: nrg@nsscb.UUCP
Message-ID: <1218@nsscb.UUCP>
Source record: 13803
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Recently I bought a Sony-2010. I found it's sensitivity no better than
Sony-ICF7601. When I turn it on to tune to 11620khz in the morning (7:30est)
I am getting lot of strange noise. The noise is very similar to the
one comes out of a big transformer. Also there is lot of static noise.
Our apartment complex is not in the vicinity of any kind of transformers
or any other industries. I tried to use a Radio Shack AC line noise filter.
But it did not serve the purpose. I think the noise/static is being radiated.

This situation persists for 11620, 11820, 9665, 9910, 15335, and 7412khz. Also I
tried to tune to these stations in the early hours like 3:00EST but
found the situation no better. I bought this radio only for the sake of
tuning to these stations. Does any one have a possible answer for this
agonizing situation.
--

Narotham Reddy reddy@attctc.Dallas.TX.US reddy@nucleus.mi.org

---

742. Standard??

Newsgroup: rec.ham-radio
Date: 1990-02-01 17:30:03 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9002020810.AA08550@ucbvax.Berkeley.EDU>
Source record: 13794

>Motorola and other manufacturers of paging receivers use this protocol,
>so it must be fairly standard.

Since when does use by Motorola LMR have anything to do with standards??

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

743. Re: Radiating Cable Systems

Newsgroup: rec.ham-radio
Date: 1990-02-01 17:34:04 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9002020810.AA08570@ucbvax.Berkeley.EDU>
Source record: 13795

>For persons interested in radio propagation in tunnels and other closed
>buildings, there is an excellent article, "How to Design and Use
>Radiating Cable Systems", by Udo Bode in the Feb. '90 issue of
>Mobile Radio Technology.

You can find out all you would ever need to know about "Radiating
Cable Systems" by talking to your local Cable TV provider. :-(:-(

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

744. ICOM IC-R1 ads

Newsgroup: rec.ham-radio
Date: 1990-02-01 19:15:01 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9002020813.AA08710@ucbvax.Berkeley.EDU>
Source record: 13822

I have look in the February Popular Communications and the February Ham Radio and seen no mention of the R1. Where are you all seeing the ads?

Mike

745. SONY-2010 - Static/interference

Newsgroup: rec.ham-radio
Date: 1990-02-01 19:29:53 UTC
From: nrg@nsscb.UUCP
Message-ID: <1219@nsscb.UUCP>
Source record: 13802

Recently I bought a Sony-2010. I found it's sensitivity no better than
Sony-ICF-7601. When I turn it on to tune to 11620khz in the morning (7:30est)
I am getting lot of strange noise. The noise is very similar to the
one comes out of a big transformer. Also there is lot of static noise.
Our apartment complex is not in the vicinity of any kind of transformers
or any other industries. I tried to use a Radio Shack AC line noise filter.
But it did not serve the purpose. I think the noise/static is being radiated.

This situation persists for 11620, 11820, 9665, 9910, 15335, and 7412khz. Also I
tried to tune to these stations in the early hours like 3:00EST but
found the situation no better. I bought this radio only for the sake of
tuning to these stations. Does any one have a better explanation for this
agonizing situation.

--

Narotham Reddy reddy@attctc.Dallas.TX.US reddy@nucleus.mi.org

---

746. Wanted: Recommendation for a CHEAP 24 hour clock

Newsgroup: rec.ham-radio
Date: 1990-02-01 19:43:16 UTC
From: megabyte@chinet.chi.il.us
Message-ID: <1990Feb1.194316.3098@chinet.chi.il.us>
Source record: 13797
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I'm tired of trying to remeber what to add or subtract to get UTC from
eastern time. It is time to buy a 24 hour clock for in my shack. I've
seen lots of expensive types, but surely someone must make an inexpensive
LCD or LED clock that has 24 hour format.
--
Mark E. Sunderlin: IRS Technocrat in Winchester, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
"We're very kinky, in a Republican sort of way." - Sue Pauloz

747. Re: POCSAG protocol info

Newsgroup: rec.ham-radio
Date: 1990-02-01 22:03:30 UTC
From: michael@fe2o3.UUCP
Message-ID: <301@fe2o3.UUCP>
Source record: 13817

In article <294@infodn.rmi.de> dg2kk@infodn.rmi.de (Walter Doerr) writes:
>I am looking for details on a protocol called POCSAG which is used to
>send messages to paging receivers.
>
>Things I would like to know:
>
>- What type of modulation is used ((A)FSK, MSK, etc.)?
>- What bitrate is used to transmit the messages?
>- What is the format of a message sent out over radio?.
> (Ideally this would be some kind of hex-dump with a short description
> what each byte means.)
>- Are the messages sent synchronously or with start/stopbits?
>- How are the messages encoded (ASCII)?
>- What kind of checksum is used (CRC, parity bits)?
>
>Motorola and other manufacturers of paging receivers use this protocol,
>so it must be fairly standard.
>
The POCSAG (POST OFFICE CODE STANDARDIZATION ADVISORY GROUP) code format
consists of a 576-bit preamble and one or more batches of codewords. Each batch
comprises a 32-bit frame synchnonization code and eight 64-bit address frames
of two 32-bit address or idle codewords each. The frame synchnonization code
marks the start of the batch of codewords.

Pre-amble Structure:
The preamble consists of 576 bits os a 101010 pattern transmitted at
a bit rate of 512 bps. The decoder uses the preamble both to determine
if the data received is POSAG and for synchronization with the data stream.

Batch Structure:
A batch consists of a frame synchronisation code followed by eight
frames of two address codewords per frame (16 address codewords per batch).
In order to maintain the proper batch structure, each frame is filled with
two address codewords, or two idle codewords, or any appropriate combination
of the two codeword types.

Frame Synchronization Code Structure:
The frame synchronisation (FS) code is a unique, reserved word that
is used to identify the begining of each batch. The FS code comprises the 32
bits: 01111100110100100001010111011000.

Address Codeword Structure and Code Capacity:
An address codeword's first bit (bit 1) is always a zero. Bits 2
through 19 are the address bits; the pager looks at these bits to find its
own unique address. Each POCSAG codeword is capable of providing address

information for four different paging sources (Address 1 through Address 4). These addresses are determined by combinations of the values of bits 20 and 21 (the source identifier bits). Bits 22 through 33 are the parity check bits, and bit 32 is the even parity bit.

The combination of the code plug's three pre-coded frame location bits and the address codeword's 18 address bits provide over two million different assignable codes. In this combination, the frame location bits are the least-significant bits, and the address bits are the most-significant bist.

Message Codewords:
A message codeword always starts with a 1 and always follows directly after the address. Each message codeword replaces an address codeword in the batch.

Idle codeword Structure:
The idle codeword is a unique, reserved codeword used to take the place of an address in any frame that would not otherwise be filled with 64 bits. Thus if a frame would only contain one address, an idle codeword will be added to complete the 64-bit frame. The idle codeword comprises the 32 bits: 01111010100010011100000110010111.

The preamble takes 1.125 seconds
Each batch takes 1.0625 seconds

The signal is a frequency shift keyed signal of +/- 4.5kHz
See CCIR Code #1 for further details.

Also used for paging is the GSC (Golay Sequential Code). More about that some other time ....
But now this.....

---

email to
UUCP: uunet!mimsy!{arinc,fe203}!vk2bea!michael

_ _ _ _
Amateur | VK2BEA (Australia) '))) / //
Radio | G4NYV (United Kingdom) / / / o _. /_ __. _ //
Stations| NV3Z (United States) / ' (_<_(__/ /_(_/|_</_</_

Michael Katzmann
Broadcast Sports Technology.
2135 Espey Ct. #4
Crofton Md. 21114 USA

Ph: +1 301 721 5151

748. Re: rec.ham-radio.amsat newsgroup.

Newsgroup: rec.ham-radio
Date: 1990-02-01 22:11:00 UTC
From: rusty@cadnetix.COM
Message-ID: <11265@cadnetix.COM>
Source record: 13815
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <28120@sequent.UUCP> brians@sequent.UUCP (Brian Sheets) writes:
>I received a number of people who also would like a new newsgroup
>for amsat/space related articles. Who would do this kinda thing?
>
>Brian Sheets KA7KDX _ /| "I'll be back"

Well, actually, YOU can initiate a new newsgroup. A very short
summary of how to do it is: Read the doc which is posted once a month
or so in (I think) news.announce.newgroups on how to get a newsgroup
started. Decide on a name, charter, if it will be moderated or not,
things like that. Announce, in news.announce.newgroups, a call for
discussion about the newsgroup. Start reading the newsgroup that
the discussion takes place in (news.groups, I think) and take part
in the discussion (or ignore stupid remarks, whatever :-)).

IF all goes well, then you announce a call for votes. (about 2 or 3 weeks
after the call for discussion). Count the EMAIL votes. Announce the
totals in news.announce.newgroups. If, after a month
of voting, you have 100 more yes votes than no votes, and a 2/3 majority
of yes votes (I'm hazy on the exact numbers, sorry), then you announce
that the group succeded and you send a message to Gene Spafford asking
him to create the group.

WARNING - read the details mentioned first before doing this, as I've
skipped a few details...

But don't worry, its not really very hard. I encourage you to
go for it.

749. Dove Telemetry

Newsgroup: rec.ham-radio
Date: 1990-02-01 22:19:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9002020813.AA08739@ucbvax.Berkeley.EDU>
Source record: 13823

Last night (Wednesday, Dayton time) I left my Yaesu 208 on 145.825, just to see what was there. Lo and Behold, about 9:15 pm (Still in Dayton) it started squaking. I listened (no packet equip) and as it approached LOS I could hear the tumble in the bird. Neat. Does anybody have the elements in NORAD (SEESAT) format? I didn't see them on T.S. Kelso's system.

Bob N5GNA

750. Shrink wrap plasic on NiCAD packs

Newsgroup: rec.ham-radio
Date: 1990-02-01 22:54:03 UTC
From: charlie@oakhill.UUCP
Message-ID: <2904@radio.oakhill.UUCP>
Source record: 13801
Cross-posted to: rec.ham-radio,sci.electronics

I am looking for a source for that tough shrink-wrap plastic
found on NiCAD battery packs. I'd like to make my own packs
and repair existing ones. The plastic shrink material is
useful for both repair and making up new battery packs.

I already have the heat gun!

-Charlie Thompson
WB4HVD

751. Re: Where's Burkina Fasso?

Newsgroup: rec.ham-radio
Date: 1990-02-02 01:46:08 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002020146.AA04851@cmr.ncsl.nist.gov>
Source record: 13799

Some months ago there was flurry of messages concerning a station operating
from Burkina Fasso. Perhaps the following magazine article will be of interest.

XT2CW
A Week in Burkina Fasso
by
Rudolf KLOS - DK7PE / AH0G
translated from MEGAHERTZ (France), January 1990 issue

Some people remember this country under its former name of Upper Volta, with
its capitol having the typically African-sounding name of Ouagadougou.

HOPE FOR A LICENSE
For several years there hadn't been any radio amateur activity from this
country. Because of the political situation, the government didn't grant per-
mits to either residents or visitors. In 1988, I sent a request for a permit
intending to activate this country by putting on an amateur radio station. I
truly didn't expect to receive an answer, and above all not a license.
But..., about six months later I had the surprise of a telegram coming from
ONATEL, the Ministry of Posts and Telecommunications at Ouagadougou. This
telegram informed me that I could obtain the requested permission after my
arrival in the country. This news was truly as good as was unexpected.

THAT ISN'T ALL, YOU MUST GET THERE!
The organization of the expedition then started, with the start set for the
4th of August via Paris and Abidjan (Ivory Coast), to reach the country si-
tuated "on the river Volta". Outside of the loss of my fishing pole, all of
the equipment arrived without other damage.

THE NEXT DAY, A DIFFERENT TUNE WITH AN AFRICAN SMILE
The day after my arrival, an official at the ONATEL office informed me that
he wasn't in the habit of giving out such authorizations, and that I would
probably not have my license as rapidly as I would wish. He told me to come
back about a month later to see what had happened. The fact that I showed him
my telegram and explained that my stay was limited to seven days didn't
change the situation at all. Disappointed, I seated myself on a dusty black
plastic armchair and waited there for I-don't-know-what to happen, all the
while a fan turned above my head (which really needed it!).

Patience is one of the most essential qualities in African countries, and all
visitors asking for even the smallest thing need to call on it one day or
another. After having waited about an hour - no one else bothered themselves
with me - another official suggested that I go see another section of ONATEL,
situated on the other side of town. He even had me get in the
administration's brand new Renault 4L to take me there! There, everything
had a more encouraging look, and this section even had a folder on which my

name was written. Inside, believe it or not, was the promised license, with the call XT2CW (wow! there is certainly a guardian angel looking out for hams who like Africa).

QUICK, QUICK, LET'S WORK PEOPLE!
Now the operation could begin and, with the precious document in my pocket, even the manager of the hotel made no objection to my activity from his place. A half-wave sloper for 160 meters, a multi-band Windom for 80 to 10 meters, and an additional vertical dipole to cover 15 and 10 meters, were attached to the roof about 28 meters above ground. W2IYX's propagation predictions were "normal/high" and that was the case. Pile-ups on 10 and 15 m with the US, endless runs with Europe, and good openings toward Japan.

One night, while working a series of US stations on 15 m, I had fail to change frequency on time for a 160 m sked with Europe. As always, I announce my frequency change so everyone knows where to find me. On arriving on my new frequency (1.830 MHz) I heard lots of American stations call XT2CW, and at the end of the sked in question I could contact lots of stations on this fascinating band. I found it remarkable to see 160 meters really open at the time of year with such high solar activity, and especially at a time at which the MUF was so high that 15 m was also wide open. The following days I spent my brightest times on this low band. I even made a very interesting contact there with W9US, whose report was 559, when he had only 1 W output. Several minutes after this first contact he called me again with higher power and his report was S9 plus.

On the seventh day of this expedition, Saturday, August 12th at 1420 UT, to be exact, propagation suddenly disappeared on all bands, a fadeout ("Moegel Dellinger* effect"), recorded in Europe as well. After three hours of continuous background noise all over the bands I could cover, propagation built up little by little, but wasn't as good as before the event.

EVEN GOOD THINGS HAVE AN END
That was the moment for me to close the station and XT2CW was heard for the last time at 1915 UT in contact with OH2WI on the 40 meter band. I left Burkina Fasso with a score of about 6500 CW contacts, to which are added several SSB contacts. I had several FM contacts to my credit as well. With at most 15 hours of sleep during my whole stay at Ouagadougou, and some 3 kg lighter, I'm already thinking of my next expedition.
---------- End of translation ----------
* [note by W3OTC] Dr. J. Howard Dellinger was one of the US big guns of radio propagation research - working at the National Bureau of Standards from 1907 to 1948; chief of its Radio Section and later Central Radio Propagation Lab, 1921-48; also Chairman of the the Radio Technical Committee for Aeronautics 1941-57, developed the old MF aero radio beacon system in the 30s; discovered the relationship between solar flares and shortwave radio fadeouts.

752. Re: More on Commo Act of 1934 and the news

Newsgroup: rec.ham-radio
Date: 1990-02-02 02:22:53 UTC
From: mdbomber@portia.Stanford.EDU
Message-ID: <8778@portia.Stanford.EDU>
Source record: 13804

In article <9002010803.AA09835@ucbvax.Berkeley.EDU> wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
>Another blatant example of the divulging of the contents of intercepted
>non-broadcast communications has been spread all over the national news
>in regard to the crash of the Avianca jet near New York. I heard
>broadcasts of tapes of conversations with people variously identified as
>"hams" (no idea if they really were) or "scanner listeners" who were
>reciting what they heard of the plane-to-controller communications.
>
>This is a clear and explicit violation of the law. If the FCC doesn't
>do anything in this case, then everyone should consider the law
>meaningless and ignore it from now on.

I don't understand this. Are you saying it's illegal to listen in to aviation frequencies? If so, there are a hell of a lot of paper outlaws around. (Since when is that new; 55mph speed limit, etc. etc.)

Maybe I don't understand your story. Are you saying hams and scanner listeners broadcasted on the aviation frequencies? Your account is really confusing. And based on something in the news, which makes it doubly confusing because the news reporters usually don't know what they're talking about. If they did, as I recall as a pilot, in an emergency, anything goes. Hams could help find the airplane, etc. Emergency communications is one of the potential functions of amateur radio, is it not?

--
Internet: mdbomber@portia.stanford.edu Matt Bartley
Bitnet: mdbomber%portia@stanford.bitnet
Kirk: "Spock! Where's that power you promised?"
Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

753. Re: ICOM IC-24AT info needed.

Newsgroup: rec.ham-radio
Date: 1990-02-02 03:45:17 UTC
From: rps@dtseng.UUCP
Message-ID: <7246@dtseng.UUCP>
Source record: 13800

In article <485a42e6.15840@valley.UUCP>, pfluegerm@valley.UUCP (Mike Pflueger) writes:
> And I believe the 24AT comes configured to do crossband full duplex.
>
> I'll know more when I get mine :-) It's on order and should be here in

The reason I asked is because the docs that came with mine are completely
silent on the issue of crossband repeater operation. Maybe I should have
gone ahead with buying the Yaesu as originally planned. |-<

> the next week or so. I expect to get the mods also. I'll post them if
> they work.

Where are you getting this mod info? I can't even find service docs yet!
And the schematics which came with the unit appear to be inadequate for
comfortable guessing.

--
Robert P. Scott | DTS Engineering, Inc. | {decvax,zinn}!dtseng!rps
Nothing could be finer than some green wallet liner....

754. ARRL Letter 29-Jan-90 P 1 of 3

Newsgroup: rec.ham-radio
Date: 1990-02-02 03:47:27 UTC
From: gws@n8emr.UUCP
Message-ID: <1420@n8emr.UUCP>
Source record: 13806

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================
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ARRL BOARD ADOPTS BUDGET, ELECTS OFFICERS

The ARRL Board of Directors met in Hartford January 19-20 to consider reports of its officers and committees, elect officers for two-year terms, and conduct the other business of the League. The Board regularly meets twice a year, in January and July.

As reported elsewhere, the Board declared 1990 "The Year of the Amateur Satellite Program" in recognition of the many important space-related events expected to occur this year. Other actions included ordering continued preparation for the 1992 World Administrative Radio Conference, and continued study of improved methods of spectrum management in Amateur Radio.

A 1990 budget for ARRL was approved that anticipates more than $9.7 million in revenues and expenses for the year. For the first time in nine years, and in recognition of the 50% inflation that has occurred since then as well as the need to maintain adequate financial reserves for future challenges to Amateur Radio privileges, the Board adopted an increase in ARRL dues. Effective April 1, the regular annual dues rate will go from $25 to $30. The senior-citizen rate will go from $20 to $24, and youth rates also will increase 20%. The special rate for family members and blind members will increase by $2, to $4.

Larry Price, W4RA, was reelected as ARRL President. Also reelected were James McCobb, K1LLU, as Treasurer, and David Sumner, K1ZZ, as Executive Vice President and Secretary. There was some realignment of League Vice Presidents, with George Wilson, W4OYI, elected as First Vice President. Additional Vice Presidents elected were Rod Stafford, KB6ZV, and Jim Haynie, WB5JBP. Jay Holladay, W6EJJ, was elected International Affairs Vice President. Tod Olson, K0TO, retired from the Board after 16 years of service as Vice Director, Director and Vice President.

The Board recognized the long service of Chuck Bender, W1WPR, and Laird Campbell, W1CUT, who recently retired from the ARRL Headquarters staff.

Elected to the Executive Committee for 1990 were Directors Butler, W4RH, Mendelsohn, WA2DHF, Quiat, AG0X, and Turnbull, W3ABC. President Price, Vice President Wilson, and Executive Vice President Sumner also serve on the Executive Committee.

In other actions, the Board reaffirmed its earlier position opposing a reduction in AM power privileges scheduled to take effect later this year, and renewed its instruction that a way be found for new club station licenses to be issued and for the holders of expired call signs to reobtain them. A field organization station appointment, Local Government Liaison, was created to better represent Amateur Radio interests at the local level. Endorsements to the 5-Band DXCC Award for 17 meters and 12 meters were approved; application details will be announced later. Studies of a number of issues and proposals were ordered by various committees and the staff.

The complete Minutes of the meeting will appear in March QST.

FCC ISSUED CALL SIGN UPDATE

The following is a list of most recently issued FCC call signs (January 1).

DIST GRP"A" GRP"B" GRP"C" GRP"D"
Extra Advanced Tech/Gen Novice
0 WZ0A KF0HC N0LJQ KB0FPA
1 WB1D KC1SI N1HGA KA1UVU
2 WV2E KE2RB N2KER KB2IZT
3 NX3T KD3QK N3HSS KA3VOL
4 AB4SL KN4CV N4XSR KC4NUW
5 AA5PS KI5BH N5PUL KB5LIR
6 AA6SY KK6EH N6XLC KC6HTK
7 AA7CY KF7ZB N7OAY KB7JGU
8 WY8G KF8DH N8LXQ KB8IRE
9 WN9I KE9TZ N9JEN KB9DUJ
Guam KH2M AH2CF KH2EH WH2AMK
Hawaii *** AH6KD NH6VQ WH6CGH
Alaska *** AL7LS NL7TD WL7BWC
USVI NP2F KP2BS NP2DO WP2AGZ
P.R. *** KP4QK WP4XG WP4IQZ
*** indicates that all 2 x 1 call signs have been assigned in those areas.

MORE GOOD NEWS FOR REPEATERS/ REMOTE BASES WITH PHONE PATCH

Karl Pagel, N6BVU, advises that GTE California, Inc. has agreed to provide telephone service to amateur repeaters with phone patch facilities at residential rates. In a January 9 letter to Karl, Karen Shaw, Vice President of Customer Relations for GTE said that they are making the change in the rate retroactive to October 1, 1989.

The policy will apparently extend to all GTE serviced repeater or remote base owners country-wide. Amateur radio repeater groups who are GTE customers may hear from a GTE customer representative explaining their new monthly service rate. Shortly after that, they will receive a one-time credit on their telephone bill. Any group not receiving the call by January 30 should contact their local business office.

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ANNUAL TAPR MEETING

The next Tucson Amateur Packet Radio (TAPR) annual meeting will be held at the Inn At The Airport, 7060 South Tucson Boulevard, Tucson AZ, 85706 on Saturday and Sunday, February 24-25.

"Networking," the packet radio buzzword for the early '90s will be one of the main topics at the meeting. Discussions will also be held by members of the Microsat team describing the construction, prelaunch and launch activity of the Microsats and their UoSAT cousins.

It is expected that many manufacturers of packet equipment will attend the meeting with displays and demos. All the new TAPR kits will be shown and discussed.

Those wishing to be on the speaking agenda should advise the TAPR office as soon as possible. The Sunday session should be concluded near or shortly after noontime for those planning afternoon departures.

TAPR suggests making your hotel reservations prior to February 9 by calling 1-800-772-3847 if outside Arizona, 602 746-0271 if in Arizona, or by writing to the above address.

FLAWLESS LAUNCH YIELDS SIX OSCARS
NEW ERA IN AMATEUR SATELLITE COMMUNICATION BEGINS

On Sunday, January 21 at 0135 UTC, the "brilliant plume" coming from the first stage of an Ariane V-35 rocket marked the beginning of a picture perfect launch of the next generation of OSCAR satellites. At that time Uosats D & E and the four Microsats (Pacsat, Webersat, LUsat and DOVE) began their journey into space from Kourou, French Guiana. An attempt to launch 24 hours earlier had to be "scrubbed" due to thunderstorms near the launch site.

The AMSAT Launch Information Network Service (ALINS) covered the launch and the events surrounding it. ALINS were heard around the world with rebroadcasts by W1AW, WA3NAN, W5RRR and a host of other HF and VHF stations on virtually all amateur bands.

The rocket reached orbit velocity of 7 kilometers/second just before 16 minutes into the flight as it passed east of Bermuda. At 20 minutes, 4 seconds, Uosats D and E were deployed becoming OSCAR 14 and 15. One minute later the 4 Microsats were successfully deployed becoming OSCAR 16-19 respectively.

Ariane Launch Control and AMSAT staff applauded as the amateur satellites were deployed in this "very historic moment" for AMSAT and Amateur Radio.

In a letter to AMSAT President Doug Loughmiller, KO5I, ARRL Executive President Dave Sumner, K1ZZ, congratulated AMSAT for the successful orbiting of the four Microsats. "What the AMSAT team has done, Dave said, "reflects credit on the entire Amateur Radio community. The timing couldn't be better as we begin preparation for the World Administrative Radio Conference to be held in 1992.

"AMSAT can justifiably take pride in providing the Amateur Radio community with a new communications capability. The American Radio Relay League

shares in your pride and is pleased to have had the opportunity of contributing to the project."

In confident anticipation of a successful launch, the ARRL Board of Directors on January 20 passed the following resolution: "The ARRL Board of Directors, on behalf of the officers and members proclaim for all to note that: "Whereas the amateur satellite program represents a major source of technological advancement within the Amateur Radio Community and "Whereas the amateur satellite program has a long history of providing useful communications resources to Radio Amateurs worldwide and "Whereas the amateur satellite program is a major element of the public service, education, and scientific research being conducted via Amateur Radio today and "Whereas the amateur satellite program represents the resourceful, creative, innovative, and volunteer spirit of Radio Amateurs everywhere and "Whereas 1990 will see the launch of eight new OSCAR satellites including six on a single launch vehicle with the Microsat/UOSAT launch and "Whereas 1990 will see the construction of an additional OSCAR satellite by AMSAT Italy and AMSAT North America begin and "Whereas 1990 will mark the beginning of the Phase III-D construction activity by a broad base of international amateur participants "Therefore be it resolved, that in recognition of the contribution of the amateur satellite program to the Amateur Radio service and of the significant events which are to occur during the course of the year 1990 within this discipline of amateur radio, we hereby declare: "1990 the year of the amateur satellite program."

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AMATEUR TELEVISION VIDEO TAPE CONTEST

The Western Washington Amateur Television Society (WWATS) and Amateur Television Quarterly (ATVQ) are sponsoring a contest for ATV enthusiasts world-wide. All licensed amateurs are eligible except members and families of WWATS and ATVQ.

Contest entries should be on consumer grade video tapes 15 minutes or less in duration. They must be Amateur Radio related and may have been made anytime since May, 1988. Entries will be reviewed and winners will be selected by WWATS appointed judges. Winners will be announced and prizes will be awarded at the 1990 Dayton HamVention (r). Entries must be post marked by March 1.

For more details on the contest and to obtain an official entry form write to: WWATS/ATVQ Video Contest, 353 S. 116th St, Seattle, WA, 98168.

CRRL NEWS

CRRL President Tom Atkins, VE3CDM, has retired to devote more time to his family and to IARU work. Tom was recently elected Secretary of IARU Region 2 and will be taking a seat on the worldwide IARU Administrative Council. Effective January 1 the new CRRL President is Bruce Balla, VE2QO.

Bob Benson, Q.C., VE2VW, will soon be retiring as CRRL General Counsel. Bob has served CRRL -- and ARRL before that -- with distinction for some

sixteen years. In that time, Bob did much effective behind-the-scenes work for individual amateurs and their counsels, often helping with RFI and antenna tower cases.

It is expected that Tim Ellam, VE6SH, of Calgary will be appointed as the new CRRL General Counsel at the May, 1990 CRRL Board meeting.

CRRL AND CARF HOLD PRELIMINARY MERGER MEETING

A preliminary merger meeting between CRRL and CARF was held in Cobourg, Ontario on November 25, 1989. The main purpose of this meeting was to set the timetable and agenda for future meetings. The committee agreed to recommend to both its Boards of Directors that a single Canadian organization be formed.

FCC NAMES KB3KC, ASSISTANT BUREAU CHIEF

In a January 10 release, the FCC named Robert H. Ratcliffe, KB3KC, Assistant Bureau Chief (law) in the Commission's Mass Media Bureau. Ratcliffe has held various positions in the Commission's MMB since 1982, when the former Broadcast and Cable Television Bureaus were combined. Before assuming his new position, he served for several months as FCC Chairman Sikes' interim legal assistant for mass media affairs.

PAST DELTA DIVISION VICE DIRECTOR GRAHAM HICKS, W5IHP, SK

ARRL is sad to report the passing of Graham Hicks, W5IHP. First licensed in 1939, he was ARRL Vice Director of the Delta Division from 1961-1964. He was active in establishing and maintaining emergency communications for the Gulf Coast, especially during hurricane emergencies and was also responsible for bringing in many new hams.

A staunch supporter of the ARRL, his life was a monument to the things he considered important, and Amateur Radio was near the top of that list.

GREECE CONGRATULATES ARRL ON 75TH ANNIVERSARY

The Radio Amateur Association of Greece (RAAG) has sent a letter of congratulations to ARRL President Larry Price, W4RA, on the ARRL's 75th anniversary. The text is as follows:

"On behalf of the council and members of RAAG, I have the pleasure and privilege to extend our most sincere congratulations for the 75th anniversary of ARRL and what it represents in Amateur Radio.

"The success of Amateur Radio worldwide owes much to the tireless efforts of members and staff of the League since its founding in 1914.

"Kindest personal regards and best wishes for many more anniversaries to follow--Dimitri Tzelatidis, SV1RL, President, RAAG"

FCC ENFORCEMENT ACTIONS

Per an FCC Release dated January 11, 1990, Frederic K. Stark, KA2YLZ, from West Taghkonic, NY has been fined $1000 for pirate radio operation on 1000

kHz. The FCC received a complaint from the N.Y. State Broadcasters Association in Albany that alleged an unauthorized station was rebroadcasting US Armed Forces Radio Network programs. The unauthorized station apparently interfered with the reception of a licensed station on 1010 kHz.

Using mobile radio direction finding equipment, an engineer from the New York FCC field office located the illegal station at the Stark residence. The unauthorized broadcast station was playing music and gave WNYS as its call letters.

Illegal radio operation is a violation of 47 CFR section 301 of the Communications Act. Unlicensed radio operations may be subject to fines of up to $100,000 and/or one year in prison.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

755. Re: cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-02-02 03:51:40 UTC
From: tad@ssc.UUCP
Message-ID: <453@ssc.UUCP>
Source record: 13818

A couple of people asked for cordless telephone frequencies. Here they are:

Base Handset

46.61 MHz 49.67 MHz
46.63 MHz 49.845 MHz
46.67 MHz 49.86 MHz
46.71 MHz 49.77 MHz
46.73 MHz 49.875 MHz
46.77 MHz 49.83 MHz
46.83 MHz 49.89 MHz
46.87 MHz 49.93 MHz
46.93 MHz 49.99 MHz
46.97 MHz 49.97 MHz

I have used the search mode on this area of the spectrum, but found it much more effective to program these channels into memory and scan them. The base unit transmits both sides of the conversation, and is usually audible at a greater distance than the handheld.

tad@ssc.UUCP

756. Kenwood 731/721

Newsgroup: rec.ham-radio
Date: 1990-02-02 04:11:36 UTC
From: jim@mmsac.UUCP
Message-ID: <4115@mmsac.UUCP>
Source record: 13820

I know someone had posted modification info on how to enable the crossband repeater function on these radios, and also how to make them go out of band. I read the article, and didn't think anything of it. But now, I finally own a 731, and I want to do the mods! Will someone please post/re-post the info for me? Thanks!

--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==========
The opinions stated herein are all mine.

757. ICOM IC32AT info needed

Newsgroup: rec.ham-radio
Date: 1990-02-02 05:34:56 UTC
From: jim@mmsac.UUCP
Message-ID: <4146@mmsac.UUCP>
Source record: 13821

Are there any mods that can be done to the ICOM IC32AT that will allow
out-of-band operation? Esp. interested in extending the coverage above
450.
--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==
The opinions stated herein are all mine.

758. Microsat/UoSAT elements

Newsgroup: rec.ham-radio
Date: 1990-02-02 05:54:09 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19656@bellcore.bellcore.com>
Source record: 13805

Here's a collection of the latest element sets I have for each object associated with the Ariane V-35/Spot/UoSAT/Microsat launch. Note that NORAD has swapped the catalog numbers and international designators for UoSAT-E (UO-15) and the Ariane 3rd stage. As far as I can tell, the other objects' designations are unchanged, and they all gave reasonably good predictions for tonight's passes. --Phil

Satellite: SPOT-2
Catalog number: 20436
Internat desig: 1990 005A
Epoch time: 90024.87607554
Wed Jan 24 21:01:32.926 1990 UTC
Element set: 8
Inclination: 98.7236 deg
RA of node: 101.3451 deg
Eccentricity: 0.0003445
Arg of perigee: 177.1740 deg
Mean anomaly: 182.9359 deg
Mean motion: 14.26690700 rev/day
Decay rate: -6.32e-06 rev/day^2
Epoch rev: 40
Semi major axis: 7178.101 km
Anom period: 100.932879 min
Apogee: 802.480 km
Perigee: 797.534 km
Ref perigee: 4406.91055006
Wed Jan 24 21:51:11.524 1990 UTC

Satellite: UoSAT-Oscar-15
Catalog number: 20437
Internat desig: 1990 005B
Epoch time: 90030.61757750
Tue Jan 30 14:49:18.695 1990 UTC
Element set: 9
Inclination: 98.7137 deg
RA of node: 107.0703 deg
Eccentricity: 0.0010080
Arg of perigee: 191.8972 deg
Mean anomaly: 168.1974 deg
Mean motion: 14.28254316 rev/day
Decay rate: 3.44e-06 rev/day^2
Epoch rev: 122
Semi major axis: 7172.856 km
Anom period: 100.822380 min
Apogee: 802.829 km

Perigee: 788.369 km
Ref perigee: 4412.58486519
Tue Jan 30 14:02:12.352 1990 UTC
Beacon: 435.1200 MHz

Satellite: AMSAT-Oscar-16
Catalog number: 20438
Internat desig: 1990 005C
Epoch time: 90027.74407736
Sat Jan 27 17:51:28.283 1990 UTC
Element set: 9
Inclination: 98.7173 deg
RA of node: 104.2093 deg
Eccentricity: 0.0011303
Arg of perigee: 201.4868 deg
Mean anomaly: 158.4471 deg
Mean motion: 14.28554220 rev/day
Decay rate: 3.7e-07 rev/day^2
Epoch rev: 81
Semi major axis: 7171.852 km
Anom period: 100.801214 min
Apogee: 804.617 km
Perigee: 788.404 km
Ref perigee: 4409.71326783
Sat Jan 27 17:07:06.340 1990 UTC
Beacon: 437.0263 MHz

Satellite: UoSAT-Oscar-14
Catalog number: 20439
Internat desig: 1990 005D
Epoch time: 90029.63555911
Mon Jan 29 15:15:12.307 1990 UTC
Element set: 11
Inclination: 98.7114 deg
RA of node: 106.0907 deg
Eccentricity: 0.0011111
Arg of perigee: 195.3653 deg
Mean anomaly: 164.3073 deg
Mean motion: 14.28476245 rev/day
Decay rate: 2.122e-05 rev/day^2
Epoch rev: 108
Semi major axis: 7172.112 km
Anom period: 100.806717 min
Apogee: 803.403 km
Perigee: 787.465 km
Ref perigee: 4411.60360834
Mon Jan 29 14:29:11.760 1990 UTC
Beacon: 435.0700 MHz

Satellite: DOVE-Oscar-17
Catalog number: 20440

Internat desig: 1990 005E
Epoch time: 90029.63506008
Mon Jan 29 15:14:29.190 1990 UTC
Element set: 7
Inclination: 98.7166 deg
RA of node: 106.0985 deg
Eccentricity: 0.0011558
Arg of perigee: 194.9310 deg
Mean anomaly: 165.2835 deg
Mean motion: 14.28590002 rev/day
Decay rate: 8.87e-06 rev/day^2
Epoch rev: 108
Semi major axis: 7171.732 km
Anom period: 100.798689 min
Apogee: 803.263 km
Perigee: 786.685 km
Ref perigee: 4411.60292204
Mon Jan 29 14:28:12.464 1990 UTC
Beacon: 145.8244 MHz

Satellite: Webersat-Oscar-18
Catalog number: 20441
Internat desig: 1990 005F
Epoch time: 90029.63446523
Mon Jan 29 15:13:37.795 1990 UTC
Element set: 5
Inclination: 98.7166 deg
RA of node: 106.1002 deg
Eccentricity: 0.0012216
Arg of perigee: 196.4323 deg
Mean anomaly: 163.8703 deg
Mean motion: 14.28705942 rev/day
Decay rate: 1.196e-05 rev/day^2
Epoch rev: 108
Semi major axis: 7171.343 km
Anom period: 100.790510 min
Apogee: 803.631 km
Perigee: 786.109 km
Ref perigee: 4411.60260456
Mon Jan 29 14:27:45.33 1990 UTC
Beacon: 437.0751 MHz

Satellite: LUSAT-Oscar-19
Catalog number: 20442
Internat desig: 1990 005G
Epoch time: 90030.68451259
Tue Jan 30 16:25:41.887 1990 UTC
Element set: 11
Inclination: 98.7165 deg
RA of node: 107.1491 deg
Eccentricity: 0.0012456

Arg of perigee: 193.4736 deg
Mean anomaly: 166.6115 deg
Mean motion: 14.28775079 rev/day
Decay rate: 7.38e-06 rev/day^2
Epoch rev: 123
Semi major axis: 7171.112 km
Anom period: 100.785632 min
Apogee: 803.034 km
Perigee: 785.169 km
Ref perigee: 4412.65212053
Tue Jan 30 15:39:03.213 1990 UTC
Beacon: 437.1535 MHz

Satellite: Ariane V35
Catalog number: 20443
Internat desig: 1990 005H
Epoch time: 90029.62693748
Mon Jan 29 15:02:47.398 1990 UTC
Element set: 15
Inclination: 98.6145 deg
RA of node: 106.0521 deg
Eccentricity: 0.0011399
Arg of perigee: 173.1194 deg
Mean anomaly: 187.0106 deg
Mean motion: 14.30142417 rev/day
Decay rate: 3.34e-05 rev/day^2
Epoch rev: 108
Semi major axis: 7166.532 km
Anom period: 100.689273 min
Apogee: 796.856 km
Perigee: 780.518 km
Ref perigee: 4411.66053736
Mon Jan 29 15:51:10.427 1990 UTC

759. LUSAT and PACSAT data

Newsgroup: rec.ham-radio
Date: 1990-02-02 07:29:10 UTC
From: brian@ucsd.Edu
Message-ID: <11472@ucsd.Edu>
Source record: 13814

In light of the recent posting of programs to decode the telemetry data from the Microsats, and because not very many people have PSK modems to demodulate the 437 MHz transmissions, I thought I might post a good solid chunk of data that people can play with. Herewith the data from two passes this evening. Share and enjoy.

BTW, I used the TAPR PSK modem that comes in a kit for around $110. It took about three hours to assemble it, and perhaps another hour to align it (most of which alignment time was figuring out the somewhat-incoherent instructions, or maybe I was just sleepy at 1 am). It worked the first time I tried it! The receiver I used was an Icom R-7000 with the PSK modem's AFC stepping circuitry hooked to the up/down controls so that it automatically tracked the Doppler shift as the satellites went overhead, which left my hands free to crank the rotator controls.
- Brian

```
LUSAT-1>TIME-1:PHT: uptime is 049/14:09:24. Time is Fri Feb 02 05:01:54 199
0

LUSAT-1>TLM:00:69 01:76 02:74 03:5E 04:70 05:7E 06:72 07:82 08:5C 09:74 0A:A5
0B:B0 0C:E8 0D:DA 0E:00 0F:49 10:D0 11:84 12:00 13:01 14:A7 15:97
16:8D 17:87 18:87 19:89 1A:86 1B:81 1C:7F 1D:83 1E:25 1F:5D 20:80

LUSAT-1>TLM:21:76 22:78 23:5F 24:3D 25:29 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:01 2D:30 2E:00 2F:9B 30:9C 31:9C 32:7E 33:00 34:9F 35:A2 36:BC
37:9E 38:B2 39:9C 3A:9C 3B:FF 3C:04

LUSAT-1>TLM:00:68 01:77 02:72 03:5F 04:70 05:7E 06:71 07:84 08:69 09:76 0A:A4
0B:9C 0C:E9 0D:D9 0E:00 0F:48 10:D0 11:84 12:00 13:00 14:A8 15:98
16:90 17:87 18:87 19:89 1A:85 1B:7D 1C:81 1D:84 1E:25 1F:5E 20:81

LUSAT-1>TLM:21:74 22:77 23:5C 24:3F 25:2B 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:00 2D:30 2E:01 2F:99 30:9A 31:9D 32:7E 33:00 34:9F 35:A1 36:BC
37:9D 38:B2 39:9D 3A:9C 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1500:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:09:54. Time is Fri Feb 02 05:02:24 1990

LUSAT-1>TIME-1:PHT: uptime is 049/14:10:04. Time is Fri Feb 02 05:02:34 1990

LUSAT-1>TLM:00:69 01:76 02:74 03:5F 04:70 05:7E 06:72 07:84 08:6A 09:75 0A:A4
0B:9D 0C:E8 0D:DA 0E:00 0F:49 10:CF 11:84 12:00 13:00 14:A8 15:97
16:90 17:87 18:86 19:89 1A:86 1B:7F 1C:81 1D:83 1E:25 1F:5D 20:82
```

LUSAT-1>TLM:21:76 22:77 23:3F 24:33 25:2A 26:00 27:02 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:00 2F:9B 30:9B 31:9C 32:7D 33:01 34:9F 35:A2 36:BD
37:9D 38:B4 39:9C 3A:9C 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1980:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:10:14. Time is Fri Feb 02 05:02:44 1990

LUSAT-1>TLM:00:67 01:75 02:74 03:5F 04:70 05:7E 06:72 07:82 08:69 09:76 0A:A4
0B:9E 0C:EA 0D:D9 0E:00 0F:48 10:D0 11:84 12:00 13:01 14:AA 15:97
16:90 17:87 18:88 19:88 1A:85 1B:7F 1C:80 1D:84 1E:26 1F:5D 20:81

LUSAT-1>TLM:21:76 22:78 23:41 24:33 25:29 26:00 27:00 28:01 29:01 2A:00 2B:00
2C:00 2D:34 2E:00 2F:9A 30:9B 31:9E 32:7F 33:00 34:9F 35:A2 36:BC
37:9E 38:B4 39:9E 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>WASH:wash addr:1bc0:0000, edac=0xb2

LUSAT-1>TLM:00:6B 01:77 02:73 03:5E 04:70 05:7E 06:71 07:82 08:6A 09:74 0A:A4
0B:9F 0C:EA 0D:DA 0E:00 0F:48 10:D0 11:84 12:00 13:01 14:A9 15:98
16:90 17:87 18:87 19:89 1A:85 1B:7D 1C:80 1D:84 1E:27 1F:5E 20:80

LUSAT-1>TLM:21:77 22:78 23:50 24:34 25:29 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9B 30:9B 31:9C 32:7D 33:00 34:A1 35:A4 36:BD
37:9E 38:B4 39:9C 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1e00:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:10:34. Time is Fri Feb 02 05:03:04 1990

LUSAT-1>TLM:00:6B 01:76 02:77 03:5D 04:73 05:7C 06:74 07:81 08:6A 09:74 0A:A4
0B:9E 0C:E9 0D:D8 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:AA 15:97
16:90 17:88 18:88 19:88 1A:86 1B:83 1C:81 1D:84 1E:26 1F:5D 20:82

LUSAT-1>TLM:21:74 22:77 23:3F 24:32 25:27 26:00 27:00 28:00 29:00 2A:00 2B:01
2C:01 2D:30 2E:00 2F:9C 30:9C 31:9C 32:7D 33:00 34:9F 35:A1 36:BC
37:9E 38:B4 39:9E 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2040:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:10:44. Time is Fri Feb 02 05:03:14 1990

LUSAT-1>TLM:21:75 22:77 23:5C 24:3F 25:29 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9C 31:9C 32:7F 33:00 34:A1 35:A2 36:BD

37:9E 38:B4 39:9D 3A:9C 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2280:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:10:54. Time is Fri Feb 02 05:03:24 1990

LUSAT-1>TLM:00:67 01:74 02:74 03:5C 04:6F 05:7C 06:71 07:81 08:6A 09:74 0A:A5
0B:9C 0C:EA 0D:D9 0E:00 0F:4A 10:D0 11:84 12:00 13:02 14:AA 15:97
16:90 17:88 18:87 19:8A 1A:85 1B:81 1C:82 1D:84 1E:25 1F:5C 20:80

LUSAT-1>TLM:21:75 22:78 23:40 24:32 25:39 26:00 27:00 28:00 29:01 2A:01 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9B 31:9C 32:7C 33:00 34:9F 35:A2 36:BD
37:9D 38:B4 39:9E 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:24c0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:11:04. Time is Fri Feb 02 05:03:34 1990

LUSAT-1>TLM:00:67 01:76 02:74 03:5E 04:70 05:7E 06:70 07:82 08:6A 09:77 0A:A4
0B:9C 0C:E9 0D:DA 0E:00 0F:48 10:D0 11:84 12:00 13:01 14:AA 15:97
16:90 17:87 18:88 19:88 1A:85 1B:7E 1C:80 1D:83 1E:25 1F:5E 20:80

LUSAT-1>TLM:21:76 22:78 23:44 24:33 25:28 26:01 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:01 2F:9C 30:9C 31:9E 32:7D 33:00 34:A1 35:A2 36:BD
37:9E 38:B4 39:9E 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2700:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:11:14. Time is Fri Feb 02 05:03:44 1990

LUSAT-1>TLM:00:66 01:76 02:72 03:60 04:70 05:7E 06:70 07:84 08:6A 09:75 0A:A4
0B:9C 0C:E9 0D:D9 0E:01 0F:48 10:D0 11:84 12:00 13:00 14:AA 15:97
16:90 17:87 18:86 19:88 1A:86 1B:7E 1C:80 1D:84 1E:26 1F:5E 20:80

LUSAT-1>TLM:21:76 22:7A 23:43 24:33 25:2D 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:00 2D:30 2E:00 2F:9B 30:9B 31:9C 32:7F 33:00 34:9F 35:A3 36:BD
37:9D 38:B5 39:9C 3A:9C 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2940:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:11:24. Time is Fri Feb 02 05:03:54 1990

```
LUSAT-1>TLM:00:66 01:75 02:71 03:5E 04:70 05:80 06:70 07:82 08:6A 09:76 0A:A4
0B:9C 0C:E9 0D:DA 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:AA 15:98
16:90 17:87 18:86 19:89 1A:85 1B:7D 1C:82 1D:84 1E:25 1F:5E 20:80

LUSAT-1>TLM:21:75 22:79 23:5D 24:37 25:2A 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:00 2D:30 2E:00 2F:9B 30:9C 31:9C 32:7E 33:00 34:A2 35:A4 36:BE
37:9E 38:B6 39:9D 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2b80:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:11:34. Time is Fri Feb 02 05:04:04 1990

LUSAT-1>TLM:00:66 01:77 02:70 03:61 04:6C 05:81 06:70 07:84 08:6A 09:78 0A:A4
0B:9D 0C:E9 0D:D9 0E:00 0F:48 10:D0 11:83 12:00 13:01 14:AA 15:98
16:8E 17:88 18:87 19:89 1A:86 1B:7E 1C:81 1D:87 1E:25 1F:5E 20:80

LUSAT-1>TLM:21:73 22:77 23:44 24:32 25:29 26:02 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:35 2E:00 2F:9A 30:9C 31:9C 32:7E 33:00 34:A1 35:A4 36:BE
37:9F 38:B4 39:9E 3A:9C 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2dc0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:11:44. Time is Fri Feb 02 05:04:14 1990

LUSAT-1>TLM:00:68 01:79 02:74 03:60 04:70 05:7F 06:71 07:83 08:6A 09:77 0A:A4
0B:9E 0C:E9 0D:D9 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:AB 15:99
16:90 17:88 18:88 19:89 1A:86 1B:7E 1C:82 1D:84 1E:24 1F:5D 20:80

LUSAT-1>TLM:21:75 22:77 23:5D 24:41 25:37 26:00 27:00 28:01 29:00 2A:00 2B:00
2C:00 2D:30 2E:01 2F:9C 30:9C 31:9D 32:80 33:00 34:A1 35:A4 36:BD
37:9D 38:B5 39:9E 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3000:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:11:54. Time is Fri Feb 02 05:04:24 1990

LUSAT-1>TLM:00:68 01:77 02:73 03:5F 04:6E 05:7E 06:71 07:82 08:6A 09:76 0A:A3
0B:9F 0C:E9 0D:D9 0E:00 0F:4A 10:D0 11:85 12:00 13:01 14:AA 15:99
16:90 17:8A 18:89 19:8B 1A:87 1B:7D 1C:82 1D:84 1E:25 1F:5D 20:80

LUSAT-1>TLM:21:75 22:78 23:5E 24:40 25:34 26:00 27:01 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9C 31:9E 32:80 33:00 34:9F 35:A2 36:BE
37:9E 38:B5 39:9E 3A:9E 3B:FF 3C:03

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00
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LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3240:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:12:04. Time is Fri Feb 02 05:04:34 1990

LUSAT-1>TLM:00:67 01:77 02:74 03:5F 04:70 05:80 06:70 07:84 08:70 09:76 0A:A4
0B:A4 0C:E9 0D:DA 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:AB 15:98
16:90 17:89 18:87 19:8A 1A:85 1B:7E 1C:81 1D:84 1E:25 1F:5E 20:80

LUSAT-1>TLM:21:74 22:77 23:47 24:34 25:30 26:01 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9C 31:9C 32:80 33:00 34:A2 35:A4 36:BD
37:9F 38:B5 39:9E 3A:9D 3B:FF 3C:04

LUSAT-1>TLM:21:75 22:77 23:3F 24:32 25:2B 26:01 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9C 31:9C 32:7D 33:00 34:A2 35:A3 36:BE
37:9F 38:B5 39:9F 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:36c0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:12:24. Time is Fri Feb 02 05:04:54 1990

LUSAT-1>TLM:21:73 22:77 23:4B 24:33 25:29 26:00 27:00 28:00 29:01 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9C 31:9C 32:80 33:00 34:A2 35:A4 36:BE
37:9E 38:B6 39:9E 3A:9E 3B:FF 3C:04

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3900:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:12:34. Time is Fri Feb 02 05:05:04 1990

LUSAT-1>TIME-1:PHT: uptime is 049/14:13:14. Time is Fri Feb 02 05:05:44 1990

LUSAT-1>TLM:21:74 22:78 23:41 24:34 25:28 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:32 2E:00 2F:9C 30:9C 31:9C 32:7F 33:00 34:A3 35:A4 36:BF
37:A0 38:B7 39:9E 3A:9E 3B:FF 3C:03

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0440:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:13:24. Time is Fri Feb 02 05:05:54 1990

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>TIME-1:PHT: uptime is 049/14:13:34. Time is Fri Feb 02 05:06:04 1990

LUSAT-1>TIME-1:PHT: uptime is 049/14:16:44. Time is Fri Feb 02 05:09:14 1990

LUSAT-1>TLM:00:68 01:78 02:74 03:62 04:70 05:81 06:70 07:84 08:6A 09:78 0A:A4
0B:9E 0C:E8 0D:D9 0E:00 0F:47 10:D0 11:85 12:00 13:01 14:B0 15:9A
16:91 17:8C 18:8A 19:90 1A:88 1B:82 1C:82 1D:86 1E:24 1F:5D 20:80
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LUSAT-1>TLM:21:72 22:78 23:5C 24:3F 25:32 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:00 2F:9C 30:9D 31:9F 32:7E 33:00 34:A6 35:A7 36:C1
37:A2 38:BA 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3380:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:16:54. Time is Fri Feb 02 05:09:24 1990

LUSAT-1>TLM:21:70 22:77 23:5C 24:3F 25:34 26:02 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:32 2E:00 2F:9C 30:9B 31:9D 32:7E 33:01 34:A6 35:A8 36:C0
37:A2 38:BA 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:35c0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:17:04. Time is Fri Feb 02 05:09:34 1990

LUSAT-1>TLM:00:6C 01:75 02:77 03:5F 04:73 05:7F 06:72 07:83 08:6A 09:76 0A:A4
0B:9F 0C:EA 0D:D7 0E:01 0F:47 10:D0 11:84 12:00 13:01 14:B0 15:9C
16:90 17:8B 18:8A 19:8D 1A:89 1B:7F 1C:82 1D:86 1E:25 1F:5D 20:80

LUSAT-1>TLM:21:71 22:78 23:46 24:33 25:27 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:00 2D:30 2E:00 2F:9D 30:9C 31:9E 32:7E 33:00 34:A5 35:A7 36:C1
37:A3 38:BB 39:A2 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3800:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:17:14. Time is Fri Feb 02 05:09:44 1990

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>TIME-1:PHT: uptime is 049/14:17:24. Time is Fri Feb 02 05:09:54 1990

LUSAT-1>TLM:00:6A 01:76 02:75 03:5F 04:70 05:7E 06:74 07:82 08:69 09:77 0A:A4
0B:AB 0C:E9 0D:DA 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:B0 15:9C
16:8E 17:8B 18:8A 19:8C 1A:87 1B:83 1C:83 1D:86 1E:25 1F:5E 20:81

LUSAT-1>TLM:21:72 22:7A 23:3F 24:32 25:29 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:32 2E:00 2F:9D 30:9C 31:9E 32:7B 33:00 34:A5 35:A7 36:C2
37:A4 38:BA 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3c80:0000, edac=0xb2
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LUSAT-1>TIME-1:PHT: uptime is 049/14:17:34. Time is Fri Feb 02 05:10:04 1990

LUSAT-1>TLM:00:69 01:77 02:75 03:5F 04:71 05:7F 06:73 07:82 08:6A 09:76 0A:A4
0B:A8 0C:E9 0D:D9 0E:00 0F:47 10:D0 11:83 12:01 13:01 14:B0 15:9C
16:8D 17:8A 18:8A 19:8E 1A:8A 1B:83 1C:84 1D:88 1E:24 1F:5D 20:80

LUSAT-1>TIME-1:PHT: uptime is 049/14:17:44. Time is Fri Feb 02 05:10:14 1990

LUSAT-1>TLM:00:6B 01:77 02:77 03:5F 04:71 05:7F 06:74 07:82 08:69 09:76 0A:A4
0B:A3 0C:EA 0D:D9 0E:00 0F:47 10:D0 11:84 12:01 13:01 14:B1 15:9C
16:92 17:8C 18:8B 19:90 1A:89 1B:81 1C:83 1D:86 1E:24 1F:5D 20:80

LUSAT-1>TLM:21:72 22:78 23:59 24:3E 25:36 26:00 27:02 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9E 30:9C 31:9E 32:7B 33:00 34:A7 35:A6 36:C2
37:A4 38:BB 39:9F 3A:9F 3B:FF 3C:03

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0100:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:17:54. Time is Fri Feb 02 05:10:24 1990

LUSAT-1>TLM:00:70 01:77 02:78 03:5C 04:74 05:7C 06:76 07:82 08:69 09:70 0A:A4
0B:9F 0C:E9 0D:D9 0E:00 0F:47 10:CD 11:84 12:00 13:00 14:B0 15:9C
16:92 17:8C 18:8A 19:8C 1A:89 1B:83 1C:84 1D:87 1E:24 1F:5D 20:80

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0340:0000, edac=0xb2

LUSAT-1>TLM:00:6B 01:76 02:76 03:5E 04:70 05:7C 06:74 07:80 08:6A 09:72 0A:A5
0B:A0 0C:E8 0D:D8 0E:00 0F:48 10:D0 11:84 12:00 13:00 14:B0 15:9C
16:92 17:8C 18:8B 19:8B 1A:89 1B:84 1C:84 1D:87 1E:24 1F:5E 20:80

LUSAT-1>TLM:21:70 22:78 23:42 24:33 25:29 26:00 27:00 28:00 29:00 2A:00 2B:02
2C:00 2D:30 2E:00 2F:9C 30:9D 31:9D 32:7F 33:00 34:A6 35:A7 36:C2
37:A4 38:BC 39:A1 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0580:0000, edac=0xb2

LUSAT-1>TLM:00:69 01:75 02:75 03:5D 04:70 05:7C 06:73 07:7F 08:6B 09:71 0A:A4
0B:9E 0C:E9 0D:DA 0E:00 0F:47 10:D0 11:85 12:01 13:01 14:B0 15:9C
16:91 17:8C 18:8A 19:90 1A:88 1B:81 1C:84 1D:86 1E:24 1F:5E 20:80

LUSAT-1>TLM:21:71 22:77 23:44 24:34 25:27 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9D 30:9D 31:9D 32:7E 33:00 34:A7 35:A8 36:C2
37:A4 38:BC 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00
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LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:07c0:0000, edac=0xb2

LUSAT-1>WASH:wash addr:0a00:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:18:34. Time is Fri Feb 02 05:11:04 1990

LUSAT-1>TLM:21:70 22:78 23:40 24:34 25:32 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9D 30:9C 31:9E 32:79 33:00 34:A7 35:A7 36:C4
37:A4 38:BC 39:A1 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 85 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0c40:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/14:18:54. Time is Fri Feb 02 05:11:24 1990

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>TIME-1:PHT: uptime is 049/14:19:24. Time is Fri Feb 02 05:11:54 1990

LUSAT-1>TLM:00:68 01:74 02:77 03:5A 04:72 05:7C 06:72 07:80 08:70 09:68 0A:A5
0B:9C 0C:E9 0D:D9 0E:01 0F:48 10:D0 11:84 12:00 13:01 14:A8 15:98
16:90 17:87 18:85 19:88 1A:84 1B:7E 1C:7F 1D:83 1E:26 1F:5E 20:81

LUSAT-1>TLM:21:76 22:77 23:42 24:32 25:3A 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:36 2E:00 2F:9C 30:9C 31:9C 32:7E 33:00 34:9F 35:A4 36:BC
37:9F 38:B3 39:9C 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1d40:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:50:04. Time is Fri Feb 02 06:42:34 1990

LUSAT-1>TLM:00:6A 01:75 02:77 03:5B 04:72 05:7C 06:72 07:7F 08:6C 09:70 0A:A5
0B:9C 0C:E8 0D:D9 0E:00 0F:48 10:D0 11:84 12:00 13:00 14:A8 15:97
16:90 17:86 18:87 19:88 1A:84 1B:7D 1C:80 1D:83 1E:26 1F:5E 20:81

LUSAT-1>TLM:21:77 22:77 23:3F 24:34 25:30 26:00 27:00 28:00 29:02 2A:00 2B:00
2C:01 2D:33 2E:00 2F:9C 30:9C 31:9C 32:7D 33:00 34:A0 35:9F 36:BC
37:9E 38:B4 39:9E 3A:9D 3B:FF 3C:03

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1f80:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:50:14. Time is Fri Feb 02 06:42:44 1990

LUSAT-1>TLM:00:69 01:77 02:76 03:5C 04:70 05:7A 06:74 07:7F 08:6C 09:6C 0A:A4
0B:9E 0C:EA 0D:D9 0E:00 0F:49 10:D0 11:84 12:00 13:01 14:AA 15:99
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16:90 17:8A 18:87 19:89 1A:86 1B:82 1C:82 1D:82 1E:24 1F:5D 20:81

LUSAT-1>TLM:21:76 22:77 23:42 24:33 25:2C 26:00 27:00 28:00 29:00 2A:00 2B:01
2C:00 2D:34 2E:01 2F:9C 30:9C 31:9C 32:7E 33:00 34:A2 35:A4 36:BD
37:9F 38:B5 39:9E 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3cc0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:52:24. Time is Fri Feb 02 06:44:54 1990

LUSAT-1>TLM:00:68 01:76 02:77 03:5A 04:71 05:7B 06:73 07:7F 08:72 09:65 0A:A5
0B:9F 0C:E9 0D:DA 0E:00 0F:47 10:D0 11:84 12:00 13:00 14:AA 15:9A
16:90 17:87 18:87 19:88 1A:86 1B:7E 1C:82 1D:84 1E:25 1F:5E 20:81

LUSAT-1>TLM:21:76 22:77 23:40 24:32 25:2C 26:00 27:00 28:01 29:00 2A:00 2B:00
2C:01 2D:2F 2E:00 2F:9C 30:9C 31:9D 32:7C 33:00 34:A4 35:A4 36:BE
37:9E 38:B6 39:9E 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3f00:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:52:34. Time is Fri Feb 02 06:45:04 1990

LUSAT-1>TLM:21:76 22:77 23:5F 24:40 25:3A 26:00 27:00 28:00 29:01 2A:01 2B:00
2C:00 2D:34 2E:00 2F:9D 30:9C 31:9D 32:80 33:00 34:A4 35:A4 36:BD
37:9F 38:B6 39:9E 3A:9E 3B:FF 3C:04

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0140:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:52:44. Time is Fri Feb 02 06:45:14 1990

LUSAT-1>TLM:00:69 01:75 02:76 03:5A 04:74 05:7A 06:73 07:80 08:6D 09:6A 0A:A4
0B:9E 0C:E9 0D:DA 0E:00 0F:48 10:D0 11:84 12:00 13:01 14:AB 15:99
16:90 17:88 18:88 19:8A 1A:85 1B:82 1C:82 1D:85 1E:26 1F:5D 20:7F

LUSAT-1>TLM:21:78 22:78 23:40 24:34 25:34 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9D 30:9C 31:9C 32:7D 33:00 34:A2 35:A3 36:BE
37:9F 38:B6 39:9F 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0380:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:52:54. Time is Fri Feb 02 06:45:24 1990

LUSAT-1>TIME-1:PHT: uptime is 049/15:53:04. Time is Fri Feb 02 06:45:34 1990
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LUSAT-1>TLM:00:6A 01:76 02:75 03:5C 04:71 05:7C 06:74 07:80 08:70 09:70 0A:A4
0B:A1 0C:E9 0D:DA 0E:00 0F:48 10:D0 11:84 12:00 13:01 14:AC 15:9A
16:90 17:88 18:86 19:8A 1A:86 1B:7F 1C:81 1D:84 1E:26 1F:5E 20:7F

LUSAT-1>TLM:21:76 22:77 23:41 24:33 25:29 26:00 27:00 28:00 29:00 2A:00 2B:01
2C:00 2D:32 2E:00 2F:9C 30:9C 31:9E 32:80 33:00 34:A2 35:A4 36:BE
37:9F 38:B7 39:9E 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0800:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:53:14. Time is Fri Feb 02 06:45:44 1990

LUSAT-1>TLM:00:6A 01:77 02:74 03:5D 04:70 05:7D 06:72 07:81 08:6A 09:76 0A:A4
0B:9E 0C:EA 0D:D9 0E:00 0F:48 10:D0 11:84 12:00 13:01 14:AC 15:9A
16:90 17:87 18:87 19:8A 1A:85 1B:81 1C:82 1D:84 1E:25 1F:5E 20:81

LUSAT-1>TLM:21:74 22:78 23:42 24:33 25:30 26:01 27:00 28:00 29:00 2A:00 2B:01
2C:00 2D:35 2E:00 2F:9C 30:9D 31:9C 32:7D 33:00 34:A4 35:A5 36:BD
37:A0 38:B7 39:9F 3A:9E 3B:FF 3C:04

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>TIME-1:PHT: uptime is 049/15:53:24. Time is Fri Feb 02 06:45:54 1990

LUSAT-1>TLM:00:6C 01:77 02:76 03:5C 04:74 05:7A 06:74 07:80 08:6A 09:70 0A:A3
0B:A3 0C:E7 0D:DA 0E:00 0F:49 10:D0 11:84 12:00 13:01 14:AC 15:9A
16:90 17:88 18:87 19:89 1A:87 1B:7D 1C:82 1D:84 1E:26 1F:5E 20:81

LUSAT-1>TLM:21:74 22:77 23:42 24:33 25:27 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:00 2F:9C 30:9C 31:9D 32:7E 33:00 34:A4 35:A4 36:BE
37:A2 38:B6 39:A0 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0c80:0000, edac=0xb2

LUSAT-1>TLM:00:6A 01:76 02:75 03:5C 04:71 05:7C 06:72 07:81 08:6B 09:70 0A:A4
0B:9E 0C:E7 0D:DA 0E:01 0F:48 10:D0 11:84 12:00 13:01 14:AC 15:9A
16:90 17:88 18:86 19:89 1A:87 1B:82 1C:83 1D:86 1E:25 1F:5C 20:80

LUSAT-1>TLM:21:76 22:77 23:5A 24:40 25:3E 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:00 2F:9C 30:9C 31:9C 32:7D 33:00 34:A4 35:A5 36:BE
37:9F 38:B6 39:9D 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0ec0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:53:44. Time is Fri Feb 02 06:46:14 1990
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LUSAT-1>TLM:00:6A 01:76 02:76 03:5A 04:70 05:7B 06:73 07:7F 08:6C 09:70 0A:A4
0B:9C 0C:E9 0D:D9 0E:00 0F:49 10:D0 11:85 12:00 13:00 14:AC 15:9A
16:90 17:89 18:87 19:8A 1A:85 1B:82 1C:81 1D:86 1E:24 1F:5D 20:80

LUSAT-1>TLM:21:75 22:77 23:41 24:34 25:34 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:00 2F:9B 30:9D 31:9D 32:7D 33:00 34:A3 35:A4 36:BE
37:9F 38:B7 39:9F 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1100:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:53:54. Time is Fri Feb 02 06:46:24 1990

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1340:0000, edac=0xb2

LUSAT-1>TLM:21:76 22:77 23:42 24:32 25:27 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9D 30:9D 31:9D 32:7E 33:00 34:A4 35:A6 36:BF
37:A2 38:B7 39:A0 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1580:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:54:14. Time is Fri Feb 02 06:46:44 1990

LUSAT-1>TLM:00:69 01:75 02:73 03:5D 04:70 05:7C 06:72 07:80 08:6C 09:70 0A:A4
0B:9E 0C:E9 0D:D8 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:AC 15:9A
16:8C 17:89 18:89 19:8A 1A:86 1B:82 1C:82 1D:85 1E:24 1F:5D 20:81

LUSAT-1>TLM:21:75 22:77 23:42 24:33 25:27 26:00 27:01 28:00 29:00 2A:00 2B:00
2C:00 2D:33 2E:00 2F:9C 30:9C 31:9E 32:7F 33:00 34:A4 35:A5 36:BF
37:A2 38:B7 39:9F 3A:9D 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:17c0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:54:24. Time is Fri Feb 02 06:46:54 1990

LUSAT-1>TLM:21:76 22:77 23:3F 24:32 25:2A 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9C 31:9E 32:7C 33:00 34:A5 35:A6 36:BE
37:9F 38:B7 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1a00:0000, edac=0xb2
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LUSAT-1>TIME-1:PHT: uptime is 049/15:54:34. Time is Fri Feb 02 06:47:04 1990

LUSAT-1>TLM:00:68 01:76 02:74 03:5D 04:6F 05:7C 06:70 07:80 08:6C 09:72 0A:A4
0B:9E 0C:EA 0D:D9 0E:00 0F:48 10:D0 11:84 12:00 13:01 14:B0 15:9C
16:8E 17:89 18:89 19:8C 1A:86 1B:81 1C:82 1D:87 1E:24 1F:5C 20:80

LUSAT-1>TLM:21:74 22:77 23:5A 24:3F 25:35 26:00 27:00 28:00 29:01 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9C 31:9D 32:7D 33:00 34:A4 35:A6 36:BF
37:A1 38:B7 39:9F 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1c40:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:54:44. Time is Fri Feb 02 06:47:14 1990

LUSAT-1>TLM:00:6C 01:75 02:76 03:5C 04:71 05:7D 06:74 07:7F 08:6A 09:73 0A:A4
0B:9E 0C:EA 0D:DA 0E:00 0F:48 10:D0 11:84 12:00 13:02 14:B0 15:9A
16:90 17:8A 18:89 19:8B 1A:88 1B:7F 1C:84 1D:86 1E:24 1F:5E 20:82

LUSAT-1>TLM:21:72 22:77 23:42 24:34 25:35 26:00 27:00 28:01 29:00 2A:00 2B:00
2C:00 2D:33 2E:00 2F:9C 30:9C 31:9D 32:80 33:01 34:A4 35:A6 36:BF
37:A2 38:B7 39:9F 3A:9E 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:1e80:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:54:54. Time is Fri Feb 02 06:47:24 1990

LUSAT-1>TLM:00:69 01:77 02:76 03:5B 04:72 05:7A 06:72 07:7F 08:70 09:68 0A:A4
0B:A0 0C:E9 0D:D9 0E:00 0F:47 10:CF 11:84 12:00 13:01 14:B0 15:9A
16:90 17:8A 18:89 19:8A 1A:88 1B:7D 1C:84 1D:86 1E:24 1F:5D 20:80

LUSAT-1>TLM:21:75 22:76 23:42 24:32 25:2A 26:01 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:00 2F:9D 30:9D 31:9D 32:7E 33:00 34:A5 35:A6 36:BF
37:A2 38:B7 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:20c0:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:55:04. Time is Fri Feb 02 06:47:34 1990

LUSAT-1>TLM:00:69 01:75 02:76 03:59 04:72 05:7C 06:74 07:7F 08:71 09:66 0A:A4
0B:9D 0C:EA 0D:D9 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:AE 15:9B
16:90 17:87 18:87 19:8A 1A:87 1B:82 1C:81 1D:84 1E:26 1F:5E 20:81

LUSAT-1>TLM:21:75 22:77 23:40 24:32 25:2C 26:00 27:01 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9D 30:9C 31:9E 32:7C 33:00 34:A5 35:A5 36:C0
37:A1 38:B9 39:9F 3A:9F 3B:FF 3C:04
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LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2300:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:55:14. Time is Fri Feb 02 06:47:44 1990

LUSAT-1>TLM:00:69 01:76 02:75 03:5B 04:70 05:7B 06:72 07:7F 08:6B 09:70 0A:A4
0B:9E 0C:E8 0D:DA 0E:01 0F:48 10:D0 11:84 12:00 13:01 14:AD 15:9B
16:90 17:89 18:87 19:8A 1A:88 1B:7F 1C:81 1D:86 1E:26 1F:5E 20:81

LUSAT-1>TLM:21:75 22:77 23:40 24:34 25:2A 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:01 2D:30 2E:00 2F:9D 30:9C 31:9C 32:7D 33:00 34:A4 35:A6 36:C0
37:A3 38:BA 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2540:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:55:24. Time is Fri Feb 02 06:47:54 1990

LUSAT-1>TLM:00:69 01:76 02:74 03:5C 04:6F 05:7C 06:72 07:80 08:6B 09:72 0A:A4
0B:9D 0C:E8 0D:D8 0E:01 0F:47 10:D0 11:84 12:00 13:01 14:B0 15:9C
16:8D 17:89 18:88 19:8A 1A:87 1B:7F 1C:80 1D:84 1E:25 1F:5D 20:81

LUSAT-1>TLM:21:73 22:77 23:43 24:33 25:30 26:00 27:00 28:00 29:01 2A:00 2B:02
2C:00 2D:34 2E:00 2F:9D 30:9C 31:9E 32:7E 33:00 34:A4 35:A6 36:C1
37:9F 38:B8 39:A0 3A:9F 3B:FF 3C:03

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2780:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:55:34. Time is Fri Feb 02 06:48:04 1990

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2c00:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:55:54. Time is Fri Feb 02 06:48:24 1990

LUSAT-1>TLM:00:67 01:7A 02:74 03:5C 04:70 05:7C 06:71 07:81 08:6A 09:73 0A:A4
0B:9E 0C:EA 0D:D9 0E:00 0F:48 10:D0 11:85 12:00 13:02 14:B0 15:9C
16:92 17:8B 18:8A 19:8A 1A:87 1B:82 1C:84 1D:87 1E:24 1F:5D 20:80

LUSAT-1>TLM:21:74 22:77 23:42 24:34 25:36 26:00 27:00 28:00 29:01 2A:00 2B:00
2C:00 2D:34 2E:00 2F:9C 30:9C 31:9E 32:7F 33:00 34:A4 35:A6 36:C1
37:A2 38:B8 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00
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LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:2e40:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:56:04. Time is Fri Feb 02 06:48:34 1990

LUSAT-1>TLM:00:69 01:76 02:76 03:5C 04:70 05:79 06:73 07:80 08:6C 09:6E 0A:A4
0B:9C 0C:E9 0D:DA 0E:00 0F:49 10:D0 11:85 12:00 13:02 14:B0 15:9B
16:8D 17:89 18:88 19:8B 1A:88 1B:7F 1C:82 1D:85 1E:25 1F:5E 20:80

LUSAT-1>TLM:21:74 22:77 23:42 24:34 25:30 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:31 2E:00 2F:9D 30:9D 31:9E 32:7F 33:00 34:A5 35:A7 36:C1
37:A3 38:B9 39:9F 3A:9F 3B:FF 3C:03

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3080:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:56:14. Time is Fri Feb 02 06:48:44 1990

LUSAT-1>TLM:00:67 01:76 02:76 03:5B 04:70 05:79 06:72 07:7E 08:70 09:6C 0A:A4
0B:A4 0C:EA 0D:D9 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:AE 15:9C
16:90 17:8A 18:87 19:8A 1A:86 1B:7F 1C:82 1D:85 1E:24 1F:5D 20:80

LUSAT-1>TLM:21:73 22:77 23:42 24:32 25:30 26:00 27:00 28:01 29:00 2A:00 2B:01
2C:00 2D:32 2E:00 2F:9D 30:9C 31:9D 32:7F 33:00 34:A6 35:A5 36:C2
37:A2 38:BA 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>WASH:wash addr:32c0:0000, edac=0xb2

LUSAT-1>TLM:00:6A 01:75 02:76 03:5C 04:70 05:79 06:74 07:7F 08:70 09:68 0A:A4
0B:A0 0C:E8 0D:D7 0E:00 0F:48 10:D0 11:84 12:00 13:00 14:B0 15:9C
16:90 17:8A 18:87 19:8A 1A:87 1B:83 1C:81 1D:84 1E:25 1F:5E 20:80

LUSAT-1>TLM:21:74 22:77 23:3E 24:35 25:27 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9C 30:9D 31:9E 32:7C 33:00 34:A6 35:A6 36:C2
37:A3 38:B9 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>TIME-1:PHT: uptime is 049/15:56:34. Time is Fri Feb 02 06:49:04 1990

LUSAT-1>TLM:00:6A 01:75 02:75 03:5C 04:72 05:7C 06:74 07:7F 08:6C 09:70 0A:A4
0B:9D 0C:E9 0D:D8 0E:00 0F:47 10:D0 11:84 12:00 13:01 14:B0 15:9D
16:8D 17:8A 18:8A 19:8C 1A:86 1B:83 1C:84 1D:87 1E:24 1F:5C 20:80

LUSAT-1>TLM:21:74 22:76 23:5C 24:40 25:36 26:00 27:00 28:00 29:00 2A:00 2B:01
2C:00 2D:32 2E:01 2F:9C 30:9D 31:9F 32:80 33:00 34:A5 35:A6 36:C2
37:A4 38:BA 39:A0 3A:9F 3B:FF 3C:03

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00
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LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3740:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:56:44. Time is Fri Feb 02 06:49:14 1990

LUSAT-1>TLM:00:6B 01:75 02:77 03:5B 04:73 05:7C 06:73 07:80 08:6B 09:70 0A:A4
0B:9F 0C:EA 0D:D9 0E:01 0F:48 10:D0 11:84 12:01 13:01 14:B0 15:9D
16:90 17:8A 18:8A 19:8C 1A:88 1B:7F 1C:84 1D:88 1E:24 1F:5E 20:80

LUSAT-1>TLM:21:72 22:77 23:43 24:33 25:37 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:37 2E:00 2F:9D 30:9C 31:9E 32:7C 33:00 34:A7 35:A7 36:C2
37:A4 38:BA 39:9F 3A:9F 3B:FF 3C:04

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>TIME-1:PHT: uptime is 049/15:56:54. Time is Fri Feb 02 06:49:24 1990

LUSAT-1>TLM:21:74 22:77 23:3F 24:32 25:30 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:38 2E:00 2F:9D 30:9C 31:9D 32:7C 33:00 34:A6 35:A7 36:C2
37:A3 38:B9 39:A0 3A:A0 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3bc0:0000, edac=0xb2

LUSAT-1>TLM:00:6A 01:76 02:75 03:60 04:70 05:7C 06:71 07:80 08:6B 09:70 0A:A5
0B:9E 0C:E8 0D:D9 0E:00 0F:48 10:D0 11:84 12:01 13:01 14:B0 15:9D
16:90 17:8A 18:87 19:8C 1A:88 1B:82 1C:83 1D:86 1E:24 1F:5E 20:80

LUSAT-1>TLM:21:72 22:77 23:43 24:31 25:30 26:01 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:30 2E:00 2F:9E 30:9C 31:9D 32:7C 33:00 34:A7 35:A8 36:C2
37:A3 38:BA 39:A0 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:3e00:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:57:14. Time is Fri Feb 02 06:49:44 1990

LUSAT-1>TLM:00:6A 01:76 02:77 03:5A 04:71 05:7C 06:72 07:7E 08:70 09:6B 0A:A4
0B:9F 0C:E8 0D:D8 0E:00 0F:47 10:D0 11:84 12:00 13:00 14:B0 15:9C
16:8E 17:8A 18:89 19:8C 1A:86 1B:82 1C:83 1D:86 1E:24 1F:5C 20:80

LUSAT-1>TLM:21:73 22:78 23:44 24:34 25:29 26:00 27:00 28:00 29:00 2A:01 2B:00
2C:00 2D:33 2E:00 2F:9C 30:9C 31:9E 32:7F 33:00 34:A5 35:A6 36:C2
37:A3 38:BA 39:9F 3A:A0 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0040:0000, edac=0xb2
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LUSAT-1>TIME-1:PHT: uptime is 049/15:57:24. Time is Fri Feb 02 06:49:54 1990

LUSAT-1>TLM:00:68 01:76 02:76 03:5B 04:71 05:79 06:73 07:7E 08:71 09:64 0A:A4
0B:9D 0C:E9 0D:DA 0E:00 0F:48 10:D0 11:84 12:01 13:01 14:B0 15:9C
16:90 17:8A 18:8A 19:8C 1A:86 1B:7F 1C:83 1D:86 1E:24 1F:5D 20:80

LUSAT-1>TIME-1:PHT: uptime is 049/15:57:34. Time is Fri Feb 02 06:50:04 1990

LUSAT-1>TLM:00:6A 01:76 02:77 03:5B 04:73 05:7A 06:72 07:80 08:70 09:6C 0A:A4
0B:9E 0C:EA 0D:D8 0E:00 0F:48 10:D0 11:84 12:00 13:02 14:B0 15:9C
16:90 17:8C 18:89 19:8C 1A:89 1B:83 1C:83 1D:87 1E:23 1F:5C 20:80

LUSAT-1>TLM:21:74 22:77 23:5C 24:40 25:37 26:00 27:01 28:01 29:00 2A:00 2B:01
2C:00 2D:31 2E:00 2F:9D 30:9D 31:9D 32:7F 33:00 34:A6 35:A7 36:C2
37:A4 38:BC 39:A0 3A:9F 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:04c0:0000, edac=0xb2

LUSAT-1>TLM:00:6B 01:75 02:78 03:5C 04:72 05:7C 06:70 07:7E 08:6D 09:69 0A:A4
0B:9D 0C:E8 0D:D9 0E:00 0F:47 10:D0 11:84 12:00 13:00 14:B0 15:9D
16:92 17:8C 18:8B 19:8C 1A:89 1B:81 1C:84 1D:88 1E:24 1F:5E 20:82

LUSAT-1>TLM:21:72 22:78 23:44 24:33 25:37 26:01 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:36 2E:01 2F:9C 30:9D 31:9D 32:7E 33:00 34:A6 35:A7 36:C2
37:A4 38:BB 39:A1 3A:9F 3B:FF 3C:03

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0700:0000, edac=0xb2

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0940:0000, edac=0xb2

LUSAT-1>TIME-1:PHT: uptime is 049/15:58:04. Time is Fri Feb 02 06:50:34 1990

LUSAT-1>TLM:00:6A 01:75 02:77 03:5C 04:74 05:7A 06:73 07:7F 08:69 09:72 0A:A5
0B:9F 0C:E9 0D:D9 0E:00 0F:47 10:D0 11:84 12:00 13:00 14:B1 15:9C
16:91 17:8B 18:8A 19:8B 1A:88 1B:81 1C:83 1D:86 1E:25 1F:5E 20:81

LUSAT-1>TLM:21:73 22:76 23:43 24:33 25:2B 26:00 27:00 28:00 29:01 2A:00 2B:01
2C:00 2D:35 2E:00 2F:9D 30:9D 31:9D 32:7B 33:00 34:A6 35:A8 36:C2
37:A5 38:BC 39:A2 3A:A0 3B:FF 3C:04

LUSAT-1>STATUS: 00 00 00 84 B0 18 99 02 00 00 00 00 B0 00 00 00 00 00 00 00

LUSAT-1>LSTAT:Inactive, PHT:0x1738, over:0

LUSAT-1>WASH:wash addr:0b80:0000, edac=0xb2

PACSAT-1>TLM:21:7F 22:71 23:2B 24:2A 25:29 26:01 27:00 28:00 29:00 2A:01 2B:00
2C:00 2D:2D 2E:01 2F:9C 30:9C 31:9C 32:5A 33:03 34:A8 35:A6 36:C6
```

37:9F 38:B6 39:CC 3A:00

PACSAT-1>STATUS: 00 00 00 7F B0 18 77 02 00 80 00 00 B0 00 00 00 00 00 00 00

PACSAT-1>LSTAT:Inactive, PHT:0x3000, over:0

PACSAT-1>WASH:wash addr:1b00:0000, edac=0x99

PACSAT-1>TIME-1:PHT: uptime is 001/02:58:40. Time is Fri Feb 02 06:51:09 1990

PACSAT-1>TLM:00:64 01:82 02:6C 03:64 04:71 05:86 06:74 07:5A 08:71 09:80 0A:A4
0B:9A 0C:E8 0D:DC 0E:00 0F:31 10:D5 11:80 12:00 13:01 14:B0 15:98
16:87 17:88 18:87 19:82 1A:88 1B:82 1C:86 1D:88 1E:24 1F:5C 20:9E

PACSAT-1>STATUS: 00 00 00 7F B0 18 77 02 00 80 00 00 B0 00 00 00 00 00 00 00

PACSAT-1>LSTAT:Inactive, PHT:0x3000, over:0

PACSAT-1>WASH:wash addr:1d40:0000, edac=0x99

PACSAT-1>TIME-1:PHT: uptime is 001/02:58:50. Time is Fri Feb 02 06:51:19 1990

PACSAT-1>TLM:00:68 01:84 02:70 03:66 04:76 05:89 06:74 07:59 08:70 09:82 0A:A4
0B:9A 0C:E7 0D:DC 0E:00 0F:31 10:D4 11:80 12:00 13:00 14:B0 15:98
16:91 17:87 18:89 19:84 1A:86 1B:7D 1C:88 1D:83 1E:24 1F:5C 20:9E

PACSAT-1>TLM:21:7A 22:71 23:2D 24:2B 25:28 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:28 2E:00 2F:9C 30:9B 31:9C 32:5F 33:08 34:A8 35:A5 36:C4
37:A0 38:B8 39:CC 3A:00

PACSAT-1>LSTAT:Inactive, PHT:0x3000, over:0

PACSAT-1>WASH:wash addr:1f80:0000, edac=0x99

PACSAT-1>TIME-1:PHT: uptime is 001/02:59:00. Time is Fri Feb 02 06:51:29 1990

PACSAT-1>TLM:00:77 01:85 02:80 03:66 04:8C 05:88 06:7C 07:59 08:71 09:7F 0A:A3
0B:9A 0C:E8 0D:DC 0E:01 0F:31 10:D5 11:7F 12:00 13:02 14:B0 15:99
16:90 17:8C 18:8E 19:85 1A:88 1B:7F 1C:85 1D:86 1E:25 1F:5C 20:9B

PACSAT-1>TLM:21:7C 22:71 23:31 24:29 25:2E 26:01 27:01 28:00 29:00 2A:00 2B:00
2C:00 2D:2D 2E:01 2F:9C 30:9B 31:9D 32:5C 33:04 34:A8 35:A7 36:C4
37:A0 38:B9 39:CC 3A:00

PACSAT-1>STATUS: 00 00 00 7F B0 18 77 02 00 80 00 00 B0 00 00 00 00 00 00 00

PACSAT-1>LSTAT:Inactive, PHT:0x3000, over:0

PACSAT-1>WASH:wash addr:21c0:0000, edac=0x99

PACSAT-1>TIME-1:PHT: uptime is 001/02:59:10. Time is Fri Feb 02 06:51:39 1990

760. Re: Save the WWVH Aloha!

Newsgroup: rec.ham-radio
Date: 1990-02-02 09:32:51 UTC
From: querubin@uhccux.uhcc.hawaii.edu
Message-ID: <6466@uhccux.uhcc.hawaii.edu>
Source record: 13816

In article <6447@uhccux.uhcc.hawaii.edu> querubin@uhccux.UUCP (Antonio Querubin) writes:
>And you might also want to write to Kaua`i's mayor, Joanne Kunimura.
>
ARGH! As KH6R pointed out to me, that name should be Joanne Yukimura. The
previous mayor was Tony Kunimura. Obviously, I don't live on that island!
blush -AH6BW

761. (none)

Newsgroup: rec.ham-radio
Date: 1990-02-02 13:16:09 UTC
From: BUSH@S51.Prime.COM
Message-ID: <9002030802.AA01509@ucbvax.Berkeley.EDU>
Source record: 13807

For the recent postings requesting odd connectors, i.e. TNC to BNC and sundry other odd items--you might want to try:

Pasternack Enterprises
PO Box 16759
Irvine, CA 92713-6759
(714) 261-1920.

I do not see any right angle adapters in the catalog, however, they do have straight PE9098 BNC-M to TNC-F @ $13.95 and PE9088 BNC-F to TNC-M @11.95. Other odd connectors such as a TNC that fits RG-8 cable or SMA connectors and adapters are listed.

The catalog is free. There is a minimum line item charge of $10.00 and minium order of $100. Ergo, get you friends and cohorts together and place a group order.

de KC1PR

762. Re: DOVE fading

Newsgroup: rec.ham-radio
Date: 1990-02-02 13:19:47 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500374@ux1.cso.uiuc.edu>
Source record: 13819

How accurate is the power output measurement on the satellite?

Surely there is not a calorie measuring water bath circling our planet.

Where can one get something to measure power more accurate than the
usual 5% quoted by SWR meter makers?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

763. IBM and Motorola - radio computer links - where they get freqs?

Newsgroup: rec.ham-radio
Date: 1990-02-02 13:44:41 UTC
From: root@mjbtn.MFEE.TN.US
Message-ID: <543@mjbtn.MFEE.TN.US>
Source record: 13808

I am sure most of you have heard throught some channel that IBM and Motorola (I think) have formed a company through a joint venture that is to provide computers links to laptops over the radio all across the country starting within the next year. In otherwords, you can throw your laptop in the car and it is like your using a landline modem to call in, except no landline needed. They expect it to be a $1 B$LL$ON dollar a year enterprise!!!

Well, that is all fine and dandy, but what worries me is, where is the FCC going to let them work? I mean, obviously wherever it is, not many other services could coexist with it because of the nature of data communications being often a very continous stream, and also it being susceptible to noise. I am sure they will use some sort of high speed, error free packet protcol (encrypted too).

Now IBM is *BIG* and *BAD* (sorry to you IBM lovers) and has *LOTS* of lawyers that are paid *LOTS* of money. What bothers me (and I should say that I have not heard any official announcement as to where the will operate - thus my rampant speculation) don't you think that it is entirely possible that the FCC may pull another 220 MHz/UPS stunt on us???!!! I mean - why not???!?!? My guess is that it will have to be a UHF based service with the use of digital repeaters spaced about. This could target either 70cm (420 Mhz), 33cm (902 MHz), and maybe 23cm (1240 MHz). Or maybe none of these. But the way the FCC handled the 220 MHz thing seemed to me to be special treatment to *BIG* business, and my feeling is is that here we have another similar situation.

Again, I am only *SPECULATING* as I have heard no further details. But I wanted to make sure that the group here was aware of it. In my area, 33cm and 23cm are hardly ever used ....

Anyway, think about that for awhile. If anyone gets more detailed information, I would really like to hear it. If wilderness and rain forests and elephants are disappearing for big business, why not ham radio bands????

Yours concerned,

Mark.

--
Mark J. Bailey, N4XHX "Ya'll com bak naw, ya hear!"
USMAIL: 511 Memorial Blvd., Murfreesboro, TN 37129 _____
VOICE: +1 615 893 0098 | JobSoft
UUCP: ...!{ames,mit-eddie}!attctc!mjbtn!mjb | Design & Development Co.

DOMAIN: mjb@mjbtn.MFEE.TN.US CIS: 76314,160 | Murfreesboro, TN USA
<KA9Q-UNIX-USERS Mailing List - Subscribe: ka9q-unix-requests@mjbtn.mfee.tn.us>

764. Re: Sony-2010 - Noise

Newsgroup: rec.ham-radio
Date: 1990-02-02 14:18:06 UTC
From: sterling@cbmvax.commodore.com
Message-ID: <9573@cbmvax.commodore.com>
Source record: 13809
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1218@nsscb.UUCP> nrg@nsscb.UUCP (G.Narotham Reddy) writes:
> Recently I bought a Sony-2010. I found it's sensitivity no better than
> Sony-ICF7601. When I turn it on to tune to 11620khz in the morning (7:30est)
> I am getting lot of strange noise. The noise is very similar to the
> one comes out of a big transformer. Also there is lot of static noise.
> Our apartment complex is not in the vicinity of any kind of transformers
> or any other industries. I tried to use a Radio Shack AC line noise filter.
> But it did not serve the purpose. I think the noise/static is being radiated.
>
> This situation persists for 11620, 11820, 9665, 9910, 15335, and 7412khz. Also I
> tried to tune to these stations in the early hours like 3:00EST but
> found the situation no better. I bought this radio only for the sake of
> tuning to these stations. Does any one have a possible answer for this
> agonizing situation.
> --
> --
>
> Narotham Reddy reddy@attctc.Dallas.TX.US reddy@nucleus.mi.org
> --

I have a similar situation at my location. 426 Condos all using electric heaters
in my case. Each of these heating units has a thermal relay that controls
preheating the furnace so it doesn't blow cold air when first turned on.
The thermal relays apparently get sluggish with age and start ARCing.

A 5.0KW spark gap transmitter makes a LOT of noise! I've noted the ``signals''
well into the UHF range. ;-(All I can do is pray for warmer weather. ;-)

This is just one of may possibilities ... another ``biggy'' is an arcing
power line/transformer nearby.

Rick Sterling N2CGI Commodore Technology Group (215)-431-9275
Test Engineering UUCP ...{uunet,allegra,rutgers}!cbmvax!sterling
---

765. subscribeSubscribe

Newsgroup: rec.ham-radio
Date: 1990-02-02 14:56:00 UTC
From: BRIAN@ALBION.BITNET
Message-ID: <E4D4C28AD11F0009A3@ALBION.BITNET>
Source record: 13810

```
BrSubscribe
Brian KornDekoKorninck WD*DTR8DTR
```

766. NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-02 15:22:06 UTC
From: ewb@raybed2.UUCP
Message-ID: <1457@raybed2.UUCP>
Source record: 13811

NOTE: All mods done at your OWN RISK !!

Here's a useful mod for the Icom IC-24AT, the new mini dualbander.

1. Remove D13 on the main board. *

2. Reset the CPU.

Voila! The frequency range of the handie-talkie is now
75-195 MHz, 200-490 MHz, and 740-960 MHz.

* NOTE: This may void the warrantee. Make sure you treat the radio as if
it were CMOS, ie NO STATIC CHARGES.
DE: WA1OMM/KB1MZ

767. Sony- Antenna (AN-1)

Newsgroup: rec.ham-radio
Date: 1990-02-02 15:50:42 UTC
From: nrg@nsscb.UUCP
Message-ID: <1220@nsscb.UUCP>
Source record: 13681
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I would like to know how good is the AN-1 antenna for the SONY-2010.
Is it any better than the wire antenna provided with the set.

--

Narotham Reddy reddy@attctc.Dallas.TX.US reddy@nucleus.mi.org

---

768. Digital audio - no more QRM?

Newsgroup: rec.ham-radio
Date: 1990-02-02 15:51:19 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <02.Feb.90.16
Source record: 13812

Has anyone thought of digital audio? Now we have packet links that can
give prospectively very high data rates, it seems obvious that the possibility
of digitising audio, shipping it as a data-stream (possibly with store-and-
forward techniques) and then regenerating the audio at the receiver, is here.
OK i admit given current packet throughput on a highly congested link,
it *could* take several hours to transmit a few seconds of speech, but i
like the idea. Using the commercially available A/D and D/A converters
(as used in CD players) might be attractive. And if you used the right
sampling rates, you could record the stuff on a DAT tape.
Imagine - a 'digital audio' QSO on 20 meters, with no background QRM and
hi-fi stereo sound? (and overs that last several DAYS during bad periods :-))
Add in a video-digitiser & camera, and *see* the person you are working. Or
send a fax-QSL-card at the same time as the QSO.
Wonder which Japanese manufacturer will be the first to include *THAT*
as a marketing feature?

///Pete G6WBJ

769. Re: More on Commo Act of 1934 and the news

Newsgroup: rec.ham-radio
Date: 1990-02-02 15:58:22 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9002030803.AA01960@ucbvax.Berkeley.EDU>
Source record: 13813

>I don't understand this....
>Maybe I don't understand your story.

I don't know how I could have been any clearer in what I posted... The discussion had been started on the topic of the regulations in the '34 Commo Act against the divulging to outside parties of information heard while monitoring. That is, it was perfectly legal (pre-ECPA) to listen to anything; what was prohibited was to tell anyone else what you heard.

When the Avianca jet went down, all sorts of aircraft-scanner listeners who had picked up the plane<->controller communications violated that regulation by telling news reporters the details of the conversations they had overheard. These monitors' reports of the conversations were broadcast on national news programs.

If the FCC doesn't try to enforce the "no-divulging" regulations in this instance by locating and fining the scanner monitors who violated the regs by reporting on what they had monitored, it makes a mockery of these regs, and therefore no one should ever feel bound by them or constrained by them in the future.

Another poster mentioned that he believed aircraft communications was somehow exempt from this regulartory restriction, citing the FAA practice of recording all such traffic for possible use in determining violations or reviewing incidents. I disagree with that; that example is one party or side of the communications recording the traffic. That is fundamentally different from a totally uninvolved third party (an outside listener) monitoring and then divulging the contents of that communications.

Will Martin

770. Re: ICOM IC32AT info needed

Newsgroup: rec.ham-radio
Date: 1990-02-02 18:55:55 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1503@east.East.Sun.COM>
Source record: 13678
Body handling: HTML body converted to readable text

>Are there any mods that can be done to the ICOM IC32AT that will allow
>out-of-band operation? Esp. interested in extending the coverage above
>450.

I STRONGLY RECOMMEND NOT modifying radios to transmit in the public service bands. If you do have a compelling need to do so, DO NOT put it in memory (too easy to screw up). OK, lecture over, here's the mod (from the net BTW):

MODS FOR ICOM 32AT

1. Remove battery and antenna.
2. Loosen two screws on top of unit as much as possible without removing them.
3. Loosen 4 flat head screws on bottom of unit 1 turn.
4. Loosen 2 screws near PTT switch 1 turn.
5. Remove 4 black screws on back of unit.
6. Lift bottom of front cover .25 inch, slide it down .25 inch, then lift front cover up 1 inch.
7. Disconnect plug on 4 wires coming from the speaker.
<< THe flex cable can be disconnected from the main board by gently pulling up on the ears of the connector for that cable on the main board>>
8. Lay front panel on table up-side down being careful of the flex circuit.
9. All mods are done to the back of the front panel. Notice places for 5 axial diodes, which I will call 1 through 5, 1 being nearest the display.
<>
Add/remove diodes so there are diodes in positions 3 and 5. This will open up receive coverage for VHF & UHF and enable keyboard entry of the 10 MHz digit.
<< I seemed to have the same coverage with and without diode #3 installed>>

When you go out of the range the radio will receive a U appears in place of the memory channel number. It means the PLL circuit has lost lock and the radio will not work.

10. Notice 4 surface mount resistors slightly left of center directly above the speaker, lined up in a row. Solder the anode (the side without the bar) of two diodes to the right side of the lower of the four resistors.
<>
Now find the CPU. It's the PGA under the shield near the top of the board. Find the row of pins on the CPU nearest the speaker. Notice the the 8th pin from the right has a thicker trace coming from it. Now notice that there are small solder pads about .25 inch toward the speaker on both the fat trace and the two traces to the right of it. Solder one each of the cathodes of the 2 diodes to the solder pads on the two smaller traces.

This will open up the transmit for VHF & UHF.
<< Oh yes, note that memory channels clear when you do these. And the
<>

11. Put unit back together in reverse order.

This procedure worked for my unit, but I can't guarantee it will work
for yours.

<>

Last but not least to enable cross band repeating first choose a pair of
frequencies with the two vfo's for VHF and UHF.Then press and hold function
key while pressing with the other hand the following "C" "6" "D". The radio
will start scanning the two frequencies continiously, if a station is heard
in one of the two it will retransmitted from the other! The two frequencies
must be simplex, no cross band repeaters yet sorry!

WR0Y, SV1IW, N1BIP, NV7F, and N7HMF all contributed to this.

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

771. Looking for info on small / physicaly short Quad antennas

Newsgroup: rec.ham-radio
Date: 1990-02-02 19:18:42 UTC
From: apple@nprdc.navy.mil
Message-ID: <5840@arctic.nprdc.arpa>
Source record: 13679

Hi

I'm looking for any information on building small or
"physicaly short" Quad antennas for 80-10 meters.

I've seen commerical quads which are small, but I've never
seen any info on how to make one.

Thanks in advance

73's

Jim Apple WB1DOG

apple@nprdc.navy.mil
...}ucsd!nprdc!apple

772. Re: More on Commo Act of 1934 and the news

Newsgroup: rec.ham-radio
Date: 1990-02-02 21:11:16 UTC
From: l236-aa@garnet.berkeley.edu
Message-ID: <1990Feb2.211116.20718@agate.berkeley.edu>
Source record: 13680

In article <9002021341.AA23193@ucbvax.Berkeley.EDU> wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
>in regard to the crash of the Avianca jet near New York. I heard
>broadcasts of tapes of conversations with people variously identified as
>"hams" (no idea if they really were) or "scanner listeners" who were
>reciting what they heard of the plane-to-controller communications.
>
>This is a clear and explicit violation of the law. If the FCC doesn't
>do anything in this case, then everyone should consider the law
>meaningless and ignore it from now on.

I have questions about the legality of this for some of the more legally astutue on the net. Being a student pilot, I always thought that plane-to-controller communications, although not broadcast, is publically accessable. The FAA supposedly keeps tapes to monitor what's going on. Any people that work or fly into an airport need obviously to listen to the airport frequencies, but I have never run into any "non-disclosure" kinds of paperwork.

I know many fuel stations on airports that monitor the airport frequencies to see if there are people that need fuel. Would this be illegal? Here you`re obviously using public service radio for profit (like the news).

I have always understood the airband to be public. Is this wrong?

Don Ahn

773. Need SWAN 270 info

Newsgroup: rec.ham-radio
Date: 1990-02-03 00:16:08 UTC
From: bobh@hpcuhb.HP.COM
Message-ID: <10510004@hpcuhb.HP.COM>
Source record: 13824

I recently acquired a Swan 270 tranceiver. I need a schematic, and
especially the pinout for the DC power connection. Thanks in advance.

Bob Headrick WA7OVU
bobh@hpda
408 447-5372

774. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-02-03 00:32:32 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250119@hpnmdla.HP.COM>
Source record: 13825

I hope everyone realizes that all this talk about "good earth grounds"
is applicable only for lightning protection. The best ground in the
world is worthless for RF grounding at any frequency where the connecting
wire is an appreciable fraction of a wavelength long.

Like over a meter or two at 30 MHz.

Al N1AL

775. Re: ICOM IC32AT info needed

Newsgroup: rec.ham-radio
Date: 1990-02-03 01:42:02 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500375@ux1.cso.uiuc.edu>
Source record: 13689

Keep in mind, however, that until the Japanese manufacturers see fit to program the CPU software to know better, the only way you can open up coverage below 440 Mhz or 438 Mhz on most UHF radios is to open up EVERYTHING (including transmit out of band and in public service bands).

So far I have found no indication that making these mods for personal use nor having and using such a radio is illegal PROVIDED that you limit your use to AMATEUR bands you are licensed for (MARS and CAP may also be legal) and RECEIVE ONLY out of band.

If you need to program a public service or other land mobile frequency in a memory, be sure to set the offset so that in case of an inadvertent transmit operation, it will at least go on an UNUSED amateur frequency.

If you are preparing for an emergency by being able to transmit on some other frequency (which I at least advise you to be fully aware of what you are doing) by all means DO NOT put the frequency in memory. DO NOT program any memory that would allow transmitting on a fire or police frequency. If your radio is stolen, you have just given a common criminal the chance to seriously interfere with public safety operations and are risking the lives of many other people in so doing.

If you must keep such a transmit frequency in memory, use a biological one.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

776. Gateway 02-Jan-90

Newsgroup: rec.ham-radio
Date: 1990-02-03 03:31:20 UTC
From: gws@n8emr.UUCP
Message-ID: <1422@n8emr.UUCP>
Source record: 13826

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
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GATEWAY: The ARRL Packet-Radio Newsletter - - Page 1 of 4
Volume 6 - Number 10 - February 2, 1990

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Stan Horzepa, WA1LOU, Editor

4TH ANNUAL SOUTHWEST OHIO DIGITAL SYMPOSIUM HELD

The Fourth Annual Southwest Ohio Digital Symposium was held on Saturday, January 20 under the co-sponsorship of the Engineering Technology Department of the Middletown (Ohio) Campus of Miami University, the Middletown DIAL Radio Club, the Ohio Packet Council and the Cincinnati Buckeye Netters.

There were 114 registrants and another 30 to 40 who attended but did not register. The crowd was broken into two groups - beginners and advanced. It appears that the two were equally attended and equally appreciated.

The "Packet for Beginners" session was moderated by Carl Morgan, K8NHE, and the following talks were presented:

"Introduction to Packet" by K8NHE

"What's After 'MYCALL: NC8Q
cmd:'" by Chuck Gelm, NC8Q

"Networking for Beginners" by Phil Frazier, KA8TEF

"Basics of DX Packet Clusters" by Jay Slough, K4ZLE

"Build Your Own Computer?" by Bill Nielsen, WB4APC

"An FM Radio Designed for Digital Communications" by Phil Anderson, W0XI

"Emergency Packet Radio" by Tony Dacres, W8MDK

The "Advanced Topics" were moderated by Hank Greeb, N8XX, and included the following discussions:

"State of the Art on 446.5 MHz" by Phil Frazier, KA8TEF, and
Vic Kean, K1LT

"What's with 221.11 MHz OHIONET?" by Hank Greeb, N8XX

"TexNet/GLNET" by Jay Nugent, WB8TKL

"The Kantronics DE-56" by Karl Medcalf, WK5M

"G8BPQ PC>NODE" by Karl Medcalf, WK5M

"Update on Cellular Networking in Chicago" by Don Lemke, WB9MJN

"Emergency Packet Radio" by Tony Dacres, W8MDK

"Terminal Control Protocol/Internet Protocol (TCP/IP)"
by Gary Sanders, N8EMR

"An FM Radio Designed for Digital Communications" by Phil Anderson, W0XI

"Pushing K9NK Modems and PacComm Gear to 19.2 Kb" by Phil Frazier, KA8TEF

"Linking DX-Packet Clusters" by Jay Slough, K4ZLE

"MSYS and APLink" by Steve Wolf, NO8M

There were demonstrations of 4800-bit/s and 2400-bit/s packet radio, the new Kantronics DVR-2-2 radio, a "show and tell" about TexNet including working hardware. Terminal emulators included several PC/XTs and related devices (one of them home-brewed by WB4APC), a couple of Macintoshs, a simple video terminal and a Commodore with DIGICOM>64. Software, such as the G8BPQ code, MSYS and a variety of others, were on display, as was the HAZMAT file. Several folks brought maps of packet-radio networks of Ohio and the surrounding states. W8MDK had an extensive display of emergency uses of packet radio.

Three interesting bits of information:

1. Kantronics is in production with the DVR-2-2

2. 56-kbit/s cellular is running on a test basis in Chicago over a 30-mile path

3. Michigan seems to be moving heavily toward TexNet/GLNET, with its 9600-bit/s backbone and 1200-bit/s user access

The best news was that a whole bunch of hams sat down with diverse views and varying levels of knowledge about packet radio and calmly and rationally discussed the state of affairs of the 221.11-MHz OHIONET, and the 446.5-MHz MIDNET. No grand solutions to networking for Ohio were proposed (except for solicited plugs for TexNet by WB8TKL and for cellular networking by the contingent from Chicago). It is hoped that this spirit of cooperation continues and grows.

The organizers of the symposium wish to thank Phil Anderson, W0XI, and Karl Medcalf, WK5M, of Kantronics for their very professional presentations in duplicate and triplicate and special thanks to Carl Morgan, K8NHE, and Miami University for the use of their facilities.

from Hank Greeb, N8XX

SIX HAM SATELLITES LAUNCHED SUCCESSFULLY

On January 22 at 01:35:31 UTC, the European Space Agency (ESA) successfully launched its V35 mission, an Ariane 4 booster, from its launch facility in Kourou, French Guiana. On board were six Amateur Radio satellites, two built by the University of Surrey, UO-14 and UO-15, and four MicroSats built by AMSAT-NA, AO-16, AO-17, AO-18 and AO-19. ("UO" is the acronym for UoSAT-OSCAR and "AO" for "AMSAT-OSCAR".)

An errant tape recorder on the primary payload, SPOT-2, delayed the launch from January 9 and bad weather in the area caused a scrub of the launch on January 21. However, a picture perfect launch occurred at the beginning of the ten minute launch window on Sunday evening local time.

The AMSAT Launch Information Network Service (ALINS) brought the launch "live" to thousand of amateurs and interested on-lookers worldwide. Doug Loughmiller, KO5I, President of AMSAT-NA, anchored the net which could be heard on the ham bands covering 160 meters all the way up to Amateur Radio satellites AO-10 and AO-13. Also heard on the ALINS net were a number of the major contributors to this latest effort. Commentary prior to the launch was offered by Tom Clark, W3IWI; Jan King, W3GEY; Martin Sweeting, G3YJO; Jeff Ward, G0//K8KA; Harold Price, NK6K; Dave Cowdin, WD0/HHU; and Bob McGwier, N4HY. It was noted that this was also an anniversary for the ALINS net. Twenty years ago, the first ALINS net covered the launch of Australius-OSCAR-5.

KO5I, watching the ESA video feed of the launch, counted down to ignition and lift-off. WD0/HHU, who had been at the launch site for over five weeks, gave updates on the progress of the mission from his position at ESA mission control. At approximately three minutes into powered flight (during the second stage burn), the launch commentary ceased. For over a minute, neither WD0/HHU or W3IWI, who was monitoring the launch from the NASA Goddard Space Flight Center in Greenbelt, Maryland, offered any information. This silence certainly activated the adrenaline and stopped the breathing of those who were listening. One voice offered some comfort by explaining that ESA had never had a second stage failure in any of its missions. Finally, WD0/HHU's voice came through indicating that all systems were "still go." With that message, those listening could begin breathing again. As part of the elation felt by the development team, NK6K (a member of the software team) indicated his delight in recognizing that the satellites were no longer within the grasp of the hardware team and that the satellites were now "all theirs."

At 20:04 minutes of the mission elapsed time, ESA issued a payload separation command to its launch vehicle and UO-14 and UO-15 were freed. A minute and a half later, at 21:29 mission elapsed time, ESA issued two additional payload separation commands and AO-16, AO-17, AO-18 and AO-19 were released. WD0/HHU reported that the six separation lights were "all green" indicating confirmation that all six Amateur Radio satellites had successfully separated from the launch vehicle. He also reported that

AMSAT was treated in a most professional manner by ESA. Although the primary payload, SPOT-2, (a $100-million observation satellite) was ESA's primary concern, applause from ESA mission control could be heard over the ALINS net as the six satellites were separated from the main launch vehicle.

During the first orbit, AMSAT-LU in Buenos Aires commanded the CW beacon to begin transmitting and it provided vital temperature and battery voltage information to the satellite command team. Although attempts by N4HY to turn on the PSK telemetry beacons during orbit 1 were unsuccessful, all of the MicroSats were transmitting by the end of the last pass (orbit 3) over the west coast at approximately 0700. Spacecraft engineers NK6K and W3GEY, operating from W6TRW, indicated that the satellites had either responded to ground command or had switched on their transmitters automatically in order to prevent battery overcharging. WEBERSAT was successfully commanded on from Weber State College in Ogden, Utah during orbit 2. UO-14 and 15 were activated during the first pass (orbit 5) that was visible from the University of Surrey in the UK.

from AMSAT News Service

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LISTENING TO THE UoSATS

On January 22, UO-14 and UO-15 were both successfully commanded on by the UoSAT control station in Guildford. On the 0900 UTC pass, the 435.120-MHz transmitter on UO-15 was enabled and the satellite started transmitting engineering telemetry. UO-14 was first commanded on the 1030-UTC pass. Its downlink is on 435.070 MHz. Further telemetry was received on the 1200-UTC pass. The downlinks are running at 50% duty cycle, currently 1 minute on and 1 minute off; this may be changed to 10 minutes on 10 minutes off during a later pass.

During the first days of operation, the two satellites will transmit several different data formats. These will all be asynchronous bytes sent at 1200 bit/s using AFSK FM modulation. The data can be demodulated by any UoSAT-1/2 decoder connected to a 435-MHz FM receiver. Unlike UoSAT-2, which uses ASCII characters for most of its data formats, much of the demodulated data from the new satellites will be binary and not printable ASCII. This data will be coming from one of two on-board sources: the dedicated hardware telemetry system, or the 1802 on-board computer operating system (known as the DIARY).

The dedicated hardware telemetry system is built around a custom-designed VLSI manufactured especially for the UO-14 and UO-15 satellites. This telemetry system is independent of all on-board computers and provides UoSAT engineers with a simple way to monitor the health of the satellite. Telemetry is transmitted by the VLSI system in 10-byte "packets," each beginning with the bytes FF FF (hexadecimal). The VLSI system should only be in use for a few orbits, so we will not publish the packet format at

this time; if it is used for longer than expected, more detailed information will be distributed.

The DIARY, the FORTH operating system, will allow us to begin more complex operations, such as whole-orbit-data collections, initial attitude determination and deployment of the gravity- gradient boom. The FORTH DIARY will put out printable ASCII data (including a news bulletin) along with binary data formats.

Anyone who can get a binary logs of data from UO-14 or UO-15 on IBM disks is encouraged to send them to the UoSAT Team, The University of Surrey, Guildford, Surrey, GU2 5XH, United Kingdom.

from Jeff Ward, G0/K8KA

LISTENING TO THE MICROSATS

Three of the MICROSATs, PACSAT, LUSAT and WEBERSAT, are transmitting 1200-bit/s PSK packet-radio telemetry in the 437-MHz range. LUSAT is also transmitting CW on 437.125 MHz. The fourth MICROSAT, DOVE, has a 2-meter downlink on 145.825, which later will be transmitting synthesized voice, but is now sending ordinary 1200-bit/s AFSK FM packet-radio telemetry which anyone can copy with a "stock" TNC and 2-meter FM radio. No special equipment is required!

On one pass, W3IWI was able to hear DOVE well on his HT with a rubber duckie when it was 2800 km away at approximately 5 degrees above the horizon. On the radio he normally uses for the W3IWI PBBS, DOVE is as loud as many local area packet-radio users. DOVE's 2-watt 2-meter transmitter puts out a potent signal!

All six spacecraft are in essentially the same sun synchronous orbit. In the northern hemisphere, you will get two or three evening passes in a window centered on 10 PM local time and two or three morning passes centered on 11 AM local time. All of the passes you can hear will be between plus and minus two hours from these times. Therefore, if you want to copy the packet-radio signals from DOVE flying at 800 km, just tune your 2-meter FM receiver to 145.825 MHz and leave your TNC in the monitor mode. It will transmit for a couple of minutes and then stop for 30 seconds. (To decode the telemetry from any of these satellites, watch the ALL@AMSAT packet-radio bulletins distributed by AMSAT for more details.)

And there's more to come! The Japanese plan to launch OSCAR-20 this month, and astronaut Ron Parise, WA4SIR, will have packet- radio hardware on-board the next flight of the shuttle Columbia (STS-35) in April. (If you are proud of these Amateur Radio achievements, please contact AMSAT for more information on how you can participate in these Amateur Radio space activities. AMSAT's address is PO Box 27, Washington, DC 20044.)

from Tom Clark, W3IWI

UO-15 SILENT

Nothing has been heard from UO-15 since January 22. Keplerian elements from Royal Greenwich Observatory show that the MICROSATs and UoSATs are in a small group, but one object is some five minutes ahead of the others. The UoSAT team is attempting to learn more from other radar sites.

Any accurate reports of UO-15 reception after 2330 UTC on January 22 are solicited. The nominal downlink frequency is 435.120 MHz and transmissions are at 1200-bit/s AFSK FM.

from Jeff Ward, G0/K8KA

NEW ROSE X.25 PACKET SWITCH VERSION IS AVAILABLE

The latest version of the ROSE X.25 Packet Switch (v900104) is now available. New features in this new release include the following:

o Reliable Mode for machine forwarding (aka BBS),

o Call Progress messages to let users know when the connection is complete,

o Application to provide text reason with *** Disconnect/*** Reset messages,

o Support for AEA PK87/88 and PacComm TNC-320 (VHF/HF),

o EPROM defaults now configurable in EPROM,

o Info Text can now be loaded into LOADER,

o A new application called HEARD to collect heard lists,

o Enhanced FRACK handling (needed for HF usage),

o Bug fixes for some cases when "Memory Used" creeps up.

The new ROSE code may be downloaded from the following landline systems:

PacComm BBS at 813-874-3078 (1200 baud; file area #1),

W2XQ BBS at 609-859-1910 (1200/2400 baud; packet-radio files area),

WA6RDH BBS at 916-678-1535 (1200/2400 baud),

RATS UNIX BBS at 201-387-8898 (1200 baud; login as "rats" and the follow menu).

The ROSE code file name is "RZSW0104.ZIP" and its documentation's file name is "RSWD0104.ZIP." (Both are archived using PKZIP v1.01.)

from Tom Moulton, W2VY@KD6TH.NJ.USA

PACKET-RADIO NEWSLETTERS WANTED

Your Gateway editor is collecting newsletters from packet-radio groups around the world in order to build a reference library that can be used to trace the development of amateur packet radio. Although, I already have

quite a few newsletters (thanks to TAPR President Andy Freeborn, N0/CCZ, who kindly sent me his collection), there still are a lot of holes that need filling. So, if you have packet-radio newsletters that you would like to donate to this cause, please let me know what you have (via packet radio or otherwise) and I will let you know if I need them. By the way, I don't need any old Gateways as I have the complete run.

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail to:

Gateway
Stan Horzepa, WA1LOU
75 Kreger Drive
Wolcott, CT 06716-2702

or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS or IP address 44.88.0.14.)

The deadline for each issue of Gateway is the Saturday preceding the issue date (which is typically a Friday).

REPRODUCTION OF GATEWAY MATERIAL

Material may be excerpted from Gateway without prior permission, provided that the original contributor is credited and Gateway is identified as the source.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

777. Microsat antennas (was: DOVE fading)

Newsgroup: rec.ham-radio
Date: 1990-02-03 03:39:44 UTC
From: winter@Apple.COM
Message-ID: <38297@apple.Apple.COM>
Source record: 13677

In article <596@idacrd.UUCP> mac@idacrd.UUCP (Robert McGwier) writes:
> Soon the interaction of the photonic pressure
>on the antennas (hanging down like four legs at an angle from the bottom
>of the spaceraft), with one side painted white and the other black, and
>the bar magnets on each of the four corners will induce a twice per orbit
>rotation with a spin about the 'Z' axis.

I dropped a note to Bob asking him to verify something that Phil Karn told me about the Microsat antennas. (Phil wasn't positive that his information was still accurate, although he suspected so.) Here's Bob's reply. (I'm sure you don't mind me posting this--right, Bob? :-))

****
Date: Fri, 2 Feb 90 13:07:34 EST
From: idacrd!mac@uunet.UU.NET (Robert McGwier)
Subject: Re: DOVE fading

It is absolutely true that the antennas on all four spacecraft are from a reel of tape measure material donated to us for OSCAR 6!!!. I cut the antennas for two of the spacecraft personally. This is followed by a very professional (and expensive) coating process that makes them white on one side and black on the other so that the spacecraft are spun up.

Bob

****
Since OSCAR-6??!! And we're now up to OSCAR-19? That's what I call economy!! :-)

(Also makes it *real* easy to make sure you're cutting the right length!!)

Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

778. Re: Sony- Antenna (AN-1)

Newsgroup: rec.ham-radio
Date: 1990-02-03 05:29:11 UTC
From: crisp@mips.COM
Message-ID: <35440@mips.mips.COM>
Source record: 13694
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1220@nsscb.UUCP> nrg@nsscb.UUCP (G.Narotham Reddy) writes:
>I would like to know how good is the AN-1 antenna for the SONY-2010.
>Is it any better than the wire antenna provided with the set.
>
>
I bought one to use with my SONY 2010. I find that it helps to get the very
weak stations, but on the stronger ones it doesn't help the clarity much.
I suppose the AGC in the radio is pretty effective and tends to even things
out a bit. I am not using mine outdoors, as these condos where I live have
a neighborhood association that regulates things like that (%*#$ totalitarians!)
I plan on moving to a real house soon (in a couple of months) and plan on
setting up some real antennage!

--
Just the facts Ma'am

779. MicroSat Telemetry Decoding Programs

Newsgroup: rec.ham-radio
Date: 1990-02-03 15:27:01 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9002040802.AA11838@ucbvax.Berkeley.EDU>
Source record: 13682

Well, as is usually the case when the discussion of decoding the telemetry
from DOVE went by I watched with limited interest as I don't have the
equipment needed to do serious satelite work. But then I mentioned it
on the local repeater and now I am being deluged with requests for software
to decode the telemetry for any of the MicroSats.
So, can anyone tell me where I might be able to find any of the software
that was discused lately? I am interested in getting copies of programs
that can decode the telemetry from any of the MicroSats.

Thanks in advance.

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

780. ShortWave DX-Shows List

Newsgroup: rec.ham-radio
Date: 1990-02-03 17:19:37 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <136@ka2qhd.UUCP>
Source record: 13683
Cross-posted to: rec.radio.shortwave,rec.ham-radio

```
sb swls@allbbs $dxl122789
Shortwave DX-Programs 12-89
xxxxxxxxxxxxxxxxxxxxxxxx
THE
SHORTWAVE DX-PROGRAM LIST
A subjective selection
xxxxxxxxxxxxxxxxxxxxxxxx

Arranged by Day/Time/Frequency
Compiled by Al Quaglieri, NN2U

LATEST REVISION: December 27, 1989

DAY UTC PROGRAM FREQUENCIES

Mon 0125 NHK DX Corner 17755, 17810, 17835, 17845
Mon 0325 NHK DX Corner 5960, 15195, 17810, 17835, 21610
Mon 0730 Communicator 9655, 15160, 15320, 17750, 21525
Mon 0805 Radio World 11695, 21815
Mon 1005 Radio World 21810, 26050
Mon 1335 Radio World 21815, 21820
Mon 1700 World of Radio 7375, 25945
Tue 0200 DX Party Line 9745, 11775, 15155
Tue 0600 DX Party Line 6230, 9745, 11775
Tue 1242 Sweden Clg DX 15190, 17740, 21570
Tue 1333 SWL Digest 9635, 11855, 17820
Tue 1412 Sweden Clg DX 11905, 17740
Tue 1542 Sweden Clg DX 17880, 21610, 21655
Tue 1812 Sweden Clg DX 6065, 7265
Tue 1907 SWL Digest 13680, 15260, 17820
Tue 2112 Sweden Clg DX 9655, 11705
Tue 2230 World of Radio 21565, 25945
Wed 0112 Sweden Clg DX 7225, 11760
Wed 0242 Sweden Clg DX 9695, 11705, 15390, 17790
Wed 0300 World of Radio 13660, 21565
Wed 0305 SWL Digest 11925
Thu 0130 World of Radio 7355
Thu 0751 Media Network 9630, 15560
Thu 0851 Media Network 17575, 21485
Thu 1051 Media Network 6020, 11890
Thu 1151 Media Network 9715, 17575, 21480, 21615
Thu 1451 Media Network 13770, 15150, 17575, 17605
Thu 1630 World of Radio 15420
Thu 1651 Media Network 15375, 15570
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Thu 1851 Media Network 15560, 17605, 21685
Thu 2051 Media Network 9860, 13700, 15560
Fri 0000 World of Radio 7355
Fri 0051 Media Network 6020, 6165, 15315
Fri 0351 Media Network 9590, 11720
Fri 1030 Communicator 5995, 9580, 9770, 15415, 21525
Fri 2000 World of Radio 21565, 25945
Sat 0030 World of Radio 13660, 21565
Sat 0400 World of Radio 6185
Sat 0800 DX Party Line 6130, 11925
Sat 1030 DX Party Line 6130, 11925
Sat 1340 Radio World 21815, 21820
Sat 1640 Radio World 17580, 21810
Sat 1840 Radio World 5910, 13675
Sat 1930 World of Radio 21565, 25945
Sat 2130 DX Party Line 15270, 17790
Sat 2205 SWL Digest 9760, 11945, 15325
Sat 2210 Radio World 5910, 9925
Sun 0030 World of Radio 7355
Sun 0036 SWL Digest 5960, 9755
Sun 0040 Radio World 9925
Sun 0105 SWL Digest 9535. 11845. 11940
Sun 0330 SWL Digest 11925
Sun 0925 NHK DX Corner 15270, 17810, 17890
Sun 1130 SW Panorama 6155, 13730 15430, 21475
Sun 1400 SWL ham net 7240(LSB)
Sun 1430 Communicator 6060, 6080, 7205, 9580, 21525
Sun 1430 SW Panorama 11780, 13730, 21490
Sun 1525 NHK DX Corner 9505, 11815, 21700
Sun 2130 World of Radio 15420
Sun 2230 World of Radio 21565, 25945
Sun 2307 SWL Digest 9755, 11730

As stated above, this is a subjective selection; in other words, these are the shows I like to listen to. Nearly every major international broadcaster offers some type of radio-oriented programming - Swiss Shortwave Merry-Go-Round, BBC Waveguide, VOA Communicator, etc. etc. A comprehensive (and objective) listing of ALL such broadcasts is available from:

The Pinelands RBBS (609) 859-1910 300 to 2400 baud, 8N1

Many thanks to Tom Sundstrom of Pinelands for the invaluable use of his data to whip this file back into usable shape.

--Al Quaglieri

New address is: PO Box 1286 Lakewood, NJ 08701 or KA2RAF@NN2Z
[Suns @10am on 7240 LSB, The ANARC Listeners' Net - DC to Light and MORE!]

781. 3rd Annual Listeners` Festival

Newsgroup: rec.ham-radio
Date: 1990-02-03 17:27:00 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <137@ka2qhd.UUCP>
Source record: 13684
Cross-posted to: rec.radio.shortwave,rec.ham-radio

3rd Annual Winter Listener Festival

3rd ANNUAL WINTER SWL FESTIVAL
February 23-25 1990
Holiday Inn
Sumneytown Pike
Kulpsville, Pennsylvania

The Winter SWL Festival is a good excuse for those folks with a common interest in the Shortwave Listening hobby to gather for a weekend of socializing and meeting other SWL's. Forums and roundtable discussions will be held on Saturday for those wishing to learn more about SWL'ing or to exchange tips and techniques. Door prizes, station freebies, displays from clubs, and a banquet round out the weekend events.

Forum topics:

Basic Propagation for the Beginner
QSL Preservation and the CPRV
Antennas for the Beginner and Advanced Listener
Shortwave Accessories
What are Utilities and where to start?
DXing Helps - Books, Magazines, Clubs, Newsletters, Atlases
The Collecting and Display of Station Memorabilia
The NASWA Awards Program and Tips for Acquiring Awards
Receivers: What do you need? What to look for, what is new, and what is in the future.
The Hidden World of Clandestines
What is Pirate Broadcasting and How to Hear Them.
Scanners and Scanner Clubs
QSLing Techniques
Computers and the SWL Hobby
The Role of Clubs in the SWL Hobby

Registration Options -

FULL - Includes forums, hospitality room, lunch and banquet - $30

PARTIAL - Includes forums and hospitality room but NO meals - $15

SPOUSE - Includes hospitality room and meals - $15

Please register NO LATER than February 10, 1990. Checks should be made payable to WINTER SWL FEST. Registration for hotel rooms should be made directly to the Holiday Inn at (215) 368-3800 - As soon as possible! Special rates - $55 single, $59 double. Our function code with the hotel is WINTER SWL

FEST. Please refer to this to get the special room rates. Listen to the ANARC SWL NET on 7.240 at 1500 UTC Sundays for up to the minute info.

The Holiday Inn is located at EXIT 31 of the PA Turnpike NorthEast Extension - Lansdale Interchange. Limo service is available from Phila. Intl. Airport directly to the Holiday Inn.

Please submit the following form with your registration amount to:

Winter SWL Festival
PO BOX 591
Colmar, PA 18915

*** Detatch here ***

Name _____

Address _____

City _____ State ___ Zip _____ Phone _____

Circle: FULL PARTIAL SPOUSE (Spouse name:_____)

Banquet - Check one: Roast Beef ___ Chicken ___

You saw this on:[] Packet [] UUCP-UseNet [] Phone BBS [] Other_____

Hope to see you all there. Tell us where you saw this form!

This is for informational purposes ONLY, not a commercial or an endorsement nor is it held for the profit of any individual or group

[Suns @10am on 7240 LSB, The ANARC Listeners' Net - DC to Light and MORE!]

782. Re: cordless telephone freqs

Newsgroup: rec.ham-radio
Date: 1990-02-03 17:43:53 UTC
From: scott@csusac.csus.edu
Message-ID: <1990Feb3.174353.7057@csusac.csus.edu>
Source record: 13697

In article <9001300803.AA16558@ucbvax.Berkeley.EDU> TROTH@RICEVM1.RICE.EDU (Rick Troth) writes:
>
> Does anyone have a list of cordless telephone "channels"?

Here are the FCC allocated freqs and what I believe to be corresponding 'channels':

freq 46.61 46.63 46.67 46.71 46.73 46.77 46.83 46.87 46.93 46.97
chan 1 2 3 4 5 6 7 8 9 10

freq 49.67 49.77 49.83 49.845 49.86 49.875 49.89 49.93 49.97 49.99
chan 1 4 6 2 3 5 7 8 10 9

This list is according to Vol.9 of the 1989 edition of Radio Shack's "Police Call" radio guide. pg 226,227.

--
L. Scott Emmons

...[!ucbvax]!ucdavis!csusac!scott
ucdavis!csusac!scott@ucbvax.berkeley.edu

783. FCC Expands 6-meter Repeater Subband

Newsgroup: rec.ham-radio
Date: 1990-02-03 18:11:01 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <139@ka2qhd.UUCP>
Source record: 13685

QST DE W1AW
ARRL BULLETIN 5 ARLB005
FROM ARRL HEADQUARTERS
NEWINGTON CT FEBRUARY 1, 1990
TO ALL RADIO AMATEURS

THE FCC HAS AMENDED ITS RULES BY EXPANDING THE SIX METER REPEATER
SUBBAND FROM 52 TO 54 MHZ TO 51 TO 54 MHZ. THIS WAS DONE TO PERMIT
THE OPERATION OF ADDITIONAL REPEATERS TO MEET THE INCREASED DEMAND
FOR SUCH OPERATION.

THE COMMISSION STATED THAT IT WAS CONFIDENT THAT VOLUNTARY BANDPLANS
WILL ASSURE THAT WEAK SIGNAL WORK IN THE DX WINDOW AND OTHER AMATEUR
USES WILL BE ADEQUATELY PROTECTED.
NNNN
--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

784. FCC Issued 240+ Notices of Violation

Newsgroup: rec.ham-radio
Date: 1990-02-03 18:13:08 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <140@ka2qhd.UUCP>
Source record: 13686

```
QST DE W1AW
ARRL BULLETIN 6 ARLB006
FROM ARRL HEADQUARTERS
NEWINGTON CT FEBRUARY 1, 1990
TO ALL RADIO AMATEURS

THE FCC HAS ISSUED OVER 240 NOTICES OF VIOLATION TO AMATEUR STATIONS
FOR TRANSMITTING PHONE EMISSIONS ON FREQUENCIES NOT AUTHORIZED TO US
AMATEURS FOR THAT MODE. THESE TRANSMISSIONS WERE IN VIOLATION OF
SECTION 97.305C OF THE PART 97 RULES.

AMATEUR STATIONS WERE CITED FOR THESE VIOLATIONS FROM JANUARY 2
THROUGH 13, 1990 DURING THE BOUVET ISLAND DXPEDITION.
NNNN
--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken
```

785. KD2BD SCA Receiver

Newsgroup: rec.ham-radio
Date: 1990-02-03 18:16:45 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <141@ka2qhd.UUCP>
Source record: 13687
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.electronics

This is in response to the discussions concerning SCA receivers.

SCA transmissions are made on 41 KHz, 67 KHz and 92 KHz NBFM subcarriers. 41 KHz is used only when stereo transmissions are not employed. 92 KHz is a new allocation that has been available for a few years now. 67 KHz SCA subcarriers are transmitted at only 10% of the total main carrier deviation. The amplitude of the 92 KHz subcarrier (if used) is even less than 10%.

Most FM broadcast stations use SCA subcarriers to transmit limited audience programming. Programs include PRN (the Physican's Radio Network), background music (Muzak), readings for the blind, digital signals, FAX, and foreign language programming.

53 KHz carriers (19 KHz x 3) are used for the ARI traffic information system.

I designed several SCA receivers in the past ten years. My first receiver was built around an LM565 PLL working as a narrow-band FM detector. Reception was improved with the inclusion of an input amplifier and high-pass filter. Later, I obtained even better performance by replacing the input amplifier with a two-stage, discrete component, active filter. Further improvements were made with the inclusion of a carrier-operated mute (squelch) and output low-pass filtering. The mute was helpful in quieting noise when no SCA signal was present, as some stations drop their subcarriers between music selections (their subcarrier generators use "VOX-type" circuitry).

Wide-band output noise was always a problem, especially on weak signals. While this circuit worked fine living 20 miles from an broadcast transmitter, it gave poor performance when I moved 50 miles from stations carrying SCA, so I decided to tackle SCA using a different and more sophisticated approach.

My latest SCA adapter is a single conversion super heterodyne design (!!). It is a three channel receiver with AFC and a unique S/N squelch circuit.

SCA signals are first amplified by a two-section active filter, using an LF353N op-amp. The filtered signals are then routed to a carrier detector and a doubly-balanced mixer (LM1496N). An LM566 VCO supplies the local oscillator injection voltage for the mixer. The oscillator operates at 455 KHz - f and the mixer output is a standard 455 KHz narrow-band FM signal.

Output from the mixer is filtered through a single section 455 KHz ceramic filter (10 KHz bandwidth) and then fed into an MC1358/LM3065 amplifier and FM quadrature detector. The detected audio from this chip is diverted in several different directions.

First, the DC component of the detected signal is low-pass filtered and fed back to the LM566 for AFC (automatic frequency control). The output is also

fed to an active high-pass filter and detected. This DC is then differentially combined with the output of the carrier detector to yield a DC output that is proportional to the signal-to-noise ratio of the SCA subcarrier. This output then feeds a Schmitt trigger, which controls a 1N914 switching diode acting as as a series audio switch for audio muting purposes. It also drives an LED that acts as an SCA indicator light.

The purpose of the "fancy squelch" is to avoid triggering on false signals. A noise operated squelch does not work well because strong FM stations void of an SCA subcarrier might quiet the SCA detector's output enough to open the squelch. A carrier operated squelch does not work well either because weak signals might contain enough high-frequency noise that could activate the 67 KHz carrier amplifier/detector and open the squelch on pure noise.

The squelch circuit I developed works extremely well. It is very sensitive to weak signals and does not create an annoying "squelch-tail" during operation.

A three position rotary switch selects the frequency to be received. The switch controls the center frequency of the input amplifiers as well as the operating frequency of the local oscillator. The receiver tunes 67, 78 and 92 KHz. Since almost all broadcast stations transmit in stereo, I didn't include a 41 KHz position on the channel selector switch. Instead, I included 78 KHz, the subcarrier frequency used by TV SAP (second audio program) channels.

The detected SCA audio is then fed through a 7 KHz low-pass filter and made available for external audio power amplification. The entire receiver operates on 12 volts and is small enough to fit in the palm of your hand.

I recently considered trying an XR2211 PLL as an SCA detector. The XR2211 is a popular Bell 202 FSK demodulator, but it can be used for linear demodulation as well as FSK detection. Some of the advantages of this chip over an LM565 include a single ended audio output, and a PLL lock detect output suitable for driving an indicator LED and squelch circuitry.

I admit, my "super" design is a bit "robust" for SCA, but it is a design that works well. I never do anything the "easy way" anyway. :-)
It is the result of many years of "tinkering", and I have been able to use some of the concepts developed here in other projects as well.

I hope the information contained here might help others interested in SCA reception and subcarrier FM receiver design.

73, de John KD2BD

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

786. Ceramic IF filters (was Re: SCA - not as easy as it seems)

Newsgroup: rec.ham-radio
Date: 1990-02-03 20:27:11 UTC
From: markz@ssc.UUCP
Message-ID: <460@ssc.UUCP>
Source record: 13688

In article <3791@cpoint.UUCP>, die@cpoint.UUCP (David I. Emery) writes:
>
> 3. The best simple SCA demodulator circuit I've run across uses
> a multi-pole LC linear phase bandpass filter ahead of a CA3089 limiter/
> quadrature demod. It works lots better than 565 Plls with no selectivty
> ahead of the phase detector.

I am thinking of doing a SCA decoder using the MC3357. Is there any
mail order source for small quantities of muRata, Kyocera, or Toko
455 Khz ceramic IF filters?

markz@ssc.uucp

787. Re: SCA - not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-02-04 00:15:08 UTC
From: roskos@IDA.ORG
Message-ID: <1990Feb4.001508.13071@IDA.ORG>
Source record: 13698

Pete_Simpson@DGC.MCEO.DG.COM writes:

>I've built the same NE565 demodulator from the same
>Signetics application note

It may be you built a different circuit than I did... mine is from the 565 data sheet published in the back of "Design of Phase-Locked Loop Circuits," by Howard M. Berlin (Sams), rather than from an application note.

I've about given up on the circuit; I ordered a commercially-available one last week, but spent all day today still trying to get the 565-based one working. Maybe after I get the commercial one working I can test the 565-based one against a station I'm sure has an SCA program on it.

So far I've received a lot of requests to be informed if I find out what is wrong, but only one specific suggestion of what might be wrong with this circuit, from someone on the Prodigy Service's "Amateur Radio" bulletin board. His message says:

First, the data sheet is WRONG! There has been an error in it
for about 10 years, and they have NEVER fixed it. I don't have
it here, but a friend does, and I will contact him in the next
few days and get a fix. They have a resistor misplaced as I
recall, and it knocks out the 63 KHz subcarrier to a really low
level.

Second, almost all modern radios (those single IC jobs) get FM
in one end, and have a 70 KHz IF, not 10.5 MHz like the "bad
old days". You can't get SCA off a radio like this, so you have
to prowl the Goodwill for somebody's old junk tube or transistor
clock radio.

I haven't received the corrected circuit yet.

I did try amplifying the signal before it goes into the demodulator using a LM318 op amp, but it didn't help -- nothing comes out the filter network the precedes the 565. I also tried building a "fourth order active high pass filter" from Lancaster's "Active Filter Cookbook" and replaced the network with that, but that didn't work either, so it may be something else... though debugging the demodulator and filter at the same time make it harder to see what's not working. With the commercial circuit I can test the filter separately with a known-good demodulator.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

788. Re: Where's Burkina Fasso?

Newsgroup: rec.ham-radio
Date: 1990-02-04 00:29:55 UTC
From: roskos@IDA.ORG
Message-ID: <1990Feb4.002955.13154@IDA.ORG>
Source record: 13699

I couldn't figure out if the article was supposed to answer the question, or was asking "where's this place the story's about". Burkina Fasso is at 0W 13N and thereabouts, and is surrounded by Mali, Niger, Benin, Togo, Ghana, and Ivory Coast. The population is 8,365,000; the capital is Ouagadougou. The life expectancy there is 47 (F), 44 (M) and it has a 9% literacy rate. It gained independence in 1960, and had coups in 1966, 1980, 1982, and 1983. The name was changed to Burkina Fasso in 1984.

--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

789. * SpaceNews 05Feb90 *

Newsgroup: rec.ham-radio
Date: 1990-02-04 01:17:01 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <143@ka2qhd.UUCP>
Source record: 13690

Bulletin ID: SPC00205

=========
SpaceNews
=========

MONDAY FEBRUARY 5, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on UseNet and Amateur Packet Radio. It is available for UNLIMITED distribution.

* UoSAT-OSCAR-14 NEWS *
=======================
The FORTH Diary software is in operation on UO-14, as programmers MS Hodgart and MLJ Meerman (G0/PA3BHF) ground-test new attitude-determination and control software prior to re-loading the OBC.

The standard UoSAT ASCII whole-orbit data (WOD) format has been added to the DIARY's downlink schedule, and new WOD surveys have been conducted daily. Stations with UoSAT-2 decoders and WOD collection software should be able to decode these surveys without difficulty. The surveys which have been transmitted in ASCII so far are a survey of the magnetometer channels (22, 23 and 24 starting at 21:54 on 26 January), and a survey of the PACSAT Communications Experiment 80C186 CPU temperature and current consumption (channels 5 and 44, starting 11:45 on 27 January). The very beginning of the PCE survey clearly shows the 10-degree increase in CPU temperature which occurs when the 80C186 is turned on.

* UoSAT-OSCAR-15 NEWS *
=======================
Nothing has been heard from UO-15 since 22 January. Tracking stations and amateur listeners have determined that the object "out ahead" of the Microsat cluster is not UO-15, but the spent Ariane third stage. The object trailing the pack is SPOT-2, which has been raised to a slightly higher orbit and so has lower mean motion than the other satellites.

Accurate reports of UoSAT-OSCAR-15 reception after 2330 UTC on 22 January are desperately needed. The nominal downlink frequency is 435.120 MHz, and transmissions are at 1200 bits/second AFSK-FM.

[Story by G0/K8KA]

* MUSES-A LAUNCH *
==================
MUSES-A was launched on 24-Jan-90 at 20:46 JST (=UT+9h) from Kagoshima Space Center. The satellite was nicknamed as 'HITEN', which means guardians, living

in heavens, of Buddah, after putting it into the planned orbit.

MUSES-A is a lunar satellite and will make the first lunar flyby on 19Mar90 at 05:30 JST, when it will come within 18,000 km of the lunar surface. Just before the flyby, a lunar orbiter will be deployed. A second lunar encounter is expected to occur on 10Jul90.

NASDA postponed the launch of MOS-1b until 07-Feb-90, due to a needed replacement of an electronic device used to control the launcher's second stage.

[From: Yoshiro Yamada of the Yokohama Science Center, Japan]

* SHUTTLE NEWS *
================
Launch of Atlantis and the STS-36 mission is scheduled for later this month. A Terminal Countdown Demonstration Test was conducted with the STS-36 crew from 02Feb90 through 03Feb90 in preparation for the shuttle launch.

* FEEDBACK WELCOMED *
=====================
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z (Neptune, New Jersey)

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple, neat and wrong." -- H.L. Mencken

790. Re: Sony- Antenna (AN-1)

Newsgroup: rec.ham-radio
Date: 1990-02-04 02:50:43 UTC
From: roskos@IDA.ORG
Message-ID: <1990Feb4.025043.13400@IDA.ORG>
Source record: 13691
Cross-posted to: rec.radio.shortwave,rec.ham-radio

nrg@nsscb.UUCP (G.Narotham Reddy) writes:

>I would like to know how good is the AN-1 antenna for the SONY-2010.
>Is it any better than the wire antenna provided with the set.

I have both a Sony AN-1 and a Datong AD-370. The AN-1 is a nice antenna
for use with a portable radio -- it comes with adapters to fit various
kinds of portable radios, and it has relatively limited amplification to
avoid overloading the receiver. It also looks very nice, and comes with
a mounting bracket that can be installed a variety of different ways.

It is nowhere near as sensitive as the AD-370, though. The drawback
to the AD-370 is that it will overload small portable radios (but it
has a button to turn off the preamplifier in that case).

Overall I think the AN-1 is well-optimized to small portables, and is
certainly a lot better than a wire antenna, at least for limited-space use.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

791. Kenwood 731 mod file

Newsgroup: rec.ham-radio
Date: 1990-02-04 04:31:05 UTC
From: rfc@popeye.Philips.Com
Message-ID: <78551@philabs.Philips.Com>
Source record: 13692

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
16920 BF 1694 0 0130/1512 6368_VE2CSC VE2BCM ALL@ALLBBS
Sb: TM-731A Modification.

TM-731 FREQUENCY AND CROSS BAND REPEATER MODIFICATION
==========

The TM-731a will transcive between 136-174 MHz and 400-500 MHz as well as perform cross band repeter function when the following modifications are performed.

1.- Remove both the top and bottom cover. Disassemble the front panel such that the control unit (X53-3250-XX) is accessable.

2.- Remove R121, R123 and R25. While R125 snd R124 must be present.

3.- If the time-out timer function is not desired, remouve R122 as well.

4.- Reassemble the unit and perform a microprocessor reset before operating the set.

5.- Preserve your license by operating within the bands it is good for.

BEST 73's GERALD
Note: I haven't tried or verified this, proceed at your own risk. WA2ISE

Did you know: That when you buy something "made in China", that something like half the money you paid goes to the Chinese government. The very same government that brought the world Tianamen Square last June 4th. I don't think I want to give them any money, not after that. Don't worry about putting the workers out of work over there, they get paid even if they don't have anything to do. Or so I've heard.

792. Re: f-series connectors, stub filter

Newsgroup: rec.ham-radio
Date: 1990-02-04 04:55:45 UTC
From: rfc@popeye.Philips.Com
Message-ID: <78552@philabs.Philips.Com>
Source record: 13693

I did this (add a stub filter) to keep my packet xmitter out of the TV. What I did was take a pair of chassis-mount f-connectors and solder them back-to-back. And I soldered a length of RG59 to this midpoint to make the stub. Them I took it to work where I borrowed a specrum analyzer to nibble the length to make the notch at the right freq. Then I taped up the joint to keep it from comming apart.

Hope this helps WA2ISE

793. Re: IBM and Motorola - radio computer links - where they get freqs?

Newsgroup: rec.ham-radio
Date: 1990-02-04 09:00:52 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1418@rsiatl.UUCP>
Source record: 13695

root@mjbtn.MFEE.TN.US (Mark J. Bailey) writes:

>I am sure most of you have heard throught some channel that IBM and
>Motorola (I think) have formed a company through a joint venture that
>is to provide computers links to laptops over the radio all across the
>country starting within the next year.
[where will they operate?]

Well considering that IBM is using Motorola-built RF terminals here
in Atlanta for all their service people and considering that it
now operates in the 800 mhz band, it would seem quite likely that
our 903 allocation would be a good target (no :-))
--
John De Armond, WD4OQC | We can no more blame our loss of freedom on congress-
Radiation Systems, Inc. | men than we can prostitution on pimps. Both simply
Atlanta, Ga | provide broker services for their customers.
emory!rsiatl!jgd | - Dr. W Williams | **I am the NRA**

794. alternatives to RS DX-440?

Newsgroup: rec.ham-radio
Date: 1990-02-04 09:37:58 UTC
From: gst@spdcc.COM
Message-ID: <1515@ursa-major.SPDCC.COM>
Source record: 13696
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Sorry if this question has been asked before. I just purchased a Radio Shark DX-440 to pick up the series on the environment being aired by CBC, which Robert Horwitz alerted us to back on 15 January (thanks, sir!). Not knowing anything about current technology (my last experience with shortwave was when I assembled a Heathkit receiver (with tubes!) 25 years ago as a teenager (guess that kinda dates me :-), I just let the guy behind the counter talk me into their DX-440. He claimed it was rated just below the Sony (2010?) receiver in a recent review.

My questions are:

1. How good is it? Is it worth the $200 I paid for it? What are the alternatives in its price range, and their advantages?

2. I'd like to tape from the receiver. The only audio output is the headphone jack. The RS guy sold me an "attenuating patch cord" and an RCA adaptor. Do other models have an RCA jack with the proper level for direct input to a tape deck or amp? Despite the fact that the output level from the headphone jack is higher than the standard preamp-level output, I find that I have to crank the input controls to my tape deck way up to get a decent signal. Why is this?

3. I just spotted the article about the new IRCOM unit. I note that it has *lots* of memory cells (the DX-440 has only nine). How much does the IRCOM model cost? If it's a lot more than $200, does it seem worth the extra money?

4. Anything else you'd like to say on the subject?

I have 30 days to make up my mind on whether I want to keep the thing, so I'd appreciate comments in that time period. I haven't been a regular reader of this newsgroup, but will become one during at least the next few weeks in order to collect replies (and learn something about this fascinating subject). I'll also summarize any emailed replies I receive.

Thanks in advance for any advice!

BTW, while listening to Radio Canada International tonight, I heard a review of the "Grundig Satellite 500." They said the unit they just tested, from a late production run, was much better than an earlier one - mostly in terms of sensitivity, I think, but they said the batteries have a tendency to slide around inside, and can lose contact with the terminals, due to their weight when the radio is in whatever orientation causes said batteries to assume a vertical position, resulting in a loss of power (sloppy!), and that they were unable to easily correct

the problem. Back to the drawing board, guys...

--
Gary S. Trujillo gst@gnosys.svle.ma.us
Somerville, Massachusetts {wjh12,spdcc,ima,cdp}!gnosys!gst

795. More on Digital Voice Recording...

Newsgroup: rec.ham-radio
Date: 1990-02-04 14:25:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9002050802.AA23098@ucbvax.Berkeley.EDU>
Source record: 13700

I recently bought a device which allows one to record up to 16 seconds
of voice onto a chip. It is a self contained unit, with a condensor mic,
speaker and battery holder (4 AA's). One simply presses one button to
record and another button to replay. The unit has 256k of RAM built into the
chip. Audio quality is okay for the phone at 16 seconds and extremely good at
6 seconds...it's minimum time (sampling speed is adjustable). The unit I bought
costs 50 dollars locally, however it should be much less in the U.S.
The unit is called "Digi-Memo" and is made by "Conrad Electronics" GmbH, 8452
Hiirschau, West Germany.

A perfect use for such a device is a voice ID on a repeater or with a simple
555 circuit - it can be configured to call CQ automatically while you sit back
and relax.

Hard to believe that the ARRL is still printing that article in the Handbook
about how to burn in an EPROM as a CW ID'er for a repeater when these things
are around. On the other hand, all commercial and public service repeaters
still use CW as a means of ID'ing so maybe there's something to CW after all !

I wish there was a similar device that did the same thing - only with the
option to let the user determine how much memory he wishes to use. If the user
wants more recording time he simply would plug in some more EPROM.
If anyone knows of such a device...please let me know.

Richard Harel
4X1DA @4XNET

796. Re: Where's Burkina Fasso?

Newsgroup: rec.ham-radio
Date: 1990-02-04 17:49:02 UTC
From: narayan@photon.tamu.edu
Message-ID: <4180@helios.TAMU.EDU>
Source record: 13706

In article <1990Feb4.002955.13154@IDA.ORG> roskos@IDA.ORG (Eric Roskos) writes:
>I couldn't figure out if the article was supposed to answer the
>question, or was asking "where's this place the story's about". Burkina
[deleted]
>coups in 1966, 1980, 1982, and 1983. The name was changed to Burkina
>Fasso in 1984.
^^^
>

It is Burkina Faso, formerly known as Upper Volta. There was also a
coup on Oct. 15, 1987. Literacy rate (ages > 15) = 13.2%, pop=8.53 mill (1988).

Sriram Narayan 810446 Texas A&M University |
INTERNET: narayan@photon.tamu.edu | Go Alain Prost!
BITNET: narayan@TAMVXEE |

797. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-04 18:03:24 UTC
From: narayan@photon.tamu.edu
Message-ID: <4181@helios.TAMU.EDU>
Source record: 13704

In article <197717@Wayne-MTS> Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU writes:
>
> Listening In
>
> As you may gather, there are pockets of AM activity all over the
> country, though most of what I monitor originates east of the Rockies.
> Typical frequencies used by the AM crowd are 1885, 1945, 3860-3890,
> 7290-7295, 14286, and 29000-29100 kHz. The 20 meter frequency comes
> alive at 9 pm here in the East; in California listen at 6 pm to hear
> some really big signals from all over the U.S. The 10 meter ``AM
> window'' is full of signals when the band is open; it's great for
> low-power work, even with converted AM CB sets.

In the same vein, I heard some activity on 10.9m (27525 kHz) in both
AM and USB on the same frequency. The USB guys and AMs (they called
themselves CJers ???) were having a major war on that frequency, with
pretty foul language by the "sidebanders" including attempts to
sabotage the AM txm. It seemed pretty odd to me. I hope this won't
start a flame war, but can anyone tell me what band this is and
if it is legal for such language to be used over the airwaves?

It appears to be just outside the AM CB band, unless now it is part
of that band. Comments welcome. BTW, the AM signals were just booming
on my Sony 2010 and it originated just west of the Rockies.

Sriram Narayan 810446 Texas A&M University |
INTERNET: narayan@photon.tamu.edu | Go Alain Prost!
BITNET: narayan@TAMVXEE |

798. Re: Ceramic IF filters (was Re: SCA - not as easy as it seems)

Newsgroup: rec.ham-radio
Date: 1990-02-04 18:22:40 UTC
From: kchen@Apple.COM
Message-ID: <38328@apple.Apple.COM>
Source record: 13703

markz@ssc.UUCP (Mark Zenier) writes:

>I am thinking of doing a SCA decoder using the MC3357. Is there any
>mail order source for small quantities of muRata, Kyocera, or Toko
>455 Khz ceramic IF filters?

Digi-key Corp. (1-800-344-4539) has one 455 kHz Toko (listed under "FM Ceramic Filters" :-) ceramic filter in their catalog. Yes, up-converting the SCA signal from the demodulated output of an FM broadcast receiver to the 455 kHz area and FM/FSK demoding the SCA there should give you something very usable. You may have to provide a tunable L.O., since the different SCA carriers in use are spread out quite a bit more than the 455 kHz filters would let through.

I am pretty satisfied with Digi-key. I did a small-quantity order from Digi-key just not too long ago.

For a high-price spread, how about using a Collins mechanical filter? :-) (Or a circa-1965 Lafayette Radio 455 kHz mechanical filter, if you can find that in your junk box :-)

For those still curious about SCA transmissions - I believe Bob Parnass has mentioned this a little while back - take the tape-recorder output of an Icom R-7000; inject that into an Icom R-71a's low-frequency-antenna spigot. Use the Parnass-hack (go Boilermakers!) to trick the R-71a into tuning down to the SCA carrier frequency. Switch the R-71a to FM (assuming that you have that option installed), and voila, you have an SCA system that sounds as clean as anything else I have heard through SCA.

Now try this - I think that it would be even better the above, since I have never found the FM demodulator option for R-71a to be all that great. Take the (70 MHz?) IF output of the R-71a and pass that to yet another R-7000 tuned to 70MHz, with the NBFM demod. I don't want to even *think* about the number of upconversions and downconversions in this chain before the signal finally comes out the AF faucet! Never had a second R-7000 to try it out, though :-).

Oh heck, why don't one simply take a doubly-balanced mixer and a ~144 MHz L.O., and beat the SCA up to 2m and pipe that into your H.T.'s NBFM receiver. (Use a second H.T. for the L.O, tapping a dummy load so you won't blow up your mixer, HI HI.)

Have fun!

Kok Chen kchen@apple.com, kk6dp
Apple Computer, Inc.

799. European TV frequency allocation

Newsgroup: rec.ham-radio
Date: 1990-02-04 20:47:05 UTC
From: avip@iilcad.intel.COM
Message-ID: <9002042047.AA23111@iilcad>
Source record: 13713

Commercial TV broadcasting in Europe/Middle East follows a different frequency allocation scheme than in the U.S. Frequencies are organized in three bands: Low VHF (Channels 2,3,4) Hi-VHF (Channels 5-11) and UHF (Channels 21 to 90something).

May anybody on the net provide me a detailed frequency table for the above channel scheme. i.e. which frequency in Mhz belongs to each channel,etc.

I'm aware that the generic term "Europe" is a bit vague, considering the large variety of TV standards coexisting there. I'm specifically interested in the frequency table for countries using PAL/SECAM standards.

Thanks in advance!!

Avi Plotnik, 4X6LP
CSNET: avip%iil@sc.intel.com
Mail: Avi Plotnik -
Intel Israel Design Center
MTM Scientific Industries Center
P.O.Box 1659
Haifa 31015
Israel
FAX: 011-972-4-355999

800. SCA decoding

Newsgroup: rec.ham-radio
Date: 1990-02-04 22:26:18 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1425@rsiatl.UUCP>
Source record: 13701

>For those still curious about SCA transmissions -

If someone is really curious, I have just the ticket. I have an old commercial tube-type SCA adaptor here in the shack that I would part with. Say, 20 bux or so? Anyone interested, send some E-mail.

John

--
John De Armond, WD4OQC | We can no more blame our loss of freedom on congress-
Radiation Systems, Inc. | men than we can prostitution on pimps. Both simply
Atlanta, Ga | provide broker services for their customers.
emory!rsiatl!jgd | - Dr. W Williams | **I am the NRA**

801. Re^2: More on Commo Act of 1934 and the news

Newsgroup: rec.ham-radio
Date: 1990-02-04 23:37:31 UTC
From: mrapple@quack.UUCP
Message-ID: <5096@quack.UUCP>
Source record: 13702

mdbomber@portia.Stanford.EDU (Matt Bartley) writes:

|In article <9002010803.AA09835@ucbvax.Berkeley.EDU> wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
|>Another blatant example of the divulging of the contents of intercepted
|>non-broadcast communications has been spread all over the national news
|>in regard to the crash of the Avianca jet near New York. I heard
|>broadcasts of tapes of conversations with people variously identified as
|>"hams" (no idea if they really were) or "scanner listeners" who were
|>reciting what they heard of the plane-to-controller communications.
|>
|>This is a clear and explicit violation of the law. If the FCC doesn't
|>do anything in this case, then everyone should consider the law
|>meaningless and ignore it from now on.

|I don't understand this. Are you saying it's illegal to listen in to
|aviation frequencies? If so, there are a hell of a lot of paper outlaws
|around. (Since when is that new; 55mph speed limit, etc. etc.)

No, it is not illegal to listen. It is, however, illegal to tell anyone
else what you listened to or what you heard. It is also illegal to use
any information you heard for your own gain. That section is called
"The Secrecy of Communications act/section," if memory serves. You
can listen, but you must keep it a secret unless the communications
in question is from you, to you, transmitted by stations in distress,
transmitted by stations reacting to a station in distress, transmitted
by a broadcasting station, a CB station, or an Amateur station.
--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~+~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
quack!mrapple@uop.edu ! "My brain hurts!"
...pacbell!uop!quack!mrapple ! "Oooh. It'll have to come out!"
N6QQQ @ WB6V (packet radio) ! Gumby Brain Surgery
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

802. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-02-05 06:13:14 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9002050803.AA23235@ucbvax.Berkeley.EDU>
Source record: 13716

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #642 -
Alouette 1
1 00424U 62B-A 1 90 25.21309753 .00000220 00000-0 25410-3 0 2561
2 00424 80.4628 67.0294 0022286 281.5113 78.3546 13.67284761363155
ATS 1
1 02608U 66110 A 90 20.98742296 -.00000127 00000-0 99999-4 0 955
2 02608 13.4145 14.7935 0108587 356.0705 3.8396 1.00392933 1077
ATS 3
1 03029U 67111 A 90 21.02006859 -.00000075 00000-0 99999-4 0 2830
2 03029 13.0250 22.4264 0033006 198.2664 161.5754 1.00272216 81329
Cosmos 398
1 04966U 71 16 A 90 25.45007196 .00025554 16750-4 14917-3 0 4868
2 04966 51.5309 230.3742 2382245 243.3252 90.5005 10.82890128576082
Starlette
1 07646U 75010 A 90 22.01842112 .00000013 00000-0 10578-3 0 65
2 07646 49.8219 15.2307 0206179 68.6949 293.5820 13.82131368755566
LAGEOS
1 08820U 76039 A 90 25.45390426 .00000004 00000-0 00000 0 0 9816
2 08820 109.8649 306.2281 0044656 268.8989 90.6301 6.38664772 64822
GOES 2
1 10061U 77048 A 90 26.14786082 .00000005 00000-0 99999-4 0 3546
2 10061 7.6362 64.7054 0292994 318.3351 39.5329 1.00275845 7616
GPS-0001
1 10684U 78020 A 90 28.32570179 .00000009 00000-0 99999-4 0 3159
2 10684 63.6423 93.8721 0115462 198.6575 160.9904 2.00558225 73047
GPS-0002
1 10893U 78 47 A 90 24.30449716 -.00000026 00000-0 00000 0 0 906
2 10893 64.4417 334.8696 0157456 25.9625 334.8094 2.00549492 85789
GOES 3
1 10953U 78062 A 90 26.20293314 .00000089 00000-0 99999-4 0 8043
2 10953 6.5919 68.2028 0005592 245.3967 114.6001 1.00274041 3176
SeaSat 1
1 10967U 78064 A 90 27.00389981 .00001818 00000-0 67525-3 0 2285
2 10967 108.0172 28.8682 0002909 231.4424 128.6469 14.35377078606191
GPS-0003
1 11054U 78093 A 90 25.60297297 -.00000025 00000-0 00000 0 0 1579
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2 11054 63.9909 331.1798 0055486 118.1536 242.4006 2.00565837 82828
Nimbus 7
1 11080U 78098 A 90 22.29083626 .00000233 00000-0 24160-3 0 6295
2 11080 99.2001 290.4571 0010106 114.0624 246.1587 13.83388898567861
GPS-0004
1 11141U 78112 A 90 28.19175413 .00000009 00000-0 00000 0 0 2550
2 11141 63.6948 93.8189 0058159 317.2449 42.2868 2.00563672 81574
NOAA 6
1 11416U 79 57 A 90 27.50417525 .00001778 00000-0 75418-3 0 9641
2 11416 98.5201 23.3112 0011917 168.9444 191.2006 14.26441864549879
GPS-0005
1 11690U 80 11 A 90 26.33602037 .00000010 00000-0 00000 0 0 8975
2 11690 64.1296 95.8493 0111541 203.9060 155.6422 2.00557110 87391
GPS-0006
1 11783U 80 32 A 90 28.64521276 -.00000025 00000-0 00000 0 0 308
2 11783 63.7595 330.6524 0145242 60.5477 300.8686 2.00573164 71521
GOES 4
1 11964U 80 74 A 90 27.58583121 .00000007 00000-0 00000 0 0 1292
2 11964 6.0799 70.9022 0030665 106.9330 253.4577 0.99228086 4254
GOES 5
1 12472U 81049 A 90 25.80537037 -.00000244 00000-0 99999-4 0 8187
2 12472 3.1566 77.8080 0001930 248.3456 21.8518 1.00260446 30825
DE 1
1 12624U 81 70 A 90 23.32226140 -.00000010 00000-0 -95248-4 0 3196
2 12624 89.1228 149.2140 6235943 330.4716 5.4772 3.51028567257033
SME
1 12887U 81100 A 90 29.07388674 .00037900 00000-0 92465-3 0 4611
2 12887 97.6619 69.0235 0002567 126.4002 233.7423 15.40775753459787
Meteor 2-08
1 13113U 82 25 A 90 28.04426153 .00000203 00000-0 17252-3 0 6891
2 13113 82.5370 240.0120 0015507 147.2399 212.9726 13.84127843396343
Salyut 7
1 13138U 82 33 A 90 28.72142113 .00022537 00000-0 35601-3 0 158
2 13138 51.6057 284.6282 0001632 141.1374 218.9563 15.53394700443100
Cosmos 1383
1 13301U 82 66 A 90 27.50845279 .00000209 00000-0 23419-3 0 5335
2 13301 82.9284 43.8758 0027286 185.5396 174.5466 13.67795737378444
LandSat 4
1 13367U 82 72 A 90 28.04478632 -.00008542 00000-0 -18961-2 0 2218
2 13367 98.1839 93.1998 0002381 188.3784 171.7416 14.57101953400896
Meteor 2-09
1 13718U 82116 A 90 27.59341833 .00000356 00000-0 18051-3 0 8522
2 13718 81.2439 61.9911 0057487 80.1923 280.5740 14.13436767367251
IRAS
1 13777U 83 4 A 90 27.50579966 .00000185 00000-0 15262-3 0 7132
2 13777 99.0336 226.4150 0013435 53.8724 306.3667 13.98732393 27279
Cosmos 1447
1 13916U 83 21 A 90 27.28882284 .00000231 00000-0 23405-3 0 6714
2 13916 82.9473 116.2325 0038325 169.7083 190.4872 13.74005017343324
TDRS 1
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1 13969U 83 26 B 90 28.05161260 -.00000209 00000-0 00000 0 0 9235
2 13969 4.1386 67.0241 0006260 254.8648 105.1836 1.00274587 91674
GOES 6
1 14050U 83 41 A 90 26.25006797 .00000117 00000-0 00000 0 0 639
2 14050 1.8841 79.8804 0001338 276.7595 83.0919 1.00281978 8842
OSCAR 10
1 14129U 83 58 B 90 25.53078809 -.00000102 00000-0 00000 0 0 4535
2 14129 25.8722 222.0690 6005563 113.0591 318.9861 2.05884294 21798
GPS-0008
1 14189U 83 72 A 90 24.74948451 .00000008 00000-0 99999-4 0 6961
2 14189 63.2858 92.3915 0142039 216.4474 142.6409 2.00561433 47880
Meteor 2-10
1 14452U 83109 A 90 27.37693849 .00000754 00000-0 31729-3 0 8107
2 14452 81.1622 68.8205 0094711 169.7966 190.5164 14.22562201324418
LandSat 5
1 14780U 84 21 A 90 27.04184612 -.00003121 00000-0 -68804-3 0 358
2 14780 98.1388 89.6256 0001991 270.7186 89.2337 14.57143185314162
UoSat 2
1 14781U 84 21 B 90 28.63046864 .00003174 00000-0 60259-3 0 6012
2 14781 97.9710 85.6627 0013115 336.2055 23.8539 14.64821371315539
GPS-0009
1 15039U 84 59 A 90 27.80134243 .00000007 00000-0 00000 0 0 7946
2 15039 63.0266 91.5025 0018354 240.8457 119.0504 2.00562836 41227
Cosmos 1574
1 15055U 84 62 A 90 24.82442559 .00000152 00000-0 15175-3 0 8180
2 15055 82.9583 167.9745 0028427 4.8480 355.2948 13.73319279280392
Meteor 2-11
1 15099U 84 72 A 90 24.43158390 .00000105 00000-0 89946-4 0 9922
2 15099 82.5292 190.3946 0013540 343.3587 16.7136 13.83778628280717
GPS-0010
1 15271U 84 97 A 90 26.20192761 -.00000026 00000-0 00000 0 0 7445
2 15271 63.3132 330.3766 0104719 324.7791 34.5336 2.00572766 38302
Cosmos 1602
1 15331U 84105 A 90 28.79059207 .00004841 00000-0 67736-3 0 1585
2 15331 82.5377 130.0150 0024705 67.7982 292.5963 14.77208339287506
NOAA 9
1 15427U 84123 A 90 28.36609539 .00000938 00000-0 52918-3 0 4754
2 15427 99.1614 25.0020 0015977 44.0213 316.2227 14.12416761264247
Meteor 2-12
1 15516U 85 13 A 90 26.74885778 .00000544 00000-0 47623-3 0 1491
2 15516 82.5372 126.9411 0015831 204.0765 155.9672 13.84264407251982
Cosmos 1686
1 16095U 85 86 A 90 28.97877679 .00040540 00000-0 63240-3 0 4803
2 16095 51.6009 283.3552 0001558 157.0526 203.2036 15.53425584244241
GPS-0011
1 16129U 85 93 A 90 25.36615460 .00000008 00000-0 00000 0 0 3969
2 16129 63.8112 92.4489 0120840 150.3901 210.3670 2.00560681 31496
Meteor 3-1
1 16191U 85100 A 90 26.65580930 .00000043 00000-0 99999-4 0 8899
2 16191 82.5476 77.7618 0021379 99.7928 260.5609 13.16892676204939
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Meteor 2-13
1 16408U 85119 A 90 26.97152982 .00000217 00000-0 18340-3 0 5639
2 16408 82.5332 41.6072 0017712 35.9344 324.3015 13.84284056206513
Mir
1 16609U 86 17 A 90 28.79793433 .00008142 00000-0 11797-3 0 3647
2 16609 51.6210 311.8298 0019815 100.9301 259.4380 15.56652527226341
SPOT 1
1 16613U 86 19 A 90 28.84281585 .00000414 00000-0 21238-3 0 7458
2 16613 98.7165 105.3282 0000224 196.8329 163.2796 14.20036277 44152
Meteor 2-14
1 16735U 86 39 A 90 26.62336229 .00000245 00000-0 21015-3 0 3490
2 16735 82.5354 68.8309 0015917 103.6184 256.6758 13.84040743185367
Cosmos 1766
1 16881U 86 55 A 90 28.87791979 .00004119 00000-0 58131-3 0 8517
2 16881 82.5215 189.1342 0023627 84.2557 276.1346 14.76823731188589
EGP
1 16908U 86 61 A 90 25.27939818 -.00000162 00000-0 -86836-3 0 1647
2 16908 50.0218 335.3351 0011368 190.1546 169.9070 12.44382466157061
FO-12
1 16909U 86 61 B 90 23.89068611 -.00000025 00000-0 99999-4 0 1785
2 16909 50.0168 339.9003 0011453 184.7940 175.2781 12.44403507156880
NOAA 10
1 16969U 86 73 A 90 27.27908467 .00000728 00000-0 33725-3 0 3327
2 16969 98.6160 58.2953 0013353 324.4730 35.5563 14.23430045174569
Meteor 2-15
1 17290U 87 1 A 90 26.87212591 .00000234 00000-0 20111-3 0 3257
2 17290 82.4675 334.3431 0014080 1.3508 358.7697 13.83844075154552
MOS-1
1 17527U 87 18 A 90 28.84218971 -.00003899 00000-0 -28961-2 0 3897
2 17527 99.1259 103.1051 0000859 86.2430 273.9786 13.94832639149830
GOES 7
1 17561U 87 22 A 90 23.95745585 -.00000043 00000-0 99999-4 0 4016
2 17561 0.1081 253.7452 0005255 111.4388 354.8077 1.00273525 3971
Kvant-1
1 17845U 87 30 A 90 28.99051882 .00052280 00000-0 71551-3 0 9791
2 17845 51.6239 310.8675 0018632 99.9572 260.3609 15.56683954226372
DMSP B5D2-3
1 18123U 87 53 A 90 29.00464970 .00001191 00000-0 64764-3 0 4692
2 18123 98.8174 221.4571 0015444 60.6058 299.6653 14.13847704134736
RS-10/11
1 18129U 87 54 A 90 28.81093703 .00000150 00000-0 15372-3 0 218
2 18129 82.9229 71.5061 0012797 140.6926 219.5186 13.72056157130338
Meteor 2-16
1 18312U 87 68 A 90 26.51787975 .00000220 00000-0 18868-3 0 3655
2 18312 82.5567 42.5797 0011294 297.3167 62.6842 13.83593771123399
Meteor 2-17
1 18820U 88 5 A 90 25.95240248 .00000337 00000-0 29192-3 0 1946
2 18820 82.5440 103.5359 0017230 8.8496 351.2970 13.84284490100504
DMSP B5D2-4
1 18822U 88 6 A 90 29.03090806 .00001912 00000-0 89529-3 0 3835
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2 18822 98.6650 270.8000 0006183 323.5629 36.7496 14.21245462103057
AO-13
1 19216U 88 51 B 90 21.40340404 -.00000075 00000-0 99999-4 0 704
2 19216 57.1171 172.3126 6876271 219.5193 61.5621 2.09701111 12323
OKEAN 1
1 19274U 88 56 A 90 28.88025477 .00003212 00000-0 45869-3 0 6327
2 19274 82.5186 287.7643 0020873 214.4753 145.4950 14.76293541 84369
Meteor 3-2
1 19336U 88 64 A 90 26.94909022 .00000391 00000-0 99999-3 0 3614
2 19336 82.5412 17.3498 0015961 309.2379 50.7275 13.16873612 72365
NOAA 11
1 19531U 88 89 A 90 26.04354568 .00001177 00000-0 66992-3 0 1920
2 19531 98.9656 334.3419 0011695 328.6075 31.4395 14.11421246 68919
TDRS 2
1 19548U 88 91 B 90 26.12687861 .00000132 00000-0 99999-4 0 704
2 19548 0.0185 158.2422 0002804 140.7970 60.9145 1.00277278 4024
Cosmos 2001
1 19796U 89 11 A 90 28.12166379 -.00001006 00000-0 99999-3 0 3355
2 19796 62.9680 110.9193 7154152 319.7311 5.0975 2.00637355 6990
GPS BII-01
1 19802U 89 13 A 90 25.37349908 .00000016 00000-0 99999-4 0 650
2 19802 55.0906 203.0563 0061634 156.7928 203.5092 2.00563236 6884
Akebono
1 19822U 89 16 A 90 28.39247542 .00041982 00000-0 24576-2 0 4143
2 19822 75.1235 306.6118 4224463 310.2276 19.8246 7.03731988 23548
Meteor 2-18
1 19851U 89 18 A 90 27.04376625 .00000404 00000-0 35360-3 0 1430
2 19851 82.5270 340.9125 0015467 46.2260 314.0180 13.83923602 46045
TDRS 3
1 19883U 89 21 B 90 23.77255227 -.00000235 00000-0 99999-4 0 508
2 19883 0.0221 21.2751 0004746 248.7464 89.9007 1.00268743 2444
GPS BII-02
1 20061U 89 44 A 90 25.05839512 -.00000031 00000-0 00000 0 0 460
2 20061 54.7064 21.6492 0082020 172.1363 188.0298 2.00564371 4622
Nadezhda
1 20103U 89 50 A 90 24.52457884 .00000135 00000-0 13264-3 0 704
2 20103 82.9589 30.8961 0039554 78.1410 282.4185 13.73554805 27991
GPS BII-03
1 20185U 89 64 A 90 26.52392793 .00000016 00000-0 99999-4 0 380
2 20185 54.9299 203.8721 0026839 140.2514 219.9445 2.00565179 7853
Soyuz TM-8
1 20218U 89 71 A 90 28.92632131 .00121068 00000-0 16288-2 0 1407
2 20218 51.6223 311.1917 0020133 108.5334 251.8091 15.56735872226364
Activnyi
1 20261U 89 80 A 90 28.75419731 -.00005097 00000-0 -16281-2 0 2538
2 20261 82.6034 317.0514 1259742 293.5170 53.8219 12.43165471 15260
Activnyi RB
1 20262U 89 80 C 90 29.07767959 .00001767 00000-0 55641-3 0 1297
2 20262 82.6064 316.8502 1261467 292.8039 54.4636 12.42940079 15300
Magion 2
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1 20281U 89 80 B 90 28.74586894 -.00001043 00000-0 -33303-3 0 2659
2 20281 82.6015 317.0305 1259927 293.5056 53.7894 12.43314986 15262
GPS BII-04
1 20302U 89 85 A 90 24.26182608 -.00000030 00000-0 99999-4 0 405
2 20302 54.7308 322.9201 0039138 309.5421 50.1182 2.00572809 1868
Meteor 3-3
1 20305U 89 86 A 90 26.86681562 .00000054 00000-0 12500-3 0 441
2 20305 82.5527 317.6738 0015569 325.3308 34.6793 13.15848226 12360
COBE
1 20322U 89 89 A 90 25.58013995 .00004895 00000-0 32861-2 0 448
2 20322 99.0258 37.3725 0007492 45.2854 314.8930 14.01046816 9515
Kvant-2
1 20335U 89 93 A 90 28.92632131 .00017283 00000-0 24234-3 0 932
2 20335 51.6222 311.1885 0019158 101.1214 259.1965 15.56657848226365
Cosmos 2052
1 20350U 89 95 A 90 10.05720713 .00725246 28344-4 29603-3 0 1060
2 20350 67.1355 144.2178 0111226 117.4422 243.7694 16.09621301 6516
1989 096D
1 20358U 90 4.82145879 0.00139266 58549-5 95388-3 0 670
2 20358 51.5401 261.0178 1139421 214.1555 138.0713 13.49164355 4575
GPS BII-05
1 20361U 89 97 A 90 21.56217161 .00000016 00000-0 99999-4 0 117
2 20361 54.9537 146.1423 0065169 44.4068 316.0870 2.00550886 785
1989 097B
1 20362U 89 97 B 90 11.24572425 .00009925 00000-0 12418-2 0 352
2 20362 35.6485 332.5970 0331685 335.1153 23.3871 14.49785306 4423
1989 097C
1 20363U 90 11.48271584 0.00267323 74325-5 14861-2 0 413
2 20363 37.6015 121.8649 5985300 226.7072 64.2719 4.18339324 1271
Raduga 24
1 20367U 90 13.29792244 0.00000168 10000-3 0 348
2 20367 1.4473 263.8368 0005421 247.6782 112.8617 1.00261065 303
1989 098D
1 20370U 89 98 D 90 9.79300959 -.00000025 00000-0 99999-4 0 196
2 20370 1.4873 264.1145 0016037 28.0591 332.9297 0.97855577 257
Progress M2
1 20373U 90 30.78792300 0.00019941 27692-3 0 525
2 20373 51.6304 301.8550 0018773 112.6130 247.7132 15.56813240226650
Cosmos 2053
1 20389U 90 31.35350591 0.00034024 18772-2 0 671
2 20389 73.5393 26.4895 0009572 164.0650 196.0858 15.13769066 5357
1989 100B
1 20390U 89100 B 90 26.06429739 .00004946 00000-0 27812-3 0 301
2 20390 73.5382 37.7949 0009059 175.6379 184.4892 15.13582620 4557
Cosmos 2054
1 20391U 90 30.44571902 -.00000095 10000-3 0 594
2 20391 1.4303 273.7347 0017736 184.0203 176.1646 1.00284238 361
1989 101D
1 20394U 89101 D 90 28.80723554 -.00000044 00000-0 99999-4 0 179
2 20394 1.4580 273.7841 0010326 45.7172 314.6587 0.98249334 330
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Skynet 4A
1 20401U 90 30.50098246 0.00000100 0 263
2 20401 3.3769 303.6431 0040169 54.3141 306.3629 1.00873816 176
JCSAT
1 20402U 90 29.21605595 -.00000136 10000-3 0 165
2 20402 0.2264 248.2789 0002148 39.7449 71.9423 1.00273240 268
1990 001D
1 20404U 90 27.69942763 0.00003567 24255-2 0 254
2 20404 21.5654 274.6894 7208532 188.7006 143.5188 2.34546032 630
1990 001F
1 20406U 90 29.87932928 0.00008123 22465-2 0 243
2 20406 26.6887 261.8830 5865935 214.2280 88.0840 4.22255069 1216
LEASAT 5
1 20410U 90 2 B 90 28.05234871 .00000066 00000-0 99999-4 0 124
2 20410 3.3675 322.9603 0124055 185.5406 175.5989 1.00278898 124
1990 002C
1 20411U 90 2 C 90 28.27214396 .00012247 00000-0 29569-2 0 206
2 20411 27.1999 114.7454 5238687 29.2594 351.9595 5.20266541 911
1983 020D
1 20413U 90 16.50000000 -.00000404 10000-3 0 40
2 20413 45.8927 301.6066 8794760 8.3459 185.8865 0.24719748 02
1990 003B
1 20427U 90 3 B 90 23.96435354 .18547154 43466-4 45434-3 0 198
2 20427 62.7896 262.4279 0002723 286.0809 74.4219 16.46099567 1038
Cosmos 2056
1 20432U 90 4 A 90 27.06174109 .00000947 00000-0 37771-3 0 135
2 20432 74.0374 303.3779 0024520 327.0898 32.8723 14.29698960 1202
1990 004B
1 20433U 90 4 B 90 26.00426631 .00001450 00000-0 55493-3 0 130
2 20433 74.0404 305.2702 0030153 338.3574 21.6283 14.31218777 1067
SPOT 2
1 20436U 90 31.34396575 -.00001327 -61469-3 0 196
2 20436 98.7208 107.7540 0000898 83.8648 276.1110 14.20048261 1329
1990 005B
1 20437U 90 30.61757751 0.00000344 15416-3 0 99
2 20437 98.7137 107.0703 0010080 191.8972 168.1974 14.28254306 1223
UoSat E
1 20438U 90 5 C 90 27.74407736 .00000037 00000-0 23076-4 0 91
2 20438 98.7173 104.2093 0011303 201.4868 158.4471 14.28554220 812
MicroSat 1
1 20439U 90 29.63555911 0.00002122 86292-3 0 114
2 20439 98.7114 106.0907 0011111 195.3653 164.3073 14.28476238 1088
MicroSat 2
1 20440U 90 29.63506009 0.00000887 36953-3 0 70
2 20440 98.7166 106.0985 0011558 194.9310 165.2835 14.28590000 1083
MicroSat 3
1 20441U 90 29.63446524 0.00001196 49146-3 0 56
2 20441 98.7166 106.1002 0012216 196.4323 163.8703 14.28705931 1087
MicroSat 4
1 20442U 90 28.86363472 0.00023373 92539-2 0 88
```

```
2 20442 98.7159 105.3304 0012456 196.0509 163.5109 14.28783190 971
1990 005H
1 20443U 90 5 H 90 28.09558193 .00000511 00000-0 22085-3 0 130
2 20443 98.7143 104.5531 0010112 199.4908 160.5887 14.28251997 868
1990 006A
1 20444U 90 31.02186481 0.00000205 -28418-2 0 147
2 20444 62.7861 113.9952 7368946 288.1027 9.4895 2.00968716 179
1990 006B
1 20445U 90 31.30123341 0.00704939 99275-5 12812-2 0 148
2 20445 62.8164 84.9274 0232636 121.7585 240.7155 15.67344832 1265
1990 006C
1 20446U 90 28.50053194 0.00000616 33771-2 0 66
2 20446 62.7978 114.3276 7320010 288.0497 9.7663 2.06382769 118
1990 006D
1 20447U 90 31.30787046 0.01134850 36294-4 11183-2 0 228
2 20447 62.8255 84.8386 0259543 116.8905 245.9913 15.69135678 1265
1990 005C
1 20450U 90 30.46525072 0.00197018 21373-5 25853-2 0 100
2 20450 37.6899 254.5315 6046400 202.5637 112.2277 4.07126194 236
GPS BII-06
1 20452U 90 30.76218801 -.00000001 10000-3 0 73
2 20452 54.6628 261.5658 0037825 122.5272 237.9081 2.01795483 82
1990 008B
1 20453U 90 29.90093713 0.00010354 12598-2 0 109
2 20453 35.6378 231.5375 0591687 176.8643 183.6000 14.04232621 705
1990 009A
1 20457U 90 31.37034188 0.00711821 40080-4 29731-3 0 188
2 20457 62.8342 310.9443 0111656 74.1429 287.3099 16.09193564 907
1990 010B
1 20466U 90 31.20839760 0.00048383 72818-2 0 46
2 20466 82.5084 325.5927 0022011 276.3531 83.5184 14.74031591 108
--
Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
```

803. NASA Prediction Bulletin Format

Newsgroup: rec.ham-radio
Date: 1990-02-05 06:13:33 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9002050804.AA23346@ucbvax.Berkeley.EDU>
Source record: 13722

As a service to the satellite user community, the following description of the NASA Prediction Bulletin's two-line orbital element set format is uploaded to sci.space on a monthly basis. The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical to that used by NASA and NORAD. The format description is:

```
Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1; plus sign = 2)
```

```
Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
```

09-16 Inclination [Degrees]
18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6
1 11416U 86 50.28438588 0.00000140 67960-4 0 5293
2 11416 98.5105 69.3305 0012788 63.2828 296.9658 14.24899292346978

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.

--
Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

804. Re: More on Commo Act of 1934 and the news

Newsgroup: rec.ham-radio
Date: 1990-02-05 07:43:15 UTC
From: sanford@ucsd.Edu
Message-ID: <11520@ucsd.Edu>
Source record: 13709

>Stuff about monitoring other communications and divulging info (deleted)

I understand what you are talking about in terms of the Avianca Jet
crash scanner listeners, but what about the "Traffic Update"
companies that seem to be everywhere on the radio (AM/FM). (Atleast
in the big cities like LA, San Diego, NY, SF and others. I am sure
there are more though)
They always have a scanner in the background when they give their
traffice reports and I am pretty sure that they
are not getting all of their information from the "air" traffic
reports. I wonder if there is something illegal about that?

I do like california's scanner law though which says you can listen
all you want as long as you dont tell the person who the police are
after what the police are up to. Could this be in conflict also?
Mike

Mike Sanford (619) 534-4870 |Internet: sanford@ssurf.ucsd.edu
Scripps Institution of Oceanography |BITnet: msanford@ucsd.bitnet
University of California, San Diego |UUCP: ...!ucsd!ssurf!sanford
A-030-SSURF |SPAN/DECnet: SSURF::SANFORD
La Jolla, CA 92093 USA |HAM Callsign: N6WUY

Why do you park on a driveway and drive on a parkway?

805. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-05 10:39:55 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500376@ux1.cso.uiuc.edu>
Source record: 13705

What is the TRANSMIT range when the mods are done to the IC-24AT?

Has Icom come out with the first 33cm HT??????????????????????????

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

806. Re^2: Sony-2010 - Noise

Newsgroup: rec.ham-radio
Date: 1990-02-05 15:03:09 UTC
From: roskos@IDA.ORG
Message-ID: <1990Feb5.150309.15372@IDA.ORG>
Source record: 13707
Cross-posted to: rec.radio.shortwave,rec.ham-radio

sterling@cbmvax.commodore.com (Rick Sterling - PA) writes:

>This is just one of may possibilities ... another ``biggy'' is an arcing
>power line/transformer nearby.

I've found that the worst sources of interference in my apartment are
the SCR/Triac-controlled devices: lamp dimmers and electric-eye light
switches.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

807. Cheap Radios

Newsgroup: rec.ham-radio
Date: 1990-02-05 15:16:07 UTC
From: ken@swbatl.UUCP
Message-ID: <1159@swbatl.UUCP>
Source record: 13708

I headed out to the local Sears store last week and bought a cellular mobile phone for $199.95. The phone can be permanently installed (optional brackets) or left in the really nice Cordura bag you get with it and it comes with a suction cup antenna to put on a window. There is no access charge for service, just a guarantee of at least $10/month airtime usage. And then Sears takes $50 off your first month's bill! (Hmmmm- $10/mo and no-one to scrutinize my every call. Repeater club dues alone are $25/yr. Think about it!)

The point of my posting is this - I can purchase a 900MHz phone for $200 or a synthesized marine radio for $160 or a CB for $40. You can't touch a 2M rig for under $250 and the dual-bander prices are truly astronomical. Where is all that ham ingenuity? What can we do with these reasonably priced consumer radios? If you know, please post to the net. My intention is not to start some cosmological discussion of "Why I need to be a ham".

--
/ Ken Gianino \ uunet!swbatl!ken \
/ / Southwestern Bell Telephone \ Phone: (314) 235-9081 \
/ / / Advanced Technology Laboratory \ Fax: (314) 235-5797 \
/ / / /\ 1010 Pine, St. Louis, MO 63101 \ ** THIS SPACE FOR RENT ** \

808. Re: European TV frequency allocation

Newsgroup: rec.ham-radio
Date: 1990-02-05 16:08:50 UTC
From: price@marlin.NOSC.MIL
Message-ID: <1307@marlin.NOSC.MIL>
Source record: 13710

In article <9002042047.AA23111@iilcad> avip@iilcad.intel.COM writes:
>Commercial TV broadcasting in Europe/Middle East follows a different
>frequency allocation scheme than in the U.S. Frequencies are organized in
>three bands: Low VHF (Channels 2,3,4) Hi-VHF (Channels 5-11) and UHF
>(Channels 21 to 90something).
>
>May anybody on the net provide me a detailed frequency table for the above
>channel scheme. i.e. which frequency in Mhz belongs to each channel,etc.
>
>
>Avi Plotnik, 4X6LP

The World Radio TV Handbook used to, and I assume still does, list
the frequencies of TV channels throughout the world. Both video
and audio center freqs are listed along with bandwidths,
separation, etc. I can try to dig out the info if you wish. Be
advised that British, French, Italian, PAL, and SECAM are all different
(I think).

73--Jim, K6ZH

809. Re: More on Digital Voice Recording...

Newsgroup: rec.ham-radio
Date: 1990-02-05 17:39:41 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500377@ux1.cso.uiuc.edu>
Source record: 13711

> are around. On the other hand, all commercial and public service repeaters
> still use CW as a means of ID'ing so maybe there's something to CW after all !

Not so.... Carle Hospital here in Urbana Illinois uses an automated voice id.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

810. Re: Ceramic IF filters (was Re: SCA - not as easy as it seems)

Newsgroup: rec.ham-radio
Date: 1990-02-05 18:12:20 UTC
From: dbraun@cadev5.intel.com
Message-ID: <1579@mipos3.intel.com>
Source record: 13712

Where can one purchase (new or used) the Collins mechanical filters?
How much do they cost?

Doug Braun Intel Corp CAD
408 765-4279

```
/ decwrl \
| hplabs |
-| oliveb |- !intelca!mipos3!cadev4!dbraun
| amd |
\ qantel /
```

or:

dbraun@cadev4.intel.com

811. Re: Wanted: Recommendation for a CHEAP 24 hour clock

Newsgroup: rec.ham-radio
Date: 1990-02-05 19:03:29 UTC
From: mn@atari.UUCP
Message-ID: <2018@atari.UUCP>
Source record: 13714
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1990Feb1.194316.3098@chinet.chi.il.us> megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
>I'm tired of trying to remeber what to add or subtract to get UTC from
>eastern time. It is time to buy a 24 hour clock for in my shack. I've
>seen lots of expensive types, but surely someone must make an inexpensive
>LCD or LED clock that has 24 hour format.
>--

Radio Shack sells a little portable alarm clock that has a switch on the back for 12 or 24 hour format. I bought it about 10 years ago and I haven't had to change the hearing-aid sized battery yet!
I paid about $8.00 for it then. It has an LCD readout with characters about a half inch tall.

```
-------------------------------------------------------------------------
| Michael Nowicki N6LUU Atari Corp,Sunnyvale CA /TT/UNIX/X team |
|.......................................................................|
| char *disclaimer=" Views expressed are my own, not my employer's"; |
| char *good_quote=" 'Yes, I never did' - Stan Laurel"; |
-------------------------------------------------------------------------
```

812. Re: Kenwood 78xx mods

Newsgroup: rec.ham-radio
Date: 1990-02-05 19:13:16 UTC
From: wille@hpccc.HP.COM
Message-ID: <5540032@hpccc.HP.COM>
Source record: 13715

S T R A N G E 7 8 5 0 P R O B L E M ! ! !

While we're on the subject of Kenwood 78xx's, I've got a 7850 that
has a strange problem that someone in netland might have seen...

Occasionally, the audio on the 7850 suddenly drops to near-zero
volume. Cranking the volume control has no effect on the output
level. Turning the rig off and back on usually (90%) fixes the
problem. Since turning the volume control doesn't seem to fix
it (other than turning it clear to off), I assume that it isn't
as simple as a dirty wiper on the volume pot. Suggestions? HELP!

73 de Ross, N6SJD

+===+
Ross Wille - N6SJD	Email: wille@hpda.hp.com	"Undetectable errors are
Hewlett Packard	-or- wille@hpccc.hp.com	treated as if no error
Cupertino, CA	Phone: (408)447-0215	occurred." - IBM Manual
+===+

813. SCA - not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-02-05 19:19:42 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9002051919.AR00038@adam.DG.COM>
Source record: 13717

CEO file contents:
The saga of the 565 SCA decoder continues...

I just looked at the Signetics app note and it looks
as if there may be a bug. At least, it would seem that the circuit is
drawn incorrectly to do what they say it does. Here's the input
circuit as it appears in the app note (AN184) in the Signetics 1987
Linear Data Manual, Vol 1, Communications, fig. 4, "SCA Decoder,
p. 4-303:

```
+Vcc
|
|
10K ___________
| |
| |
DEM FM o---+--510pf-|---+----510pf----|2 IN+
| | | |
| | 4.7K | NE565
4.7K | | |
| +---+----4.7K-----|3 IN-
| | |
| 4.7K |
| | |
+--------+-----------------|1 GND
|___________
```

I believe the above circuit is WRONG. In the same data book, the data
sheet for the NE/SE565 has *almost* the same circuit (fig. 5, p.
4-296):

```
+Vcc
|
|
10K ___________
| |
| |
DEM FM o---510pf--+--510pf-|---+-------------|2 IN+
| | | |
| | 4.7K | NE565
4.7K | | |
| +---+----4.7K-----|3 IN-
| | |
| 4.7K |
| | |
```

+--------+-----------------|1 GND
|__________

Let me explain why I think the above circuit (which is the one
I think I built) should work while the other should not. The two 510pf
caps and the leftmost 4.7K resistor are a high-pass filter (I think).
The vertical 10K and 4.7K are the voltage divider which sets the
input bias to VCC/3. The last two 4.7K resistors add the bias voltage
to the input signal and the pin 3 input.

This matches with what they say in the circuit description on
page 4-295:

"This circuit also serves as an example of operation
from a single power supply.

A resistive voltage divider is used to establish a bias
voltage for the input (pins 2 and 3). The demodulated
(multiplex) FM signal is fed to the input through a two-
stage high-pass filter, both to effect capacitive coupling
and to attenuate the strong signal of the regular channel.
A total [SCA] signal amplitude, between 80mv and 300mv, is
required at the [DEMOD FM] input."

I think I'll try building this at home & if I'm wrong, I'll be the
first to admit it!

Pete, KA1AXY

814. Re: Wanted: Recommendation for a CHEAP 24 hour clock

Newsgroup: rec.ham-radio
Date: 1990-02-05 19:27:50 UTC
From: rfc@briar.philips.com
Message-ID: <78670@philabs.Philips.Com>
Source record: 13718
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Sometimes you may be able to easily modify a 12 hour clock to 24 hour format. It all depends what chip the clock-radio (or whatever) uses. Many chips can be switched from one format to another by disconnecting a pin from ground to +, or the other way around. Look up the chip number in a databook, and see if it has this feature. Be careful, some chips have 3 choices: 24hr at 50Hz, 12hr at 50Hz, or 12 hr at 60Hz. no 24hr at 60Hz. Bah! Also, the display may not support the 2 in the first digit. But it's worth a quick look at.

73 de WA2ISE

815. Re: Ceramic IF filters (was Re: SCA - not as easy as it seems)

Newsgroup: rec.ham-radio
Date: 1990-02-05 19:32:36 UTC
From: michael@fe2o3.UUCP
Message-ID: <306@fe2o3.UUCP>
Source record: 13719

In article <460@ssc.UUCP> markz@ssc.UUCP (Mark Zenier) writes:
>I am thinking of doing a SCA decoder using the MC3357. Is there any
>mail order source for small quantities of muRata, Kyocera, or Toko
>455 Khz ceramic IF filters?
>
Digi-key (1-800-DIGIKEY) sell toko CFM2 filters in -6dB BWs of 4, 6, 8, 10 &
12 kHz. Toko-part # HCFM2-455A through to E. Digi-key # TK2330 through TK2334.
$2.78 ea.

They are a good source for these type of parts. They have a selection of 10.7Mhz
filters, helical resonators, RF inductors etc.

Ask them for their catalog!

---
email to
UUCP: uunet!mimsy!{arinc,fe203}!vk2bea!michael

```
_ _ _ _
Amateur | VK2BEA (Australia) ' ) ) ) / //
Radio | G4NYV (United Kingdom) / / / o _. /_ __. _ //
Stations| NV3Z (United States) / ' (_<_(__/ /_(_/|_</_</_
```

Michael Katzmann

816. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-05 20:36:15 UTC
From: jill@tank.uchicago.edu
Message-ID: <7460@tank.uchicago.edu>
Source record: 13720

In article <1457@raybed2.UUCP> ewb@raybed2.UUCP (EUGENE BALINSKI) writes:
:
:
:
:NOTE: All mods done at your OWN RISK !!
:
:---
:
: Here's a useful mod for the Icom IC-24AT, the new mini dualbander.
:
: 1. Remove D13 on the main board. *
:
: 2. Reset the CPU.
:
: Voila! The frequency range of the handie-talkie is now
: 75-195 MHz, 200-490 MHz, and 740-960 MHz.
:
: * NOTE: This may void the warrantee. Make sure you treat the radio as if
: it were CMOS, ie NO STATIC CHARGES.
: DE: WA1OMM/KB1MZ

Transmit? Receive?

--
==
Jill Hansen | Can you imagine what this world be like
jill@tank.uchicago.edu | if God's operating system were Unix?

817. 10.9 meters

Newsgroup: rec.ham-radio
Date: 1990-02-05 22:53:14 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <9562@ttidca.TTI.COM>
Source record: 13721

In article <4181@helios.TAMU.EDU> narayan@photon.UUCP (Sriram Narayan) writes:
+
+...I heard some activity on 10.9m (27525 kHz) in both
+AM and USB on the same frequency. The USB guys and AMs (they called
+themselves CJers ???) were having a major war on that frequency, with
+*pretty* foul language by the "sidebanders" including attempts to
+sabotage the AM txm. It seemed pretty odd to me. I hope this won't
+start a flame war, but can anyone tell me what band this is and
+if it is legal for such language to be used over the airwaves?
+

The Class D 11 meters, Citizen's Radio Service occupies the band of freqs between 26.965 and 27.405. There are some skips in the 10KHz channel spacing to permit the use of low-cost radio control devices, but that aside, operation outside this band is simply illegal.

+It appears to be just outside the AM CB band, unless now it is part
+of that band. Comments welcome. BTW, the AM signals were just booming

AM or SSB, makes no difference. The FCC's recommendation was that mode-use would be dictated by 'local convention' and 'majority use'. Pretty dumb, if you ask me, the point being: THERE ARE NO CB STATIONS THAT MAY LEGALLY USE FREQUENCIES ABOVE 27.405 MHZ !! These people are in clear violation of both the letter of the law as well it's spirit. That the FCC has not busted them yet is no letter of the sanctity in their operations..and the situation is quite likely to change in the very near future!

You will find bootleggers illegally using frequencies between 27.405 and 28.0 MHz and sometimes, you will even hear them attempting to invade the Amateur allocation of 28.0-29.7 MHz. They are easy to spot: no ID every 10 minutes, Hams are required to do this and take great pains to comply. Bootleggers will typically SOUND like CBers, using gutteral language and repeated catch-phrases, like: "NO DOUBT ABOUT IT!" "10-4!" and the like.

What you've been listening to, OM, is an example of the worst that radio has to offer; complete havoc. No licenses, no rules, no morals, and damn little real interest by the parties involved in learning about the Science of Radio...I recommend you tune upward on your dial...towards 28.3-28.5MHz. This is where Novice/Tech 10 meter voice operation is found.

You'll hear a large number of people having a swell time experimenting with converted CB radios, trick-antennas, tuners, grounds -- loads of Novice ops, as well as all other classes of Amateur operators..sharing the fun and helping each other grow..a great time, 10 meters is enjoying enhanced DX with the sunspot cycle now near it's peak. Maybe you'll even

get the urge to become licensed and join in the fun! Your own callsign! (It's a bigger thrill than most hams will admit!) The day it arrives, you go a little crazy...you dash to the rig and begin working your fellow Hams with a fever! It's a mega-dose of the thrill in hearing rare-DX, mixed with the joy of passing a tough test, and a hint of sex..all rolled into one!

Amateur Radio awaits you...join us!
'73!
--
-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **

818. Call for Discussion: rec.radio.misc

Newsgroup: rec.ham-radio
Date: 1990-02-05 23:38:19 UTC
From: welty@lewis.crd.ge.com
Message-ID: <2843249899@lewis.crd.ge.com>
Source record: 13723
Cross-posted to: news.announce.newgroups,rec.misc,rec.radio.shortwave,rec.ham-radio

Call for Discussion: rec.radio.misc

this is by way of formalizing things ...

we now have the beginnings of a rec.radio.* hierarchy; we do not, however, have a misc group. the absence of a misc group has a number of negative effects:

everybody wants a niche group created even though traffic can't be shown

inappropriate traffic bubbles up in the existing niche groups

potentially reasonable radio discussions are orphaned

i am proposing that rec.radio.misc be created, to provide a home for various topics such as radio programming, radio listening, etc. this group would give readers of rec.ham-radio.* and rec.radio.shortwave a place to point at for inappropriate articles, as well. in general, it seems a good way to vent off unproven niche-radio group proposals: ``why not use rec.radio.misc for a while and see if it flies''.

discussion will go on at least until after i finish counting votes for soc.history; i'm not inclined to collect votes on two proposals at once. discussion should go on ONLY in news.groups, which is where followups to this article are directed.

cheers,
richard
--
richard welty 518-387-6346, GE R&D, K1-5C39, Niskayuna, New York
welty@lewis.crd.ge.com ...!crdgw1!lewis.crd.ge.com!welty
``gee, you can hardly tell where the cat slept on the cake''

819. Re: Sony- Antenna (AN-1)

Newsgroup: rec.ham-radio
Date: 1990-02-06 00:25:45 UTC
From: menon@walt.cc.utexas.edu
Message-ID: <24110@ut-emx.UUCP>
Source record: 13724
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Does anyone know how much the AN-1 costs??

--Raj MEnon

820. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-06 00:41:17 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9002060233.AA27719@ti.com>
Source record: 13725

"ssc!tad" "Tad Cook" 5-FEB-1990 06:27:07.85 writes:

> What's the big deal about such a trivial clerical skill as demonstrating
> your ability to receive Morse at 5 WPM? With the 5 or 6 hours a week
> that he says he has to devote to radio, attaining minimal Morse skills
> should be easy . . . unless he resents Morse so much that he wont spend
> any time studying. I mean, I passed the test when I was 12 years old,
> for God's sake! Certainly a smart techie type should have little trouble
> with something so trivial.

Tad, I have do disagree with you here calling it a "trivial clerical skill".

Can you play a musical instrument? Do you know anyone who CAN'T? Granted, with hours of practice and coaching by someone, anyone CAN INDEED LEARN TO MAKE AN INSTRUMENT PRODUCE SOMETHING SIMILAR TO MUSIC. But I don't think it is trivial.

Can you juggle? I cannot. I've tried a few times and practiced and practiced, but my FRUSTRATION LEVEL overcomes my PERSISTANCE before long. *I* don't think it is trivial.

IMHO, learning the code is similar. I know ANYONE can do it because *I* did it. I failed the 13 wpm half a dozen times before finally passing it while a junior in high school. And oddly enough, I enjoy a CW rag chew now and again, God help me! But it isn't my main interest in Amateur Radio. I just wanted the license badly enough to do it. And I don't think it was trivial.

I've been teaching code for about a year now, at several levels. We have a session Every Thursday Night and whoever needs practice at whatever speed, that's what we do. Some nights we go from 3 to 23 wpm.

I am here to tell you that it is absolutely easier for some people to learn the code than for others. I can also testify that there is no short cut. It takes PRACTICE. If someone practices every day for twenty minutes or so, they'll learn the code. If they practice every other day they'll take longer.

"Time to devote to amateur radio" cannot always be a scheduled thing. If you can devote 5-to-6 hours per week to radio EVERY WEEK you are indeed fortunate. Some people have work and family priorities.

But Time To Devote To Code Practice *MUST* be scheduled and regular if you are going to make progress before you lose interest due to frustration.

Believe me, it isn't trivial. Maybe for a clever 12-year old, but not for the average adult.

I have mixed feelings about NO-CODE. I believe it will happen, not this year or next, but soon. If those interested keep at it. If that's the case, then,

it's time for it.

But down-deep I have a totally illogical, emotional feeling of "Shut up and learn the @#^&%$ code!" This is based in years (as for you) of having had that odd language as a part of me. I hear code in places where there is none--like a car horn sending an R or a train whistle sending a Q.

No Code is coming. I think it has to. As I say, I have mixed feelings about it. But in the meantime I do all I can to help those who WANT to overcome the obstacle. And I offer words of encouragement to those who do not.

Tad, please don't consider this a FLAME, just a BLAST OF HOT AIR... a gentle disagreement with one statement you made.

Regards,
Bob WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

821. Mods to Kenwood TS-940S?

Newsgroup: rec.ham-radio
Date: 1990-02-06 00:57:18 UTC
From: gd@milkfs.itstd.sri.com
Message-ID: <29852@sparkyfs.istc.sri.com>
Source record: 13726

Does anyone in net land have information on how to modify the Kenwood TS-940S HF transceiver to transmit out of band?

Greg, AA6BO

P.S. By now I don't think it's necessary to enumerate all the legitimate reasons for desiring the capability to generate signals at frequencies that are outside of the ham bands. I do not intend to transmit outside of the ham bands without a license.

822. Current information about becoming involved with amateur radio?

Newsgroup: rec.ham-radio
Date: 1990-02-06 01:14:39 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Feb6.011439.26423@NCoast.ORG>
Source record: 13627

Twelve years after I first learned about amateur radio, the bug has tickled me again... and I'm now (almost) in a position to do something about it. Unfortunately, the most recent information I have about FCC testing centers, requirements, etc. dates from the 60s (from my father's stuff; he isn't a ham, but had a friend who was (is?)). Can someone email me either or both of:

(a) An address to write to at the FCC for current information, including the locations of testing centers, current rules for amateur radio classes, applicable regulations, etc.

(b) Addresses of subscription departments for amateur radio magazines and/or other sources.

I'd also appreciate a little advice about how best to go about this, given that I live in an apartment and the landlord doesn't seem to happy even about the simple longwire I had up over the weekend for SWL'ing; I suspect I'm going to be stuck with some kind of mobile operation, but (again) my knowledge of *that* is state-of-the-art for 1965 or thereabouts....

Thanks in advance,
++Brandon
Brandon S. Allbery allbery@NCoast.ORG, BALLBERY (MCI Mail), ALLBERY (Delphi)
uunet!cwjcc.cwru.edu!ncoast!allbery ncoast!allbery@cwjcc.cwru.edu

823. Amateur Television in Europe

Newsgroup: rec.ham-radio
Date: 1990-02-06 01:44:03 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500378@ux1.cso.uiuc.edu>
Source record: 13628

What kinds of Amateur Television transmissions take place outside of the United States? I would assume you would normally use the standard TV system of your home country. For those of you in Britain or France, does anyone use the older black and white standards (405 line or 819 line) TV standards? Is it even legal? For anywhere in Europe, do hams transmit the opposite color standard of their home country in order to reach other countries (e.g. transmit SECAM from West Germany or PAL from France)? Is this legal to do? How about NTSC or PAL-M on a 525/60 system?

I understand for the most part, 23 cm is the only practical ATV band in Europe (with only 12 Mhz of space above 6 meters and below 23 cm things are more crowded than in the USA).

In the USA, no rules exist the specify the television standard except for when the station identification is given in video only in which case a reference to technical specifications from the broadcasting rules is used.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

824. Re: Sony- Antenna (AN-1)

Newsgroup: rec.ham-radio
Date: 1990-02-06 02:35:55 UTC
From: crisp@mips.COM
Message-ID: <35545@mips.mips.COM>
Source record: 13629
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <24110@ut-emx.UUCP> menon@walt.cc.utexas.edu () writes:
>
>Does anyone know how much the AN-1 costs??
>
>--Raj MEnon

I paid $84.50 for mine at Quement Electronics in San Jose.
--
Just the facts Ma'am

825. Re: IBM and Motorola - radio computer links - where they get freqs?

Newsgroup: rec.ham-radio
Date: 1990-02-06 06:19:41 UTC
From: tad@ssc.UUCP
Message-ID: <463@ssc.UUCP>
Source record: 13630

N4XHX was speculating where in the spectrum the new Motorola/IBM data network might operate. As I recall, they are already operating in the 800 or 900 MHz area for the IBM field service forces. The articles I have seen in the Wall Street Journal all mentioned that they were going to use existing IBM facilities and a nationwide "network of towers" already in place, so I assume that is where they will continue to operate. Of course, if the service proves popular, and starts generating the billion$ that they are projecting, who knows what spectrum they might gobble up!

Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

826. 66-88MHz coverage on scanners.

Newsgroup: rec.ham-radio
Date: 1990-02-06 10:44:03 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <06.Feb.90.10
Source record: 13631

In INFO-HAMS Digest V90 #135, RICHARD DALE comments:
>
>5. Remove diode from "D-45" to restore coverage from 68 to 88MHz.
>---
>In step 5 above, I have no idea what this is for.
>

Explanation: 68-88MHz is used in Western Europe for mobile radio.

Since Europe was the home of broadcast TV in the 1930's, and technology was at the time not too hot, the band 41-68MHz was initially used for TV. This was known as 'Band 1'. There were various standards, offsets etc. used. It gave 3 or 4 channels, 405 lines, monochrome. Not bad for 1936, using five-inch circular screens and simple dipole antennas.
Most of this network has now closed down, as has the 'Band 3' TV network (174-216MHz). The majority of European TV is now in the UHF band (470-860MHz), usually using 625 lines (color). This band is badly congested, so satellite TV (ASTRA, BSB, Sky-TV) is being introduced.
Mobile radio (using trunked digital technology) is being established in the old bands 1 and 3. UK Hams have also been allocated a slice at 50MHz so we can work Stateside. The same has happened in parts of France & also i beleive in Norway.
Theres a 'low power, anything goes' segment around 46 and 49MHz for the cordless-phone/garage-door-opener/baby-listener/radio-toy fraternity.
68-88MHz was the only section free, post-WWII, for the emerging mobile radio industry to operate in. Police, ambulances, fire, local utility & taxi despatchers etc. had nowhere else to go. They are still there.
Incidentally, there is, in Britain, a ham band 70.000 to 70.500MHz. This is also valid for some British ex-colonial outposts (Gibraltar, Cyprus).

Thus the 68-88MHz range is mandatory on any scanner that wishes to be taken seriously in Europe. The 30-50MHz range is no use to us. (largely silent, or full of digital squawks). Similarly, much use is still made of AM by the European mobile radio business. Makers of scanners with selection of AM possible *only* in the air-band please take note!

///Pete G6WBJ

827. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-06 13:57:21 UTC
From: mo@flash.bellcore.com
Message-ID: <19708@bellcore.bellcore.com>
Source record: 13632

Why is it that some people think that when you "learn the code"
it stays learned??? Did you never, ever study for a final,
take the test, and promptly FORGET how to even spell the subject
of the course??? If you are like most people you have done that.

THAT IS HOW I LEARNED THE CODE!!!

I learned it solidly, took the test, and immediately tried to
garbage-collect the neurons before they were hopelessly lost.

So, I have a license which requires code, but I am doing well to
recognize /RPT at the end of repeater IDs (only because you already
know it!) and I might could send my call.

I bring this up because I grow weary of all those people saying
how wonderful and uplifting it is to learn the code, how it makes
you a better person, and "builds strong bodies 12 ways."

So, I'm a 97-pound weakling in the code category, but that doesn't stop
me from working on TCP/IP and spread spectrum modulation.

-Mike
"Not No-Code, No Grief."
-Mike O'Dell

"I can barely speak for myself, much less anyone else!"

The Center for Virtual Reality --
"Solving yesterday's problems tomorrow!"

828. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-06 14:17:18 UTC
From: ewb@raybed2.UUCP
Message-ID: <1460@raybed2.UUCP>
Source record: 13633

The mods posted for the IC-24 enable the wide receive only (as far as I know). However, the good news is that there are more mods on the way such as direct entry of MHz when out of band. BTW the out-of-band sensitivity is very good (blew the doors off a BC-200xlt), except near the ends of the range.
73
Gene WA1UXA

829. IC-04 MODS ????

Newsgroup: rec.ham-radio
Date: 1990-02-06 15:50:39 UTC
From: marke@hpscdc.scd.hp.com
Message-ID: <5490090@hpscdc.scd.hp.com>
Source record: 13634

The subject of "mod's" for the IC-04AT have probably been brought up before here on the NET, but for some reason I have managed to miss them all. So, if some kind ol radio amateur could dig in to his or her files one more time, and post them for me, it would be muchly apprieciated. I am specifically looking for the mod's that pertain to out of band operation, and RX audio volume improvement.

Please post or e-mail, and thanks.

Mark Espinosa/WA6RGD

830. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-06 15:58:54 UTC
From: pfluegerm@valley.UUCP
Message-ID: <487bd97a.15840@valley.UUCP>
Source record: 13635

In article <1457@raybed2.UUCP>, ewb@raybed2.UUCP (EUGENE BALINSKI) writes:
>
>
>
> NOTE: All mods done at your OWN RISK !!
>
> ---
>
> Here's a useful mod for the Icom IC-24AT, the new mini dualbander.
>
> 1. Remove D13 on the main board. *
>
> 2. Reset the CPU.
>
> Voila! The frequency range of the handie-talkie is now
> 75-195 MHz, 200-490 MHz, and 740-960 MHz.
>
> * NOTE: This may void the warrantee. Make sure you treat the radio as if
> it were CMOS, ie NO STATIC CHARGES.
> DE: WA1OMM/KB1MZ

Has anyone actually tried this, and did it work? What is your serial
number?

I bought my 24AT last weekend and it's great. I recommend replacing the
antenna with one from a 32AT - several S-units better on 2 meter receive.
It doesn't do crossband repeater as-is, but there may be mods for this.
It does do crossband full duplex. I'm used to Kenwood products, so the
labeling and key sequences seem a little convoluted, but I'm rapidly
adapting. As-is, XMT/RCV 140-150, 440-450, and RCV only 138-174. Almost
everything with the radio is programmable, separately if it is unique to
a band (duplex offset, band scan limits, freq step, etc.). A full-featured
micro dual-bander.

I received the following mods for 24AT out-of-band from a very reliable
source (although they don't specify RX only or RX/TX), for 75-195 MHz,
200-490 MHz, and 740-960 MHz. Rumor has it (unconfirmed) that the unit
even switches to AM in the air band!

1. Remove diode D8 [see figure below]

2. Attach diode D7 [I believe this is already equipped]

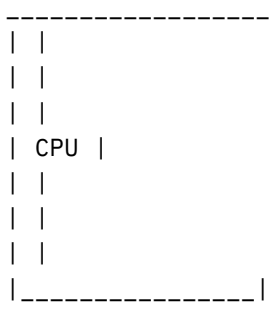
3. Attach diode D12

4. Remove diode D13

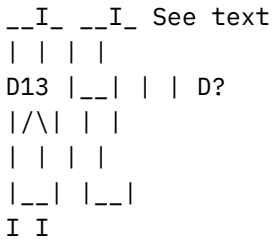
5. Simultaneously hold "LIGHT", "B", and "#" keys and turn the
power on. Release all keys after the display goes out (checks
all LCD segments). [This is supposed to enable the
out-of-band frequencies above]

6. Simultaneously hold "LIGHT" and "2" keys and turn the
power on. This enables the 10 MHz frequency digit entry.

7. Simultaneously hold "LIGHT" and "3" keys and turn the
power on. This enables the 100 MHz frequency digit entry.



o o o D7 lower left pin is
[D7] [D8] anode of one diode,
o o o lower right is cathode
of the other. Top pin
o o is common
[D12]
o D12 upper pins are cath-
odes of diodes, lower
is common anode.



WARNING: I have NOT tried the hardware mods and cannot vouch for them, so
proceed at your own risk!

I am told that the newer 24AT's (believed not to have made it to the US
yet) will have the hardware mods in place, so only steps 5-7 will be
necessary. So, try this first. Steps 5-7 don't seem to have any effect
on a 24AT without the correct hardware mods. BTW, this has been attempted
on 2 units with serial numbers around 1000 and mid-1100's, neither of which
worked. :-(Like I said, the ones with the mods aren't here yet.

There are 5 screws to remove the case (5th is on the strap hook). Keep
the top panel controls with the front of the radio, and be VERY careful
pulling the back off because there are fine ribbon cables connecting the
front & back. I don't think they'll take much flexing.

Additionally, diodes D7, D8, and D12 are surface mount components. They contain 2 diodes connected to 3 pins. Diodes D7 and D12 are different configurations. I believe D8 and D12 are different, so I wouldn't put the removed D8 in the spot for D12. Since they are surface mount, removal of D8 may not be all that difficult for those with steady hands and a fine low power soldering iron, but adding D12 would be a bear. I know of no reason that small discrete diodes couldn't be used in for D12. D13 is a small but standard axial diode, and can be easily cut.

It is for this reason I have not attempted the hardware mods. Now, if the referenced posting is correct, and only D13 needs to be cut... I'm guessing, but it could be that the rest of the diode changes are for the 10 MHz & 100 MHz digit entry (which I'd like but could live without) or out-of-band TX, or the like.

If anyone has tried only cutting D13 and resetting? Did it work? What is your serial number? Please post to the net!

If I learn more, I'll follow up.

--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

831. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-06 16:27:43 UTC
From: rps@dtseng.UUCP
Message-ID: <7247@dtseng.UUCP>
Source record: 13636

In article <30500376@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> What is the TRANSMIT range when the mods are done to the IC-24AT?

Transmit range doesn't appear to be affected unfortunately. I was at least hoping for 420-450 coverage. BTW, I tried each amateur band from 6m to 23cm. The PLL doesn't lock up at either end. Another negative is the frequency step on 220 doesn't allow one to hit each possible repeater slot.

All in all, not too bad. Now if I can get the cross-band repeater function...

--
Robert P. Scott | DTS Engineering, Inc. | {decvax,zinn}!dtseng!rps
Nothing could be finer than some green wallet liner....

832. INDOOR 80M ANT(Hi-perf)

Newsgroup: rec.ham-radio
Date: 1990-02-06 17:41:18 UTC
From: gene@uicsl.csl.uiuc.edu
Message-ID: <29400001@uicsl.csl.uiuc.edu>
Source record: 13637

I have recently tested a couple of models (80-40, 15,12 meters) of the SMALL VERTICAL LOOP design and have had results beyond my wildest hopes. This style should be ideal for many hams with limited space facilities.
It is described in the ARRL Antenna Handbook (15th Ed.) pps. 5-11 to 5-13. They attribute much credit to the W5QJR Hart Loop and the Army Loop which has been around for 23 years (See Down-to-earth Army antenna, Electronics, Aug 21 1967, p-111). I cannot understand why more of these have not come into general use. My most impressive results were evident on 80M (because it's harder for many competitors to put up good-performing conventional antennas). Instead of the 0.9" O.D. copper tubing described in the ARRL tables, I used a 40' roll of K-Mart lawn-edging....a 4" band of somewhat corrugated aluminum. (I made a modest attempt to iron-out the corrugations). In a very quick and (temporary?) manner, I installed this in the attic of my garage which has about 7' head clearance, in the form of a vertically-oriented rectangle...7' high and 13' across. The bottom lays flat on the attic wood-floor (and gets walked on)... the upper two corners are supported by 1/8" nylon rope to nails in the rafters ....as high as possible without touching wood. The two ends meet in the center at the top and since these will have perhaps 40Kv at full-power I used 1/8" nylon rope spanned out so that about 2' of isolation from the wood was provided (still keeping as high as possible because every sq. ft. of "enclosed area" is important). With 100 watts, a conventional large dual-section 300pf/section Xmitting capacitor is adequate (the two sections used "in series" so Hi-Q currents do not pass thru bearings etc).....but when going to 1000W out, things get a little wild....I ended up with three rectangles of copper-clad PC-board from my junk supply , laying horizonatal on a wooden pallet that I supported with the previously-mentioned rope. I simply laid small pieces of 3/8" plexiglass as spacers between the sheets. (I had arc-overs jumping as far as 1/2" because of "sharp edges" of copper-clad). The loop can be pre-tuned with a grid-dipper, or you can simple use a general-coverage re-ceiver to hear the "noise-peak" to decide where it is resonant. It is very easy to get a perfect vswr-match by a small amount of experimenting. It is fed at the bottom center (ground-potential) by connecting the feed-coax shield at or near the center of the 40' roll (probably should mark center before installing it) and this center should be directly below the capacitor gap at the top of the rectangle.....the coax-shield connects to at or near this center, and the center of the coax is simply extended with a 3 or 4' wire and experimentally connected to the loop for good match. (Sometimes, a .001 ufd capacitor helped mine drop to "perfect" (transmitting type-cap), altho not absolutely needed. I am feeding mine with 90' of small RG-58/U coax and running up to 1000 watts output.
To get to the bottom line....in a rather extended two-day test, the results, in my "humble?" opinion have been amazing. Considering that the garage has aluminum-siding (all the way up on the ends), a lot of metallic junk stored near-by sopping up energy and knocking the Q down...plus the

composition-shingles shrouding closely overhead, I still have been able to
experience excellent on-the-air results and have certainly raised a lot
of eyebrows from about all points this east of the Rocky Mountains...
some of the comments almost approaching "disbelief".
The previous day or two, I had it tuned to 40M where it is even more
effective and it was absolute gangbusters there....the main difference is
that it is easier for many stations to have competing antennas such as
2-element rotatables on 40M, and others almost as good.
I might suggest that it might be a little questionable to put Hi-power
at the higher frequencies in a close area where junk is nearby...it might
be conceivable to have something absorb enough energy to start a fire??
A few days previously, I had test the VERTICAL LOOP on both 15M and
12M, with an aluminum square frame, 35" per side, made from stock about
1/2" by 1 1/2", one corner left open and two parallel aluminum plates
attached for tuning. It was strapped to a wooden 8' step-ladder in my
driveway (vertically) and a perfect match was easily obtained by simply
putting two small battery clips on the ends of the coax, allowing a
spread of about 6". These were bridged across the corner opposite the
tuning gap (which was at the top)...approximately a 5" spread.
Here I only used 100 watts for testing but I'm sure it would handle
the KW without problems. By now you won't be surprised to hear that it
worked beautifully..usually similar reciprocal results on most stations
I worked...I even had a decent contact with Johannasburg, S. Africa.
The comparitive results of this loop design should be even more
dramatic on 160M if you can contrive a square at least 30' each side!

833. Re: Legalities of Multiple Call Signs

Newsgroup: rec.ham-radio
Date: 1990-02-06 20:43:20 UTC
From: koning@koning.dec.com
Message-ID: <8159@shlump.nac.dec.com>
Source record: 13638

In article <9001171628.AA04357@zit.cigy.>, jcp@cgch.UUCP (Joseph C. Pistritto) writes:

> Does anyone know what the rules are if you are licensed in
> more than one country? I know that in each country you hold a license
> in, you must use the privleges and callsign assigned by that country,
> but what happens if you go to a third country to operate?

I'd say the answer is very simple: check the rules of the country where you're operating. They get to define what happens. For example, you may get to pick which of the two licenses you use as the basis for your reciprocal operating privileges. Or, given that one is a CEPT license, you'd (presumably) use that one wherever a CEPT license is recognized.

It's certainly possible that a country would expect you to use the license from wherever you're a citizen. On the other hand, the US (for example) doesn't do that. Its only restriction is that you cannot use reciprocal privileges if you're a US citizen.

In other words, don't rely on "rule of thumb" answers, since they are likely to be misleading

> By the way, would contacts made under both callsigns count as
> one person for DXCC purposes?

I don't see why not. For example, if you upgrade and change your call, that's fine. The DXCC rules do require that all contacts must be from "the same DXCC country" -- so contacts from Switzerland and from the US cannot be combined.

paul, ni1d

834. Re: Digital audio - no more QRM?

Newsgroup: rec.ham-radio
Date: 1990-02-06 20:48:43 UTC
From: koning@koning.dec.com
Message-ID: <8160@shlump.nac.dec.com>
Source record: 13639

Digital audio as the answer to QRM (or to band congestion, etc.) sounds dubious to me. About the best voice encoding you'll find gives a 2400 bps data rate. That requires 8 bits per baud with current FCC rules (for those in the USA) and in any case would be pretty hard to send efficiently through shortwave radio channels. And of course this doesn't give you "hi fi" by any stretch of the imagination, though it would give you "telephone grade" voice.

Apart from that, this won't eliminate QRM, it merely changes the way in which QRM manifests itself. Instead of hearing the voice through noise and sqeaks, you will hear either (a) gaps in the voice, or (b) delays ("stuttering"). (a) applies if you don't retransmit, which is the common approach in "packet voice", (b) applies if you do. I don't know what the success rate of packets on HF is, but I'd be surprised if it is above 25%. That rules out (a) completely, and says that on (b) you need an average of 4 retries per packet. So your necessary bandwidth goes up to 9600 bps. Good luck!

paul, ni1d

835. Connector adaptors

Newsgroup: rec.ham-radio
Date: 1990-02-06 20:54:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9002070806.AA13281@ucbvax.Berkeley.EDU>
Source record: 13640

The most flexible connector adaptors I've seen are available from Heath (HCA-3001). It is a modular kit consisting of 24 connectors of 16 different types, plus six center sections. To make an adaptor, you screw one connector end on each side of a center section. This gives some 240 possible combinations. The connectors are well made, and the center pins are all gold plated. The connector types are male and female of: UHF, mini UHF, N, BNC, TNC, SMA, RCA (phono plug), and F. It's proven very handy several times until I got around to finding or making a dedicated adaptor.

836. Re: INFO-HAMS Digest V90 #143

Newsgroup: rec.ham-radio
Date: 1990-02-06 21:15:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9002070807.AA13330@ucbvax.Berkeley.EDU>
Source record: 13641

> In the same vein, I heard some activity on 10.9m (27525 kHz) in both
> AM and USB on the same frequency. The USB guys and AMs (they called
> themselves CJers ???) were having a major war on that frequency, with
> *pretty* foul language by the "sidebanders" including attempts to
> sabotage the AM txm. It seemed pretty odd to me. I hope this won't
> start a flame war, but can anyone tell me what band this is and
> if it is legal for such language to be used over the airwaves?
>
You are listening to what is commonly known as 'freeband'.
This extends from the top of the legal CB band (27.4) to the
bottom of the amateur band which begins at 28.0. Those
frequencies, which are licenced for use in the business and
forrestry radio services, have been appropriated by
unlicenced users as a hobby band. Such use of an unlicenced
radio is blatently illegal, so the question of whether their
language is proper is moot.

These geeks are so disconnected from reality that many of
them will not admit, and perhaps do not even realize, that
their activity is illegal. For example, someone will claim
a freqency and defend it against all comers, which is rather
absurd, given that none of them has right to be there. What
takes place in the freeband is often absolutely disgusting.
I heard one freebander who felt it was his mission to
preserve the band for "English speaking Americans". Since
the skip was in to Mexico and much of Latin America (where
the band is used in a similar illegal fashion), he had a big
job. I couldn't repeat most of his language (I don't even
know some of those words), but the general gist was that
they were scum of the earth, and the USA ought to lanch a
nuclear attack and blow away everything south of Texas.
What a great ambassador.

My radio tends to throw up whenever I tune to that part of
spectrum, so I aviod it like the plague. I do wonder about
it when I hear 'no-code' mentioned, tho.

837. Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-06 22:28:33 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002062324.AA17072@ti.com>
Source record: 13642

Michael O'Dell writes:
>Why is it that some people think that when you "learn the code" it
>stays learned?

I learned the code in 1955. I abandoned the hobby in 1956 before getting past the Novice requirements. In 1989 I gained a new interest in Ham Radio and began taking classes at my local Amateur Radio club. AMAZINGLY, I found that I could remember all the characters! With only a couple of training sessions I was able to pass the 5WPM test again.

>Did you never, ever study for a final, take the test, and promptly
>FORGET how to even spell the subject of the course???

Yes, I've done that; as, of course, have we all. What this demonstrates is the difference between LEARNING and MEMORIZING. When you learn something (swimming, bicycle riding, math rules) you don't forget it from non-use; you just become a little rusty. A quick refresher will get you back up to the level you left off. Why do you think schools have a short period of refresher materials after a summer break?

>I learned it solidly.....

I doubt that you learned it that well if you can't recall the characters well enough to copy a message after an hour or so of copy at 5WPM.

>...that doesn't stop me from working on TCP/IP and spread spectrum
>modulation.

I can do fairly well at 20WPM now, but I can't answer the first question about spread-spectrum. Should I demand that new technology not be used in Amateur Radio because I don't understand it or master it? Of course not! All it takes for me to do so is a little (lots) of time and effort to learn it. If I'm unwilling to do that bit (and I am), you won't hear me complain.

>I bring this up because (lots of hyperbole)...

I have a feeling that REAL reason you brought it up is because you don't want to bring your speed up to 13WPM in order to get more operating spectrum.

Like Bob, WA8YCD, pointed out: No-Code is coming. When it does I just hope it doesn't bring with it an unmanageable, undisciplined group of operators with it, who, unlike ourselves, might view the rest of the operating practices and rules as antiquated and outdated as the code requirements.

73,
Dube, N5PDK

838. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-07 01:45:40 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500379@ux1.cso.uiuc.edu>
Source record: 13653

[random ramblings]

I often refer to FM as Fuzzy Modulation for a couple of reasons. For one thing, when trying to listen to a wideband broadcast FM signal in AM or narrow FM modes, the signal sounds quite fuzzy. For the other, the actual width of the entire signal depends on the signal strenth AND a threshold in which you consider the strength of sidebands to be significant, as well as the modulating frequency. Because I cannot put an exact value on the width of an FM signal, and because an overlap of sidebands is taken for granted in squeezing FM channels, I think of FM as a fuzzy modulation.

In addition, many FM transmitter are really PM. I'll leave you to your imagination of acronyms for PM.

AM is rather specific. If you limit your modulation upper limit to, say, 4 khz, and your carrier frequency tolerance to + or - 0.5 khz, and have a filter skirt width of 1 khz, you can EASILY have 10 khz channel spacing.

At the narrow bandwidths we try to squeeze FM into on the ham bands and even the public service and land mobile bands, we are not really getting much of a benefit from the quieting effect of FM. There is some, to be sure, but the tighter we squeeze, the less we get.

Noise (and interference) immunity is a function of the redundancy we have. That why CW "get's through"; because it is very redundant. That's why we are trained (told) to repeat out words or use phonetics; that's redundancy. Even increasing power is a form of redundancy. And of course extra sidebands are a form of redundancy.

SSB appears to have no redundancy, but in fact has plenty. By eliminating the other sideband, the redundancy is removed, but this also give you the extra headroom in your transmitter dynamic range to increase the power by 3db. That puts you back to square one, but you can also filter out the noise from the unused sideband on receive giving you a 3db noise advantage. The next step is getting rid of the carrier, which is reproduceable in the receiver, and makes up 2/3's of the transmitter's total output power. That let's you up the remaining sideband power by another 5db.

But why does AM sound better than even SSB?

Obviously, if the inserted carrier in the receiver is off frequency, then the audio is distorted. But even if it is on frequency, the phase might be off, which is still a form of distortion. Further, because phase is considered to be not that critical (for general communication) the phase accuracy of the whole modulation process is considered to not be critical, so SSB modulators can end up causing a lot of distortion, particularly in phase linearity.

Properly modulated AM does not need to play tricks with the signal. You don't need filters to remove the opposite sideband which have the side effect of adding some new distortion. You don't need phase shifters to generate SSB which can cause distortion in phase and amplitude linearity. While new digital techniques can virtually eliminate the distortion, they are still expensive if done totally right.

AM does SOUND better.

Why would one want to use AM? Because it sounds better AND because they don't need the advantages SSB has. Why not use FM? Maybe the disadvantages of FM are undesirable in certain circumstances.

Each of SSB, AM, and FM have their advantages and disadvantages. But what is actually wrong with using AM in certain circumstances where it has its advantages?

While I personally believe using AM on bands that are crowded to the point where SSB signals are overlapping is a bad idea, such is not the case with some bands such as 160m, 10m, 6m, a small portion of 2m, and portions or all of higher bands. So what is wrong with people using AM on these bands, or at least on an appropriate portion of these bands?

Also, has anyone tried working with reduced carrier (in phase) double or single sideband? Do syncronous demodulators retain the original phase of the locked carrier (assuming path distortions are not significant)?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

839. Re: Current information about becoming involved with amateur radio?

Newsgroup: rec.ham-radio
Date: 1990-02-07 01:55:38 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490006@hprmokg.HP.COM>
Source record: 13643

In reply to information on getting started....

Ok, here we go....

Ham Radio Magazines:

QST Magazine (journal of the American Radio Relay League - ARRL)
225 Main St
Newington Ct. 06111
Phone: 203-666-1541

Ham Radio Magazine
Greenville, Hew Hampshire 03048-9988

73 Magazine
WGE Publishing Co.
WGE Center
Forest Road
Hancock, New Hampshire 03449
Phone: 603-525-4201

Worldradio
1779 Tribute Rd. Ste. L
Sacramento, Calif. 95815
Phone: 1-800-365-SUBS

I don't know how far Reynoldsburg (Columbus), Ohio is from you
but there is a ham radio store called Universal Amateur Radio INC.
1280 Aida Dr. 43068 there. Their phone is 614-866-4267.

There are several radio clubs in Ohio that could assist you in obtaining
your license. One club is the North Coast Amateur Radio Club.
P.O. Box 30529, Cleveland, OH. 44130
They meet the first Thurs. monthly at the Old North Olmsted Town Hall
at Dover Center and Lorain Roads between the city hall and the police dept.

The above club info came from Worldradio magazine. There are also 6 other
clubs listed in Ohio. e-mail me if you want all of their addresses.

As for how to get started, I highly recommend buying a copy of "Tune In the
World with Ham Radio" from the ARRL (see above for address). It costs about
$20.00 with morse code tapes. Also, most every radio club will assist you
in getting your license. The book tells you just about everything you need
to know to get your ticket.

As for dealing with the FCC, there is a volunteer examining group that gives
the ham tests now, different from what it used to be years ago. It's called
the VEC program. Chances are that there are some VECs in your local club

to give you the test.

Last, if you have ANY questions, don't hesitate to e-mail me. Most of the people on this group would be more than happy to help.

Last, last, don't let the prices of new equipment scare you. You can get on the air with very good used equipment for a couple of hundred bucks or less. And..... don't let the code scare you. I know elementary school kids that can master it.

Have fun!
Barry

Barry M. Fowler Hewlett Packard Company

Networked Computer Manufacturing Operation - Roseville, California

e-mail: barry@hprmokg.rose.hp.com
Verbal: Hey Barry!
R.F. : WB6JZL

840. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-07 02:14:17 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500380@ux1.cso.uiuc.edu>
Source record: 13654

> I am told that the newer 24AT's (believed not to have made it to the US
> yet) will have the hardware mods in place, so only steps 5-7 will be
> necessary. So, try this first. Steps 5-7 don't seem to have any effect
> on a 24AT without the correct hardware mods. BTW, this has been attempted
> on 2 units with serial numbers around 1000 and mid-1100's, neither of which
> worked. :-(Like I said, the ones with the mods aren't here yet.

This would imply the mods might be Receive Only or else they have changed
the software in the CPU to not require the mods for Receive. The mods done
for receive might be different for transmit. I really would like to find
out if it can be made to transmit on 902 Mhz. Such a radio would be nice,
but even if not, 902 Mhz receive, and 220 Mhz receive, are nice to have.
One can set up a full duplex autopatch with the HT transmitting on 70cm
(not on 2m since remote control of a station cannot be done on 2m and the
full duplex patch would be a station in remote control) and the HT receiving
on 220 Mhz (pending enough available spectrum) or 902 Mhz.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

841. Oscar-20 is in orbit!

Newsgroup: rec.ham-radio
Date: 1990-02-07 02:55:48 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19720@bellcore.bellcore.com>
Source record: 13655

As I type this I'm listening to the 435.795 MHz CW beacon of the brand-new Japanese amateur radio satellite Oscar-20 (known as JAS-1B before launch). The launch was on time at 01:33 UTC from southern Japan, about an hour and a half ago, so it hasn't even completed one orbit yet.

Here is the pre-launch orbital element set, which matches my observations quite closely:

Satellite: jas-1b
Epoch time: 90038.10656000
Wed Feb 7 02:33:26.784 1990 UTC
Element set: prelaunch
Inclination: 99.1210 deg
RA of node: 109.7600 deg
Eccentricity: 0.0454200
Arg of perigee: 343.9290 deg
Mean anomaly: 4.7870 deg
Mean motion: 12.99580000 rev/day
Epoch rev: 0
Semi major axis: 7639.206 km
Anom period: 110.805029 min
Apogee: 1609.631 km
Perigee: 915.686 km

Phil

842. Re: Cheap Radios

Newsgroup: rec.ham-radio
Date: 1990-02-07 03:08:56 UTC
From: bobw@col.hp.com
Message-ID: <4380067@col.hp.com>
Source record: 13644

>/ col:rec.ham-radio / ken@swbatl.UUCP (9081) / 8:16 am Feb 5, 1990 /
> I headed out to the local Sears store last week and bought a
> cellular mobile phone for $199.95. The phone can be permanently
[stuff deleted]
> to scrutinize my every call. Repeater club dues alone are $25/yr.
> Think about it!)
>
As I end up telling people who witness an autopatch demo: it's a
neat toy, a real convenience at times, but it really doesn't
constitute a mobile telephone (due to the lack of privacy and
restrictions on business use as you point out.)

> The point of my posting is this - I can purchase a 900MHz phone
> for $200 or a synthesized marine radio for $160 or a CB for $40.
> You can't touch a 2M rig for under $250 and the dual-bander prices
> are truly astronomical. Where is all that ham ingenuity? What can
> we do with these reasonably priced consumer radios? If you know,
> please post to the net. My intention is not to start some cosmological
> discussion of "Why I need to be a ham".

It seems like the opportunity here is to convert the marine radio to
2Meters. (People already convert CB's to 10 meters.)

Editorial comment: the marine radios and CB's often scrimpt alot on
the quality of the radio to acheive the lowest possible cost. I'm
not sure that's true of the cellular telephone, though. They appear
to use large amounts of integration (as in integrated circuit) to
acheive there cost advantage.

Bob Witte, KB0CY
HP Colorado Springs Division

843. New Car Radiated Emissions

Newsgroup: rec.ham-radio
Date: 1990-02-07 03:19:34 UTC
From: bobw@col.hp.com
Message-ID: <4380068@col.hp.com>
Source record: 13645

Check out the EMI radiating from the next car you buy, before you buy it. Two recent events with new car buyers:

1. My friend bought a new Subaru and installed a 2 meter rig in the car. Unfortunately, he later discovered that a device (thought to be the fuel pump) radiated a strong signal on 146.97 MHz, which happens to be the output frequency of the local repeater. He intends to try to reduce the radiation by capacitively bypassing the offending device, but hasn't done this yet.

2. I bought a new (1989) Jeep Cherokee and installed a 2 meter rig in it. I orginally put a Larson antenna on the edge of the engine hood (using one of those L shaped brackets). I discovered that the engine in general radiated gobs of RF all across the 2 meter band. After much investigation, I decided to move the antenna to the rear of the vehicle. This eliminated all of the interference except for one signal on some obscure simplex freq that I never use.

So what do you do? Take the car on a test drive to a local RFI range? Haul a spectrum analyzer down to the dealer? Ask the dealer for a plot of the radiated emissions?

Bob Witte, KB0CY

844. Estimated Keplerian Data for STS-36

Newsgroup: rec.ham-radio
Date: 1990-02-07 04:02:45 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <150@ka2qhd.UUCP>
Source record: 13646
Cross-posted to: rec.ham-radio,sci.space.shuttle

```
Msg# TSP Size To @ BBS From Date Time Bid
5480 BN$ 1407 ALL AMSAT W3ATQ 900207 0309 ANS-037.06
Subject: PRE-LAUNCH STS 36 KEPLARIAN ELEMENTS

R:900207/0045z @:WA2SNA.NJ.USA.NA Hawthorne, NJ #:18515 Z:07506
R:900206/2306z @:KB3UD.PA.USA.NA East Bangor,Pa #:13124
R:900206/2225z 355@N3ET-1.#EPA.PA.USA.NA [Allentown] Z:18103
R:900206/2025z @:KA3T.MD.USA.NA Mt. Airy #:783 O:W3ATQ
R:900206/1853z 38373@W3IWI.MD.USA [Balto/Wash MD/DC/VA/DE] Z:21029
R:900206/1730z 33982@WA4ONG.VA.USA.NA [Richmond, VA] Z:23235

HR AMSAT NEWS SERVICE BULLETIN 037.06 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 6, 1990
TO ALL RADIO AMATEURS BT

Aviation Week reports that the next shuttle flight, DOD STS-36, will go into a
62 deg inc, 110 x 110 nm orbit. Current launch time is 16-Feb-90 1:21 AM EST.
This will be the lowest altitude and highest inclination operational orbit
to date. Estimated keplerian elements are:

Satellite STS-36
Catalog Number 90010
Int Des 1990 910A
Epoch 90 47.32395131 02/16/90 0746:29 UTC
Drag 0.00100000 Rev/Day^2
Element Set 1
Inclination 62.0000 Deg
RAAN 144.7666 Deg
Eccentricity 0.0000000
Mean Anomoly 360.0000 Deg
Mean Anomoly 0.0000 Deg
Mean Motion 16.25824035 Rev/Day
Epoch Revolution 1
Semimajor Axis 6581.88 Km
Period 88.57 Min
Apogee 203.72 km 126.59 sm 110.00 nm
Perigee 203.72 km 126.59 sm 110.00 nm

NN2Z>
--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken
```

845. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-07 10:41:33 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500381@ux1.cso.uiuc.edu>
Source record: 13669

> Transmit range doesn't appear to be affected unfortunately. I was at

Something I have been contemplating recently concerning this is to petition the FCC for a rule, or maybe even ask my congressperson to start a bill, to require that ALL equipment sold in the amateur market be capable of operating fully (i.e. receive, and if it is a transmitter, to also TRANSMIT) on the ENTIRETY of each amateur band that it is capable of operating on. Exceptions would be made for equipment which does not incorporate the basic tuning mechanism; i.e. transverters, amplifiers, antennas, etc. The justifications for this would include:
1. Reduce the temptation for amateurs to modify equipment in such a way that opens up transmit capabilities where operation would be illegal (and thus preserve the legality of so doing where one find it absolutely necessary to do).
2. Reduce the justification of manufacturers to provide such modification information, or to implement the capability for such mods, that enables the radio to be useable in services that require type-acceptance.
3. Shift the advantage/disadvantage slightly in favor of domestic radio manufacturers over that of foreign ones (we have 30 Mhz of 70cm and "they" only have 10 Mhz).

If it were not for the fact that I am a "keep the government out of everyone's affairs" type of libertarian, I would have already proposed and pushed for this law. Maybe I will anyway. I certainly won't fight it if someone else does.

[Flames by mail only. Send to <nobody@localhost>]

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

846. Re: European TV frequency allocation

Newsgroup: rec.ham-radio
Date: 1990-02-07 12:03:25 UTC
From: BCOLLINS@zaphod.axion.bt.co.uk
Message-ID: <1990Feb7.120325.10949@axion.bt.co.uk>
Source record: 13663

From article <9002042047.AA23111@iilcad>, by avip@iilcad.intel.COM:
> Commercial TV broadcasting in Europe/Middle East follows a different
> frequency allocation scheme than in the U.S. Frequencies are organized in
> three bands: Low VHF (Channels 2,3,4) Hi-VHF (Channels 5-11) and UHF
> (Channels 21 to 90something).
>
> May anybody on the net provide me a detailed frequency table for the above
> channel scheme. i.e. which frequency in Mhz belongs to each channel,etc.
>
> I'm aware that the generic term "Europe" is a bit vague, considering the
> large variety of TV standards coexisting there. I'm specifically
> interested in the frequency table for countries using PAL/SECAM standards.
>
> Thanks in advance!!
>
> Avi Plotnik, 4X6LP

Avi,
I checked my copy of the World Radio TV Handbook last night. It lists 12
different sets of frequencies for the VHF TV bands, and 5 for the UHF bands.

It would take a while to type them all out ... can I suggest that you try
and get hold of a copy of the WRTVH (expensive to buy - last years cost about
18 pounds sterling - so try to borrow one). This has lots of information
regarding each country's standards, stations, and transmitters.

Most of (Western) Europe uses a standard set of (vision carrier) frequencies
for UHF, using channels designated 21 (471.25 MHz) to 68 (847.25 MHZ)
at 8 MHZ channel spacing.
But note that there are several different systems in use, and hence the sound
frequency (and modulation) can be different according to which country you
are receiving.

For example, my "local" countries at UHF are:

UK system I, Pal colour
Netherlands, Belgium system G, Pal colour
France system L, Secam colour

As mentioned previously, there are numerous VHF frequency allocations, many
using obscure systems.

SYSTEMS
=======

System Lines Channel Vision/Sound Vision Sound
Width Separation Mod Mod

```
------ ----- ------- ------------ ------ -----
A 405 5 - 3.5 (MHz) + am
B 625 7 + 5.5 - fm
C 625 7 + 5.5 + am
D 625 8 + 6.5 - fm
E 819 14 +/- 11.15 + am
F 819 7 + 5.5 + am
G 625 8 + 5.5 - fm
H 625 8 + 5.5 - fm
I 625 8 + 6 - fm
K 625 8 + 6.5 - fm
L 625 8 + 6.5 + am
M 525 6 + 4.5 - fm
N 625 6 + 4.5 - ??
```

Note that some of the above are now obsolete (eg. A was the old UK system on VHF).

Regards,
Bill


```
+-----------------------------------------------------------+
| Snail Mail : Bill Collins, Dept RT3123, |
| British Telecom Research Labs, |
| Martlesham Heath, Ipswich, IP5 7RE, UK |
| Phone : +44 473 642760 |
| E-mail : bcollins@axion.bt.co.uk |
| |
| Disclaimer : All facts are subject to brain-fade |
| & any opinions expressed/implied must be my mistake ... |
+-----------------------------------------------------------+
```

847. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-07 13:20:13 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9002080804.AA11720@ucbvax.Berkeley.EDU>
Source record: 13647

Date: Tue, 6 Feb 90 16:28:33 CST
From: dube@cpdvax.csc.ti.com (DUBE TODD)
Subject: Learn the <*> code!
Message-ID: <9002062324.AA17072@ti.com>

>I can do fairly well at 20WPM now, but I can't answer the first question
>about spread-spectrum. Should I demand that new technology not be used
>in Amateur Radio because I don't understand it or master it? Of course not!
>All it takes for me to do so is a little (lots) of time and effort to learn
>it. If I'm unwilling to do that bit (and I am), you won't hear me complain.
>
>Dube, N5PDK

Now there's an interesting proposal. Of course I don't see where anyone
has ever reccommended outlawing CW. Only not requiring it.
Of course based on what you have said above, I could use the same argument
towards you. Why should you be allowed to have a license if you don't
know about spread-spectrum?? What makes one facet of the hobby (CW) any
more important than any other (spread-spectrum, packet, SSTV).
NO matter how much arguing gets done, once all the emotional reasons get
thrown away, there is not one valid technical reason for forcing people
to learn an obsolete form of communications in order to use a radio.

And in case your curious, Yes, I can copy CW. BUt regardless of all the
arguments to the contrary, I have a couple of machines that can do it a lot
better.

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

848. Looking for good US-Europe HF freqs

Newsgroup: rec.ham-radio
Date: 1990-02-07 14:29:12 UTC
From: jcp@cgch.UUCP
Message-ID: <9002071402.AA04753@zit.cigy.>
Source record: 13648

>Mailer: Elm [revision: 64.9]

I'm active in Europe on 2m/70cm at the moment, but I'm getting
the urge to at least listen in on some HF. Maybe this'll get me excited
enough to get my code speed up and get an HF license. So, what's a good
place to find voice in the HF bands. Particularly DX stuff. I normally
listen from 1800-2300 UTC. I've found some activity on 40m, but there
are a lot of broadcast stations in that band in Europe, so it's a bit
difficult. Other suggestions?
-jcp-

==========
Joseph C. Pistritto HB9NBB N3CKF
'Think of it as Evolution in Action' (J.Pournelle)
Ciba Geigy AG, R1241.1.01, Postfach CH4002 Basel, Switzerland
Internet: bpistr@cgch.uucp Phone: (+41) 61 697 6155
Bitnet: bpistr%cgch.uucp@cernvax.bitnet Fax: (+41) 61 697 2435
From US: cgch!bpistr@mcsun.eu.net

849. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-07 15:36:38 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500013@hpfcso.HP.COM>
Source record: 13649

Michael O'Dell describes how he's forgotten all the code he ever knew.

I'd say that's nothing to be especially proud of. Sure, it happens.
But it's a loss and as such it's nothing to crow about.

I probably would have a hard time with 20WPM now but I don't think
I'll ever forget the code considering that it stayed with me for
5 years at a time during radio layoffs.

Ron Miller
NW0U

850. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-07 16:19:05 UTC
From: mo@flash.bellcore.com
Message-ID: <19726@bellcore.bellcore.com>
Source record: 13662

Having heard an ACSSB radio and heard a talk on how it works,
my guess is that ACSSB gives you the best of both worlds.
I'm really curious why amateurs aren't busily experimenting
with ACSSB...

-Mike

-Mike O'Dell

"I can barely speak for myself, much less anyone else!"

The Center for Virtual Reality --
"Solving yesterday's problems tomorrow!"

851. Re: Chip Identificationi Wanted

Newsgroup: rec.ham-radio
Date: 1990-02-07 16:29:00 UTC
From: Bob.Folwaczny@f54.n147.z1.FIDONET.ORG
Message-ID: <211.25D14C26@bad_dog.FIDONET.ORG>
Source record: 13650

```
4028=BCD TO DECIMAL DECODER OR 3-BIT BINARY TO OCTAL DECODER
4042=QUAD TRANSPARENT LATCH
4081=QUAD 2-INPUT AND GATE
14555=DUAL BINARY TO 1 OF 4 DECODER/DEMULTIPLEXER.
--
Bob Folwaczny - via FidoNet node 1:147/9
UUCP: ...apple.com!uokmax!bad_dog!54!Bob.Folwaczny
INTERNET: Bob.Folwaczny@f54.n147.z1.FIDONET.ORG
```

852. Re: INDOOR 80M ANT(Hi-perf)

Newsgroup: rec.ham-radio
Date: 1990-02-07 17:35:28 UTC
From: gene@uicsl.csl.uiuc.edu
Message-ID: <29400002@uicsl.csl.uiuc.edu>
Source record: 13665

I forgot to mention that the 2:1 VSWR bandwidth is about 30 khz. The Handbook tables show a "bandwidth" of about 5 khz for a 38' circumference model. Does anyone know if their BW specification would mean a similar 2:1 VSWR width? ...or if not, how would they relate? Based on my experience with mine, it seems that a 5 khz 2:1 VSWR width would be a nuisance to deal with, and the voltage problems would be horrendous?? (80M).

853. JAS-1B

Newsgroup: rec.ham-radio
Date: 1990-02-07 18:15:05 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19756@bellcore.bellcore.com>
Source record: 13673

Don't be surprised if you hear nothing from JAS-1B based on the elements I posted last night. As has been our experience with almost all pre-launch estimates, these elements gave predictions that were considerably off less than a day after launch; this morning's pass was more than 10-15 minutes late. I'll post new elements as soon as they are available.

Phil

854. Re: Wanted: Recommendation for a CHEAP 24 hour clock

Newsgroup: rec.ham-radio
Date: 1990-02-07 18:16:01 UTC
From: davidb@Pacer.UUCP
Message-ID: <276@zircon.UUCP>
Source record: 13651
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1990Feb1.194316.3098@chinet.chi.il.us>, megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
> I'm tired of trying to remeber [sic] what to add or subtract to get UTC from
> eastern time. It is time to buy a 24 hour clock for in my shack. I've
> seen lots of expensive types, but surely someone must make an inexpensive
> LCD or LED clock that has 24 hour format.

Practically all electronic digital clocks are 24-hour. The only problem is that an idiot light goes on for AM pr PM instead of the more logical solution of having a 24-hour display.

About a year ago, I (after arriving late for work because I accidentally set my alarm for 6:30 PM instead of AM for what seemed like the 32767th time) took my digital clock apart, clipped one end of an alligator lead to the positive lead of the clock's power supply, clipped a 1K resistor to the other end, and started probing the unused terminals of the digital clock chip. Viola! The third one I tried, the display changed from 5:36 to 17:36. I soldered the 1K resistor in place and put the clock back together.

One minor problem is that while virtually all clock chips support 24-hour displays, many clock displays only have 3 1/2 display digits. Therefore, 22:30 looks like (small superscripted 1) 2:30. I still prefer this to the AM/PM idiocy that I had before (and I haven't accidentally set my alarm for 6:30 PM since).
--
David Barts Pacer Corporation
davidb@pacer.uucp ...!fluke!pacer!davidb

855. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-07 20:56:21 UTC
From: taber@pstjtt.enet.dec.com
Message-ID: <870@ryn.esg.dec.com>
Source record: 13652

In article <30500381@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes...

>Something I have been contemplating recently concerning this is to petition
>the FCC for a rule, or maybe even ask my congressperson to start a bill, to
>require that ALL equipment sold in the amateur market be capable of operating
>fully (i.e. receive, and if it is a transmitter, to also TRANSMIT) on the
>ENTIRETY of each amateur band that it is capable of operating on.

Geez, Phil

First you ranted about how people shouldn't be able to buy ham
transmitters unless they could show a ham license. Then you ranted
because some manufaturer wouldn't tell you how to do a MARS/CAP mod
UNLESS you could show a MARS/CAP license. Now you rant because FM
handies can't trash the weak-signal portion of the bands. Why not lobby
for what you REALLY want -- a law that says everyone has to do
everything you want and cannot do anything you don't want?

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Mail address: Nahhhhh, you don't want to send me mail....

856. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-08 00:30:42 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490007@hprmokg.HP.COM>
Source record: 13656

mo@flash.bellcore.com (Michael O'Dell) wites:

>Why is it that some people think that when you "learn the code"
>it stays learned??? Did you never, ever study for a final,
>take the test, and promptly FORGET how to even spell the subject
>of the course??? If you are like most people you have done that.
>
>THAT IS HOW I LEARNED THE CODE!!!
>
>I learned it solidly, took the test, and immediately tried to
>garbage-collect the neurons before they were hopelessly lost.
>
>So, I have a license which requires code, but I am doing well to
>recognize /RPT at the end of repeater IDs (only because you already
>know it!) and I might could send my call.

When you learn the code, you forget it.

When you *USE* the code, you don't.

---

857. Re: IBM and Motorola - radio computer l

Newsgroup: rec.ham-radio
Date: 1990-02-08 01:42:35 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500383@ux1.cso.uiuc.edu>
Source record: 13657

The 902-928 Mhz band would be a fair target. It is an ISM band also, which is why we get to be there in the first place. In addition, there are some areas of the country, such as Denver CO, where operation on that band is prohibited under amateur rules (though oddly enough is OK under part 15 to 1 watt, so why can't hams be allowed 1 watt in those places?).

Anyone have any details on the AVM systems that also occupy the band (and are causing its own potential threat)?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

858. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-08 01:42:43 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500384@ux1.cso.uiuc.edu>
Source record: 13658

> Consider microwave bands. Do you want to force manufacturers of
> equipment for bands above 10GHz to cover the entire band (500 MHz)?
> This is perhaps a little extreme, especially for narrowband equipment.

Do you want to lose 450 Mhz of it because all the manufacturers are making equipment for just one portion, and all the hams are just using what the manufacturers are making the equipment for?

If the rig is tunable, it must tune the whole band. If it is a rock bound rig, it at least must be capable of being tuned by the normal means of such tuning (change crystal and tweak the stages) across the whole band. Without such flexibility in the hands of hams, we cannot keep the whole band.

These days, the size of our bands will be adapting to our level of usage, not the other way around.

> Consider 70cm. Do you want rigs produced for FM that are capable of
> going into the region of the band that is allocated (by gentleman's
> agreement/band plan) for ATV, or SSB/CW, or packet? It may not sound
> like such a bad thing, but I can tell you 144.2 is far worse for lids
> operating nearby in FM than 432.1 is.

YES!!! First of all, just where these other modes operate varies across the country. I would not complain if my FM only rig didn't operate between 432.0 and 432.2 Mhz, but there are other frequencies I may need to use for some reason or another. As an ATV operator I may want to use this rig as an audio transmitter set 4.5 Mhz offset from my video carrier.

As for packet... I may very well want to use the rig for packet!

This same gentleman's agreement you talk about also puts auxiliary links and repeater control frequencies BELOW 440 Mhz, and in some case down around 430 mhz, in some parts of the country. I want to use my general purpose FM rig for accessing the control frequency of my repeater, or to access my full-duplex autopatch, or any other such function. I don't want to be stuck on the FM repeater and simplex frequencies for this.

> Consider receiving out of band. I believe that the reason why the
> majority of mods are done is to be able to receive outside the amateur
> band. (Maybe my perception is warped since I don't operate much below
> 432 MHz.) A law requiring that an entire amateur band be covered will
> not dampen the desire to modify in order to receive out of band.

It would be possible for the manufacturers to sell the radios with the out of band receive/only mods already in place in the US. They already do this now for 138-174 Mhz, and with the recent discussion about the IC-24AT, I don't think that receive/only needs are going to be any

problem.

> All government is bad. Big government is worse. You can tell when a
> politician is lying by watching for lip movement. [All IMHO.]

Would you rather your ham bands be decided by American politicians or Japanese politicians? As long as THEY have small bands, THEY will be making radios that transmit only on small bands. Soon WE will have only small bands because of it.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

859. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-08 01:46:30 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500382@ux1.cso.uiuc.edu>
Source record: 13659

> Having heard an ACSSB radio and heard a talk on how it works,
> my guess is that ACSSB gives you the best of both worlds.
> I'm really curious why amateurs aren't busily experimenting
> with ACSSB...

From some things I have read about ACSSB in comments filed with the FCC by certain land mobile parties during the 220 takeover, ACSSB is patented and trademarked as ACSB by one or more companies. For a manufacturer to get in the ACSSB business, apparently they will have to pay a royalty to the owner of the patent. I suspect this is partly why big land mobile companies like Motorola, GE, and Johnson, did not show any support for taking away 220 Mhz just for narrow band services. They may be doing a "wait and see" or perhaps working on their own narrowband system.

Another reason hams are not experimenting in other kinds of things is the fact that most of us are so dependent on the manufacturers to lead the way for us (which they won't). Icom, Kenwood, and Yaesu would have to (apparently) pay a royalty on ACSSB, so that is out (why would WE pay MORE for a mode that is somewhat lower quality than FM, when FM works just fine). They also have no interest in developing new modes of their own. Actually, they might be in the same situation is Motorola and that bunch, since at least one of them I know sells commercial land mobile gear in the US, and it's all FM (except for aircraft stuff of course).

Hey, if YOU can put together a construction article on converting an common amateur FM HT of the miniature variety over to ACSSB, then I am all ears. It has to be a reasonably short working time (2 weeks or less) and easy to do without an electronics development lab.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

860. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-08 01:49:29 UTC
From: brian@trantext.UUCP
Message-ID: <285@trantext.UUCP>
Source record: 13660

Why!! oh Why?? does this subject have to come up every few months or so!?!?
It gets most tiresome. No one is going to change their minds about the subject
and it is becoming more and more a moot point anyway. The newsgroup has been
quite interresting lately, even without this stuff clogging up the band. Let's
not get started again. (I hope this article does not spur it on).

Anyway, cheers to all,
--
Brian R. Bainter KA7TXA
gatech!kd4nc!trantext!brian or
gatech!tomcat!brian

861. Solid State PA's

Newsgroup: rec.ham-radio
Date: 1990-02-08 03:25:37 UTC
From: BERTSCH-S@osu-20.ircc.ohio-state.edu
Message-ID: <12564599350007@osu-20.ircc.ohio-state.edu>
Source record: 13661

I have a TS-180, its power input to the final PA is given as
160 to 15 meters 200W PEP
10 meters 160W PEP
and I've noticed many rigs from the early 1980's are derated
on 10 meters (the solid state ones, I mean). My guess is that
the RF power transistors of the day were inefficient at 28MHz
and the power was reduced to keep the heat down and prolong
thier life, or else the ferrite materials used in the broadband
transformers was not as good as the newer stuff and would
saturate/heat at high power+high frequency.

So, all you RF design guru's out there, what do you think?

862. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-08 04:44:13 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12437.25D0F9E3@stjhmc.fidonet.org>
Source record: 13664

> caulkins@cdp.UUCP
>
> "Inefficient" is accurate - there are lots more
> bandwidth-efficient ways of encoding characters than via morse. I
> draw your attention to the fact that no current organization or
> system uses morse for any kind of serious communication where it
> can be avoided.

I favor a no-code license on VHF for digital communications, but in all fairness I must point out that all these bandwidth efficiency equations leave out the cost factor. CW is popular because it not only works but it's CHEAP!! In the recreational context it's FUN. Those reasons aren't enough to FORCE everyone to learn it, but let's not deny "the devil" his due.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

863. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-08 08:06:21 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19814@bellcore.bellcore.com>
Source record: 13666

Since the code/no-code war already seems to have flared up again here, I guess it won't make things much worse to relate an interesting rumor I heard the other night from a pretty reliable source.

The ARRL's no-code proposal apparently comes up in front of the Commission later today (Thursday 2/8). Interestingly enough, the Commission reportedly plans on proposing full VHF/UHF privileges for the no-coders, i.e., everything above 30 MHz.

And even more interesting is that the Commission will reportedly issue an ultimatum to American amateurs: either accept its proposal for full VHF/UHF no-code privileges, or the FCC will consider amateur radio to be dead -- they will refuse to support us at the upcoming WARC, and they will remove the last remaining internal barriers to the domestic reallocation of amateur spectrum to other services.

If this rumor turns out to be true, the FCC will have laid down the gauntlet for the amateur community in the US -- and more power to them for having done so. I only hope the League and the general rank-and-file will wise up to the inevitable and not be so stupid as to pursue a scorched-earth policy.

Flame me if you want, but I can't help but see some eerie parallels between the attitudes of the general US amateur population and those of the Communist Party elite in certain Eastern European countries a few months ago...

Phil

864. Stolen Icom rigs in S. Forida

Newsgroup: rec.ham-radio
Date: 1990-02-08 08:08:50 UTC
From: TWB0@LEHIGH.BITNET
Message-ID: <9002080808.AA11959@ucbvax.Berkeley.EDU>
Source record: 13667

I happened to see the following in USA Today's 2/7/90 legal notices:

FLORIDA SOUTHERN
70826, (4) Icom VHF FM Transceivers; Value: $1800.00.
Seized from Humberto Merlo, Miami, FL. Bond amount: 250.

If you know any SFLA ham whose Icom xcvrs were stolen, you might have
them contact the U.S. Dept. of Justice.

Regards, Tom.
.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
Thomas Brown, KA2UGQ BITNET: twb0@lehigh.bitnet
Lehigh University Box 855 ARPA: twb0%lehigh@ibm1.cc.lehigh.edu
Bethlehem, PA 18015 UUCP: ..!att!twb0@lehigh.bitnet
(215) 758-1200 AX.25: ka2ugq@ka2ugq.nj.usa.na (145.01 MHz)

Stress: The confusion caused when one's mind overrides the desire to
choke the life out of someone who desperately deserves it.

865. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-08 10:29:25 UTC
From: kjh@pollux.usc.edu
Message-ID: <22751@usc.edu>
Source record: 13668

Pardon my confusion, but can somebody post where the ic-24at will
receive and where the ic-24at will transmit after performing these mods?
Thank you.

"Before Abraham was born, Kenneth J. Hendrickson N8DGN
I AM!" Jesus of Nazareth 1709 S. Bonnie Brae St., LA, CA 90006
Internet: kjh@usc.edu UUCP: ...!uunet!usc!pollux!kjh

866. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-08 10:40:59 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500386@ux1.cso.uiuc.edu>
Source record: 13670

> Geez, Phil
>
> First you ranted about how people shouldn't be able to buy ham
> transmitters unless they could show a ham license. Then you ranted
> because some manufaturer wouldn't tell you how to do a MARS/CAP mod
> UNLESS you could show a MARS/CAP license. Now you rant because FM
^^^^^^^^^^^^^^^^^^^^^^^^
> handies can't trash the weak-signal portion of the bands. Why not lobby
^^
> for what you REALLY want -- a law that says everyone has to do
> everything you want and cannot do anything you don't want?

That is sure a fine example of creative misinterpretation. Such postings DESERVE flames, but I'll try my best to keep from igniting.

The purpose of being able to cover the whole band is NOT to trash the weak signal bands. Are you one of those people who is trying to protect the weak signal bands by encouraging that radios NOT cover most of the REST of the band? Are you willing to lose 420-430 Mhz in the rest of the USA just to protect 432.0-432.2 Mhz?

Yes, I do rant, and aside from your misinterpretation of my posting, my rantings are at least consistent. If I erred in my posting, all that you are making apparent so far is my inability to make myself clear to you.

Now...

Presently, my proposal would affect very few weak signal bands. In fact it will probably only affect ONE. FM rigs now cover the whole band, and thus cover the weak signal bands, at 144 Mhz, 220 Mhz and 1296 Mhz. Is there really that much abuse there? I really don't know if there is or not; I will take your word for it if you say there is. Shall we make a rule that FM rigs NOT be permitted to transmit there? I gather that you really don't want to. But the EFFECT of your disapproval of my suggestion is to say it's OK to leave out the transmit on the AUXILIARY, PACKET, and ATV AUDIO frequencies so that ONE bands's weak signal segment can be saved from a few lids doing simplex kerchunking on 432.1 Mhz.

What I want to do is make use of the WHOLE 70cm band from 420-450 Mhz without having to modify my rig to allow TRANSMIT on public service bands. I don't intend to operate on the weak signal bands with FM. I do intend to operate on the AUXILIARY bands and PACKET bands which have many frequencies below 440 Mhz. In addition, an FM rigs is useful as an audio transmitter for an ATV signal on 425.75 and other such frequencies.

My complaint is that the Japanese are not considering that there even exists a band here in this country below 440 Mhz or 430 Mhz depending on what radio you happen to buy. In the past they ignored the 220 Mhz band, and because of that and the fact that we hams prefer to just buy radios, we are LOSING much of that band, if not eventually all of it. I don't want this to happen to the 420-430 Mhz portion of 70cm for the part of the country that still has it, nor even any other part of 70cm which might be possible.

If I am trying to force anything down anyone's throat, it is that the manufacturers are not to be in any position to decide what parts of our bands get used and what parts do not, and especially not to decide that we only get to use a portion no larger than hams get in the home country of the manufacturer. Somehow we need to extend this to say what bands, but I haven't figured out a way.

I might just point out at this point that the ARRL bandplan for the FM repeater portion of 23cm calls for 25 khz channeling just like that used on 70cm and just like in Europe. The Japanese manufacturers (at least 2 of them anyway) have decided to market rigs with 25 khz channeling in Europe, and rigs with 20 khz channeling in the USA. Is this a case of THEM trying to tell US how to use OUR band or what? The fact that they market 25 khz channeling in Europe proves that they CAN make such rigs, so they either are trying to make us use 20 khz channels like they do in Japan, or else are just plain ignorant or misinformed about what is going on here.

Now, if you don't understand me, please ask more questions and I will try to make myself even clearer. If it takes lots of bandwidth for this, then I will use e-mail. If you think my proposal will have certain bad effects, then please explain them without assuming that my intent is to have those effects. Show your line of reasoning as well, or criticize mine, but don't just make assumptions about my intent.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

867. Re: Packet radio license without co

Newsgroup: rec.ham-radio
Date: 1990-02-08 10:41:07 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500390@ux1.cso.uiuc.edu>
Source record: 13671

From: Jim.Grubs@f1.n234.z1.fidonet.org
> > caulkins@cdp.UUCP
> >
> > "Inefficient" is accurate - there are lots more
> > bandwidth-efficient ways of encoding characters than via morse. I
> > draw your attention to the fact that no current organization or
> > system uses morse for any kind of serious communication where it
> > can be avoided.
>
> I favor a no-code license on VHF for digital communications, but in all
> fairness I must point out that all these bandwidth efficiency equations leave
> out the cost factor. CW is popular because it not only works but it's CHEAP!!
> In the recreational context it's FUN. Those reasons aren't enough to FORCE
> everyone to learn it, but let's not deny "the devil" his due.

I agree. Yes, I support a no code license, but that does not mean I hate code, dislike code, or think anything is wrong with it. CW, like any other mode, has its place in Ham Radio. Indeed, it has a very important place.

There is no "devil" in code. Someone who is less (or not at all) interested in the technical, experimental, or construction side of Ham Radio can do things like build up an expertise in operating code. As Jim points out, it can be a fun experience. Oh, maybe not for everyone, and as for myself, I have not yet given it a try, but certainly the potential exists for quite many people. Code can also be used for experimenting, too. It's a simple way to test simple transmitters and receivers, if not entirely intending them that way. I even know of one who has told me how he used Morse Code as a means to test modems!

But in the same breath I believe those who prefer to not even try code should not be denied into ham radio. This hobby is now too large for but maybe a few hardy souls to try everything. Let's just let people choose what they want to try, and let them contribute to the service the best they can in the ways they prefer to.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

868. Re: New Car Radiated Emissions

Newsgroup: rec.ham-radio
Date: 1990-02-08 10:42:10 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500389@ux1.cso.uiuc.edu>
Source record: 13672

> 2. I bought a new (1989) Jeep Cherokee and installed a 2 meter
> rig in it. I orginally put a Larson antenna on the edge of
> the engine hood (using one of those L shaped brackets). I discovered
> that the engine in general radiated gobs of RF all across the
> 2 meter band. After much investigation, I decided to move the
> antenna to the rear of the vehicle. This eliminated all of the
> interference except for one signal on some obscure simplex freq
> that I never use.

My 1987 model has some weak harmonics almost every 1 Mhz, with #147 around 147.025 Mhz. It's not troublesome, but I do agree that you should check out what the RFI/EMI is in your new car. You should also check these things out in your new house as well, BEFORE signing the offer to buy, or else add a clause to the offer that any RFI/EMI affecting the amateur bands not be present, or be removed by the time you take ownership, without risking the money in your offer. See your lawyer to word the clause.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

869. J-Poles and Other End Fed Half Wave Antennas

Newsgroup: rec.ham-radio
Date: 1990-02-08 13:37:40 UTC
From: jdobbs@MWUNIX.MITRE.ORG
Message-ID: <9002081337.AA02373@mwunix.mitre.org>
Source record: 13674

I've been following with great interest the discussion of J-pole antennas. This seems to be similar to an end fed Zepp which is a half wave radiator fed by a quarter wave transmission line to transform the high impedance antenna feed point to coax impedances. The quarter wave matching stub on the J-pole seems to be doing the same job. I currently use a Zepp feed for a 2m vertical and a 40m sloper. What is the difference between the J-pole and the Zepp or are they really two versions of the same thing? Why not just end feed a 3/4 wave length wire with coax, especially in a horizontal or sloping configuration?

John Dobbs, KC4CEB

870. Re: INDOOR 80M ANT(Hi-perf)

Newsgroup: rec.ham-radio
Date: 1990-02-08 15:19:42 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250121@hpnmdla.HP.COM>
Source record: 13675

Gene wonders why his small 80 meter loop antenna has around 30 kHz bandwidth when the ARRL Handbook says it should be 5 kHz. Assuming the ARRL calculations are correct, the answer is probably losses in the antenna. If you used a lossier conductor material then they specified, you would get extra resistive losses.

The radiation resistance of a small loop is proportional to the square of the loop area, or the FOURTH POWER of the length. Small loops have very low radiation resistances so that even a small amount of loss resistance can waste most of the power.

Going from 5 to 30 kHz bandwidth implies that the loss resistance is 6 times higher than radiation resistance -- in other words, only 1/6 of the power is being transmitted, a 7.8 dB loss -- about 1 S-unit. You likely would not notice this in on-the-air operation unless you were doing a side-by-side comparison with a full-sized antenna.

Al N1AL

871. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-08 16:03:56 UTC
From: john@anasaz.UUCP
Message-ID: <1276@anasaz.UUCP>
Source record: 13676

In article <30500379@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
]as the modulating frequency. Because I cannot put an exact value on the
]width of an FM signal, and because an overlap of sidebands is taken for
]granted in squeezing FM channels, I think of FM as a fuzzy modulation.
]
]AM is rather specific. If you limit your modulation upper limit to, say,
]4 khz, and your carrier frequency tolerance to + or - 0.5 khz, and have
]a filter skirt width of 1 khz, you can EASILY have 10 khz channel spacing.

Phil, you can no longer put an exact bandwidth on AM than you can on
FM. In FM, the bandwidth depends on the modulating frequency and the
deviation. In AM, it depends on how good your filters are and how
linear your system is. Thus, one can easily argue that any AM signal
has an infinite bandwidth (filters not perfect, some non-linearity
beyond the audio filtering) as easily as one can argue that for FM.

]Also, has anyone tried working with reduced carrier (in phase) double or
]single sideband? Do syncronous demodulators retain the original phase of
]the locked carrier (assuming path distortions are not significant)?

Your arguments (mostly deleted above) apply best to this last
conjecture. If you wand hi-fi and narrow band, you want SSB with enough
carrier present to phase-lock the demodulator. Hams have experimented
with a variant of this that also compandors the signal, achieving
a more constant transmit power level - ACSSB.

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Freedom and Communism are incompatable.

872. Re: Looking for good US-Europe HF freqs

Newsgroup: rec.ham-radio
Date: 1990-02-08 16:22:08 UTC
From: price@marlin.NOSC.MIL
Message-ID: <1312@marlin.NOSC.MIL>
Source record: 13577

Joe--most days, 10 meters is wide open between Eu and North America between 1600 and 2000Z, especially if the solar flux is in the high 100s (like >180 or so). 15 meters is similarly good, about the same times, perhaps earlier to later on good days.

Or, check out 20 meters about your local sunrise, 0400-0600Z. Signals to the West Coast of the US most nights (here) are simply awesome these days.

Now is THE time to upgrade--we may not see DX conditions this good again in our lifetimes (no joke). And even tho the sunspot peak will be this year, we have 2 or 3 excellent years left in this cycle.

Good luck--Jim, K6ZH

873. Re: New Car Radiated Emissions

Newsgroup: rec.ham-radio
Date: 1990-02-08 17:45:12 UTC
From: scotto@crash.cts.com
Message-ID: <1406@crash.cts.com>
Source record: 13578

In article <4380068@col.hp.com> bobw@col.hp.com (Bob Witte) writes:
>
>Check out the EMI radiating from the next car you buy, before you
>buy it. Two recent events with new car buyers:
>
> 1. My friend bought a new Subaru and installed a 2 meter rig
> in the car. Unfortunately, he later discovered that a device
> (thought to be the fuel pump) radiated a strong signal on
>
> 2. I bought a new (1989) Jeep Cherokee and installed a 2 meter
>
>So what do you do? Take the car on a test drive to a local RFI range?
>Haul a spectrum analyzer down to the dealer? Ask the dealer for
>a plot of the radiated emissions?

I noticed a very similar problem with my inlaws 1988 Chevrolet truck. I have been carrying a synthesized Motorola radio for several months. When we borrowed their truck to move, I noticed so much RFI that I actually couldn't use the radio unless the channel was PL'ed. It was most apparent in the 154-155 MHz range. I was glad to return the truck and get back to our own vehicles.

I remember this coming up several months ago on this net. Didn't someone say that GM (maybe it was Ford) has a team of people that check for these problems before cars go into production? If they don't, maybe they should.

--
Scott O'Connell UUCP: {nosc, ucsd, hplabs!hp-sdd}!crash!ipars!scotto
ARPA: crash!ipars!scotto@nosc.mil
INET: scotto@ipars.cts.com

874. Re: SCA - not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-02-08 19:02:17 UTC
From: georgep@vice.ICO.TEK.COM
Message-ID: <4685@vice.ICO.TEK.COM>
Source record: 13579

In article <9002051919.AR00038@adam.DG.COM> <PZS@MERCURY.MCEO.DG.COM> writes:
+CEO file contents:
+ The saga of the 565 SCA decoder continues...
+
+ I just looked at the Signetics app note and it looks
+ as if there may be a bug. At least, it would seem that the circuit is
+ <circuit deleted>
+ I believe the above circuit is WRONG.

I believe your are right on.

Pin 2 is a direct input to the base of a dif pair, and should have a dc
path to somewhere to bias it. The 510pf cap shown in the diagram is a
pretty effective open circuit for the base.

I would use the other diagram you pointed out.

Good observation,

geo

875. How do I monitor RTTY, FAX, and other HF Utility stations?

Newsgroup: rec.ham-radio
Date: 1990-02-08 19:47:19 UTC
From: megabyte@chinet.chi.il.us
Message-ID: <1990Feb8.194719.7372@chinet.chi.il.us>
Source record: 13580
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Well it comes to this: I want to monitor all those buzzes, beeps and chirps I hear on my Icom R71 and I now I need more equipment. I know there are really two routes:

1) Stand alone decoders that can connect to a printer monitor or other RS-232 device

2) Decoders that utilize your IBM computer for the brains.

I happens to have a Radio Shack 1000 I don't use much I could utilize in this endever.

Here is the question: I see the Universal 'M' series of decoders starting at about $500.00, I se several small RTTY, ASCII, and CW decoeders with little 25 or so element "Times square marqee" displays and then MJF has a RTTY, CW, and ASCII decoder that connects to an IBM PC for about $75.00

What is the best way for a beginer to get into the monitoring of the digital utility stations? How much can I expect to spend? Should I go stand alone, "Marquee Display" type, or units that require an external computer?
--
Mark E. Sunderlin: IRS Technocrat in Winchester, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
"We're very kinky, in a Republican sort of way." - Sue Pauloz

876. furren envelopes

Newsgroup: rec.ham-radio
Date: 1990-02-08 22:46:53 UTC
From: oo7@utastro.UUCP
Message-ID: <4798@utastro.UUCP>
Source record: 13581

A while ago I posted an address for obtaining "foreign" airmail envelopes. Someone later sent me mail asking for a repeat - sorry to whomever it was, I then lost your mail. However, I came across a new address today so here are both of them:

DX QSL Associates: Brian Treadwell, 434 Blair Road NW, Vienna VA 22180

DX Supplies: William J. Plum, 12 Glenn Road, Flemington, NJ 08822

Both of these guys, and others whose addresses I don't have handy, sell various supplies to make foreign QSLing easier (stamps, envelopes...).

Some posters mentioned that it was not as easy as someone else had suggested, simply walking into a large stationery store and asking for European airmail envelopes. I agree. What's more, my parents in England were unable to find any there either :-)

I am finding quite a few of my US airmail return envelopes cut down to a smaller size by people who kindly reply to my QSL cards, as someone else mentioned. If some DX stations go to this trouble, there are probably some others who might send a card but for this inconvenience. I guess you could cut down your own U.S. envelopes when you send them...

The lesson is there for us all to read in the ARRL Operating Manual. It's sort of funny, but in W9KNI's chapter on "how to DX, how to get QSLs, etc." there is the standard advice about sending a SAE, IRCs, all that stuff. There is a photograph of what was sent by K1WJ to a DX station (card, couple of IRCs, and a US-sized return envelope), and another photograph showing the card that was "received promptly". What it doesn't say, but what is clear from the photos, is that the DX manager did not use the SAE, instead he typed the guy's address on a new, smaller envelope. So what was intended to show how good a guy our W DXer is actually shows that he was lucky to get a card, as he sent the wrong sort of envelope (this is on page 5-18 of the 1987 ARRL Operating Manual). The caption even says "note the self-addressed envelope"!

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

877. It's out! (FCC proposes no-code)

Newsgroup: rec.ham-radio
Date: 1990-02-08 23:52:22 UTC
From: karn@jupiter.bellcore.com
Message-ID: <19864@bellcore.bellcore.com>
Source record: 13582

As I had expected, the FCC apparently did formally propose a no-code license at its meeting today. Buried in an AP wire story about "wireless cable TV" was the following:

In other actions Thursday, the commission voted 4-0 to:
_Propose creation of an entry-level, ``communicator class'' of amateur radio license that would not require ham operators to know Morse code. The commission said it wanted to open amateur radio to young, technically oriented people who don't want to learn Morse code.

There were no other details.

I note parenthetically that several other actions taken by the Commission today involved proposing additional spectrum for several other services, including the "wireless cable TV" system just mentioned, plus additional channels for the mobile satellite service. The article did not elaborate, but the writing on the wall should be clear...

--Phil

878. Re: Current information about becoming involved with amateur radio?

Newsgroup: rec.ham-radio
Date: 1990-02-09 00:19:29 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Feb9.001929.13342@NCoast.ORG>
Source record: 13583

As quoted from <29490006@hprmokg.HP.COM> by barry@hprmokg.HP.COM (Barry Fowler):
+---------------
| In reply to information on getting started....
+---------------

Thanks for all the information, people. I'm still trying to digest it.
However, I *am* glad to know that I don't have to find time to drive to
Detroit to take the exams.

+---------------
| I don't know how far Reynoldsburg (Columbus), Ohio is from you
+---------------

Halfway across the state, I'm afraid.

+---------------
| There are several radio clubs in Ohio that could assist you in obtaining
| your license. One club is the North Coast Amateur Radio Club.
| P.O. Box 30529, Cleveland, OH. 44130
| They meet the first Thurs. monthly at the Old North Olmsted Town Hall
| at Dover Center and Lorain Roads between the city hall and the police dept.
+---------------

Ah; very nice. Have to see what I can do to get there (at least I have a
month to deal with my current transportation situation).

+---------------
| less. And..... don't let the code scare you. I know elementary school
| kids that can master it.
+---------------

Scare me? If I'm motivated, I can learn pretty quickly.

++Brandon
--
Brandon S. Allbery allbery@NCoast.ORG, BALLBERY (MCI Mail), ALLBERY (Delphi)
uunet!cwjcc.cwru.edu!ncoast!allbery ncoast!allbery@cwjcc.cwru.edu

879. Re: IC-04 MODS ????

Newsgroup: rec.ham-radio
Date: 1990-02-09 00:20:05 UTC
From: n2ihn@ka2qhd.UUCP
Message-ID: <153@ka2qhd.UUCP>
Source record: 13584

In addition to reconfiguring the diodes in the logic strip, you
must peal back the foil on the VCO and spread one loop of the coil to
get it to ocsillate in the 450's +, but you loose the ham band. It's not
like the others with their 30 Meg spreads. You'll have to choose which band
you want without opening the rig all of the time.
.............et.
--
IIIIIIIIIIIIIIIIIIIII HHHHH HHHHH NNNNNNNNNN NNNNN
IIIII HHHHHHHHHHHHHHHHHHHHHHHH NNNNN NNNNNN NNNNN
IIIIIIIIIIIIIIIIIIIII HHHHH HHHHH NNNNN NNNNNNNNNN
Edward Thomas, N2IHN, POB. 3233 Long Branch, NJ. 07740 n2ihn@ka2qhd.UUCP

880. Yaesu FT-208R Mike Connector Wanted

Newsgroup: rec.ham-radio
Date: 1990-02-09 01:01:35 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <154@ka2qhd.UUCP>
Source record: 13585
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.ham-radio.swap

A friend of mine owns a Yaesu FT-208R 2-meter handheld transceiver and is planning to use this rig with a TNC for packet operations.

Does anyone know where the mini microphone connector that plugs into the HT can be obtained??

Thanks in advance!

73, de John, N2JUX and John, KD2BD
(Just ask for "John"!)
--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple, neat and wrong." -- H.L. Mencken

881. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-09 01:07:57 UTC
From: jliu@pender
Message-ID: <20148@netnews.upenn.edu>
Source record: 13586

I am sure this point has been brought up before, but let me emphasize it. There are times when knowing the code can be very useful and even save lives. There are numerous examples where people, unable to communicate by normal means, have used morse code to communicate. Consider the miner, caught in a cave-in, or the San Francisco resident, trapped under the ruins of his Marina home. Knowing morse code, they could tap on the pipes with a rock to get help!

While a no code license is appealing in some ways, I personally feel it would be a great loss for people knowing the code and those who don't. Let me explain. Imagine for instance a no-code license was established, and I for one reason or another didn't have the time or energy to learn morse code on my own. If somebody was trapped and was trying to communicate to me in morse code, I would feel terrible! Now, consider a person who knows the code, like the person trapped who I was trying to help. He would feel TERRIBLE, too!

Maybe I stated my opinion poorly, but all I am trying to say is: there are times when knowing the code is extremely helpful, and it would be a shame to abolish it from licensing requirements.

John C. Liu |
jliu@pender.ee.upenn.edu | 'I like eels, except as meals!'
University of Pennsylvania|
---

882. Re: Solid State PA's

Newsgroup: rec.ham-radio
Date: 1990-02-09 01:23:00 UTC
From: john@frog.UUCP
Message-ID: <11939@frog.UUCP>
Source record: 13587

In article <12564599350007@osu-20.ircc.ohio-state.edu>,
BERTSCH-S@osu-20.ircc.ohio-state.edu (Steve Bertsch) writes:
> I have a TS-180, its power input to the final PA is given as
> 160 to 15 meters 200W PEP
> 10 meters 160W PEP
> and I've noticed many rigs from the early 1980's are derated
> on 10 meters (the solid state ones, I mean). My guess is that
> the RF power transistors of the day were inefficient at 28MHz
> and the power was reduced to keep the heat down and prolong
> thier life, or else the ferrite materials used in the broadband
> transformers was not as good as the newer stuff and would
> saturate/heat at high power+high frequency.

All transistors exhibit declining gain with increasing frequency. The general rule of thumb is to select a transistor with an "f-sub-T" (the frequency at which the gain of the transistor is 1) of 10 times the maximum operating frequency, so that the gain will be high enough that the circuit around the transistor determines the stage gain. However, since (big) power transistors are hardest to design for very high frequency work, a manufacturer could generally save quite a bit of money by using a transistor with an fT of, say, 250MHz instead of 300MHz, and just sacrificing a little power gain on 10 meters.
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

883. Re: Solid State PA's

Newsgroup: rec.ham-radio
Date: 1990-02-09 01:45:47 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490091@hpscdc.scd.hp.com>
Source record: 13588

The main limitation at 30 MHz for RF power amplifiers
is that the gain drops way down. They are probably
running out of power from the driver stage. The
ferrite has maximum heating at 1.8 MHz. not 30 MHz.
and is not a factor at 30 MHz. What *is* a factor
at 30 MHz. is the transformer leakage inductance which
is tuned out with shunt capacitors and peaked at 30 MHz.
The peaking doesn't completely fix the transformer
parasitics at the high end.

Rick N6RK

884. Questions on antenna selection

Newsgroup: rec.ham-radio
Date: 1990-02-09 04:38:42 UTC
From: jenglish@tardis.Tymnet.COM
Message-ID: <928@tardis.Tymnet.COM>
Source record: 13589

Hello again;
I am sending this query out for my neighbor WP4ADA/W5. If you remember,
we had to go up against the Town Board to get permission for him to
erect a tower in his yard. Well, they didn't allow the 75 foot tower
he wanted, but they did let him go to 57 feet, the maximum allowable
without any special permission. He is now looking for an antenna to
put up, and would like to know your opinions on some stuff.

His message follows:

I am interested in ham radio comments. Main objective 10, 15, 20 plus
new bands 12, 17, and 30. Do you know of other manufacturers that
offer multibands with all these bands? Presently looking at the
Mosley Pro 57, Pro 67 with 30 meter or Pro 67 with 40 meters. My
greatest concern is the length of some elements for the Pro 67s.
Question #1: If you know, do they look horizontal or do they tend
to hang down due to their weight or length?
Question #2: Between a Pro 67 with 40 meters and a Pro 67 with
30 meters. Which band may be a best choice. I am not
familiar with 30, 40 never called much attention to me,
but I like DX, talking with Japan, Australia, etc. Is
30 the best way to go or is there not much DX and/or
activity out there?
Question #3: What about satisfaction from present owners or users?
Are they happy? Do they feel that they should have
selected the 30 meters rather than 40 meters, the Pro 57
or the Pro 67?

I understand that comments are personal opinions, but different ideas
could help make the best decision.

One last Question: What about a wireless antenna selector switch on a
tower. Are they good? Some people told me that they
are problematic and that I may end up with one coax
for eact antenna.

Thank you very much for your comments and ideas,
Bart WP4ADA/W5

---End of message---

I too would like to thank you all for the help you have given in the past.
You can E-mail me here, or post a reply, I'll be sure and collect
everything and pass it on to Bart.

Jim
--

Jim English MD-IPC | JENGLISH@D31.TYMNET.COM or jenglish@tardis.tymnet.com
(214)637-7406 Dallas | UUCP: ...!{ames,pyramid}!oliveb!tymix!tardis!jenglish

885. JAS-1B (Fuji-Oscar-20) info

Newsgroup: rec.ham-radio
Date: 1990-02-09 07:28:44 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19873@bellcore.bellcore.com>
Source record: 13590

Posted: Wed, Feb 7, 1990 2:49 AM GMT Msg: CGJA-4162-7393
From: EROSENBERG
To: amsat
Subj: JAS-1b Specifications

This comes from "Introduction to JAS-1b" published in the December '89 issue of OSCAR NEWS (AMSAT-UK). I hope it is of some use. I transcribed it from the magazine. In addition, there were two articles from JARL in previous issues. Enjoy -- Eric

---

Specifications of JAS-1b

LAUNCH AND ORBIT:
1. Launch (scheduled)
Time: February 1990, day is not fixed
Launch Vehicle: H-I (2-stage) rocket
Launch Site: Tanegashima Space Center, National Space Development Agency of Japan (NASDA)

2. Orbit (planned)
slightly elliptical polar orbit, with 900 km perigee
Period: 105 minutes
Inclination: 99 degrees

SATELLITE SPECIFICATIONS
1. Dimension
Size: 26-face polyhedron measuring 440mm across and 470mm in height
Weight: Approx 50 kg.

2. System Configuration
Analog and digital transponder in Mode J
(uplink 144 MHz, downlink: 430 MHz)

3. Attitude Control
Satellite attitude will be maintained by using the torque generated by interaction of two permanent magnets with the earth's magnetic field.

4. Thermal Control
Passive control using thermal insulation

5. Planned service life: 5 years

SYSTEM SPECIFICATIONS
1. Beacon anfd telemetry
JA beacon: 435.795 MHz nominal frequency

ca. 100 mW power, CW or PSK [also capable of A0
transmission]
JD telemetry: 435.91 MHz nominal frequency
ca. 1 W power, packet in PSK

2. Telemetry
CW telemetry: 12 analog data items
33 status items
PSK telemetry: 29 analog data items
33 status items

3. Commands: Equipped with real-time program command function

4. Transponder
Frequewecy and modes (see teh table below) are similar to those of FO-
12. The analog system (JA) consists of the inverted heterodyne transponde,
with a bandwidth of 100 kHz operating with a mode J of uplink 145 MHz and
downlink of 435 MHz.

The digital system (JD) functions as a mailbox using the AX.25 link level
protocol. Stations currently using FO-12 will be able to use JAS-1b without
any modifications to equipment.

(1) Analog System Transponder:
inversely heterodyned linear translator.
Uplink passband: 145.9 to 146.00 MHz
Downlink Passband: 435.9 to 435.8 MHz
Transmitter Output: Approx. 1 watt
Bandwidth: 100 kHz (3 db bandwidth)
Uplink EIRP required: About 100 W

(2) Digital System Transponder:
Store-and-forward packet communication using AX.25
link level protocol, version 2
Uplink Frequencies: 145.85 MHz, 145.87 MHz, 145.89 MHz, 145.91 MHz,
Bi-phased Manchester code on FM signal, with a bit rate of 1200 bps.
Uplink EIRP required: About 100 W
Downlink: 435.91 MHz/NRZI/PSK, 1200 bps
Transmitter output: About 1 W

5. Antennas
144 MHz receiving antenna (R-ANT):
Ring turnstile antenna mounted at bottom of side panels

435 MHz transmitting antenna (T-ANT):
turnstile antenna mounted at the top of satellite (shared by analog and
digital modes)

polarization gain
R-ANT: circular +0.5 dBi max.
T-ANT: circular +4 dBi max.

6. Power Supply
Solar cells (planned)
Cell: Gallium arsenide
Size and Quantity: 2x2 sq-cm and 1x2 sq-cm, over 1300 cells
Power Output: More than 10 W (BOL)

Battery:
Cell type and quantity: 11 series-connected NiCad cells (rectangular)
Capacity: 6 aH

Voltage Converter
Bus voltage: +11 to 18 V (14 V average)
Regulated voltages: +10 V, +5 V, -5 V
Efficiency: Better than 70%

Power control functions:
Bus voltage limit control (full-shurt),and UVC function to disconnect load when battery terminal voltage drops

[there was a block diagram and about 1-1/2 pages of narrative I did not transcribe].

Posted: Wed, Feb 7, 1990 10:52 PM GMT Msg: KGJA-4163-6321
From: BMCGWIER
To: amsat
Subj: New FUJI elements

A Japanese ham came on and gave elements for FUJI-20. They are MUCH better than pre-launch elements.

Satellite: JAS-1B
Catalog number: ?????
Epoch time: 07FEB90 023340
Inclination: 99.1161 deg
RA of node: 109.051 deg
Eccentricity: 0.054182532
Arg of perigee: 344.1375 deg
Mean anomaly: 5.3979 deg
Mean motion: 12.842134 rev/day
Decay rate: 0.054182532 rev/day^2 (SIC This number is full of it, use 1e-6)
Epoch rev: 0
Semimajor axis: 7700.056 km

The transponder is quite sensitive. I simply could not turn down my power enough not to be embarassingly loud. There is still some deep fades however from tumbling and the old intermod problem is back (the CW beacon is almost as loud in the lower half of the transponder as it is at the published frequency of 435.795.) This bird is going to be trivial to work.

Bob

Posted: Thu, Feb 8, 1990 12:06 AM GMT Msg: AGJA-4163-6829
From: EROSENBERG

To: amsat
Subj: FO-20 catalog #

According to Dick Daniels, FO-20 has the following catalog and International ID numbers:

Catalog # 20480
ID 1990 013C

Posted: Thu, Feb 8, 1990 2:05 AM GMT Msg: BGJA-4163-7446
From: RSOIFER
To: amsat
Subj: FO-20 Corrected Keps

Based on radio observations during Orbits 1 and 13, I believe it likely that the object identified in the Japanese keps posted by N4HY is not FO-20 but probably one of the other products of the launch. Rev. 1, which had an observed TCA here of 02:47:54, was 16 seconds early with respect to the predicted time. That pass was at a very high elevation and the observed time was accurate to approximately 2 seconds or less. Since the observation took place very close to the epoch time of the element set (only about 14 minutes later), I believe the observed difference resulted from FO-20 being separated from the launch vehicle earlier than the identified object. Hence, I have moved the epoch earlier by 16 seconds.

TCA during Orbit 13 took place at 01:16:59, about 69 seconds late with respect to the element set as thus modified. Since Orbit 1 gave us a very good fix on the epoch, I have adjusted the mean motion slightly to fit the TCA observation.

The following element set fits both Orbits 1 and 13 to within one second. I believe that should hold us until we get radar-derived elements. Would anyone able to obtain a good set of radar-derived elements FOR ALL OBJECTS ASSOCIATED WITH 1990 031 please post them so that we may identify the proper object through correlation with radio observations.

Satellite: FO-20
Epoch time: 90038.106528
Inclination: 99.1161 deg
RA of node: 109.0510 deg
Eccentricity: 0.0541825
Arg of perigee: 344.1375 deg
Mean anomaly: 5.3979 deg
Mean motion: 12.831305 rev/day
Decay rate: 1.0e-06 rev/day^2
Epoch rev: 1

Thanks and please enjoy FO-20. Sayonara and 73, Ray, W2RS

Posted: Thu, Feb 8, 1990 3:42 AM GMT Msg: EGJA-4163-7771
From: RSOIFER
To: amsat
Subj: Revised Corrected FO-12 Keps

The following slight correction to the estimated keps I
posted recently resulted from radio observation of Orbit 14,
which at 52 degrees elevation yielded a more precise TCA than did
Orbit 13. Subject to such things as the drag factor being right,
this set of FO-12 keplerians should be accurate enough for most
purposes for at least a week.

73, Ray, W2RS

Satellite: FO-20
Epoch year: 1990
Epoch date: 38.106528
Inclination: 99.1161 deg
RA of node: 109.0508 deg
Eccentricity: 0.0541825
Arg of perigee: 344.1375 deg
Mean anomaly: 5.3979 deg
Mean motion: 12.831886 rev/day
Decay rate: 1.0e-06 rev/day^2
Epoch rev: 1

886. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-09 07:59:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500391@ux1.cso.uiuc.edu>
Source record: 13591

I would like to see hams use the ACSSB in its R3E form, instead of the J3E form companies like Aerotron are trying to put on stolen spectrum. While ACSSB/R3E will require better stability (250 hz) than ACSSB/J3E (maybe as much as 1 khz, more likely 500 hz) to be able to lock onto the signal, I personally think the R3E form would have better quality and less heterodyne.

The difference between these systems is that in the R3E mode, the carrier is present at some reduced level (6 to 20 db down, standardly defined) and serves as the pilot reference for decompandoring, as well as frequency and phase reference. The J3E mode uses a totally absent carrier, with a pilot tone somewhere between 3 khz and 4.5 khz (standardly defined) that serves as the frequency lock, and as the decompandoring reference level (also some 6 to 20 or so db down). The J3E mode cannot restore the original phase of the carrier whereas the R3E should be able to. The J3E mode can deal with poorer stability better because of the greater locking range for the pilot due to its greater distance from the actual audio component.

Either system should perform quite well in reducing co-channel interference through compandoring.

The R3E and J3E nomenclature for these flavors of ACSSB were strictly my choice due to lack of any others.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

887. Various and Sundry AMSAT Bulletins

Newsgroup: rec.ham-radio
Date: 1990-02-09 08:03:58 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19874@bellcore.bellcore.com>
Source record: 13592

Posted: Tue, Feb 6, 1990 9:57 AM GMT Msg: KGJA-4161-8061
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$037

SB ALL @ AMSAT $ANS-037.01
MICROSAT CHECKOUT PLAN DETAILED

HR AMSAT NEWS SERVICE BULLETIN 037.01 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 6, 1990
TO ALL RADIO AMATEURS BT

Microsat engineer Harold Price, NK6K, reported last week to the 75 meter U. S. West Coast AMSAT net on current priorities for check-out, delivery, and release of the four microsats, AO-16, DO-17, WO-18, and LO-19.

Since the auto-iris in the WEBERSAT-1 camera is the only moving part on any of the microsats, WO-18 is being prepared for payload operation first. The iris is not expected to fail anytime soon, but its lifetime is limited and the team desires to get WEBERSAT- 1 into the picture taking business as soon as possible. Following the upload of improved battery management routines (which have also been placed on PACSAT-1 and LUSAT-1), the first camera control and picture taking software upload is expected early in the week of February 5. A release of the ground processing software for these pictures, known internally as "WEBERWARE 1.0" is expected soon. Picture data will be assembled from files captured during WEBERSAT-1 passes, so, even in the temporary absence of display software, ground users may capture data files from satellite transmissions for later processing.

It has been announced that WEBERWARE may have real color display, i.e., the oceans in the processed pictures will be blue and the dirt brown. Volunteer programers at Weber State University have had good results using a VGA monitor for the display.

/EX
SB ALL @ AMSAT $ANS-037.02
SATELLITE STATUS PART-1

HR AMSAT NEWS SERVICE BULLETIN 037.02 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 6, 1990
TO ALL RADIO AMATEURS BT

PACSAT-1 experienced a software crash on 31 JAN 90 and was subsequently reset. Indications are that AO-16 is in perfect physical health. Check-out software has been reloaded and all appears to be functioning normally. Software problems and occasional resets for a variety of possible reasons are to be

expected during the early qualification and operational period of the microsats.

Since PACSAT-1 and LUSAT-1 are observed to be in good condition, only the improved battery and power management software has been uploaded to them. Serious effort on the packet bulletin board software will follow shortly as allowed by mission operational priorities.

DOVE-1 is in the best condition of all. The two meter transmitter on DO-17 is, because of its lower frequency, more efficient than the 437 MHz transmitters on the other microsats. This means that battery management is simplest on DOVE-1. Since it is observed to be in such good condition, advanced software and digitalker files will be uploaded to it last after the other microsats have completed thorough memory tests and are well understood. Expect payload operations from DOVE-1 in mid to late February. For technical reasons, the DO-17 S-band BPSK transmitter will be used for intermediate software loading. Those with S-band receive capability are invited to listen in.

DOVE-1 and WEBERSAT-1 are intended to be, in general, transmit-only satellites. Neither has a receiver on its transmit frequency. AMSAT therefore asks that users refrain from attempting to transmit to or connect with these satellites on frequency. Such attempts only cause QRM to other listeners.

/EX
SB ALL @ AMSAT $ANS-037.03
SATELLITE STATUS PART-2

HR AMSAT NEWS SERVICE BULLETIN 037.03 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 6, 1990
TO ALL RADIO AMATEURS BT

Week two at AMSAT Satellite Factory has been just as busy for the Engineering team as the first week. Because the Microsats had a very short design cycle, priority had to be placed on getting the hardware and bootstrap software operational. The higher level software is being refined and these next few weeks should provide the software team the time required to upload and test the new software.

UO-14 continues to be performing well as the AMSAT-UK team at the University of Surrey progresses with its spacecraft check-out. UO-15 is remaining stubbornly silent and the Engineering team at Surrey is evaluating the situation. Any reports of signals from the UO-15 spacecraft should be forwarded immediatly to AMSAT-UK at the University of England.

The launch of the six amateur satellites has created a ground swell of interest. In a single day, AMSAT sold in excess of 80 tracking programs. Scores of "Press Kits" have been sent to the media. Reports from AMSAT net controls have indicated a marked increase in net participation, by previous AMSAT members who's interest has been "reborn" by the launch and newcomers to the Amateur Satellite game.

/EX
SB ALL @ AMSAT $ANS-037.04

NEW TRANSPONDER SCHEDULE FOR AO-13

HR AMSAT NEWS SERVICE BULLETIN 037.04 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 6, 1990
TO ALL RADIO AMATEURS BT

AMSAT OSCAR-13 Transponder Schedule (valid until May 09)

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200 BLON = 207.1 degrees
Mode-BS : MA 200 to MA 205 BLAT = + 2.9 degress
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

From 21 Feb 90 to 21 Mar 90 there will be an OFF period from MA 20 to MA 90 due to solar eclipses affecting AO-13. The length of the eclipses varies from 12 to 89 minutes. During the Mode-S period from MA 195 to MA 200, only the Mode-B beacon will be operational. Optimum squint angle occurs around MA 200.

/EX
SB ALL @ AMSAT $ANS-037.05
BALLOON LAUNCH RECHEDULED

HR AMSAT NEWS SERVICE BULLETIN 037.05 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 6, 1990
TO ALL RADIO AMATEURS BT

A weather balloon carrying Amateur Radio equipment is scheduled for deployment on Saturday 10 FEB 90 at 9:00 CST. It was originally scheduled for the previous weekend, but bad weather postponed the flight for one week. The launch will be from Lawrence, Kansas. When the balloon reaches 85,000 feet, its theoretical maximum height, it should have a 450 mile radio range centered around the Kansas City area.

This balloon will have two amateur radio experiments on board: an ATV beacon transmitting on 439.25 MHz (Horizontal polarization) and a Voice ID beacon on 144.34 MHz FM (Vertical polarization). An HF net will be activated on 7.155 MHz to solicit reports. Send QSL reports to: Mike Bogard KD0FW - 2128 S. Norton Ave.,Independence, MO 64052.

/EX
SB ALL @ AMSAT $ANS-037.06
PRE-LAUNCH STS 36 KEPLARIAN ELEMENTS

HR AMSAT NEWS SERVICE BULLETIN 037.06 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 6, 1990
TO ALL RADIO AMATEURS BT

Aviation Week reports that the next shuttle flight, DOD STS-36, will go into a 62 deg inc, 110 x 110 nm orbit. Current launch time is 16-Feb-90 1:21 AM EST. This will be the lowest altitude and highest inclination operational orbit

to date. Estimated keplerian elements are:

Satellite STS-36
Catalog Number 90010
Int Des 1990 910A
Epoch 90 47.32395131 02/16/90 0746:29 UTC
Drag 0.00100000 Rev/Day^2
Element Set 1
Inclination 62.0000 Deg
RAAN 144.7666 Deg
Eccentricity 0.0000000
Mean Anomoly 360.0000 Deg
Mean Anomoly 0.0000 Deg
Mean Motion 16.25824035 Rev/Day
Epoch Revolution 1
Semimajor Axis 6581.88 Km
Period 88.57 Min
Apogee 203.72 km 126.59 sm 110.00 nm
Perigee 203.72 km 126.59 sm 110.00 nm

/EX

Posted: Tue, Feb 6, 1990 10:49 AM GMT Msg: LGJA-4161-8174
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$037, last three bulletins

SB ALL @ AMSAT $ANS-037.07
LAUNCH OF JAS-1B IMMINENT

HR AMSAT NEWS SERVICE BULLETIN 037.07 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 6, 1990
TO ALL RADIO AMATEURS BT

JARL Reports The Launch Of JAS-1B Set For Febuary 7, 1990

AMSAT-NA President and General Manager, Doug Loughmiller (KO5I) has been informed by JARL President Shozo Hara (JA1AN) that the launch of the JAS-1B amateur radio satellite is now set for Febuary 7, 1990 with the launch window opening at 01:25 UTC and closing at 02:00 UTC. After JAS-1B is successfully placed into orbit, it will be commissioned FUJI-OSCAR-20.

Like its predessor, FO-12, JAS-1B will be a space-borne digital store-and-forward packet BBS using mode JD, and it will also carry a Mode JA linear transponder for SSB communication. The mailbox feature will require a PSK modem and a TNC-2 using AX.25 link level protocol at 1200 baud. There will be two downlink telemetry beacons on JAS-1B. The first one will be for Mode JA at 435.795 MHz and it will send CW or PSK with an output power of 100 mW. The second telemetry beacon will be a Mode JD beacon and will have a downlink frequency of 435.910 MHz. The Mode JD beacon will send PSK packets and will have an output power of 1 Watt. The planned trajectory will place JAS-1B into a high inclination circular orbit. The altitude will be about

1200 km with an inclination of 99 degrees. This will give JAS-1B an orbital period of 103 minutes.

For additional details about this launch, please stay tunned to AMSAT HF/VHF Nets and ARRL Bulletins. As soon as an orbital element set is available for FO-20, it will be posted to the AMSAT/DRIG BBS at (214) 394-7438. For those who would like further technical details about JAS-1B, see the QEX article in the September '89 issue.

/EX
SB ALL @ AMSAT $ANS-037.08
UO-15 NEEDS YOUR HELP!

HR AMSAT NEWS SERVICE BULLETIN 037.08 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 6, 1990
TO ALL RADIO AMATEURS BT

University of Surrey Requests Satellite User's Help For UO-15

Following the last reported reception of signals from UO-15 at around 05:00 UTC on 23-JAN-90, nothing has been heard from the satellite -- despite continued attempts by University of Surrey (UoS) Engineering Team to activate redundant on-board systems. While UoS will continues to explore redundant paths and configurations available on the satellite, the time has come to investigate whether the spacecraft has suffered a major malfunction.

It should be possible to resolve this question by listening for residual signals from the on-board local oscillators (to confirm the operation of the power systems) and any very low-level signals at the nominal downlink frequency (indicating a transmitter or antenna problem). If signals from either the local oscillators or the transmitter can be detected, then there are several tests that can be done to trace the nature and extent of the problem.

UoS would be most appreciative of any assistance in the above listening tests. The level of local oscillator signals present at the spacecraft antenna were measured before launch to be -60 dBm. Examination of the link budget associated with the above experiments shows that large antennas and sensitive, narrow-band receivers operating in the 132-136 MHz (local oscillators) and 435.120 MHz (downlink transmitter) will be required to stand any chance of success. It is recommended that tests first confirm the detection of local oscillator signals from the operational UO-14 before attempting to listen for UO-15.

It is also very important that we narrow the window between the last reported reception of UO-15 at 05:00 UTC on 23-JAN-90 and first AOS (or lack therof) at UoS at 10:00 UTC the same morning. Was anyone else listening? Telemetry would be ideal, but even a report of the presence of a signal from UO-15 on 435.120 MHz would help enormously.

If anyone can help (or suggest contacts who may be able to help) - please contact Martin Sweeting G3YJO at UoSAT. Let us all hope that we can yet find our way back!

73 Martin Sweeting G3YJO

/EX
SB ALL @ AMSAT $ANS-037.09
AMSAT 10M NET CHANGES TIME

HR AMSAT NEWS SERVICE BULLETIN 037.09 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 6, 1990
TO ALL RADIO AMATEURS BT

AMSAT 10 Meter Novice & Technican Net Changes to Saturdays at 15:00 UTC

In a move designed to help more Novices and Technicians join the fun on OSCAR satellites, Vinny Banville (WB2YBA) and Wray Dudely (W8GQW) have decided to move the Novice & Technican AMSAT from Sundays at 19:00 UTC to Saturday mornings at 15:00 UTC. The Net call up frequency will remain the same: 28.460 MHz. This change will become effective on February 10, 1990. The 10M HF Net is designed to help beginners get the basic information needed to work the OSCAR satellites. All are welcome to join.

/EX

Posted: Sat, Feb 3, 1990 5:47 AM GMT Msg: HGJA-4157-6582
From: HPRICE
To: amsat
Subj: telemetry resend

Hopefully starting tonite, WEBER telemetry will be changed to the following format:

WEBER-1>TIME-1:PHT: uptime is 050/15:03:59. Time is Sat Feb 03 04:34:39 1990

WEBER-1>TLM:21:76 22:70 23:4D 24:3F 25:34 26:00 27:00 28:00 29:00 2A:00 2B:00
2C:00 2D:2D 2E:00 2F:9F 30:9E 31:9F 32:93 33:34 34:A6 35:A6 36:B4
37:A3 38:D2 39:B3 3A:9F 3B:8C 3C:B7 3D:EA 3E:47 3F:D3 40:9C 41:9D
42:D2
25CA48BD

WEBER-1>TLM:00:76 01:77 02:5E 03:84 04:74 05:93 06:72 07:85 08:6C 09:34 0A:A3
0B:A5 0C:CC 0D:B9 0E:08 0F:70 10:AD 11:8D 12:06 13:68 14:A5 15:9F
16:89 17:86 18:83 19:8A 1A:83 1B:88 1C:84 1D:8E 1E:26 1F:5F 20:99
25CA48BD

The two telemetry frames are reversed (to make the s/c software easier to write, it has no other significance). More importantly, the 8 digit hex number on the end is the time when the telemetry scan was made. The time value is that returned by the C time() function on an IBM-PC, i.e., seconds since Jan 1, 1970. It serves to timestamp each block of data, and ties two blocks together.

It is separated from the rest of the data in the block by a 0x0d.

A word on how the telemetry is gathered.

At the start of an interval, the "uptime" message is generated, then the telemetry routine is called. The new timestamp number is then

grabbed. Next, all the telemetry values are gathered, in order. This process involves sending 2 bytes at 4800 baud on the internal serial buss, plus waiting 9ms for each value. In addition, each of the 12 current samples takes an additional 100ms. As you can see, with this initial telemetry routine, two values at opposite ends of the array can be separated in time by almost 2 seconds. Both output frames that were generated by one scan are stamped with the same time, however.

The other spacecraft will be changed as they are uploaded with the latest battery management routines.

hp

Posted: Sun, Feb 4, 1990 1:17 AM GMT Msg: KGJA-4160-4101
From: HPRICE
To: amsat
Subj: Pacsat telemetry change

In addition to the changes detailed for WEBERSAT yesterday, the new timestamp will also be added to the status line. PACSAT will be the first to receive this software upload, along with the latest battery routines.

You should, by the way, be seeing the batteries at a higher voltage, Bob is trying to keep them topped off, where the top is defined as 11.81V - 0.0216*Battery_temp.

A word about changes. The telemetry formats, and the format of other microsat data, such as the WEBERSAT image format, are subject to change. Sometimes it will be to add something we forgot, such as these timestamps, sometimes it will be to speed up the data transfer. Once the BBS is online, microsat telemetry will probably be in binary, and will be sent far less often. There will be a whole orbit data format, probably similar to the UoSAT format.

This is not meant to scare anyone off from writing software to decode microsat data, but be aware that things are in a state of flux. Make you software modular and flexible. For example, with over 240 analog telemetry values on four spacecraft, and 320 status bits, the best thing to do is have your program read the telemetry equation files sent out by Jan. Don't hard code the values in BASIC data statements, as you'll have to do a lot of typing as these values get refined, defined, or deleted.

Although the basic format of the basic telemetry will probably remain chan:val, the order of the channels, and presence or absence of any particular value is subject to change.

I'd like to suggest to the folks writing the all-singing all-dancing telemetry display and archive software that they do the following:

1) Define a standard microsat telemetry file storage format. This should be the raw telemetry count rather than converted, since the

equations may be adjusted, e.g., bat2 temp on dove. Write
the post-processing display, plot, and analysis software to run
off of the standard format.

2) Write a telemetry capture program(s) to convert raw data into the
standard storage format. Some of the already captured data is
in the N4HY format, some was dumped from monitor mode right into
a file.

hp

Posted: Sun, Feb 4, 1990 10:22 PM GMT Msg: HGJA-4160-5568
From: AMSATDL
To: AMSAT
Subj: AO-13: Transponder Schedule to 09May90

AMSAT OSCAR-13 Transponder Schedule (valid until May 09)

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

However from the 21Feb90 to 21Mar90 there will be an
OFF period from MA 20 to MA 90 due to solar eclipses
affecting AO-13. The length of the eclipses vary from
12 to 89 minutes. There will be only Mode-B beacon
during the Mode-S from MA 195 to MA 200.
Spacecraft attitude on 03Feb90 was ALAT=207.1/ALON=+2.9,
which results in optimum Squint angle around MA200.

73s Peter DB2OS
Graham VK5AGR

sorry - please exchange ALAT with ALON in the text above

Posted: Sun, Feb 4, 1990 11:45 PM GMT Msg: IGJA-4160-5779
From: GNAKAYAMA
To: AMSAT
CC: DLOUGHMILLER
Subj: Project OSCAR Annual Meeting

The 1990 annual meeting of Project OSCAR, Inc. was held on 27 January 1990
in Sunnyvale, California.

Elected to the Board of Directors for the 1990-92 term are:
Cliff Buttschardt, W6HDO
Ross Forbes, WB6GFJ
Clif Keeley, WA6JWA
Mike Marneris, K8ERL
Nick Marshall, W6OLO

Gary Nakayama, KH6JRB
Jeffrey Pawlan, WA6KBL

Officers for 1990 are:
Chairman of the Board - Gary Nakayama, KH6JRB
President - Ross Forbes, WB6GFJ
Treasurer - Gil Morris, WB6KCJ
Secretary - Margaret Nakayama, KB6HWV

Special Directors are:
Technical Director - Jeffrey Pawlan, WA6KBL
Director of User Services - Cliff Buttschardt, W6HDO

The BoD of Project OSCAR have expressed an increased interest in technical projects.

P.S. Doug, The following officers and board members of Project OSCAR are on TELEMAIL:
GNAKAYAMA Gary Nakayama, KH6JRB, Chairman of the Board
RFORBES Ross Forbes, WB6GFJ, President
CBUTTSCHARDT Cliff Buttschardt, W6HDO, Dir of User Services

888. Upgrading TNC-1 to higher speeds

Newsgroup: rec.ham-radio
Date: 1990-02-09 09:35:03 UTC
From: jcp@cgch.UUCP
Message-ID: <9002090804.AA07420@zit.cigy.>
Source record: 13593

>Mailer: Elm [revision: 64.9]

I have a TNC-1, that I would like to upgrade to 2400 or
higher baud rate. Does anyone have experience doing this, and could
say how well it works? I have heard 2400 is perfectly OK, but the
TNC tops out at 4800, is this true?
-jcp-

==========
Joseph C. Pistritto HB9NBB N3CKF
'Think of it as Evolution in Action' (J.Pournelle)
Ciba Geigy AG, R1241.1.01, Postfach CH4002 Basel, Switzerland
Internet: bpistr@cgch.uucp Phone: (+41) 61 697 6155
Bitnet: bpistr%cgch.uucp@cernvax.bitnet Fax: (+41) 61 697 2435
From US: cgch!bpistr@mcsun.eu.net

889. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-09 13:03:16 UTC
From: wa2sff@cbnewsh.ATT.COM
Message-ID: <8041@cbnewsh.ATT.COM>
Source record: 13594

In article <19726@bellcore.bellcore.com>, mo@flash.bellcore.com (Michael O'Dell) writes:
> Having heard an ACSSB radio and heard a talk on how it works,
> my guess is that ACSSB gives you the best of both worlds.
> I'm really curious why amateurs aren't busily experimenting
> with ACSSB...
>
> -Mike
>

MILD FLAME:

I heard some of the original work on ACSSB about 10-12 years ago.
The presentation was at a professional conference and I was embarrassed
by it.
The talk was by the inventor of the concept Bruce ?.
A big deal was made of Bruce being a ham radio operator.
His talk was amateurish by even ham radio standards.

The ARRL jumped on the ACSSB bandwagon and
pushed it real hard as hams pushing the state of the art
and look here how important hams are.
Then as the limitations of the technology set in,
it seemed to die a good death until the UPS frequency grab.
I think that the ARRL contributed to the loss of 220 by
its push about 10 years ago of ACSSB.

I am not impressed by the concept and am not clear
why a spectrum efficient service needs additional spectrum to be implemented.
The original idea was to put the ACSSB signal in the guard band
between two NBFM signals and thus save spectrum.

Somewhere over the last 10 years, things changed.

MILD FLAME OFF.

Joe Wilkes
att!homxb!wa2sff

890. Sony Noise disappeared ??

Newsgroup: rec.ham-radio
Date: 1990-02-09 15:07:38 UTC
From: nrg@nsscb.UUCP
Message-ID: <1235@nsscb.UUCP>
Source record: 13595
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Earlier I posted about strange noises on my SONY-2010 especially on
11620khz(All India Radio) in the mornigns. For the last few days, the
reception is exceptionally clear with out any interference/disturbance.
However, I do not know how long it is going to last.

Narotham Reddy

--

Narotham Reddy reddy@attctc.Dallas.TX.US reddy@nucleus.mi.org

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891. Digital Audio - no more QRM?

Newsgroup: rec.ham-radio
Date: 1990-02-09 15:22:32 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <09.Feb.90.15
Source record: 13596

Packet-rates to support digital voice; i was not thinking of sending
the data in real-time. More a case of speaking your message into
a digitising PC with a TNC , then telling it where to send it, then letting
it get on with it, digitising and shipping the data in its own time.
Delays dont matter under these circumstances. they do not corrupt the
message!
Then when the message has arrived, the recipient replays the whole thing!
I agree that doing it in real-time would be silly unless you had loads of
bandwidth to play with. Perhaps it would be feasible
at UHF/Microwave though (where theres whole megahertz lying about unused....)
Voice-messaging is far more user-friendly than reading it on a screen. You
can speak all sorts of nuances that the written word will never express.
Damn it, you could have poetic QSOs, or even sing!

892. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-09 15:28:28 UTC
From: larrys@cbnewsd.ATT.COM
Message-ID: <13120@cbnewsd.ATT.COM>
Source record: 13597

Per the posted information and current discussion on the modification of
the **new** ICOM 24AT dual band HT:

The Modification for freq. coverage extension:

1) Remove Diode D13

2) Keyboard [B,#,LIGHT] & Power-ON

Does work... FOR RECEIVE-ONLY!

The process is relatively simple; considering that most of the entire
radio is surface-mount parts... It turms out that Diode D13
is one of two "normal" sized diodes on the LOGIC BOARD easily
accessed and cut when the radio is opened...

(Two "standard" diodes are found below the logic IC1 by about
a 1/3inch, with IC1 at the top, looking at the diodes
D13 is the one on the left.)

Result: Recieve results (rough-info for about 6 hours of use after mod)

VHF: PLL begins to lock in at about 75mhz ...
and goes out of lock at about 280mhz
(display will go 0mkhz to 355mkhz)

UHF: PLL begins to lock in at about 355mhz
and goes out of lock at about 500 mhz...
PLL begins to lock in at about 795mhz
and goes out of lock at about 975 mhz...
(display will go 355mhz to 1310mhz)

Actual use/operation:

Aircraft: (108-136) seems to detect AM ok...
within 2 miles of Ohare Intl(ORD)
recieve of ground 121.--- moderate
receive of ATIS 134.--- good
recieve of tower and approach moderate
seems that high-end of band receives
better.
"looks like for a pilot who desires
to monitor ops at the port
prior to run-up or whatever
should work fine)

2m HAM: As shipped.
VHF HighBand (150-176): seems pretty hot-

unit is shipped rec'ing this stuff
220 mhz: VERY Dead receive at these freq.
hears only very-local transmitters
**ALSO above 200mhz step rate is
no smaller than 12.5khz
!!SO NOT ALL channels can be tuned
on freq- (UUCH!)
70cm (420-450): Fine
UHF (450-476): Hot reciever! - best ham mod'd receive
better than IC32AT mod rec...
470+ mhz works well-
chicago has allocations
of Public service and
business in 470-476
...and 24at works well
800mhz (convential/trunking):
Ah..it hears the band- perhaps
about the same as most
scanners- Not as hot as above
bands- BUT actual fairly
useable!
870-890 (cellular):
Yes, but channel step rate is 12.5khz
and cellular is on 30khz,
so can not be on exactly
every channel.
900mhz:
Did not check out much here...
did hear a few chicago
trunking systems at the
935 trunking band---
*also a lot of cellular images
present.

Bottom Line---
ICOM 24AT is a NEAT VHF/UHF/800mhz reciever and 2m/70cm
HAM radio in ONE.

The modification (D13 cut) provides a manner to receive
extended band coverage, without worrying about
accidental transmission in other services;
[however I would like to see 420-440 xmit at least
as I have repeater link/control in that
part of the HAM BAND; also 220 mhz freq&xmit
would be real neat; as well as 900mhz xmit
which a few repeaters do exist in the
area]

((((one only wonders what the next generation of HTs
will do???))))

Larry Schroeder -- AT&T Bell Laboratories -- Naperville, IL
KA9KDC 708-979-1020

893. Erroneous QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-02-09 15:58:54 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9002091558.AA22982@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 13598

My son received a QSL from G land through the buro that has his call sign correctly, but the wrong name. Also, the QSO occurred during the time we had all the household goods and radio gear in storage. Obviously, the person got the call wrong (SSB no less), but he wanted a QSL. Will the burro take a return non-QSL card so we can let him know what happened rather than leaving him in the dark. I know that I have many cards that have never returned and have found it somewhat frustrating.

-- Doug WA6VVV

894. AM may be dead but it will not lie down.

Newsgroup: rec.ham-radio
Date: 1990-02-09 16:05:01 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <09.Feb.90.16
Source record: 13599

AM as a modulation technique: yes the problems of phase distortion in SSB transmitters are rarely attended to by manufacturers. The phase-shift of the *whole* signal path (from microphone to speaker) should be considered - the number of components where there are frequency-dependent phase changes in a modern rig are considerable. Active audio filters, speech processors etc. are particularly bad in this respect. Similarly, the frequency response of many rigs is 'sub-optimal' to say the least. Small speakers and cheap microphones do not help at all. If the designers of audio stages took a few ideas from the more reputable manufacturers of quality audio amplifiers (and designed for low noise, low distortion, low phase-shift) things would sound much nicer. Properly set-up exciters and non-overdriven linears help even more. There is little to beat the overtweaked-exciter-into-a-not-too-linear-linear for generating horrible noises. Put a speech processor on the input and the results have to be heard to be believed.
On bands where there is little crowding, double-sideband-with-carrier AM is perfectly sound as a modulation method. And it can sound so nice!
No hiss, squawkiness or scratching.... (just S9 QRM from thermostats)
Must dig out my old 2meter rig... 829B double-tetrode modulated by a pair of 6L6 in push-pull... 50 watts of smooth, mellow audio happiness!

///Pete

895. Re: Packet radio license without code

Newsgroup: rec.ham-radio
Date: 1990-02-09 16:05:15 UTC
From: EAKIN@rsmas.miami.edu
Message-ID: <4681@rsmas.miami.edu>
Source record: 13600

In article <20148@netnews.upenn.edu>, jliu@pender (John Liu) writes:
> I am sure this point has been brought up before, but let me emphasize it.
> There are times when knowing the code can be very useful and even save
> lives. There are numerous examples where people, unable to communicate by
> normal means, have used morse code to communicate. Consider the miner,
> caught in a cave-in, or the San Francisco resident, trapped under the
> ruins of his Marina home. Knowing morse code, they could tap on the pipes
> with a rock to get help!
>
> While a no code license is appealing in some ways, I personally feel it
> would be a great loss for people knowing the code and those who don't.
> Let me explain. Imagine for instance a no-code license was established, and
> I for one reason or another didn't have the time or energy to learn morse
> code on my own. If somebody was trapped and was trying to communicate to me
> in morse code, I would feel terrible! Now, consider a person who knows the
> code, like the person trapped who I was trying to help. He would feel
> TERRIBLE, too!

This is a very good point, and emphasizes the need for individuals to have some skill in morse code. However, it does nothing to justify the need to learn 13 and 20 wpm in order to gain SSB privileges. If speed and efficiency of communication are the issues, CW is not the proper mode. If it is just a hoop for operators to jump through, better operators would be made by required airtime and more comprehensive testing on techniques, protocols and procedures.

FASTER CODE DOES NOT EQUAL BETTER OPERATORS.

--
C. Mark Eakin
Internet: Eakin@RSMAS.miami.edu
Amateur Radio: N4SYK
USnail: Univ. of Miami, RSMAS-BLR, 4600 Rickenbacker Cswy. Miami, FL 33149-1098

896. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-09 16:18:44 UTC
From: julian@bongo.UUCP
Message-ID: <318@bongo.UUCP>
Source record: 13601

In article <19814@bellcore.bellcore.com>, karn@ka9q.bellcore.com (Phil Karn) writes:

> The ARRL's no-code proposal apparently comes up in front of the Commission
> later today (Thursday 2/8). Interestingly enough, the Commission reportedly
> plans on proposing full VHF/UHF privileges for the no-coders, i.e.,
> everything above 30 MHz.

Wow!, you mean that finally in 1990 the US is going to follow
the proposal from the 1947 Atlantic City WARC and have no-code
30 Mhz and above?

That will leave just Bermuda demanding code? As I recall, most
countries allow no-coders above 30 Mhz. Yes there are exceptions,
as I recall, Russia allows them on parts of 10 Meters, Japan has
some low power no-coders on HF. Otherwise, like the Metric
system, everyone but the US is doing it.

Your Metric and no-code bigot
--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

897. Re: Questions on antenna selection

Newsgroup: rec.ham-radio
Date: 1990-02-09 16:44:56 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Feb9.164456.1707@Neon.Stanford.EDU>
Source record: 13602

In article <928@tardis.Tymnet.COM> jenglish@tardis.Tymnet.COM (Jim English) writes:
>Hello again;
>I am sending this query out for my neighbor WP4ADA/W5. If you remember,
>we had to go up against the Town Board to get permission for him to
>erect a tower in his yard. Well, they didn't allow the 75 foot tower
>he wanted, but they did let him go to 57 feet, the maximum allowable
>without any special permission. He is now looking for an antenna to
>put up, and would like to know your opinions on some stuff.

57 feet is a WONDERFUL height to be (paraphrasing the Caterpillar)...
At my previous house I had a ROHN HDBX-48, self supporting 48 foot tower,
topped with a KLM tribander and a KLM 40 mtr. dipole. - total height = 57 feet.

Marc Kaufman (kaufman@Neon.stanford.edu)

898. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-09 19:14:39 UTC
From: kchen@Apple.COM
Message-ID: <38490@apple.Apple.COM>
Source record: 13603

wa2sff@cbnewsh.ATT.COM (joseph.e.wilkes) writes:

>I heard some of the original work on ACSSB about 10-12 years ago.
>The presentation was at a professional conference and I was embarrassed
>by it.
>The talk was by the inventor of the concept Bruce ?.
^^^^^^^
>A big deal was made of Bruce being a ham radio operator.
>His talk was amateurish by even ham radio standards.

Bruce B. Lusignan. Couldn't find his call on marvin, though
I vaguely remember that he was licenced. Maybe the case of
too many hobbies - at one time he ground a 14" (or something
equally ridiculous :-) parabolic out of a ship's porthole
cover for a reflecting telescope.

Kok Chen kchen@apple.com, kk6dp
Apple Computer, Inc.

899. FCC Codeless Proposal

Newsgroup: rec.ham-radio
Date: 1990-02-09 20:33:00 UTC
From: tad@ssc.UUCP
Message-ID: <471@ssc.UUCP>
Source record: 13604
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Yesterday the ARRL put out bulletin 7 (2/8/90) dealing with the
FCC proposal for the codeless license. Amazingly, they want
to DISCONTINUE the Novice license in favor of the new codeless
license!

Dave Sumner of the ARRL sent me the text of the FCC release.

73,
Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

Date: Fri Feb 09, 1990 5:37 am PST

From: David Sumner / MCI ID: 264-6149

TO: * Paul Cook / MCI ID: 328-8544

Subject: RE: ARRL Bulletin #7

Dear Tad:

Since you have MCI capability, perhaps the best way to address your

question is to send you the full text of the FCC news release. (The

actual Notice of Proposed Rulemaking is not yet available.)

Everyone should bear in mind that this is an FCC PROPOSAL only.

73,

Dave K1ZZ

Report No. DC- ACTION IN DOCKET CASE February 8, 1990

FCC PROPOSES NEW CODELESS CLASS OF AMATEUR OPERATOR LICENSE

(PR DOCKET 90-55)

The Commission is proposing to amend its rules by establishing a

codeless class of amateur operator license to be called the

Communicator Class. The Communicator Class would be incorporated into

a simplified licensing structure containing four ascending steps:

1) Communicator 2) General, 3) Advanced, and 4) Amateur Extra Classes. Current Technician and Novice Class operator licenses would be grandfathered indefinitely, with no new licenses issued for those license classes but existing licenses could be modified or renewed. The codeless operator class license would satisfy three major objectives. The first objective is to offer an entry level license for all persons who find telegraphy a barrier to pursuing the purpose of the amateur service. The second objective is to design a codeless license that can easily be implemented into the current licensing process. The third objective is to avoid any negative effect upon current licensees, the volunteer examiners who administer amateur examinations, or the Commission's workload.

The amateur service exists for the purpose of self-training, inter-communication and investigations to be carried out by duly authorized persons interested in radio technique solely with a personal aim, and without financial gain. Individuals seeking a license to operate an amateur station must prove that they can send correctly by hand and receive correctly by ear, text in Morse code signals. Although this requirement may be waived for an operator of an amateur station transmitting only on frequencies above 30 MHz, each of the five classes of operator licenses issued by the Commission requires the applicant to pass an examination in the international Morse code.

The Communicator Class operator license would not require knowledge of Morse code telegraphy messages. Privileges for the Communicator Class would include all emission types. The Communicator Class license would replace two existing beginner operator classes and would simplify the amateur operator license structure.

The Commission would require applicants for the Communicator Class license to pass a 60 question written examination. The new question pool would be comprised of the questions from the two pools currently

used in the Novice and Technician license examinations as well as the addition of new questions.

The proposed transmitter power for the Communicator Class would be 200 watts peak envelope power and the licensee's station would be eligible for a Group D call sign. Stations with Communicator Class control operators would not be permitted to transmit on the 2 and 6 meter VHF bands and the HF bands. The Commission is requesting comments on the effect of excluding Communicator Class licensees from the two VHF bands. Comments are also requested on the desirability of including the opportunity for Communicator Class licensees to experience on-the-air telegraphy operation on the HF bands. Additionally, a Communicator Class licensee who passes or receives credit for a telegraphy examination would be authorized the privileges of the Technician Class.

The Commission is requesting comments on all aspects of this proposal.

Action by the Commission February 8, 1990, by Notice of Proposed Rulemaking (FCC 90-55). Commissioners

-FCC-

News Media contact: Patricia A. Chew at (202) 632-5050.

Private Radio Bureau contact: Maurice J. DePont at (202) 632-4964.

900. Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-02-09 20:33:56 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <9721@ttidca.TTI.COM>
Source record: 13605

In article <30500390@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
+
+There is no "devil" in code. Someone who is less (or not at all) interested
+in the technical, experimental, or construction side of Ham Radio can do things
+like build up an expertise in operating code. As Jim points out, it can be a

Oh yes there is! The very idea that someone "needs" 20 WPM skills in CW to be granted an EXTRA is old-age thinking. There is simply no excuse for any form of CW skills test beyond 5 WPM. In the earliest day of licensing, the requirement was only 5 WPM! In short, it's only the status-quo mentality of the OF's in Amateur radio via the ARRL, that keeps the 13 & 20 WPM skills test alive. There is nothing whatever about the ITU requirements that would prevent the scrapping of these CW tests.

Besides, think about it...a no-code license for vhf-uhf, and a simple 5 WPM for all other levels. It would simplify things a great deal. And after all, the hobby is supposed to be about T E C H N O L O G Y not blazing-brass! ;-)

'73!
--
-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **

901. Who needs another license class?

Newsgroup: rec.ham-radio
Date: 1990-02-09 20:40:48 UTC
From: FNDDR@ALASKA.BITNET
Message-ID: <9002100808.AA29629@ucbvax.Berkeley.EDU>
Source record: 13606

Oh boy, a free-for-all. As long as things are stirred up, how about this suggestion:

Instead of setting up a new no-code license, why not simply abolish the 5WPM requirement for Novice and Technician licenses? Simple to implement, and no-code licensees wouldn't be singled out for abuse by hardliners.

I know the objection everyone is thinking of: international law requires a knowledge of morse code to operate in the HF bands. But consider this: all novice/tech permissions in HF are cw-only (except for the bit in the 10m band, which doesn't count...many countries have no-code licenses around 30 MHz, such as our citizen's band). The point is, any Novice/tech who would want to operate on HF would have to use morse code, and thus would be in compliance with international law...those who wanted to live code-free could get on with life above 30 MHz. I bet that a sufficiently-motivated lawyer could make this argument stick.

I can think of various advantages to this approach:
- on-air code practice. Instead of sitting around listening to a tape or computer, code could be learned on the air. As it stands now, people studying for novice are stuck being passive listeners, a very boring way to learn code.
- abolish 5WPM forever. Many people, including me, feel that 5WPM is so unnaturally slow that it discourages novices and creates an artificial learning hump when trying to upgrade to 13 WPM. Without being brain-washed (and I think brain-damaged) by learning 5 WPM, learning 13 or 20 WPM directly could be a lot less traumatic.
- I think cw is widely perceived to be a barrier by hams and prospective hams SIMPLY BECAUSE WE ADVERTISE IT THAT WAY. The attitudes expressed here and in the ham magazine letters columns often boil down to "you must learn the code or you are not a Real Ham." This kind of elitism turns hams away from using cw (it turns me off), and turns non-hams off about being hams. If the first levels of ham licensing were no-code, hams could become interested in it gradually and naturally, rather than having it shoved down their throats. Let them become interested in working satellites with cw, or in weak-signal work, or exotic dx...cw could become more popular than ever if we could get rid of the bitterness and the "do-it-or-else" attitude.
I've got a nasty feeling that the proposed no-code license will turn into a joke, with written tests that will keep out all but a few graduate engineers, or with a "second-class-citizen" stigma attached to it. I'd rather see reform in the existing structure than have a new layer added to it.
Happy fighting,
Don Rice
KL7JIQ
FNDDR@ALASKA.bitnet

902. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-09 21:07:27 UTC
From: jdn@navaho.uucp
Message-ID: <167@towernet.UUCP>
Source record: 13607

In article <19708@bellcore.bellcore.com>, mo@flash.bellcore.com (Michael O'Dell) writes:
> Why is it that some people think that when you "learn the code"
> it stays learned???
>
This brings up an interesting question in which, perhaps, my own personal
experiences may be of interest.

I was licensed at the age of 12, and was very active on cw as a teenager,
reaching a code proficiency level of 40 wpm. At 18, I went away to
college and, like many others, gave up ham radio completely. About 10
years later, I wanted to take an FCC examination for a Commercial
Radiotelegraph License. The code portion consisted of two tests.
One test required perfect copy for 1 minute (out of 5) of plain text
at 25 wpm, including punctuation not required on ham exams(; - ( ) "
!). The second test consisted of 5 letter/number code groups, again
requiring 1 minute perfect copy at 25 wpm.

I bought a tape recorder and some code practice tapes and set aside
15 minutes a day to practice. I was not at all intimidated by the test
and I had no doubts about being able to pass it, but I was curious to
know how much of the code I had forgotten and how long it would take to
recover my cw ability. I gave myself 6 weeks to get up to 30 wpm.

I was very surprised to find that after only 10 days or so of practice
15 minutes a day, I had no trouble copying 30 wpm. It seemed that the
code was like a native language which I hadn't spoken for 10 years,
but that I had never really forgotten either. It came back almost
instantaneously.

73, NK2D

Jonathan Nagy
navaho!jdn@bellcore.bellcore.com
(201) 699-4445

903. Thermometer chip

Newsgroup: rec.ham-radio
Date: 1990-02-09 21:26:40 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9002100809.AA29668@ucbvax.Berkeley.EDU>
Source record: 13608

I am looking for a good (read cheap :-)) digital thermometer for tracking temperature in my office. I've got the build-it bug right now so this would be a good project.

Please respond directly to me. I'll post a summary if the volume warrants it.

Thanks in advance!

"It's never too late to have a happy childhood."
- Unknown

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"
---

904. Re: New Car Radiated Emissions

Newsgroup: rec.ham-radio
Date: 1990-02-09 23:02:20 UTC
From: tedk@cbnewsc.ATT.COM
Message-ID: <13456@cbnewsc.ATT.COM>
Source record: 13609

In article <30500389@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
|
|> 2. I bought a new (1989) Jeep Cherokee and installed a 2 meter
|> rig in it. I orginally put a Larson antenna on the edge of
|
|My 1987 model has some weak harmonics almost every 1 Mhz, with #147
|around 147.025 Mhz. It's not troublesome, but I do agree that you
<stuff deleted>

My 1986 Toyota Celica has harmonics every 1 MHz. This signal seems
to be coming from the On-board EFI Computer. If I use my 200XLT scanner
or Sony 2003 HF receiver inside the car without an
external antenna, the signal breaks the squelch and stops the scanning.
With an External antenna, there is no problem. My 2 meter can hear the
signal at 144.00 and 145.00 Also.

Ted G. Kekatos Amateur Radio N9IXE
UUCP: ..!att!ihuxv!tedk (708) 979-0804
AT&T Bell Laboratories, Indian Hill South, IX-1F-415
1200 East Warrenville Road.
Naperville, Illinois. 60566 USA

905. Re: LA-1000 Linear Amplifier

Newsgroup: rec.ham-radio
Date: 1990-02-10 00:59:48 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880119@hpfcdc.HP.COM>
Source record: 13610

The 6MJ6 is similar to the 6LQ6 and 6JE6C - they are all pin-for-pin interchangeable. I have the specs for the 6LQ6, and will dig it up if this is good enuf. I've got an amp that has several of each kind, and haven't noticed any differences in drive vs. plate currents.

Don't be bothered by the high input SWR, if the RF IN goes directly to the cathodes. The cathode capacitance to ground is really big for several sweeps in parallel. I've measured 3:1 on 80 meters to about 5:1 on 15 meters. I'm tinkering with an input circuit now; I'll publish it when I find something that works. I tried to match it with an MFJ tuner, but could only get it down to about 1.5:1. Apparently, SWR changes with input power.

Tube current balance is important in these parallel configurations. A 10-ohm resistor in the cathode should help to equalize it. I resorted to DeMaw's method (QST ca 1970) of individually biasing each tube, then balancing them at maximum output. At -20 V control bias and 800 Vp, I'm running Class C, 65% eff, and over 400W (meter only goes to 300 :-o).

Since the amplifier presumably worked at one time, suspect a worn-out tube. You could try removing drive from one tube at a time and checking output power. Another option is to individually meter each tube and see if they are imbalanced. Don't bother with tube testers - I had a couple deadbeats that looked ok on the tester. Apparently, high drive is different from static conditions :-)

Perry Scott, KF0CA

906. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-10 01:27:12 UTC
From: mdbomber@portia.Stanford.EDU
Message-ID: <9034@portia.Stanford.EDU>
Source record: 13611

I had a question about the talk of how code can be useful in cases of being buried in an earthquake, etc., by tapping messages with rocks or pipes.

But what I wonder is, how can you recognize this? Dots and dashes would sound the same. Or at least, you couldn't really tell a dash from a dot and a space. How do you this?

--
Internet: mdbomber@portia.stanford.edu Matt Bartley
Bitnet: mdbomber%portia@stanford.bitnet
Kirk: "Spock! Where's that power you promised?"
Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

907. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-10 01:39:06 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500392@ux1.cso.uiuc.edu>
Source record: 13612

> Then as the limitations of the technology set in,
> it seemed to die a good death until the UPS frequency grab.
^^^
Aerotron and others started it. UPS just jumped on the user bandwagon.

> I think that the ARRL contributed to the loss of 220 by
> its push about 10 years ago of ACSSB.

Why is it not the case that the hams' rejection of ACSSB over the past
10 year contributed to the loss of 220?

> I am not impressed by the concept and am not clear
> why a spectrum efficient service needs additional spectrum to be implemented.

No one would use it. It's not quite as good as FM, so why use ACSSB on a
frequency you can use FM? (see below)

> The original idea was to put the ACSSB signal in the guard band
> between two NBFM signals and thus save spectrum.

They are bunched together pretty tightly now. The guard band is really
almost non-existant.

1. There is a demand for unavailable spectrum in major metro areas.
2. Users won't use ACSSB if they can use FM (cheap equipment, etc).

So by getting some "virgin" spectrum, they can force some people to try
ACSSB long enough to "prove" it workable. These users will be glad to
have some spectrum and would be happy to use ACSSB just to get it.

The FCC cannot just toss out FM until ACSSB has been proven to work in
actual land mobile services.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

908. Re: shoe's on the other hand now (was Re: Learn the <*> code!)

Newsgroup: rec.ham-radio
Date: 1990-02-10 02:46:50 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490008@hprmokg.HP.COM>
Source record: 13613

Setting the code/no code debate in perspective....

Let's see is the elimination of the code has a noticeable effect on the growth in the ranks of amateur radio.

I doubt that it will and I anxiously await being proven incorrect.

Barry
WB6JZL

909. FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-10 02:58:22 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19917@bellcore.bellcore.com>
Source record: 13614

Here's the text of the news release on the FCC's no-code proposal, as downloaded from Compuserve. It looks like my rumor source was only partially correct; note that this proposal excludes 6m and 2m from the Communicator class, but specifically requests comments in this area. --Phil

From the FCC News Release, 2/8/90:

FCC PROPOSES NEW CODELESS CLASS OF AMATEUR OPERATOR LICENSE
(PR DOCKET 90-55)

The Commission is proposing to amend its rules by establishing a codeless class of amateur operator license to be called the Communicator Class. The Communicator Class would be incorporated into a simplified licensing structure containing four ascending steps: 1) Communicator 2) General, 3) Advanced, and 4) Amateur Extra Classes. Current Technician and Novice Class operator licenses would be grandfathered indefinitely, with no new licenses issued for those license classes but existing licenses could be modified or renewed.

The codeless operator class license would satisfy three major objectives. The first objective is to offer an entry level license for all persons who find telegraphy a barrier to pursuing the purpose of the amateur service. The second objective is to design a codeless license that can easily be implemented into the current licensing process. The third objective is to avoid any negative effect upon current licensees, the volunteer examiners who administer amateur examinations, or the Commission's workload.

The amateur service exists for the purpose of self-training, inter-communication and investigations to be carried out by duly authorized persons interested in radio technique solely with a personal aim, and without financial gain. Individuals seeking a license to operate an amateur station must prove that they can send correctly by hand and receive correctly by ear, text in Morse code signals. Although this requirement may be waived for an operator of an amateur station transmitting only on frequencies above 30 MHz, each of the five classes of operator licenses issued by the Commission requires the applicant to pass an examination in the international Morse code.

The Communicator Class operator license would not require knowledge of Morse code telegraphy messages. Privileges for

the Communicator Class would include all emission types. The Communicator Class license would replace two existing beginner operator classes and would simplify the amateur operator license structure.

The Commission would require applicants for the Communicator Class license to pass a 60 question written examination. The new question pool would be comprised of the questions from the two pools currently used in the Novice and Technician license examinations as well as the addition of new questions.

The proposed transmitter power for the Communicator Class would be 200 watts peak envelope power and the licensee's station would be eligible for a Group D call sign. Stations with Communicator Class control operators would not be permitted to transmit on the 2 and 6 meter VHF bands and the HF bands. The Commission is requesting comments on the effect of excluding Communicator Class licensees from the two VHF bands. Comments are also requested on the desirability of including the opportunity for Communicator Class licensees to experience on-the-air telegraphy operation on the HF bands. Additionally, a Communicator Class licensee who passes or receives credit for a telegraphy examination would be authorized the privileges of the Technician Class.

The Commission is requesting comments on all aspects of this proposal.

910. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-10 10:41:34 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500393@ux1.cso.uiuc.edu>
Source record: 13615

> I was licensed at the age of 12, and was very active on cw as a teenager,
> reaching a code proficiency level of 40 wpm. At 18, I went away to
^^^^^^^^^^^^^^^

> college and, like many others, gave up ham radio completely. About 10
^^^^^^^^^^^ ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

WHY ???

I know I will hear stories about things like classes and stuff. But I also know college students will be college students and will find time to do other things than just study. And besides, the SMARTER ones won't have to study as much because most of the material is understood in the first pass.

Colleges and Universities have ham radio clubs. If yours does not, then start one. Just because dorm rooms don't offer much chance to operate does NOT mean its time to just give up on ham radio. Use a club station.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

911. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-10 10:41:38 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500394@ux1.cso.uiuc.edu>
Source record: 13616

[SAVE THIS POSTING: it has directions for getting on a mailing list]

I see some problems with the FCC proposal as it was posted here. It is not hopeless, and the fact that the FCC is seeking more comments means that it can be fixed if we act sensibly on this.

The fact that the Technician license class is being removed from further availability means that those who wish to do what the Communicator cannot, such as:

1. Operate 1500 watts above 30 Mhz
2. Control repeaters (I'm not sure if the FCC proposal denies this to Communicators).
3. Operator 6 meters and 2 meters.

will have to learn Morse Code at 13 WPM for the General class, instead of the 5 WPM the Technician class currently requires.

Additionally, the entry level for HF privileges is totally removed. One must JUMP to 13 WPM. There remains no 5 WPM level unless the FCC decides to change General to 5 WPM, and I am sure that would meet MUCH resistance.

One "FIX" is to make the Communicator class have ALL amateur privileges on frequencies above 30 Mhz and keep the Novice class and allow one to hold BOTH Novice and Communicator classes in a single license (the dual class idea was proposed to the Commission in my petition).

There is sure to be discussion and debate on this issue, both between those opposed to any changes altogether, and those who want a change, as well as between those who want a different change, and those who like this one. I suggest these discussions take place on the HAMLICEN mailing list.

You may subscribe to HAMLICEN by sending mail to: listserv@vmd.cso.uiuc.edu saying "sub hamlicen <your name & call>" in the text (NO SIGNATURES). You may send your postings/contributions/ideas to: hamlicen@vmd.cso.uiuc.edu

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

912. Re: Current information about becoming involved with amateur radio?

Newsgroup: rec.ham-radio
Date: 1990-02-10 10:45:00 UTC
From: john@frog.UUCP
Message-ID: <12015@frog.UUCP>
Source record: 13617

In article <1990Feb6.011439.26423@NCoast.ORG>, allbery@NCoast.ORG (Brandon S. Allbery) writes:
> Twelve years after I first learned about amateur radio, the bug has tickled me
> again... and I'm now (almost) in a position to do something about it.

The 1988 ARRL Handbook recommends "To get started toward your Amateur Radio license, write to ARRL Hq. in Newington, Connecticut. We will match you up with a Registered Amateur Radio Instructor in your area. ..." They can also tell you about ARRL Affiliated clubs in your area, which presumably may be conducting classes even as we type. The ARRL's address is

ARRL
225 Main Street
Newington CT 06111

(I'm not posting this as an ARRL booster, but if they're willing to help...)

--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

913. 1990 GMRS Repeater Guide Published

Newsgroup: rec.ham-radio
Date: 1990-02-10 18:30:02 UTC
From: rh@well.sf.ca.us
Message-ID: <16086@well.sf.ca.us>
Source record: 13618
Cross-posted to: rec.radio.shortwave,rec.ham-radio

The 1990 edition of the General Mobile Radio Service (GMRS) "National Repeater Guide" has just been published by the Personal Radio Steering Group (PRSG). This 9th edition describes more than 1,000 GMRS repeater systems and monitoring watches in all 50 states and Puerto Rico.

Since a rule-change at the start of 1989, new GMRS licenses are available only to private individuals for personal, family and business communications. It is one of the fastest growing land mobile services.

Many repeater systems listed in the Guide are operated by nonprofit community-service radio teams and user cooperatives. The Guide also lists hundreds of GMRS stations operated by local governments and quasi-public agencies that licensees can call for assistance while passing through the area. Many listings include signaling data and station characteristics, as well as contact names, addresses and telephone numbers. Besides station listings, the Guide features an extensive introduction and tutorial on the history and capabilities of GMRS.

The Personal Radio Steering Group Inc. is the national service organization for GMRS licensees. The PRSG publishes the monthly "Personal Radio Exchange" for GMRS users, as well as instructional materials on licensing, radio purchasing and interference resolution. The PRSG computer BBS brings subscribers the latest GMRS news, and provides a forum for discussion among licensees.

The GMRS National Repeater Guide is available from the PRSG for $10.00 (postage included), or is included with the $30.00 "Personal Radio Exchange" newsletter subscription.

PRSG, P.O. Box 2851, Ann Arbor MI 48106
Voice phone: 313/MOBILE 3
BBS: 313/995-2100
--
^^^
Robert Horvitz, Executive Secretary ANARC BBS: 1-913-345-1978
Association of North American Radio Clubs Compuserve: 76210,517
P.O. Box 143, Falls Church, VA 22046-0143 USA uucp: rh@well.sf.ca.us

914. * SpaceNews 12-Feb-90 *

Newsgroup: rec.ham-radio
Date: 1990-02-10 18:33:59 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <170@ka2qhd.UUCP>
Source record: 13619

Bulletin ID: SPC0212

=========
SpaceNews
=========

MONDAY FEBRUARY 12, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on UseNet and Amateur Packet Radio. It is available for UNLIMITED distribution.

* MOS-1b LAUNCHED! *
====================
Marine Observation Satellite 1-b (MOS-1b) was successfully launched from Tanegashima Space Center at 10:33:00 JST (UT+9h) on February 7, by an H-1 rocket. All separation phases for MOS-1b, DEBUT (Deployable Boom and Umbrella Test) and JAS-1b (Japan Amateur Satellite-1b) were confirmed.

After the launch, the three payloads were nicknamed as follows:

MOS-1b MOMO-1b (MOMO means peach in Japanese)

DEBUT ORIZURU (ORIZURU means crane shaped by folding paper in Japanese)

JAS-1b FUJI-2 (FUJI has two meanings in Japanese: Mt. Fuji and wisteria)

Missions:

MOS-1b

* Continue overall earth observations by Multi-spectrum Electronic Self-a scanning Radio-meter, Visible and Thermal Infrared Radiometer, Microwave Scanning Radiometer and Data Collection System.

* Establish earth observation satellite operation technology including two satellite parallel operation.

* Establish sun-synchronous orbit injection technology by H-1 launch vehicle.

Piggy Back Payloads

DEBUT

* Deployable Boom and Umbrella Test (DEBUT) Satellite is the payload which performs function verification experiments in a space environment on a boom mechanism capable of being extended/retracted and an aerodynamic umbrella capable of being opened/closed.

JAS-1b

* JAS-1b (Japan Amateur Satellite-1b) is a satellite which facilitates
worldwide satellite communications by amateur radio.
The launch of JAS-1b enables amateur radio operators to learn about space
science and satellites, also to understand space communication. JAS-1b will
become the successor of JAS-1/Fuji-OSCAR 12, the Japan's first amateur
satellite launched in 1986. This spacecraft is now known as OSCAR-20.

Orbit:

MOS-1b Altitude approx. 909km
Inclination approx. 99deg
Configuration Box type attached with cantilever
type solar paddle: main body 1.26x1.48x2.40(m)
solar paddle 2.00x5.28(m)
Weight approx. 740kg (at launch)
Mission life 2 years

DEBUT Altitude elliptical approx. 900x1600(km)
Inclination approx. 99deg
Configuration stored: 400mm in diameter(26-side
polyhedron) 470mm in length (structure+boom+
aerodynamic umbrella)
Weight 50+/-1 kg
Power Subsystem Battery: Lithium battery (capacity 95 Ah)

Design Service Life approx. 10 days (due to life
of the internal primary battery)

JAS-1b Altitude elliptical approx. 900x1600(km)
Inclination approx. 99deg
Configuration 440mm in diameter. 470mm in length
Weight approx. 50kg

(Sources: NASDA Information for Press and personal communication)

[From: Yoshiro Yamada of the Yokohama Science Center, Japan]

* SHUTTLE NEWS *
================
Launch of Atlantis and the STS-36 mission is scheduled for 22-Feb-90.
This will be a DoD mission, and the orbital inclination is expected to be
62 degrees.

* PACKET BID$ *
===============
The packet radio bulletin IDs (BID$) used for SpaceNews have been modified to
allow greater flexibility in distribution. Longer bulletins can now be broken
into multiple parts, each having a unique (but related) bulletin ID without
exceeding the eight character BID$ limit.

The format for the new ID is as follows: SPCmmddp

...where mm=month number, dd=day of the month, and p is an optional character identifying the bulletin part (a, b, c, etc) in case the bulletins are broken into multiple parts.

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z (Neptune, New Jersey)

MAIL : John A. Magliacane
Department of Electronics Technology
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738-1599
U.S.A.

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple, neat and wrong." -- H.L. Mencken

915. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-10 20:33:48 UTC
From: mdbomber@portia.Stanford.EDU
Message-ID: <9047@portia.Stanford.EDU>
Source record: 13620

In article <30500394@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
)The fact that the Technician license class is being removed from further
)availability means that those who wish to do what the Communicator cannot,
)such as:
)
) 1. Operate 1500 watts above 30 Mhz
) 2. Control repeaters (I'm not sure if the FCC proposal denies this
) to Communicators).
) 3. Operator 6 meters and 2 meters.
)
)will have to learn Morse Code at 13 WPM for the General class, instead of
)the 5 WPM the Technician class currently requires.

I'm working on my novice rating now and will take the test next week. After which I will immediately get going on a tech rating. Sounds like I better hurry up and get it! How much time do I have before they would make these changes? (I'm not going to be up to 13WPM anytime in the near future and I do want the extra band access of tech.)

--
Internet: mdbomber@portia.stanford.edu Matt Bartley
Bitnet: mdbomber%portia@stanford.bitnet
Kirk: "Spock! Where's that power you promised?"
Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

916. Solar battery charger; Avalanche Transceiver

Newsgroup: rec.ham-radio
Date: 1990-02-10 22:19:00 UTC
From: COFER@UTKVX3.BITNET
Message-ID: <9002110802.AA09093@ucbvax.Berkeley.EDU>
Source record: 13621

Interesting products in the latest REI camping catalog:

New! The Solar Battery Charger charges 4 AA ni-cad batteries in about 10 hours. Does not include batteries. Size 3 3/4" x 2 1/2". Wt.: 4 oz.

The Orotovox Avalanche Transceiver broadcasts and receives on dual frequencies (2.275 and 457 KHz). Features distance-to-victim indicator. Includes two 1.5V batteries with 400-hour life; carry pouch with strap; instructions. Size 6" x 3" x 7/8". Wt.: 11 oz.

The only connection I have with REI is as a new member. This information is provided for interest and information only.

---------- -.....---.....-
John L. Cofer N 4 M H A
COFER@UTKVX.BITNET -.....---.....-

All disclaimers apply
I spent all my life looking for the perfect woman. Unfortunately, when I found her, she was looking for the perfect man.- Unknown.

917. NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-11 04:45:32 UTC
From: Mike.Boyle@f36.n376.z1.FIDONET.ORG
Message-ID: <257.25D689AD@uscacm.UUCP>
Source record: 13622

My neighbor is a lic. HAM operator. His transmissions interfere with ALL electronic items in my house. His voice is on the TV, stereo, and even the telephone when he is transmitting. I have told him about the problem on several occasions and he pretty much said it was a problem with all of my stuff. C'mon. ALL of my stuff is faulty? My question is, what can I do to get him to quit this frustrating interference?
--
--
Mike Boyle == ...!usceast!uscacm!36!Mike.Boyle

918. FT101E mods so you can use USA final tubes

Newsgroup: rec.ham-radio
Date: 1990-02-11 06:27:32 UTC
From: rfc@briar.philips.com
Message-ID: <79985@philabs.Philips.Com>
Source record: 13623

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
17464 BF 2446 1 0131/0304 44022_VE3JF VE3OSN MODS@NYNET
Sb: Final Mods - Yaesu FT 101E

PACKET BID: 44022_VE3JF

Here's an old modification that's been around for a few years. I had occasion to use it recently myself, so it may be of value to someone else I am not sure of its origin, I may have picked it out of an old QST. Anyway, it works.

73 -Bob- VE3OSN @ VE3JF

REPLACING FINALS IN FT101E TRANSCEIVERS

There will come a time when the finals in your FT101E will need replacing. These transceivers were originally equipped with 6JS6C tubes manufactured by NEC. This tube's properties are slightly different from the 6JS6C tubes available today from American tube manufacturers. By the way, don't bother looking for tubes made by NEC. They got out of the business several years ago.

In order to use the "American" variety 6JS6's, a simple modification to the neutralization circuit must be made to the final section of the transceiver.

The modification consists of replacing the fixed value 100 pf 1000 VDC mica capacitor with a 10 pf 1000 VDC mica capacitor. This capacitor, C125, is in series with the 10 pf variable neutralizing capacitor off of the plate circuit.

If this modification has not already been completed on your rig, be sure to use a mica or silver mica of at least 1000 VDC. Do not substitute a different type, because the heat in the final compartment will change the value, and your tubes will fail prematurely. Also, be very careful to keep all leads short and in exactly the same orientation as the original capacitor.

Before reneutralizing, open the variable neutralizing capacitor all the way to minimum engagement and follow the neutralizing instructions in the manual. While dipping the plate, remember to adjust the neutralizing capacitor for equal value meter reading peaks (IC position) on both sides of the dip when tuning the "Plate" control.
2352z, 1886
Note: I haven't tried this, proceed at your own risk WA2ISE

```
last
@KD6TH-4
MailBox>
```

919. another tm731 mod

Newsgroup: rec.ham-radio
Date: 1990-02-11 06:57:29 UTC
From: rfc@briar.philips.com
Message-ID: <79987@philabs.Philips.Com>
Source record: 13624

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
17590 BF 831 4 0204/1416 6558_VE2CSC VE2BCM ALL@ALLBBS
Sb: TM731 Mod.

For those that want to know how to enable the repeater fonction.
"FONCTION" "ABC"
73 de VE2BCM Gerald
0122z, 1889 msgs, #17926 last @KD6TH-4 MailBox>

Above received with word repeater spelled "reoeter", I assume he meant to say repeater. I haven't tried this. Don't look at me if this blows up your radio WA2ISE (can't see how it could, but ...)

920. Letters needed to fight FCC censorship

Newsgroup: rec.ham-radio
Date: 1990-02-11 10:30:13 UTC
From: marc@noe.UUCP
Message-ID: <776@noe.UUCP>
Source record: 13625

I am posting this for a friend of mine.
-Marc
marc@kg6kf.ampr.org

Responding to pressure from Senator Jesse Helms and other
right wing influences the FCC is trying to ban from the
airwaves anything it characterizes as indecent. While refusing
to define this term in a way that would allow broadcasters to
know in advance whether they have violated the regulation, the
FCC is broadening it to include indirect or symbolic innuendo,
and eliminating previous presumptions that material not suitable
for children could be broadcast between 10 pm and 6 am when
children would be asleep.

Under a cover of a war on indecency, this action represents the
rankest form of government censorship and intimidation of broadcasters.
Unless you believe that the public mind should be limited to material
suitable for children, this is a threat to your ability to receive
anything other than pablum over the airwaves. In addition to being
a set of vague rules used selectively against particular broadcasters
these rules are used to inhibit serious discussion of important
contemporary topics (abortion, AIDS, teen pregnancy).

Please help out by sending a letter (anonymous if necessary)
to the FCC informing them that their role should be limited to
ensuring that broadcasters meet technical specifications and do not
interfere with each others channels. Tell them they have no right
to limit, censor, or determine program content.

Please send your letter to arrive before the proposed rule making
on February 20, 1990.

write to:
Indecency Inquiry
Office of the Secretary
Federal Communications Commisson
1919 M Street NW
Washington, D.C. 20554
--
Marc de Groot (KG6KF) |"...few people know what to do with a computer.
Noe Systems, San Francisco | They decide that running an operating system
UUCP: uunet!hoptoad!noe!marc | is a substitute for doing productive work."
Internet: marc@kg6kf.AMPR.ORG | -Chuck Moore

921. Yaesu FT-411 mods?

Newsgroup: rec.ham-radio
Date: 1990-02-11 16:39:10 UTC
From: dmb@DELPHI.MIT.EDU
Message-ID: <9002111639.AA12978@DELPHI.MIT.EDU>
Source record: 13626

Does there exist a way to make the FT-411 transmit out of the band?

922. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-11 17:36:15 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12680.25D5A6D7@stjhmc.fidonet.org>
Source record: 13527

> From: jliu@pender (John Liu)
>
> While a no code license is appealing in some ways, I personally feel it
> would be a great loss for people knowing the code and those who don't.

It's no longer up for debate. The FCC has put us on notice: "Take your pick, no-code or no ham radio". Those who think the threat is a bluff need only review the recent loss of 40% of the 125 cm. band.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

923. FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-11 17:36:20 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12681.25D5A6D8@stjhmc.fidonet.org>
Source record: 13528

> From: karn@ka9q.bellcore.com (Phil Karn)

> Here's the text of the news release on the FCC's no-code proposal, as
> downloaded from Compuserve. It looks like my rumor source was only
> partially
> correct; note that this proposal excludes 6m and 2m from the
> Communicator
> class, but specifically requests comments in this area. --Phil

I see no virtue in excluding the Communicators from 6 meters, especially if we're serious about using the no-code license to bring "digiters" into the ranks. Two reasons: 1) six is good for meteor propagation, and 2) terrestrial propagation is favorable for using six for intercity, even crosscountry links.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

924. Re: AM Article de WA6NCX (via KE8YY)

Newsgroup: rec.ham-radio
Date: 1990-02-11 17:36:29 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12682.25D5A6DA@stjhmc.fidonet.org>
Source record: 13529

> From: kchen@Apple.COM (Kok Chen)
>
> wa2sff@cbnewsh.ATT.COM (joseph.e.wilkes) writes:
>
> Bruce B. Lusignan. Couldn't find his call on marvin, though
> I vaguely remember that he was licenced. Maybe the case of
> too many hobbies - at one time he ground a 14" (or something
> equally ridiculous :-) parabolic out of a ship's porthole
> cover for a reflecting telescope.

Why ridiculous? I was under the impression porthole covers were made of a
rather good grade of glass.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

925. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-11 17:36:36 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12683.25D5A6DB@stjhmc.fidonet.org>
Source record: 13530

> From: phil@ux1.cso.uiuc.edu
>
> Additionally, the entry level for HF privileges is totally removed. One
> must JUMP to 13 WPM. There remains no 5 WPM level unless the FCC
> decides
> to change General to 5 WPM, and I am sure that would meet MUCH
> resistance.

You have to admire their sardonic sense of humor.

> One "FIX" is to make the Communicator class have ALL amateur privileges
> on frequencies above 30 Mhz and keep the Novice class and allow one to
> hold BOTH Novice and Communicator classes in a single license (the dual
> class idea was proposed to the Commission in my petition).

I'll vote for that. It's a very sensible solution. The satellite users will
bitch, but there are better bands for that anyway.
73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

926. Request for Correct Format for FCC Comments

Newsgroup: rec.ham-radio
Date: 1990-02-11 19:00:02 UTC
From: msmith@topaz.rutgers.edu
Message-ID: <Feb.11.14.00.00.1990.19259@topaz.rutgers.edu>
Source record: 13531
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I would like to file a comment on the proposed no-code license class.
Could someone please post an article describing the proper way to do
this, including format and the docket number for this issue?

Thank you.

Mark

--
Mark Smith, KNJ2LH All Rights Reserved
RPO 1604 You may redistribute this article only if those who
P.O. Box 5063 receive it may do so freely.
New Brunswick, NJ 08903-5063 msmith@topaz.rutgers.edu

927. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-11 19:03:52 UTC
From: rps@dtseng.UUCP
Message-ID: <7248@dtseng.UUCP>
Source record: 13532

I removed the D13 diode from my IC-24AT, serial number 1025, and it does enable extended receive ranges. Those below the aircraft band, however, do not actually receive the displayed frequency.

If the more extensive mod works better, someone please post results.

--
Robert P. Scott | DTS Engineering, Inc. | {decvax,zinn}!dtseng!rps
Nothing could be finer than some green wallet liner....

928. Re: Letters needed to fight FCC censorship

Newsgroup: rec.ham-radio
Date: 1990-02-11 19:29:37 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19931@bellcore.bellcore.com>
Source record: 13533

Regarding Marc's comments on the FCC crusade against "indecency":

It's sad that the courts have let this one go as far as it has. The rule of law in the US has always included two key safeguards: freedom of speech, as guaranteed by the First Amendment, and the requirement that laws be written in clear and unambiguous language so that everyone can (at least in theory) know in advance whether or not their intended conduct is proscribed.

In my opinion, EVERY law and rule against "indecency" or "obscenity" fails on both counts. I can't remember which Supreme Court justice made the famous comment "I can't define pornography, but I know it when I see it." No other statement could have better shown the fundamental conflict between attempts to control obscenity and the "rule of laws, not of men" principle that judges are supposed to uphold as a check against demagogic legislators and executives.

To be sure, many laws against obscenity HAVE been thrown out by the courts either on First Amendment grounds or because they were vague. But I won't be satisfied until "many" becomes "all". Obscene speech, like flag burning, may be offensive or impolite to some, but that doesn't mean it's okay to pass laws against it. You can't legislate manners.

Phil

929. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-11 19:46:44 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19932@bellcore.bellcore.com>
Source record: 13534

In article <12683.25D5A6DB@stjhmc.fidonet.org> Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:
> > One "FIX" is to make the Communicator class have ALL amateur privileges
> > on frequencies above 30 Mhz and keep the Novice class and allow one to
> > hold BOTH Novice and Communicator classes in a single license (the dual
> > class idea was proposed to the Commission in my petition).
>
>I'll vote for that. It's a very sensible solution. The satellite users will
>bitch, but there are better bands for that anyway.
>73 de Jim Grubs, W8GRT

The AMSAT Board of Directors (of which I am a member) is on record as supporting a no-code license with full privileges above 30 Mhz. Among other things, we want them to have access to the Microsats now in orbit (they listen on 2 meters).

Phil

930. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-02-11 20:08:42 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9002120803.AA22942@ucbvax.Berkeley.EDU>
Source record: 13535

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #644 -
Alouette 1
1 00424U 62B-A 1 90 31.57938329 .00000276 00000-0 32091-3 0 2579
2 00424 80.4618 60.7518 0022115 264.4236 95.4396 13.67289074364022
ATS 1
1 02608U 66110 A 90 32.93698741 -.00000164 00000-0 99999-4 0 1028
2 02608 13.4270 14.7955 0003109 258.6138 101.3904 1.00392596 1196
ATS 3
1 03029U 67111 A 90 35.97925921 -.00000075 00000-0 99999-4 0 2895
2 03029 13.0398 22.2851 0025430 202.3657 157.5717 1.00272205 81471
Cosmos 398
1 04966U 71 16 A 90 37.90175265 .00036107 16500-4 21568-3 0 5347
2 04966 51.5409 200.2011 2373207 265.9612 66.9070 10.84377968577439
Starlette
1 07646U 75010 A 90 36.04543397 .00000008 00000-0 54057-4 0 106
2 07646 49.8248 319.8869 0206359 114.8857 247.3640 13.82130138757503
LAGEOS
1 08820U 76039 A 90 37.35483821 .00000004 00000-0 00000 0 0 9977
2 08820 109.8644 310.3079 0044535 266.3970 93.1210 6.38664367 65588
GOES 2
1 10061U 77048 A 90 37.11782761 -.00000011 00000-0 99999-4 0 3598
2 10061 7.7464 65.3990 0011924 184.8536 175.2602 1.00263794 7723
GPS-0001
1 10684U 78020 A 90 35.30620167 .00000009 00000-0 99999-4 0 3215
2 10684 63.6513 93.6693 0115611 199.0649 160.5763 2.00558182 73182
GPS-0002
1 10893U 78 47 A 90 37.26896053 -.00000026 00000-0 00000 0 0 927
2 10893 64.4378 334.4679 0157710 25.9411 334.8405 2.00549365 86043
GOES 3
1 10953U 78062 A 90 36.17494020 .00000091 00000-0 99999-4 0 8095
2 10953 6.5974 67.8094 0048220 321.3708 38.3495 1.00276396 3273
SeaSat 1
1 10967U 78064 A 90 35.99402691 .00001446 00000-0 54542-3 0 2312
2 10967 108.0189 47.4141 0002780 233.0858 127.0019 14.35405418607489
GPS-0003
1 11054U 78093 A 90 25.60297297 -.00000025 00000-0 00000 0 0 1579
```

```
2 11054 63.9909 331.1798 0055486 118.1536 242.4006 2.00565837 82828
Nimbus 7
1 11080U 78098 A 90 31.76540529 .00000205 00000-0 21511-3 0 6305
2 11080 99.2029 299.7238 0009715 87.2060 273.0217 13.83392714569179
GPS-0004
1 11141U 78112 A 90 36.66796534 .00000009 00000-0 00000 0 0 2611
2 11141 63.6508 93.5348 0060586 315.8675 43.7422 2.00564703 81749
NOAA 6
1 11416U 79 57 A 90 37.46460595 .00001314 00000-0 56105-3 0 9662
2 11416 98.5209 33.0078 0012343 140.9152 219.2903 14.26469033551290
GPS-0005
1 11690U 80 11 A 90 31.32213257 .00000010 00000-0 00000 0 0 8994
2 11690 64.1152 95.6743 0113345 202.2834 157.2979 2.00557671 87491
GPS-0006
1 11783U 80 32 A 90 34.62813832 -.00000025 00000-0 00000 0 0 350
2 11783 63.7798 330.4797 0146611 60.3763 301.0300 2.00572888 71644
GOES 4
1 11964U 80 74 A 90 37.66324939 .00000085 00000-0 00000 0 0 1311
2 11964 6.1037 70.7690 0030565 107.6617 252.7449 0.99227203 4355
GOES 5
1 12472U 81049 A 90 36.02659186 -.00000244 00000-0 99999-4 0 8217
2 12472 3.1430 77.4630 0003193 293.7142 66.3126 1.00263271 30920
DE 1
1 12624U 81 70 A 90 37.28122654 .00000051 00000-0 99999-4 0 3236
2 12624 89.1439 149.1144 6231232 325.7928 5.5079 3.51028527257520
SME
1 12887U 81100 A 90 37.64500629 .00032005 00000-0 76795-3 0 4720
2 12887 97.6633 78.0107 0002235 102.0262 258.0811 15.41316526461101
Meteor 2-08
1 13113U 82 25 A 90 28.04426153 .00000203 00000-0 17252-3 0 6891
2 13113 82.5370 240.0120 0015507 147.2399 212.9726 13.84127843396343
Salyut 7
1 13138U 82 33 A 90 37.53324889 .00025918 00000-0 40021-3 0 337
2 13138 51.6021 240.6967 0000943 145.4670 214.5113 15.53938318444476
Cosmos 1383
1 13301U 82 66 A 90 27.50845279 .00000209 00000-0 23419-3 0 5335
2 13301 82.9284 43.8758 0027286 185.5396 174.5466 13.67795737378444
LandSat 4
1 13367U 82 72 A 90 38.07044147 .00000996 00000-0 23108-3 0 2260
2 13367 98.1832 103.0491 0003180 153.0968 207.0400 14.57137747402358
Meteor 2-09
1 13718U 82116 A 90 36.51281463 .00000216 00000-0 10697-3 0 8552
2 13718 81.2415 53.2571 0057356 55.6457 305.0128 14.13440163368513
IRAS
1 13777U 83 4 A 90 33.37145391 .00000066 00000-0 58348-4 0 7147
2 13777 99.0323 232.1945 0013149 39.4733 320.7394 13.98732610 28093
Cosmos 1447
1 13916U 83 21 A 90 27.28882284 .00000231 00000-0 23405-3 0 6714
2 13916 82.9473 116.2325 0038325 169.7083 190.4872 13.74005017343324
TDRS 1
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1 13969U 83 26 B 90 35.03210297 -.00000208 00000-0 00000 0 0 9257
2 13969 4.1509 66.9312 0006057 253.7270 106.2958 1.00271950 91747
GOES 6
1 14050U 83 41 A 90 36.22210860 .00000115 00000-0 00000 0 0 677
2 14050 1.9077 79.8973 0001189 268.8568 91.1383 1.00284836 8949
OSCAR 10
1 14129U 83 58 B 90 34.75628196 .00000058 00000-0 00000 0 0 4549
2 14129 25.8770 220.5439 6002722 115.5981 316.6520 2.05879647 21983
GPS-0008
1 14189U 83 72 A 90 36.21729706 .00000008 00000-0 99999-4 0 7024
2 14189 63.2962 92.0276 0141965 216.8525 142.2281 2.00560799 48116
Meteor 2-10
1 14452U 83109 A 90 36.66122290 .00000812 00000-0 34274-3 0 8132
2 14452 81.1622 59.5079 0095334 143.1898 217.5870 14.22578819325738
LandSat 5
1 14780U 84 21 A 90 38.09744465 .00001109 00000-0 25575-3 0 410
2 14780 98.1371 100.4281 0001976 209.8673 150.2419 14.57149356315775
UoSat 2
1 14781U 84 21 B 90 37.10060981 .00002716 00000-0 51625-3 0 6041
2 14781 97.9691 93.8692 0012282 307.5408 52.4643 14.64864942316779
GPS-0009
1 15039U 84 59 A 90 37.27462140 .00000007 00000-0 00000 0 0 7993
2 15039 63.0392 91.1888 0018994 241.8266 118.0520 2.00562497 41410
Cosmos 1574
1 15055U 84 62 A 90 35.82582146 .00000178 00000-0 18003-3 0 8214
2 15055 82.9584 159.8691 0027593 334.7680 25.2129 13.73323634281906
Meteor 2-11
1 15099U 84 72 A 90 34.48216360 .00000183 00000-0 15576-3 0 9945
2 15099 82.5301 182.4014 0012962 314.9697 45.0417 13.83783499282103
GPS-0010
1 15271U 84 97 A 90 37.17057713 -.00000026 00000-0 00000 0 0 7473
2 15271 63.2748 330.0296 0105375 324.3255 34.9757 2.00572203 38520
Cosmos 1602
1 15331U 84105 A 90 37.25747297 .00003856 00000-0 53801-3 0 1627
2 15331 82.5404 122.1879 0024904 43.1014 317.2020 14.77275866288758
NOAA 9
1 15427U 84123 A 90 37.92939995 .00000653 00000-0 37508-3 0 4772
2 15427 99.1627 34.7762 0015516 18.3402 341.8323 14.12429756265592
Meteor 2-12
1 15516U 85 13 A 90 34.69977689 .00000587 00000-0 51609-3 0 1505
2 15516 82.5369 120.6169 0016414 181.4840 178.6274 13.84274241253089
Cosmos 1686
1 16095U 85 86 A 90 36.82584616 .00038751 00000-0 59440-3 0 4888
2 16095 51.6070 244.2228 0001555 154.1024 205.9530 15.53913250245468
GPS-0011
1 16129U 85 93 A 90 37.33260438 .00000008 00000-0 00000 0 0 4062
2 16129 63.8193 92.0721 0120832 150.4537 210.3050 2.00560313 31738
Meteor 3-1
1 16191U 85100 A 90 36.07686909 .00000043 00000-0 99999-4 0 8901
2 16191 82.5429 71.0894 0021102 77.6571 282.6908 13.16893781206176
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Meteor 2-13
1 16408U 85119 A 90 36.00651577 .00000295 00000-0 25440-3 0 5655
2 16408 82.5319 34.4135 0016984 13.2296 346.9297 13.84290051207765
Mir
1 16609U 86 17 A 90 37.91179145 .00025637 00000-0 34711-3 0 3862
2 16609 51.6197 266.1771 0019745 136.3254 223.8587 15.57306001227760
SPOT 1
1 16613U 86 19 A 90 36.66387931 .00000507 00000-0 25628-3 0 7538
2 16613 98.7142 113.0309 0000841 160.8659 199.2552 14.20049452 45266
Meteor 2-14
1 16735U 86 39 A 90 36.02142487 .00000236 00000-0 20239-3 0 3505
2 16735 82.5340 61.3535 0016121 79.0092 281.2876 13.84045057186665
Cosmos 1766
1 16881U 90 37.41481643 .00003236 00000-0 45552-3 0 8586
2 16881 82.5237 181.2252 0023568 57.3122 303.0351 14.76878000189844
EGP
1 16908U 86 61 A 90 37.00543526 .00000034 00000-0 54235-3 0 1675
2 16908 50.0116 299.2870 0010560 219.8590 140.1487 12.44385688158527
FO-12
1 16909U 86 61 B 90 23.89068611 -.00000025 00000-0 99999-4 0 1785
2 16909 50.0168 339.9003 0011453 184.7940 175.2781 12.44403507156880
NOAA 10
1 16969U 86 73 A 90 35.29238275 .00000862 00000-0 39604-3 0 3355
2 16969 98.6152 66.1390 0012882 300.0452 59.9447 14.23447129175709
Meteor 2-15
1 17290U 87 1 A 90 35.25923827 .00000406 00000-0 35640-3 0 3287
2 17290 82.4705 327.6174 0012858 340.1192 19.9465 13.83852868155716
MOS-1
1 17527U 87 18 A 90 36.73262713 -.00000185 00000-0 -12495-3 0 3966
2 17527 99.1232 110.9054 0000927 103.9017 256.2263 13.94847510150935
GOES 7
1 17561U 87 22 A 90 36.92144852 -.00000044 00000-0 99999-4 0 4096
2 17561 0.0734 246.8996 0003156 315.6345 157.4279 1.00272943 4100
Kvant-1
1 17845U 87 30 A 90 37.84761634 .00049990 00000-0 66808-3 0 9881
2 17845 51.6201 266.4975 0019418 136.3542 223.8030 15.57321259227759
DMSP B5D2-3
1 18123U 87 53 A 90 38.06296951 .00000772 00000-0 42667-3 0 4748
2 18123 98.8190 230.3933 0015153 36.5273 323.6918 14.13860514136012
RS-10/11
1 18129U 87 54 A 90 36.90553251 .00000154 00000-0 15853-3 0 281
2 18129 82.9237 65.5233 0013157 119.8778 240.3649 13.72057786131443
Meteor 2-16
1 18312U 87 68 A 90 35.99130002 .00000219 00000-0 18868-3 0 3669
2 18312 82.5554 35.0698 0011046 270.1463 89.8417 13.83597126124708
Meteor 2-17
1 18820U 88 5 A 90 35.85474043 .00000343 00000-0 29707-3 0 1969
2 18820 82.5433 95.6646 0016398 341.5881 18.4668 13.84291719101874
DMSP B5D2-4
1 18822U 88 6 A 90 38.11248954 .00000419 00000-0 20978-3 0 3905
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2 18822 98.6657 279.7112 0005793 292.6667 67.3895 14.21257847104346
AO-13
1 19216U 88 51 B 90 32.36960578 -.00000080 00000-0 99999-4 0 729
2 19216 57.0452 170.7157 6885978 220.2897 60.1385 2.09701263 12559
OKEAN 1
1 19274U 88 56 A 90 36.87802228 .00001570 00000-0 22238-3 0 6399
2 19274 82.5172 280.3522 0021666 187.3279 172.7596 14.76338859 85543
Meteor 3-2
1 19336U 88 64 A 90 35.99040522 .00000391 00000-0 99999-3 0 3654
2 19336 82.5372 10.9506 0016054 288.3815 71.5541 13.16877197 73556
NOAA 11
1 19531U 88 89 A 90 32.35271800 .00000834 00000-0 48077-3 0 1943
2 19531 98.9669 340.6433 0011409 310.1869 49.8295 14.11431045 69808
TDRS 2
1 19548U 88 91 B 90 32.11069484 .00000131 00000-0 99999-4 0 715
2 19548 0.0185 156.0496 0002283 149.6426 54.3202 1.00275632 4085
Cosmos 2001
1 19796U 89 11 A 90 36.59483030 -.00001007 00000-0 99999-3 0 3464
2 19796 62.9930 109.8194 7150435 319.7462 5.0801 2.00620429 7165
GPS BII-01
1 19802U 89 13 A 90 35.34513610 .00000016 00000-0 99999-4 0 684
2 19802 55.0712 202.6476 0060751 157.6649 202.5881 2.00560950 7084
Akebono
1 19822U 89 16 A 90 37.05753554 .00034956 00000-0 21577-2 0 4287
2 19822 75.1235 302.4572 4218443 304.7979 22.4244 7.04371031 24151
Meteor 2-18
1 19851U 89 18 A 90 35.28582468 .00000404 00000-0 35360-3 0 1440
2 19851 82.5255 334.3472 0015323 22.3215 337.8610 13.83929771 47186
TDRS 3
1 19883U 89 21 B 90 31.75097153 -.00000235 00000-0 99999-4 0 529
2 19883 0.0198 113.2381 0004512 169.6507 77.1132 1.00269373 2525
GPS BII-02
1 20061U 89 44 A 90 33.03558256 -.00000031 00000-0 00000 0 0 471
2 20061 54.7175 21.3307 0081881 172.3560 187.7648 2.00564522 4782
Nadezhda
1 20103U 89 50 A 90 35.45125712 .00000179 00000-0 17881-3 0 730
2 20103 82.9574 22.8358 0039385 49.0350 311.4202 13.73559005 29495
GPS BII-03
1 20185U 89 64 A 90 31.50966344 .00000016 00000-0 99999-4 0 394
2 20185 54.9313 203.6674 0026977 140.6143 219.5705 2.00564723 7950
Soyuz TM-8
1 20218U 89 71 A 90 36.82093216 -.00017313 00000-0 -22858-3 0 1512
2 20218 51.6201 271.6293 0019049 130.9641 229.5577 15.57247517 23801
Activnyi
1 20261U 89 80 A 90 37.68694930 .00053236 00000-0 16964-1 0 2708
2 20261 82.5998 311.3895 1258590 273.3531 72.3324 12.43253313 16373
Activnyi RB
1 20262U 89 80 C 90 36.32189083 .00001270 00000-0 39946-3 0 1333
2 20262 82.6026 312.2592 1261205 276.4578 69.4767 12.42956066 16207
Magion 2
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1 20281U 89 80 B 90 36.87289956 .00012632 00000-0 39958-2 0 2825
2 20281 82.6066 311.8791 1259614 275.1023 70.7763 12.43359371 16275
GPS BII-04
1 20302U 89 85 A 90 24.26182608 -.00000030 00000-0 99999-4 0 405
2 20302 54.7308 322.9201 0039138 309.5421 50.1182 2.00572809 1868
Meteor 3-3
1 20305U 89 86 A 90 36.06723557 .00000022 00000-0 44357-4 0 468
2 20305 82.5544 311.1892 0015130 301.6216 58.3432 13.15848649 13574
COBE
1 20322U 89 89 A 90 36.07766309 .00004827 00000-0 32340-2 0 456
2 20322 99.0256 47.7462 0007388 17.8933 342.2473 14.01147770 10984
Kvant-2
1 20335U 89 93 A 90 36.88501524 .00064610 00000-0 86094-3 0 1059
2 20335 51.6203 271.3185 0019464 132.9680 227.0524 15.57291181 11253
GPS BII-05
1 20361U 89 97 A 90 33.52882820 .00000016 00000-0 99999-4 0 138
2 20361 54.9564 145.6749 0065192 44.4514 316.0652 2.00551200 1029
1989 097B
1 20362U 89 97 B 90 11.24572425 .00009925 00000-0 12418-2 0 352
2 20362 35.6485 332.5970 0331685 335.1153 23.3871 14.49785306 4423
1989 097C
1 20363U 90 11.48271584 0.00267323 74325-5 14861-2 0 413
2 20363 37.6015 121.8649 5985300 226.7072 64.2719 4.18339324 1271
Raduga 24
1 20367U 90 13.29792244 0.00000168 10000-3 0 348
2 20367 1.4473 263.8368 0005421 247.6782 112.8617 1.00261065 303
1989 098D
1 20370U 89 98 D 90 9.79300959 -.00000025 00000-0 99999-4 0 196
2 20370 1.4873 264.1145 0016037 28.0591 332.9297 0.97855577 257
Progress M2
1 20373U 89 99 A 90 36.75671941 .00027093 00000-0 36834-3 0 616
2 20373 51.6251 271.9747 0015427 130.5524 229.6870 15.57250522 6490
Cosmos 2053
1 20389U 89100 A 90 37.69776942 -.00009522 00000-0 -52566-3 0 841
2 20389 73.5350 12.9155 0009246 142.4199 217.7513 15.13845107 6312
1989 100B
1 20390U 89100 B 90 37.89506855 .00003174 00000-0 17917-3 0 452
2 20390 73.5364 12.4933 0008510 140.5643 219.6170 15.13676726 6346
Cosmos 2054
1 20391U 89101 A 90 36.43219190 -.00000113 00000-0 99999-4 0 683
2 20391 1.4298 273.9944 0013700 184.1560 176.3791 1.00219912 420
1989 101D
1 20394U 89101 D 90 28.80723554 -.00000044 00000-0 99999-4 0 179
2 20394 1.4580 273.7841 0010326 45.7172 314.6587 0.98249334 330
Skynet 4A
1 20401U 90 1 A 90 34.46981558 .00000105 00000-0 00000 0 0 322
2 20401 3.3807 303.8051 0021586 52.4521 308.0487 1.00597181 216
JCSAT
1 20402U 90 1 B 90 37.19418073 -.00000138 00000-0 99999-4 0 218
2 20402 0.2478 260.8796 0002589 13.7330 85.3249 1.00270543 340
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1 20404U 90 1 D 90 36.62271228 .00002678 00000-0 17604-2 0 329
2 20404 21.5588 271.0599 7209048 195.1354 118.8693 2.34597485 847
1990 001F
1 20406U 90 1 F 90 36.97197162 .00007183 00000-0 19125-2 0 284
2 20406 26.7090 256.1430 5866780 223.8128 70.9833 4.22355281 1514
LEASAT 5
1 20410U 90 2 B 90 37.02466155 .00000068 00000-0 99999-4 0 170
2 20410 3.3682 323.0377 0124135 185.5357 174.6584 1.00279845 210
1990 002C
1 20411U 90 2 C 90 35.76502546 .00010835 00000-0 25769-2 0 260
2 20411 27.1895 106.7969 5238449 42.4788 347.8363 5.20423940 1305
1983 020D
1 20413U 90 16.50000000 -.00000404 10000-3 0 40
2 20413 45.8927 301.6066 8794760 8.3459 185.8865 0.24719748 02
1990 003B
1 20427U 90 3 B 90 23.96435354 .18547154 43466-4 45434-3 0 198
2 20427 62.7896 262.4279 0002723 286.0809 74.4219 16.46099567 1038
Cosmos 2056
1 20432U 90 4 A 90 32.30967802 .00000799 00000-0 31975-3 0 144
2 20432 74.0372 293.8448 0024376 316.1687 43.7522 14.29706796 1957
1990 004B
1 20433U 90 4 B 90 37.11802457 .00000982 00000-0 37854-3 0 161
2 20433 74.0370 285.0299 0031899 315.2112 44.6463 14.31240039 2652
SPOT 2
1 20436U 90 5 A 90 37.68537291 .00002090 00000-0 99999-3 0 315
2 20436 98.7224 114.0060 0001119 102.2205 257.8772 14.20012010 2220
OSCAR 14
1 20437U 90 5 B 90 36.29204812 .00000264 00000-0 12200-3 0 122
2 20437 98.7113 112.7364 0010243 174.5803 185.5478 14.28260316 2035
UoSat E
1 20438U 90 5 C 90 34.60805519 .00000853 00000-0 35596-3 0 124
2 20438 98.7153 111.0642 0011537 181.1074 179.0106 14.28568377 1798
MicroSat 1
1 20439U 90 5 D 90 32.22728814 .00000487 00000-0 21049-3 0 135
2 20439 98.7119 108.6771 0011164 187.8659 172.2355 14.28476920 1450
MicroSat 2
1 20440U 90 29.63506009 0.00000887 36953-3 0 70
2 20440 98.7166 106.0985 0011558 194.9310 165.2835 14.28590000 1083
MicroSat 3
1 20441U 90 5 F 90 36.28755853 .00000649 00000-0 27435-3 0 79
2 20441 98.7153 112.7450 0012351 176.1527 183.9742 14.28715751 2037
MicroSat 4
1 20442U 90 5 G 90 30.68451259 .00000738 00000-0 30896-3 0 110
2 20442 98.7165 107.1491 0012456 193.4736 166.6115 14.28775079 1236
1990 005H
1 20443U 90 5 H 90 36.41334642 .00000724 00000-0 29506-3 0 205
2 20443 98.6138 112.7704 0011876 153.0546 207.1257 14.30150897 2047
1990 006A
1 20444U 90 6 A 90 36.99889480 .00001877 00000-0 27938-1 0 200
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2 20444 62.7777 113.0757 7372512 288.1289 9.4317 2.00664524 295
1990 006B
1 20445U 90 6 B 90 37.09154581 .00768647 11269-4 11577-2 0 212
2 20445 62.8123 63.1032 0203403 122.0343 240.0676 15.75872127 2171
1990 006C
1 20446U 90 6 C 90 37.22161996 -.00000438 00000-0 -24403-2 0 180
2 20446 62.8514 113.0199 7320142 288.0664 9.7438 2.06396960 294
1990 006D
1 20447U 90 6 D 90 37.08012565 .01501601 37834-4 10540-2 0 343
2 20447 62.8211 62.9251 0205602 117.0781 245.1501 15.84467943 2173
1990 005C
1 20450U 90 8 C 90 36.82253389 .00196404 53370-6 22228-2 0 207
2 20450 37.6883 250.1064 6032585 208.5180 97.9372 4.09599901 495
GPS BII-06
1 20452U 90 8 A 90 36.73308447 -.00000001 00000-0 99999-4 0 121
2 20452 54.6559 261.3247 0035960 56.2935 304.1164 2.00569270 209
1990 008B
1 20453U 90 8 B 90 37.79242314 .00009997 00000-0 12114-2 0 167
2 20453 35.6419 190.5150 0591549 234.9291 119.4519 14.04398836 1814
Cosmos 2057
1 20457U 90 9 A 90 37.45969921 .00718835 39821-4 25873-3 0 347
2 20457 62.8312 286.7105 0127462 67.2141 294.1609 16.07586443 1886
1990 010A
1 20465U 90 10 A 90 35.89344398 .00002695 00000-0 40781-3 0 112
2 20465 82.5081 321.2623 0022055 257.3024 102.5954 14.73734353 803
1990 010B
1 20466U 90 10 B 90 37.38578497 .00000916 00000-0 13536-3 0 110
2 20466 82.5081 319.8798 0021825 254.8062 105.0735 14.74022737 1014
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931. ARRL contest question

Newsgroup: rec.ham-radio
Date: 1990-02-11 20:35:23 UTC
From: oo7@utastro.UUCP
Message-ID: <4804@utastro.UUCP>
Source record: 13536

Can anyone explain, or rather, justify, the scoring system used in the ARRL DX contests (e.g. the one this coming weekend)? Each QSO between a W (or VE) and a DX station counts 3 points for each station. Why 3?

These are the only contacts allowed (W/VE vs 'DX'), it's not like the CQ WorldWide ones where W's get 3 points for a DX contact but only 2 for a contact with other N. American country, or Field Day where cw and ssb contacts count different numbers of points.

So why 3 points for everyone? Why not just one? Or 17? Or 23,489?
The only reason I can think of is to make the total scores comparable to those in e.g. CQWW, where the average points per QSO is close to 3. This makes a little (twisted) sense, although the CQWW and ARRL contests are sufficiently different (less activity by non-W/VE stations) that the scores are unlikely to be similar anyway.

Or is the reason lost in the mists of time, and in the past the scoring system did include only 1 or 2 points for something other than a W/DX QSO?
I'm not trying to start a thread along the lines of "contests are silly anyway, why should the rules be sensible?" - although that may well be the answer :-)

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932. Kenwood 731a mods

Newsgroup: rec.ham-radio
Date: 1990-02-11 23:46:38 UTC
From: jim@mmsac.UUCP
Message-ID: <4589@mmsac.UUCP>
Source record: 13537

I bought a 731 yesterday, and performed the mod that involves moving one resistor and clipping another for out-of-band operation. Well, removing the one chip resistor does enable the cross-band repeater function, and that works like a champ, and clipping the other resistor does enable out-of-band reception, but it still doesn't allow out-of-band transmission. I have a business repeater on 461 that I'd like to be able to access with the 731, but I can't. Transmission out-of-band on the VHF portion doesn't work either. If there is someone out there who has successfully modified a 731 (not a 721) for out-of-band transmit, please let me know. I could use some pointers. I don't have a technical reference manual, just the schematic that came with the radio.

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Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu

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The opinions stated herein are all mine.

933. Re: Some common Pro-Code Myths Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-12 01:03:47 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002120103.AA00596@cmr.ncsl.nist.gov>
Source record: 13538

I have a few PROBLEMS with a posting in Vol 90 Issue 168 by
shelby!neon!bodega.stanford.edu!paulf@decwrl.dec.com (Paul Flaherty).
There is enough controversial about no-code without mis-statements.....

> Subject: Common Pro-Code Arguments Debunked
..... stuff left out ....
> I have maybe five CW
> contacts in my log, compared with hundreds of hours of sideband hf.

> Now then, on to some of the more interesting myths:

> 1. A1A is more power efficient than J3E.

> Unfortunately, this comparison is usually made on the basis of bandwidth
> alone. It ignores the enormous amount of redundancy in the human voice.
... stuff left out ....
> All things considered, the modes are about equal to a trained operator.

PLEASE EXPLAIN WHERE THE EME AND OTHER VHF / UHF WEAK SIG CROWD IS GOING
WRONG, THEY SEEM TO FIND SSB UNREADABLE UNLESS SIGS ARE "STRONG". I'M SURE
THEY WOULD rather USE VOICE, I KNOW I WOULD.

> 2. CW rigs are easier to build, and easier to get parts for.

> Well, perhaps if you build things from discrete components, but these days,
> anyone can get the appropriate modules and ICs through the mails. Anywhere
> there's postal service, you can order from Digikey or a host of other mail
> order outfits. If you want to play with stone age technology, fine, but
> don't beef about it. The newer stuff is simpler to design with, and
> cheaper, and above all, just as easy to get.

"IMHO", THESE "wonder modules" MAKE EVEN CW XMTRS EASIER TO BUILD, AND THEY
THUS REMAIN CONSIDERABLY SIMPLER THAN ANY SSB RIG. OK, FM XMTRS CAN BE
ABOUT AS SIMPLE AS CW, AND VERY-LOW-POWER AM W/CARRIER RIGS AREN'T SO BAD.
BY THE WAY, WHERE DO I ORDER COMPRESSION MICA TRIMMERS (LIKE ARCO 464)? I'M
CERTAIN SOMEONE STOCKS THEM, BUT THEY AREN'T IN DIGIKEY, NEWARK, ETC. I
NEED SOME FOR A VHF SOLID-STATE FINAL.

..... Lots left out .....

> I'll happily debunk more myths as they appear.

I'M EAGERLY AWAITING YOUR NEXT POSTING.

73, Bob W3OTC
No employer approval of these comments is implied.

934. Re: ARRL contest question

Newsgroup: rec.ham-radio
Date: 1990-02-12 02:42:43 UTC
From: fpa@qualcom.qualcomm.com
Message-ID: <1298@qualcom.qualcomm.com>
Source record: 13539

In article <4804@utastro.UUCP> oo7@utastro.UUCP (Wheldon T. Beaune) writes:
>
> Can anyone explain, or rather, justify, the scoring system used in the
>ARRL DX contests (e.g. the one this coming weekend)? Each QSO between a
>W (or VE) and a DX station counts 3 points for each station. Why 3?
...
> So why 3 points for everyone? Why not just one?

It's exactly like Publisher's Clearinghouse, where everyone has "six chances
to win!". Next question?

935. Re: NEW ICOM IC-24 MOD !

Newsgroup: rec.ham-radio
Date: 1990-02-12 03:35:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500395@ux1.cso.uiuc.edu>
Source record: 13540

> ((((one only wonders what the next generation of HTs
> will do???))))

NOT MORE than the higher of:
1. What is useful in Japan
2. What we convince the Japanese is worth selling here (after we convince the sales people at the American offices to be a bit more than just sales people, and they are stubborn).

Sales people as a rule are only interested in selling you WHAT THEY HAVE to sell you. They are NOT interested in what you would rather have, since they might be selling vacuum cleaners tomorrow. It's too bad the deisgn people depend so much on the sales people to inform them of what is needed. At least in Japan, the design people themselves are often a part of what is going on, and radios will reflect much of the interest in Japan even if the sales people don't pass on anything. For American and European needs, we either have to get the sales people to pass the information on (and they have so far only given excuses of why they can't) or just BYPASS THEM.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

936. Re: Packet radio license without co

Newsgroup: rec.ham-radio
Date: 1990-02-12 03:52:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500396@ux1.cso.uiuc.edu>
Source record: 13541

> Oh yes there is! The very idea that someone "needs" 20 WPM skills in CW to
> be granted an EXTRA is old-age thinking. There is simply no excuse for any
> form of CW skills test beyond 5 WPM. In the earliest day of licensing, the

IMHO, you are correct EXCEPT for a license class that WOULD (since no such
class exists) granted MORE code privileges ONLY.

Having to pass 20 WPM code to get more VOICE or RTTY privileges is stupid.

> requirement was only 5 WPM! In short, it's only the status-quo mentality of
> the OF's in Amateur radio via the ARRL, that keeps the 13 & 20 WPM skills
> test alive. There is nothing whatever about the ITU requirements that would
> prevent the scrapping of these CW tests.

I'm not against having a small subband of some HF bands set aside for the
CW elitists. Let them learn their 20 WPM and get that subband. Better yet,
make it 35 WPM.

> Besides, think about it...a no-code license for vhf-uhf, and a simple 5 WPM
> for all other levels. It would simplify things a great deal. And after all,
> the hobby is supposed to be about T E C H N O L O G Y not blazing-brass! ;-)

Yeah, you're so right.

But would you still keep 50.0-50.1 and 144.0-144.1 as CW only subbands?
Remember, its only some VHF bands that have REAL CW ONLY segments!

Actually things would be more flexible and simpler if we just went to
subbands based on emission bandwidths.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

937. Modifications

Newsgroup: rec.ham-radio
Date: 1990-02-12 03:58:55 UTC
From: Mark.Proctor@f12.n376.z1.FIDONET.ORG
Message-ID: <258.25D689AF@uscacm.UUCP>
Source record: 13542

RE: Re: 2004/2005 modifications

While we are on the subject of modifications, could you tell me how to increase the usability of a Bearcat BC 200XLT hand held? Unlocking the 800 MHz band is my primary concern. Also, since this scanner is unable to scan at 30 spacing, how will this affect it's use in the 800 MHZ band?

Mark

--
--
Mark Proctor == ...!usceast!uscacm!12!Mark.Proctor

938. Re: shoe's on the other hand now (was R

Newsgroup: rec.ham-radio
Date: 1990-02-12 04:06:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500397@ux1.cso.uiuc.edu>
Source record: 13543

> I was amused to read Chris J. Davis's diatribe against ham radio. In it,
> he called hams a bunch of jerks for wanting to hang on to Morse. The
> really funny part is that he acts like this is something WE are doing to
> HIM....as if me and the other folks who managed to pass the Morse test
> somehow make up the FCC regulations in our spare time!

No, WE are doing it to OURSELVES.

> I am not against no-code, but after reading Chris' vitrolic ravings,
> and seeing his statement that the Morse test is the only thing keeping
> him from becoming a ham, maybe keeping Morse isn't such a bad idea....

Somehow I get the impression you don't want him to be a ham. Why?
Can you explain just what the character of personality is that is not
good for ham radio? Can you prove it? If you can, I will gladly
petition the FCC to add a personality profile exam to the other
stupid test we now give to try and filter the good from the bad.

> I noticed in the ARRL bulletin #7 that the FCC finally came out with
> their no-code proposal. The ARRL bulletin states that the FCC
> proposal would stop Novice licensing in favor of a communicator license
> that is good for 220 MHz and above! There would be no more entry
> level HF license! What a shame.

We could just make General 5 WPM. It would be a fine entry level.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

939. Re: Common Pro-Code Arguments Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-12 04:53:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500398@ux1.cso.uiuc.edu>
Source record: 13544

Here is another set of classic arguments and their rebuttals:

--- International agreements require a Morse Code exam.

This arguments fails on two counts. First of all, the actual wording of the agreement is vague. It says "knowledge of Morse Code" is what is required. The second, and most important, is that the agreement applies only to licenses granting privileges to operate below 30 Mhz. Since the codeless license proposals only grant privileges well above 30 Mhz, this argument does not even apply to the proposed new license class.

--- Morse Code is a tradition in Amateur Radio.

This is correct. But every phase of advancement in Amateur Radio has its own traditions. The belief of many is still that good traditions are to be honored and respected, not shoved onto people. Morse Code has a place in Amateur Radio, and always will. The traditional license classes will still continue to require a Morse Code exam under most proposals.

--- Morse Code will keep the "riff-raff" out of our bands.

This is not likely to be so. There is already a lot of "riff-raff" in the Amateur bands. Hams have their bad apples, too. While some people who would be "riff-raff" might be turned back by a code exam, if they were interested in leaving the CB channels, they probably would be operating illegally anyway. We just lose a chance to turn them around.

--- CB and GMRS is available for people who won't learn Morse Code.

This is not true. The CB and GMRS services are not appropriate for technical experimentation; the Amateur service is clearly the place for such things. FCC rules part 97.1 spell this out very clearly.

--- A No-Code license just lowers the requirements for a license.

Since some proposals for a new license class increase the level of the written exam beyond that of the Technician, and grants fewer privileges than the Technician has, the argument is clearly false.

--- Morse Code ensures that only the dedicated will get licensed.

If someone is interested in Morse Code, the exam is no barrier to them. If they are not interested in Morse Code at all, then it is a barrier to them just as much as having to learn any other unrelated subject. Since many people intend to not ever use Morse Code, then it is just as unrelated to them as learning how to drive a team of horses or pilot an oil tanker around ocean reefs.

--- Morse Code is easy to learn.

Clearly this argument, which is truthful for a large number of people, is a contradiction to the argument that the Morse code exam helps keeps out "riff-raff". Many things are easy to learn, but no one is expected to learn everything. Just because something is easy to learn does not say why it must be learned.

--- 5 WPM is not a barrier for anyone seriously interested in ham radio.

Neither is a written exam on the technical characteristics of packet radio, but we would not expect to force everyone to learn these things even though most hams could if they just put their mind to it.

--- Studying Morse Code exposes new hams to a mode they might like.

Studying anything can expose anyone to something new and exciting. Why must Morse Code be singled out to force everyone to be exposed to it, and other modes don't get similar exposure? People can be exposed to everything by just participating in Ham Radio itself. If you turn someone away immediately, then will never have a chance to become interested in anything particular in ham radio. The testing process is not supposed to be an advertising and brainwashing process for new recruits.

--- Studying Morse Code forces discipline on new hams.

Far more discipline, and useful discipline, is learned by actual radio operation. Would accept someone who passes all the test elements for the Extra class as a ham if they decided that they didn't need to even operate and are fully skilled already as a ham? Of course not.

--- Morse code is necessary for emergency communications.

More communications is now taking place in other modes, and many hams, including an increasing number of Technicians, don't use or are even capable of Morse Code operation. Emergency communications still take place, but use primarily voice and packet modes.

--- We need a trained pool of skilled CW operators.

For what purpose? There will always be a number of people interested in operating (and thus learning) Morse Code. Why is it necessary to train everyone, when most of the people who would be licensed under the new proposed license class would just forget the code if they had to learn it otherwise.

--- Morse Code is necessary for the National Traffic System.

More and more traffic is now passed by packet radio, and much is still passed by voice. This is not to say that Morse Code is not contributing, but rather that its not the only thing around.

--- Morse Code can get through when other modes cannot.

Sometimes this is correct, but even if it were always, it does not explain why everyone has to use the mode. More can be said with voice. You can see things better with ATV. These arguments are truths, but do not apply to requiring ham to be involved with, or learn how to use, any particular mode. I could just say "one plus one equals two so therefore..." and assert anything I wanted using that kind of reasoning.

--- CW is the most efficient mode.

This is false. The very reason that CW can get through when other modes cannot is due to its high level of redundancy. It is a narrow mode, but it is also a very slow mode. Efficiency in terms of the information conveyed for a given bandwidth in a given amount of time over a given distance is not Morse Code's great strength. It does have others.

--- A CW transmitter is simple enough to build in an emergency.

How many of you even know how? Is this even likely to happen? An emergency of the extreme that requires you to build your transmitter would require little more than just sending SOS, as you are going to isolated somewhere anyway.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

940. Re: Letters needed to fight FCC censors

Newsgroup: rec.ham-radio
Date: 1990-02-12 04:58:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500399@ux1.cso.uiuc.edu>
Source record: 13545

I have scrounged the Federal Register for a word of this proceeding, and have found NOTHING.

PLEASE post the NOI or NPRM docket numbers as well as the date of issuance.

We have in the past had FALSE announcements of FCC proceedings resulting in a lot of wasted effort by well intentioned people, and a reason for the FCC to develop a bad attitude on the issues should they soon come up anyway.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

941. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-12 07:22:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500400@ux1.cso.uiuc.edu>
Source record: 13546

> No, the FCC's proposal does offer HF privileges for 5wpm. It's just that
> the press release managed to obfuscate that point. I thought I saw it
> buried in there, and this week's Newsline clarified it.

That's why I find it so important to read the actual NPRM in the FR.

> If you have a Communicator license and then pass a 5wpm test, you'll get
> the same privileged now accorded to Techs, but without being issued a
> Tech license. (Which, according to the proposal, would no longer be
> issued.) Instead, you'll use a special suffix with your Comm callsign.

That's a really bad idea. They should just issue it as a class endorsement
and leave it at that.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

942. Element sets for Microsat & Fuji launches

Newsgroup: rec.ham-radio
Date: 1990-02-12 09:31:17 UTC
From: karn@ka9q.bellcore.com
Message-ID: <19937@bellcore.bellcore.com>
Source record: 13547

Here's a compilation of the latest element sets I have for the recent Microsat/UoSAT and Fuji launches. Since things seem to be settling down (except for the problem of getting NORAD to put the right name on each object) this will be the last set I'll post unless NORAD decides to switch objects again. Otherwise you should be able to use the sets in TS Kelso's regular posting.

--Phil

Satellite: SPOT 2
Catalog number: 20436
Internat desig: 90 5 A
Epoch time: 90037.68537291
Tue Feb 6 16:26:56.219 1990 UTC
Element set: 31
Inclination: 98.7224 deg
RA of node: 114.0060 deg
Eccentricity: 0.0001119
Arg of perigee: 102.2205 deg
Mean anomaly: 257.8772 deg
Mean motion: 14.20012010 rev/day
Decay rate: 2.09e-05 rev/day^2
Epoch rev: 222
Semi major axis: 7200.608 km
Anom period: 101.407593 min
Apogee: 843.226 km
Perigee: 841.615 km
Ref perigee: 4419.70534981
Tue Feb 6 16:55:42.223 1990 UTC

Satellite: UO-15
Catalog number: 20437
Internat desig: 1990 005B
Epoch time: 90039.65459091
Thu Feb 8 15:42:36.654 1990 UTC
Element set: 14
Inclination: 98.7132 deg
RA of node: 116.0954 deg
Eccentricity: 0.0010392
Arg of perigee: 165.0980 deg
Mean anomaly: 195.0505 deg
Mean motion: 14.28262889 rev/day
Decay rate: 4.74e-06 rev/day^2
Epoch rev: 251
Semi major axis: 7172.827 km

Anom period: 100.821775 min
Apogee: 803.518 km
Perigee: 788.610 km
Ref perigee: 4421.68667135
Thu Feb 8 16:28:48.404 1990 UTC
Beacon: 435.1200 MHz

Satellite: AO-16
Catalog number: 20438
Internat desig: 1990 005C
Epoch time: 90038.25013520
Wed Feb 7 06:00:11.681 1990 UTC
Element set: 14
Inclination: 98.7144 deg
RA of node: 114.7007 deg
Eccentricity: 0.0011707
Arg of perigee: 170.1695 deg
Mean anomaly: 189.9710 deg
Mean motion: 14.28571178 rev/day
Decay rate: 6.16e-06 rev/day^2
Epoch rev: 231
Semi major axis: 7171.795 km
Anom period: 100.800018 min
Apogee: 802.655 km
Perigee: 785.863 km
Ref perigee: 4420.28319640
Wed Feb 7 06:47:48.168 1990 UTC
Beacon: 437.0263 MHz

Satellite: UO-14
Catalog number: 20439
Internat desig: 90 5 D
Epoch time: 90032.22728814
Thu Feb 1 05:27:17.695 1990 UTC
Element set: 13
Inclination: 98.7119 deg
RA of node: 108.6771 deg
Eccentricity: 0.0011164
Arg of perigee: 187.8659 deg
Mean anomaly: 172.2355 deg
Mean motion: 14.28476920 rev/day
Decay rate: 4.87e-06 rev/day^2
Epoch rev: 145
Semi major axis: 7172.110 km
Anom period: 100.806669 min
Apogee: 802.363 km
Perigee: 786.349 km
Ref perigee: 4414.19379569
Thu Feb 1 04:39:03.947 1990 UTC

Satellite: DO-17
Catalog number: 20440
Internat desig: 1990 005E
Epoch time: 90029.63506009
Mon Jan 29 15:14:29.191 1990 UTC
Element set: 7
Inclination: 98.7166 deg
RA of node: 106.0985 deg
Eccentricity: 0.0011558
Arg of perigee: 194.9310 deg
Mean anomaly: 165.2835 deg
Mean motion: 14.28590000 rev/day
Decay rate: 8.87e-06 rev/day^2
Epoch rev: 108
Semi major axis: 7171.732 km
Anom period: 100.798690 min
Apogee: 803.263 km
Perigee: 786.685 km
Ref perigee: 4411.60292205
Mon Jan 29 14:28:12.465 1990 UTC

Satellite: WO-18
Catalog number: 20441
Internat desig: 1990 005F
Epoch time: 90038.45857642
Wed Feb 7 11:00:21.2 1990 UTC
Element set: 8
Inclination: 98.7151 deg
RA of node: 114.9134 deg
Eccentricity: 0.0012327
Arg of perigee: 170.0395 deg
Mean anomaly: 190.1030 deg
Mean motion: 14.28716870 rev/day
Decay rate: 4.97e-06 rev/day^2
Epoch rev: 234
Semi major axis: 7171.307 km
Anom period: 100.789739 min
Apogee: 802.627 km
Perigee: 784.947 km
Ref perigee: 4420.49160858
Wed Feb 7 11:47:54.981 1990 UTC
Beacon: 437.0751 MHz

Satellite: LO-19
Catalog number: 20442
Internat desig: 90 5 G
Epoch time: 90030.68451259
Tue Jan 30 16:25:41.887 1990 UTC
Element set: 11
Inclination: 98.7165 deg
RA of node: 107.1491 deg
Eccentricity: 0.0012456

Arg of perigee: 193.4736 deg
Mean anomaly: 166.6115 deg
Mean motion: 14.28775079 rev/day
Decay rate: 7.38e-06 rev/day^2
Epoch rev: 123
Semi major axis: 7171.112 km
Anom period: 100.785632 min
Apogee: 803.034 km
Perigee: 785.169 km
Ref perigee: 4412.65212053
Tue Jan 30 15:39:03.213 1990 UTC

Satellite: Ariane V35
Catalog number: 20443
Internat desig: 1990 005H
Epoch time: 90031.30605641
Wed Jan 31 07:20:43.273 1990 UTC
Element set: 17
Inclination: 98.6132 deg
RA of node: 107.7139 deg
Eccentricity: 0.0011580
Arg of perigee: 168.2845 deg
Mean anomaly: 191.8598 deg
Mean motion: 14.30141747 rev/day
Decay rate: 1.179e-05 rev/day^2
Epoch rev: 108
Semi major axis: 7166.534 km
Anom period: 100.689320 min
Apogee: 797.550 km
Perigee: 780.952 km
Ref perigee: 4413.33871444
Wed Jan 31 08:07:44.927 1990 UTC

Satellite: debut
Catalog number: 20479
Internat desig: 1990 013B
Epoch time: 90040.10537173
Fri Feb 9 02:31:44.117 1990 UTC
Element set: grady1
Inclination: 99.0572 deg
RA of node: 110.7645 deg
Eccentricity: 0.0471004
Arg of perigee: 331.3576 deg
Mean anomaly: 26.1964 deg
Mean motion: 13.02720335 rev/day
Decay rate: 2.328e-05 rev/day^2
Epoch rev: 31
Semi major axis: 7626.912 km
Anom period: 110.537923 min
Apogee: 1612.789 km
Perigee: 894.328 km

Ref perigee: 4422.09978590
Fri Feb 9 02:23:41.501 1990 UTC

Satellite: fo-20
Catalog number: 20480
Internat desig: 1990 013c
Epoch time: 90040.13586675
Fri Feb 9 03:15:38.887 1990 UTC
Element set: 3
Inclination: 99.0584 deg
RA of node: 110.7308 deg
Eccentricity: 0.0540749
Arg of perigee: 338.5863 deg
Mean anomaly: 19.3368 deg
Mean motion: 12.83127298 rev/day
Decay rate: 0.00019574 rev/day^2
Epoch rev: 32
Semi major axis: 7704.408 km
Anom period: 112.225810 min
Apogee: 1745.658 km
Perigee: 912.428 km
Ref perigee: 4422.13168062
Fri Feb 9 03:09:37.205 1990 UTC
Beacon: 435.7950 MHz

943. There's plenty of time for radios after college

Newsgroup: rec.ham-radio
Date: 1990-02-12 12:59:32 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9002121259.AA05049@bunny.gte.com>
Source record: 13548
Body handling: HTML body converted to readable text

```
> I was licensed at the age of 12, and was very active on cw as a teenager,
> reaching a code proficiency level of 40 wpm. At 18, I went away to
^^^^^^^^^^^^^^^
> college and, like many others, gave up ham radio completely. About 10
^^^^^^^^^^^ ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
```

944. Improve your image with a coaxial stub.

Newsgroup: rec.ham-radio
Date: 1990-02-12 14:18:13 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <12.Feb.90.14
Source record: 13549

I had a problem. My scanner began making nasty squawks. It did not need
Sherlock Holmes to identify the cause as image interference. Something
i know occurs even with handie-talkies. My solution was, coaxial stubs.
To make a coaxial stub filter you will need a T-piece for whatever
connector system you use (TNC in my case) a few plugs, and a length of coax.
Put the T-piece in the coax to your receiver, then connect another free
length of coax to the 'empty' leg of the T.
You will now have a dangly end of coax with nowhere to go.
Tune the receiver to the frequency of that nasty image you want to get rid of.
You need 1/4 wave stub resonant at the frequency of the image you want
to zap. Calculate roughly what this is (remember the effect of the
velocity-factor of the coax - somewhere between 0.66 and 0.98 depending on
type - look it up in the ARRL Handbook if need be!), add 10% length.
Listen to the image, and start clipping short lengths off of the
free end of the coax. Take off 1/4 inch at a time. Be careful. Remember not to
let the inner short to the outer. As you approach resonance the signal will get
weaker and weaker. Eventually you will go too far and the strength will
start to rise again. When this happens, make up a new length of coax to
the *correct* length (you were keeping a list of attenuation against length
werent you?) and keep the old one as a patch-cable.
Now tune to the desired reception frequency, and note that the image has
reduced. Disconnect the 1/4 wave length, and the image returns? Good - it
shows the filter is working. In practice you can get 30dB attenuation with
a single stub. Not enough? Image still there? Make up two identical stubs,
and use two T-pieces connected together by a 1/4 wave of cable. You can get
60 to 70dB attenuation that way. Still not enough? Try a third stub, or move!
Remember that the stub filters out odd harmonics of its intended frequency
too. This may cause unexpected 'holes' in reception, but you can always
disconnect the stub. If you make up a stub for removing transmitter harmonics
(yes they are great for this too) remember to insulate the end of the coax
where you have been doing the clipping, as there could be some user-hostile
voltages there.
Why not try it? You have nothing to lose except possibly a few feet of coax
and your unwanted images!
///\\\----///\\\///\\\//
\\\///Pete\\\///G6WBJ\\\
///\\\----///\\\///\\\//

945. Geo-stationary orbit elements

Newsgroup: rec.ham-radio
Date: 1990-02-12 15:36:09 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9002130812.AA20331@ucbvax.Berkeley.EDU>
Source record: 13550

I would like to test a satellite-tracking program
on a geo-stationary (or is it geo-synchronous?) orbital
element set. Could someone on the net send me a
real Keplerian element set for one of these satellites
(like perhaps one of the TV satellites)? If a set is
already included in Kelso's weekly data postings,
you could just tell me the name of the satlllite so I'll
know which one to use.

Thanks in advance -
Mike Owen W9IP
MROWEN @ STLAWU

946. Re: Common Pro-Code Arguments Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-12 15:59:54 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840027@hpl-opus.HP.COM>
Source record: 13570

/ hpl-opus:rec.ham-radio / paulf@bodega.stanford.edu (Paul Flaherty) / 5:43 pm Feb 10, 1990 /
>
> I'll happily debunk more myths as they appear.
>
> --
> -=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
> ->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"
> > ----------

A morse code test is a good filter. If someone dosen't want to put
the effort into it, they don't deserve a licence!

(I don't believe this, but this is the main argument I keep getting.
Your thoughts??)

George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ

947. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-12 16:51:28 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <20288@netnews.upenn.edu>
Source record: 13551

Has anyone else thought about this?

If somebody is interested in using CW, then they MUST learn the code in order to communicate by CW, so why bother to test code proficiency? There is no voice talking-ability test, so why have a CW test? If somebody can't talk, they obviously won't be on the phone sub bands. The same holds true for code.

I disagree with some of the other opinions that CW is worthless and is an antiquated mode of communications. It definately has its advantages over voice, particularly under less than optimal conditions. But I don't think it should be used as a shield to prevent what would be good amateurs from joining the ranks.

Just my humble opinions on this less than exciting Monday morning...

--- Jeff


```
+----------------------+-----------------------------------------------------+
| Jeff DePolo - N3HBZ | Internet: depolo@eniac.seas.upenn.edu |
| Univ. of Pennsylvania | RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia) |
| Computer Science Eng. | Twisted pair: (215) 243-8125 home |
| Class of 1991 | Carrier pigeon: 3901 Spruce St Box 850 Philly 19104 |
+----------------------+-----------------------------------------------------+
```

948. Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-12 16:51:49 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002121718.AA09174@ti.com>
Source record: 13552

Matt Bartley asked about how you could recognize code tapped out with rocks or pipes.

The old telegraph code (I forgot its name) used spacing. I gather therefore that an SOS would be sent with 3 quick taps, a long space, three taps with a slightly longer space between taps than between the "S" taps, a long space, and three quick taps. An even longer space would separate the individual "SOS" groups.

By the way, some of today's Hams operating CW could use a little polishing-up in the use of spacing. Some of them run words and phrases togetherm making it in the use of spacing. Some of them run characters and words together, making it hard to copy at an otherwise comfortable speed.

73s
Dube Todd N5PDK

949. Request for old-style digital circuit demonstration kits.

Newsgroup: rec.ham-radio
Date: 1990-02-12 17:54:00 UTC
From: dekleer.pa@XEROX.COM
Message-ID: <19900212175439.3.JOHAN@CALVIN>
Source record: 13553

We're trying to put together a demonstration on digital circuits and I
was looking for these educational systems with blocks/modules each
containing a single gate and which were wired together with spring
terminals. Heathkit used to sell them but has gone on to protoboards.
The advantage of the old style is that it is easy to visualize the
circuit for the demonstration. Does anyone know if I can still get what
I want?
----

950. Re: Some common Pro-Code Myths Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-12 18:20:50 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Feb12.182050.15776@Neon.Stanford.EDU>
Source record: 13480

In article <9002120103.AA00596@cmr.ncsl.nist.gov> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
>PLEASE EXPLAIN WHERE THE EME AND OTHER VHF / UHF WEAK SIG CROWD IS GOING
>WRONG, THEY SEEM TO FIND SSB UNREADABLE UNLESS SIGS ARE "STRONG". I'M SURE
>THEY WOULD rather USE VOICE, I KNOW I WOULD.

My original intent was to address A1A vs J3E in a "normal ham environment" eg, low power HF. That much can be seen by my references to Rayleigh fading.

Most of the weak sigs work I did on 2m (back when I really was in nineland) was J3E. Auroral buzz made it difficult at times, but a trained op gets used to that sort of thing. Never underestimate the filtering capacity of the blood and guts DSP.

As for EME, well, libration fading will probably affect J3E more than A1A. However, if you have the bucks and the resources for doing EME, then you have the bucks and the resources to run Spread Spectrum. Better yet, AMTOR should do a decent job in that environment. Most importantly, however, very few people actually do EME (as opposed to the population on 20m). It makes little sense to build a defense of a general requirement on a small corner of the hobby.

>"IMHO", THESE "wonder modules" MAKE EVEN CW XMTRS EASIER TO BUILD, AND THEY
>THUS REMAIN CONSIDERABLY SIMPLER THAN ANY SSB RIG. OK, FM XMTRS CAN BE
>ABOUT AS SIMPLE AS CW, AND VERY-LOW-POWER AM W/CARRIER RIGS AREN'T SO BAD.

Oh, come on now. A nice DBM can be built very cheaply. You can always wind your own transformers. Or you can just order one from Mini Circuits.

Part of the problem is that most of the ARRL construction literature is WAY out of date. Take a look at the FM and repeaters book. Even then, the material is so oversimplified as to remove all of the relevant engineering material for someone who actually wants to BUILD something (as opposed to understanding how your typical commercial rig works).

>BY THE WAY, WHERE DO I ORDER COMPRESSION MICA TRIMMERS (LIKE ARCO 464)? I'M
>CERTAIN SOMEONE STOCKS THEM, BUT THEY AREN'T IN DIGIKEY, NEWARK, ETC. I
>NEED SOME FOR A VHF SOLID-STATE FINAL.

Try Motorola or EF Johnson. A nice letter to the Engineering group or tech support has been known to do wonders.
--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

951. Re: New Car Radiated Emissions

Newsgroup: rec.ham-radio
Date: 1990-02-12 19:22:52 UTC
From: stevew@wyse.wyse.com
Message-ID: <2609@wyse.wyse.com>
Source record: 13572

In article <13456@cbnewsc.ATT.COM> tedk@cbnewsc.ATT.COM (ted.g.kekatos,ix,) writes:
>My 1986 Toyota Celica has harmonics every 1 MHz. This signal seems
>to be coming from the On-board EFI Computer. If I use my 200XLT scanner
^^^^

The must stand for Extra Frequency Interference! ;-)

Steve Wilson
KA6S

952. Re: Common Pro-Code Arguments Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-12 19:50:12 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Feb12.195012.22321@Neon.Stanford.EDU>
Source record: 13571

In article <64840027@hpl-opus.HP.COM> labelle@hpl-opus.HP.COM (George LaBelle) writes:
> A morse code test is a good filter. If someone dosen't want to put
> the effort into it, they don't deserve a licence!
>
> (I don't believe this, but this is the main argument I keep getting.
> Your thoughts??)

Okay folks, let's play engineer. Now, a good filter has nice steep skirts, and low insertion loss. Let's look at the CW test in that light.

On the first count (nice steep skirts, corresponding to keeping the riffraf out), CW seems to be fairly decent filter. I'll agree that there is some merit to the concept of requiring some self discipline in the entry test for the amateur service, and learning an archaic skill is certainly one way of testing for this. And, empirically, it seems to work; the jerk to nice person ratio for ham radio is rather low, certainly lower than the general population. As with any filter, there is bleedthrough, and there are some real wierdos out there. There are other means for determining self discipline that are at least as effective; separating the written exam into rules and theory, and then making the rules exam MUCH tougher comes to mind.

On the second count (insertion loss - do we throw out the good with the bad), CW is a lousy filter. It tends to keep out younger, technically oriented folk who see no reason to waste time learning the arcane skill. They have no intention of ever using the mode. And, continuing CW as a requirement only contributes to the image of a clique. The term "hazing" comes to mind.

So, CW is at best a filter with steep enough skirts, but lousy insertion loss. I would gladly support research for a better filter, and would propose splitting the written exam as per the above.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

953. no-voice license

Newsgroup: rec.ham-radio
Date: 1990-02-12 20:10:46 UTC
From: oo7@ut-emx.UUCP
Message-ID: <24466@ut-emx.UUCP>
Source record: 13554

What nearly stopped me from getting a ham license was having to learn all those phonetics for ssb operation. I mean, I knew I was only going to operate CW, and yet I had to force myself to learn phonetics for all 26 letters of the alphabet, as well as some extra things I've forgotten (I think it was "QRZ the frequency", "what's the handle there", "that's a Roger contact", stuff like that).

I forced myself to do it - recited them in the car on the way to and from work, and eventually got up to speed. I bet I knew every darned one of them when I took the written tests that had questions about phonetics. Of course, I never planned to use them, and now I can't remember whether A is America, Able, Alpha or what.

I admit that it could come in handy if ever I'm buried under tons of rubble after an earthquake - instead of using morse, I could use phonetics to alert the rescuers ("Hotel Echo Lima Papa! er, er, QRZ the frequency!"). But you have to admit that voice is a pretty inefficient way of communicating these days, and it's no way to work serious DX. We should just get rid of it.

So I invite you all to join with me in petitioning the FCC for a no-voice license class. There would be a minimum cw speed limit of around 30 wpm, and we'd have to think up a pretty snazzy name for the new license class. We could have some small part of the bands set aside for those old-timers who still wanted to use voice. But we certainly won't get the young people into ham radio, they just aren't going to take the time and put in the effort to learn all those darn phonetics.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

954. Re: Who needs another license class?

Newsgroup: rec.ham-radio
Date: 1990-02-12 20:32:12 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250122@hpnmdla.HP.COM>
Source record: 13478

Don, I like the way you think. The international requirement to know the code to operate below 30 MHz could be met simply by ONLY allowing code operation below 30 MHz. You obviously can't operate code without knowing code!

The reason the FCC has poropsed dropping Novice/Technician is to reduce their administrative costs by reducing the number of license classes by one. We could incorporate your no-test CW privileges into the FCC's Communicator class license to satisfy FCC's $$$ worries.

Al N1AL

955. I need vacuum tubes ...

Newsgroup: rec.ham-radio
Date: 1990-02-12 20:34:14 UTC
From: ehg@aramis.rutgers.edu
Message-ID: <Feb.12.15.34.12.1990.10789@aramis.rutgers.edu>
Source record: 13573
Cross-posted to: rec.ham-radio,sci.electronics

Is there anybody out there who knows where I can get or order some vacuum tubes (i.e.- Sylvania 6l6). I am secretly refurbishing, and the keyword here is refurbishing, my mothers antique Wurlitzer juke. Offhand I don't know the specific part numbers, but I can go home and look. This would be of great importance to me, and would be a great Birthday present for her. Absolutely any information would be immensely appreciated. Please e-mail me.

ADVthanksANCE,

-Eric

ehg@aramis.rutgers.edu

956. Re: ARRL contest question

Newsgroup: rec.ham-radio
Date: 1990-02-12 20:39:35 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120109@hpcupt1.HP.COM>
Source record: 13555

Why not three? there are three regions - one point per region.
73's
Jim
jholly@hpcupt1.hp.com
WA6SDM @ WB6ASR

957. Re: Cheap Radios

Newsgroup: rec.ham-radio
Date: 1990-02-12 20:45:47 UTC
From: hoffman@speedy.cs.pitt.edu
Message-ID: <1990Feb12.204547.10722@cs.pitt.edu>
Source record: 13574

In article <1159@swbatl.UUCP> ken@swbatl.UUCP (9081) writes:
> The point of my posting is this - I can purchase a 900MHz phone
> for $200 or a synthesized marine radio for $160 or a CB for $40.

I don't know about your area, but around here the cellular providers
(Bell Atlantic and Cellular One) pay a rebate to the installer for
every phone they sign up with their system. The rebate is on the order
of $300, so that $200 phone really costs more like $500.

---Bob.

--
Bob Hoffman, N3CVL {allegra, bellcore, cadre, idis, psuvax1}!pitt!hoffman
Pitt Computer Science hoffman@cs.pitt.edu

958. Re: Oscar-20 is in orbit!

Newsgroup: rec.ham-radio
Date: 1990-02-12 20:49:12 UTC
From: hoffman@speedy.cs.pitt.edu
Message-ID: <1990Feb12.204912.11948@cs.pitt.edu>
Source record: 13575

One of our local PBS TV stations carries a daily Japanese news broadcast (in English) called Today's Japan. They showed video of the launch and mentioned that it included a satellite "for amateur radio communications."

---Bob.

--
Bob Hoffman, N3CVL {allegra, bellcore, cadre, idis, psuvax1}!pitt!hoffman
Pitt Computer Science hoffman@cs.pitt.edu

959. Re: Efficiency of Morse Code

Newsgroup: rec.ham-radio
Date: 1990-02-12 21:38:53 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9002130658.AA22472@ti.com>
Source record: 13556

Rick Troth <TROTH@RICEVM1.RICE.EDU> 12-FEB-1990 09:51:12.50 wrote:

> On Sat, 10 Feb 90 08:31:37 GMT Phil Karn said:
>
> >>Morse code is such a binary code.
> > >
>
> There is a problem you have not dealt with. It's MIGRATION. You need to
> get people using the new technology without ramming it down their throats
> and/or causing implementation headaches....
>

The following comment can be taken with a :-) or not.

Today at lunch we were discussing the problems faced by the military on airfields infested (?) with birds (such as the famous "gooney birds") which make taking off dangerous (not all airplane engines were made to be used as bird-cuisinarts.) This guy was telling us stories about how they beat on pots and pans, used explosives, and all sorts of things, to no effect.

It was only after they discovered why the birds liked it there... the sand dunes gave them a good running ramp for taking off... and MOVED the dunes, that the birds moved.

Moral? Well, it seems that if you want some recalcitrant group to do what they're doing somewhere else, you put what they want elsewhere.

Is there a parallel here? Or am I suffering from severe Aesop's Syndrome? :-) anyway!

73,
Bob WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

960. Re: SCA - Not as easy as it seems

Newsgroup: rec.ham-radio
Date: 1990-02-12 21:43:56 UTC
From: gkd@wpi.wpi.edu
Message-ID: <8163@wpi.wpi.edu>
Source record: 13576
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <9487@cbmvax.commodore.com>, grr@cbmvax.commodore.com (George Robbins) writes:
> In article <1990Jan28.011810.1861@IDA.ORG> roskos@IDA.ORG (Eric Roskos) writes:
> ...
> > According to Sangster's article, "the best way to recover the SCA audio
> > is to go in to the FM receiver and tap off at the `top' of the volume
> > control."
>
> This is apt to be nonsense. The place you have to pick it off is between
> the output of the FM detector and the Multiplex decoder (if it's stereo)
> or before the de-emphasis network/filter (if it's a cheap mono).

I've found that by tricking an ICOM R71A receiver to tune below 100 KHz and tuning in in the FM mode, SCAs can be heard by simply running a cable from the external speaker jack an an FM radio to the antenna jack on the ICOM. This has worked with 2 AM/FM portable radios and a car stereo unit which I tried. The audio fidelity isn't fantastic (probably due to the ICOM) and the reception isn't completely free of interference from the main signal. But for casual listening, it is satisfactory and doesn't require the purchase of a decoder (assuming you have a LF receiver).

Note: I wouldn't recommend connecting the speaker jack of your 100W/channel home entertainment center to your ICOM antenna jack, though. :-)

Greg

961. Letters needed....

Newsgroup: rec.ham-radio
Date: 1990-02-12 22:01:12 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002130658.AA22482@ti.com>
Source record: 13557

The determination of what is decent/indecent on broadcast media is a political issue, not an amateur radio issue. I suggest that political debate of this subject should be moved to another net.

Thanks,
Dube Todd, N5PDK

962. Re: Yaesu FT-411 mods?

Newsgroup: rec.ham-radio
Date: 1990-02-12 22:11:52 UTC
From: stan@hprpcd.HP.COM
Message-ID: <10500002@hprpcd.HP.COM>
Source record: 13558

To allow the FT-411 to recieve from 130 MHz to 174MHz and to transmit
from 140 MHz to 151 MHz, turn off the radio and hold down both of the arrow
keys and turn on the radio. Be sure to write down all of the contents of
your memories first as this will erase them ! This is the MARS modification.
Repeating this procedure will turn the FT-411 back into a HAM only transciever.
Refer to the mods server for a more involved mod that will allow you to
set the transmit and recieve frequency limits at will within the capability
of the rf deck.

WARNING: Do not transmit over the air outside of the ham bands unless you have
the appropriate MARS license! For other frequencies, don't transmit at all
because the FT-411 is not a FCC-Type-Accepted radio for the public service
bands! Also make sure that your radio can't accidently transmit on a public
service repeater (in case you are all thumbs, or your radio gets stolen!)

~~~~~~
~ Stan Witherspoon ~ Disclaimer ~
~ Systems Technology Division ~~~~~~~~~~~~~~~~~~~~~~~~
~ Hewlett Packard Company ~ These are my ~
~ 8020 Foothills Blvd. ~ personal opinions ~
~ Roseville Ca. 95678 ~ and do not represent ~
~ Phone: (916) 785-5071 ~ the views of anyone ~
~ RF: N6SCE ~ or anything else ~
~ Email: ucbvax!hplabs!hprpcd!stan ~
~~~~~~

Here is a copy of the instructions for the mods server:

This file is: INTRO MODS

MODS database
---- --------

This database was setup to archive files containing information on
how to modify radio equipement to either improve its performance,
or add new functions or capabilities to the radio.

*** AS of Nov 1, 1989 FTP access from the internet is available
HAMSTER.business.uwo.ca [129.100.22.100]

To access a file from the archive via mail, send a message to the server running
under userid -> BITLIB@UWO.CA
Also you may try the userid -> BITLIB@UWO.CDN

The subject of the message MUST be -> MODS
If your mailer does not ask for the subject; make the first line of your

message look like this:

SUBJECT: MODS

The server ignores all messages that do not have MODS in the subject
field. All bad requests get re-routed to my userid ,and I eventually
read them, fix them, and re-submit them.

The text of your message descibes what files you want. For example:
sendme intro mods
sendme radio mods
sendme TH215 mods

You can have as many requests in the same message as required.
INTRO MODS is the file you are reading now.
RADIO MODS is a list of files available.
TH-215 MODS is a file that can be requested.

Below is an example of a file request message:

```
.................................................................
.
. Date: Friday, April 5, 1989
. From: MBRAMWEL@BUSINESS.UWO.CA (Mark Bramwell)
. Subject: MODS
. To: bitlib@uwo.ca
.
. from: mbramwel@uwo.ca
. sendme radio mods
. sendme pro2004 mods
. sendme tm721 mods
.
.................................................................
```

In the above example I have a 'from:' line in my message. That will
tell the server to send to an id other than the id listed in the
header. The userid should be reachable from bitnet. That means
UUCP users should include a gateway in their id.

To submit a file for the database, send me the message and I will
add your entry to the database.

**Note: If you don't seem to be getting a reply to your requests, it is
probally due to the fact that your header doesn't show a reachable
address. You must be reachable from UWO. You can place your return
address in the first line of your message. Example:
FROM: someuser@somenode

UUCP users have had some success by stating their address as:
userx!usery!userz@julian.uucp
Julian can usually find most gateways.

Any questions or concerns can be directed to:

Mark Bramwell VE3PZR
University of Western Ontario
School of Business Administration
London, Ontario

Bitnet: MBRAMWEL@UWO.CA Packet: VE3PZR @ VE3GYQ

FTP Server: HAMSTER.business.uwo.ca [129.100.22.100]

963. Re: Common Pro-Code Arguments Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-12 22:26:22 UTC
From: ee5391aa@hydra.unm.edu
Message-ID: <1590@ariel.unm.edu>
Source record: 13559

In article <1990Feb12.195012.22321@Neon.Stanford.EDU> paulf@bodega.stanford.edu (Paul Flaherty) writes:
>So, CW is at best a filter with steep enough skirts, but lousy insertion
>loss. I would gladly support research for a better filter....

Money. The FCC charges, say, $5000 each year to maintain your license. VERY steep skirt, and even worse insertion loss than CW.

;^),
d

1506 Nix Nix Foo Notary Sojac
Duke McMullan n5gax nss13429r phon505-255-4642 ee5391aa@hydra.unm.edu

964. ICOM 24-AT vs Joe HT

Newsgroup: rec.ham-radio
Date: 1990-02-12 23:49:25 UTC
From: pvh@Apple.COM
Message-ID: <38571@apple.Apple.COM>
Source record: 13477
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Do you who have purchased the 24-AT think it is worth the rather extravagant asking price ($629 list without tone squelch or encode/decode)? I'm thinking I should just get a Kenwood 75-A or Yaesu FT-470 since they list for less and didn't make every feature necessary for crowded repeater areas an option, even though the 24-AT has some obvious great advantages.

(any comparisons between these three units would be welcome!)

Thanks,

Pete

965. Re: Letters needed to fight FCC censorship

Newsgroup: rec.ham-radio
Date: 1990-02-13 00:00:08 UTC
From: tomb@hplsla.HP.COM
Message-ID: <5720057@hplsla.HP.COM>
Source record: 13560

marc@noe.UUCP (Marc de Groot) posts for a friend:
>I am posting this for a friend of mine.
>-Marc
>marc@kg6kf.ampr.org
>
>Responding to pressure from Senator Jesse Helms and other
>right wing influences the FCC is trying to ban from the
>airwaves anything it characterizes as indecent. While refusing
...
>and eliminating previous presumptions that material not suitable
>for children could be broadcast between 10 pm and 6 am when
>children would be asleep.
>
...
>Unless you believe that the public mind should be limited to material
>suitable for children, this is a threat to your ability to receive
>anything other than pablum over the airwaves.
...

Don't get me wrong: the following comments have nothing to do with whether I think the supposed FCC action is right or wrong. However, I am offended that people believe that anything not suitable for children is indecent. There are lots of things I watch that I don't consider suitable for (particularly young) children, which do not deal with sex or even violence. Indeed, some of the things suitable for children are less "pablum" than the run-of-the-mill "Parental Discretion Advised" movies/shows on late evening TV.

Please don't equate "material suitable for children" with "pablum", and don't by implication equate "worth viewing/listening to" with "unsuitable for childern".

966. MicroSat Telemetry Decoding Programs

Newsgroup: rec.ham-radio
Date: 1990-02-13 01:51:01 UTC
From: akcs.brianm@nstar.UUCP
Message-ID: <25d767a0
Source record: 13561

bill..

I have a couple of Telemetry Decoding Programs available on my landline BBS system at 317 882 9330. Speeds are 1200 to 9600HST. The best is NK6KTL.ARC and I believe it was written specifically for the DOVE project.

brian@towers or !nstar!towers!brian

967. Re: Common Pro-Code Arguments Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-13 02:22:06 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500401@ux1.cso.uiuc.edu>
Source record: 13562

> A morse code test is a good filter. If someone dosen't want to put
> the effort into it, they don't deserve a licence!
>
> (I don't believe this, but this is the main argument I keep getting.
> Your thoughts??)

1. It's false.

You only need to listen on some of the HF bands and even 2 meters to
tell that it has not been a filter in the past.

2. It's not applicable.

Radio spectrum is a public resource. The purpose of the radio spectrum
is NOT to be a carrot to get people to learn an outdated communications
medium.

3. If effort is what separates the men from the boys, why not issue licenses
to anyone who can push a GM EMD SD-40 in neutral a distance of 1 meter.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

968. Re: no-voice license

Newsgroup: rec.ham-radio
Date: 1990-02-13 02:30:19 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500402@ux1.cso.uiuc.edu>
Source record: 13563

> So I invite you all to join with me in petitioning the FCC for a no-voice
> license class. There would be a minimum cw speed limit of around 30 wpm,
> and we'd have to think up a pretty snazzy name for the new license class.

How about the "BRASS CLASS"

> We could have some small part of the bands set aside for those old-timers
> who still wanted to use voice. But we certainly won't get the young people
> into ham radio, they just aren't going to take the time and put in the effort
> to learn all those darn phonetics.

Youngsters these days can't do anything. They can't talk, and they can't
even type. Their always banging away on things.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

969. Re: Alinco DR-110T

Newsgroup: rec.ham-radio
Date: 1990-02-13 02:34:34 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500403@ux1.cso.uiuc.edu>
Source record: 13564

How about posting items for sale or to buy in the

rec.ham-radio.swap

newsgroup ONLY!!!

I assume you are new to this group and are unaware of the problems such postings have on some of the connected networks. Someone really should regularly post a statement about this so new people will know this before they post to the wrong newsgroup.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

970. Kenwood 731a mods/Retuning VCO

Newsgroup: rec.ham-radio
Date: 1990-02-13 02:35:32 UTC
From: jim@mmsac.UUCP
Message-ID: <4645@mmsac.UUCP>
Source record: 13565

I finally got my 731 to transmit out-of-band, thanks to all the replies I got regarding that. Now I've got another question:

Does anyone know where the VCO tuning adjustment is so I can move the "window" in which the radio transmits? Right now, it appears to lock up between 418 and 462. I need it to transmit around 467. I don't have the service manual.

--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu

==========

The opinions stated herein are all mine.

971. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-13 02:37:21 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500404@ux1.cso.uiuc.edu>
Source record: 13566

> My neighbor is a lic. HAM operator. His transmissions interfere with ALL
> electronic items in my house. His voice is on the TV, stereo, and even the
> telephone when he is transmitting. I have told him about the problem on
> several occasions and he pretty much said it was a problem with all of my
> stuff. C'mon. ALL of my stuff is faulty? My question is, what can I do to
> get him to quit this frustrating interference?

Well, Mike, SOME of that stuff (such as the telephone) is not supposed to be receiving ANY radio signals. So a good question to ask yourself is WHY it is receiving radio signals at all. It's actually pretty easy to make a radio receiver. Simple ones are very poor and need a good strong signal. What you have is a telephone that is also acting like a poor radio receiver, and your neighbor is supplying the strong signal because he is so close.

The rest of that stuff is supposed to receive signals only on a certain frequencies (like where TV stations broadcast). If your neighbor is putting out signals on those frequencies, then it is HIS fault. If on the other hand your receivers are receiving on the ham frequencies, then it is the fault of your equipment. The sad fact is that so much of the "high tech" goodies we buy today are so extremely cheap that they often receive on dozens or even hundreds of different frequencies at the same time, no matter where they are tuned to.

Some, but not all, of the electronic equipment in my own house is easily interefered with by my own radio transmissions. I know in each of these cases that the fault is with the receiving equipment. I am lucky that I don't need to change this equipment because I live alone and do not use both at the same time. One problem I have is with my cassette deck and another is with my VCR. Both of them strangely slow down when a radio signal is transmitted. The fault is with poor (actually none at all) shielding inside these devices.

If we were to take the attitude that the fault always lies with the transmitter then the stuff in the future will just keep getting cheaper and cheaper until it receives EVERYTHING sent by EVERY transmitter, and all transmitters will have to stop (THEN you will be stuck with just cable TV).

BOTH receivers AND transmitters must share the responsibility of interference. It is the duty of the transmitter to transmit ONLY on the frequency it is assigned to. Hams are assigned a limited range of frequencies and transmission of signals outside those frequencies is illegal. It is the duty of the receiver to receive ONLY the frequency you want. If it receives signals that on on the ham radio frequencies and that is not what you want, then it is defective and needs to be repaired or replaced.

However, it is usually relatively easy to fix or adjust most equipment to make it stop receiving signals on ham radio frequencies. It is also easy to make

ham radio transmitters stop transmitting outside of the ham frequencies. Sometimes problems do develop where metallic objects can pick up radio signals and reradiate them on a different frequency. If this happens, it is really no one's fault, but the owner of it would be expected to correct the problem.

Talk to your neighbor about getting these problems fixed. He should be friendly and courteous about the problems, but don't expect him to admit guilt where he does not believe he has any. If you do not get a friendly response from him, contact us and we can find other hams in the area who can help you determine just where the problem is and how to correct it.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

972. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-13 03:22:15 UTC
From: kjh@pollux.usc.edu
Message-ID: <22849@usc.edu>
Source record: 13567

I am posting my email response to Mike Boyle, because I hope it can help somebody else out there, either now or in the future.

To: Mike.Boyle@f36.n376.z1.FIDONET.ORG
Subject: Re: NOISY NEIGHBOR
Newsgroups: rec.ham-radio
In-Reply-To: <257.25D689AD@uscacm.UUCP>
Organization: EE-Systems, Univ. of So. Calif., Los Angeles

In article <257.25D689AD@uscacm.UUCP> you write:
>My neighbor is a lic. HAM operator. His transmissions interfere with ALL
>electronic items in my house. His voice is on the TV, stereo, and even the
>telephone when he is transmitting. I have told him about the problem on
>several occasions and he pretty much said it was a problem with all of my
>stuff. C'mon. ALL of my stuff is faulty? My question is, what can I do to
>get him to quit this frustrating interference?
>--
>--
>Mike Boyle == ...!usceast!uscacm!36!Mike.Boyle

I would like to try to help you. Please do not take anything I have to say as a flame. I understand your situation, and I would like to help you understand how to SOLVE the problem, instead of just complaining about it.

Solutions to your problems are forthcoming. Before I give these solutions, I would like to give some explanation as to why the problem exists in the first place.

First, the question you should ask is not "What can I do to get him to quit this frustrating interference?", but "How can I reduce or eliminate this interference problem?".

There two things to consider here. There is a SOURCE of the interference, and there is a CAUSE of the interference. The two are not usually related. Undoubtably, your neighbour is the SOURCE. The CAUSE, however, is most likely poorly (cheaply) designed consumer electronics equipment.

Studies have shown the manufacturers of consumer electronics that an incredibly small percentage of consumers will ever live close enough to amateur radio operators (or high powered transmitters on other services) that good filtering will be required. Consequently, the manufacturers don't put the filtering in. Saving a few cents on hundreds of millions of units means tens of millions of dollars extra profits!

There are two ways that you can use to solve your interference problem. You can try to force your neighbour to cease operating, or you can correct the deficiencies of your equipment. I recommend the latter, for two reasons: (1) Your neighbour has a legal right to operate, as long as his equipment meets federal standards regarding transmitters (and it is highly likely that his transmitters meet these specs). It is going to be incredibly difficult to legally force your neighbour to cease operating, and it may be impossible if his equipment is functioning properly. (2) The solution you should seek should be one in which all parties involved are satisfied. Your neighbour will not be satisfied if he is forced to cease operations.

If your approach is the second listed above, then you will probably be able to get your neighbour to help you solve your problem. He probably knows something about solving interference problems, and he surely has many friends that he can talk to on the air that can help you. He can help you by providing a signal as you are trying to fix your equipment. It is much easier to solve interference problems if the interference is there when you are working on it. If I was your neighbour, I would be most happy to try to help you. Your neighbour is not under any legal obligation to help you, either technically or financially, but I think that he will try to be as helpful as possible.

SOLUTIONS:

Telephone:

Lets start here, because this one is easy. First, it should be obvious that when a telephone starts activing like a shortwave receiver, there is something wrong with the telephone. Fortunately this problem is easy to correct. The problem exists because the radio signal is getting into the telephone and getting detected just like a signal gets detected in a crystal radio (like you might have built when you were a boy). The signal is being detected in a crystal diode. The solution is to prevent the radio signal from reaching the diodes in the phone. The radio signal is coming in on the phone line. The phone line is only supposed to carry audio signals, but since it is close to your neighbour's antennas, your phone line is acting like an antenna. In order to prevent the signal from getting into the phone, get some 0.01 uF capacitors, and possibly some ~100 uH coils. These are available at Radio Shack; Radio Shack also has Snap-Together Toroidal Choke Cores. These can be used to make a coil by winding the phone like around the choke core. Place the inductors in series with the phone line, and place the capacitors across the phone line, on both sides of the two inductors. In addition, it often helps to take your handset apart, and place capacitors across the microphone and speaker.

Stereo:

The answer here has to be multi faceted, because your stereo is comprised of many components. The first thing you must do is find out how the signal is getting into the stereo. The most common, is that the speaker wires act like antennas, and the signal comes in to the final

audio amplifier stage. It gets detected in the transistors (a transistor is just two diodes) and then amplified. To check for this condition, put your stereo on a CD or AUX input, and turn on the amplifier. You might want to turn off your CD player, and/or disconnect it. If the interference is coming in on the speaker wires, it will still be there, and the volume control won't have any effect on it. In this case, put a capacitor across the wires at both ends, both at the amp and at the speaker. Also put a capacitor from each speaker terminal to ground at the amplifier. (This is sometimes only required on the "hot" speaker wire.) In addition, you may want to put inductors in series with both of the speaker wires. If this simple solution doesn't work, then you might construct a filter, like this:

```
-----+----- coil -----+----- coil -----+-----
| | |
amp cap cap cap spkr
| | |
-----+----- coil -----+----- coil -----+-----
```

additional stages can be added as required. Usually 3 or 4 stages will solve the problem. If the problem is particularly bad, and isn't solved with this type of multistage filter, then there is still something you can try. Get an old TV, and remove the yoke from the back of the picture tube. At the back of the picture tube you will find some very large coils. Inside these coils will be two large ferrite cores, similar to those sold by radio shack, but much larger. You can get at these by using a wire cutter to cut the coils of wire off of them. Be very careful with these ferrite coils, because they are very fragile and brittle, and they break very easily. Take these ferrite cores, and wrap the speaker wires around them. You will have to experiment to find out just how many turns you need to wrap. This solution has ALWAYS worked for me, even in situations where the stereo and speakers were less than 30 feet away from the antenna! (You might also find that these ferrite cores work well for wrapping a phone line around also.)

The signal could be coming into your stereo by other means, but this is highly unlikely. Here are some quick notes; please contact me if this is actually the case, and I can provide some more information. For your turntable, place capacitors across the wires on the cartrige, right on the tone arm. For your tape deck, place capacitors across the receiving tape head. For your FM reciever, use a high pass filter on the antenna terminals. These high pass filters are the same high pass filters for televisions, and are available at radio shack. In general, you want to use 100% shielded cable for all audio connections. 100% shielded cable is available at radio shack. You can buy the cable, and put the RCA audio connectors on yourself if you can't find it already assembled. Only try the 100% shielded cable if other things fail, as most cable is around 90%+ shielded, and is usually good enough.

It is not usual, but the signal could be coming in on the power cords. To test for this: unplug everything from the amplifier (even the speaker

wires), and listen on headphones with a very short cord. If the interference is the same as when the speaker wires were on, then the signal is possibly coming in on the power cord. If the interference is different at all, it is probably NOT coming in on the power cord. Note that it is also common for the signal to come in on the headphone cable, but the interference level will be different because of the different length and placement of the headphone cable as compared to the speaker cable. Note that if the interference is coming in on the power cord then the volume control will have great effect on the interference. With the volume control all the way down, there will be NO interference!

TV

The first thing to try is a TV high-pass filter. Put this filter in series with the antenna cable. These filters are available at radio shack. The signal could also be coming in on the power line. To solve this problem, get some ferrite cores from the yoke of an old TV, and wrap the power line around it just like the speaker wires or stereo components power cords. Cable TV is usually a great solution for getting rid of interference problems, because the signal on the cable is usually very strong.

VCR

You didn't mention a VCR in your posting, but I thought I would mention it because it is such a wide-spread problem. The problem is particularly bad, because the circuits in the VCR must be designed for wide bandwidth to provide a good quality video signal. Video signals have very wide bandwidth. The trick here is once again to prevent the radio signal from getting into the VCR. There are no easy solutions, but the best that I have found is to build a faraday cage for your VCR. Get some lumber, and some ordinary window screen. Build a completely enclosed box to put your VCR in. The box should have a door so you can have access to your VCR's buttons and tape entry/exit point. All sides of the box should have the screen on them, and each side should be electrically well connected to each other side. The door should be electrically well connected to at least one side, and all 4 sides if possible. Make sure that you electrically connect the shield side of the video cables to the faraday cage with a SHORT cable. Mount connectors right on the faraday shield if you can. You definitely want to use one of those ferrite cores from an old TV on the VCR's power cord to prevent the signal from getting into the VCR that way. This solution, while it looks ugly, has worked exceptionally well for me.

I have spent a lot of time on this letter, and I hope that these solutions will help you with your problem. If I can be of further assistance, then please contact me by email.

Kenneth J. Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

973. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-02-13 03:48:33 UTC
From: dmb@DELPHI.MIT.EDU
Message-ID: <9002130348.AA14607@DELPHI.MIT.EDU>
Source record: 13568

To modify the 200XLT for recieve of cellular service:

1. Remove antenna and battery.
2. Remove two Phillips screws from back, two more from bottom (battery retaining spring screws, and the spring itself.
3. Pry rear cover off from bottom and remove.
4. Revove two small screws from base of circuit board.
5. Pull front panel from mainframe at base and separate.
6. Find IC labelled UNIDEN UC-1447 and 10k ohm resistor (brown-black-orange) above it.
7. Cut 10k resistor in two with small wire cutters.
8. Reassemble, make sure dual-inline connector at bottom of board lines up correctly with socket. Gently tighten bottom screws.
9. Replace battery retaining spring (slotted side toward notched hole), insert screws and tighten them securely.
10. Replace battery and antenna.

This should allow entering of cellular freqs. Given to me by friend who said it works, but no warranty from me.

974. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-13 06:52:03 UTC
From: storkus@arrakis.nevada.edu
Message-ID: <1232@unsvax.NEVADA.EDU>
Source record: 13503

Actually, it can be VERY EASY for that RF to come into the power cable. I've
been having fights with my parents and my sister when I'm home because my 10M
(and before, my CB) came over the stereo and phone (since we use cable, we've
seen no effects with any of the TV's). Strangely enough, the only radio it
effects in the whole house is my sister's stereo, especially when it is on
the tape player and she's recording-it does not affect any of the numerous
clock-radios we have.
My parents forced me to only use the radio certain times, even though I
easily came up with a solution (I'm the only ham in the whole family; therefore
no one really trusts me or understands me).
I simply choked the s**t out of the entrance of the phones (each phone) and
the power cable of my sister's stereo. I didn't have to do anything to the
speaker (I don't have enough power, only 25 watts, but it could be something
else).
I also believe I (at least partially) found the cause for all the RFI.
When I had my CB, the interference was there, but much less. The antenna
(a 1/2 wave Shakesphere stick sold by the Rat Shack) was also tuned for CB.
I'm still using that antenna-untrimmed and on 10M with an el cheapo CB antenna
tuner (I say that because it uses mica compression trimmers for the 2 legs
of the pi (yes, pi) network and a fixed inductor). It works great. But
my other problems are:
1. I'm using old Rat Shack RG-8 coax, and the shielding is the pits. I know
this for a fact because I can hear every single thing that generates
square wave RFI (i.e., my TNC and computers) in that radio!
2. The antenna is still cut for the middle of 11M (27.125 MHz). Therefore,
it WILL generate currents on the outside of the coax, as it has no radials
(remember what these things look like? The coax goes up the middle of the
bottom half of the antenna and connects the shield to the bottom and the
center to the top 1/4 wave section to form a vertical 1/2 wave dipole).
I wish I could cut it, but it's fiberglass, and the construction of the
bottom won't let me. I'm thinking of getting a 10M version and selling
this one.
3. The coax runs parallel to LOTS of house wiring, both power and phone!
About 35-40 FEET of run (approx. from one end of the house to the other
thru the attic). And with those outside currents and leakage, well...

Now don't get me wrong. This system works great, and I've worked plenty of
DX with it. And that doesn't mean that your neighbor has these problems: This
example is the exception, not the rule. And it only affects my house as well,
primarily.
One tip with the capacitors, not mentioned before: Make sure they can
withstand at least around 60-70 volts on the phone line. Each time the phone
rings, it will send that kind of voltage through the line, and you will blow
the cap if it is less than this value. The same goes for power lines, should

you choose to ever put some across: Make sure they are rated for at least 200 volts! While the wiring says 120, the peak voltage on it many times is ~185 volts. A good alternative (IMHO) if you want to get fancy, is to install some heavy duty (the bigger, the better) MOV's in that power line. You'll get capacitor workings (look at them, they look like a disk ceramic cap, and have about the same capacity, too) AND SURGE SUPRESSION! I'm not sure if you can get them for phone lines. Rat Shack has MOV's for 120 volt power lines. Well, better get off the soap box for now. 73's, Mike, N7MSD

975. New-car QRM - radio fights back!

Newsgroup: rec.ham-radio
Date: 1990-02-13 11:18:21 UTC
From: PJML@IBMA.NERC-WALLINGFORD.AC.UK
Message-ID: <13.Feb.90.11
Source record: 13569

New-car QRM is a reciprocal problem. I can stall the engine of my father's Volvo by keying up a 60-watt 2meter FM transmitter in my car parked next to his. The engine management ECU is clearly vulnerable to RF.
I can show this by keying a handheld next to the ECU. The engine stalls. When on the move, keying a transmitter causes the engine to hesitate. The local dealer professed complete ignorance of any problems, and was surprised when we demonstrated it. He has written to the makers (in Sweden) for advice on curing it. There are also bursts of horrible S9++ noise (carrier modulated with a raspy, fluctuating tone) every 120KHz or so across the 2meter band.

///Pete

976. (none)

Newsgroup: rec.ham-radio
Date: 1990-02-13 14:14:00 UTC
From: debbasch%sophia.decnet@CONSRT.ROK.COM
Message-ID: <9002170413.AA15200@ucbvax.Berkeley.EDU>
Source record: 13479

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SUBSCRIBE INFO-HAMS Bernard O. DEBBASCH FE6FVB
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977. Re: ICOM 24-AT vs Joe HT

Newsgroup: rec.ham-radio
Date: 1990-02-13 14:18:54 UTC
From: young@pur-ee.UUCP
Message-ID: <14477@pur-ee.UUCP>
Source record: 13507
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I recently had (?) to go throught this same decision-making process.
Naturally, I posted a plea to net.ham-radio.wisdom for pointers,
recommendations, and advice on the matter. I was not disappointed. I had also
promised to summarize the replies I got, for the benefit of readers like
yourself. I still intend to do so, Real Soon Now.

I can note here that I finally opted for the FT-470, and so far I
haven't been disappointed. I'll explain more fully when I get around to the
summary posting. Until then, my hearty thanks and 73s to those who responded!

Mike Young KA9HZE
Purdue University EE Dept.
young@ecn.purdue.edu
...!pur-ee!young

978. Re: There's plenty of time for radios after college

Newsgroup: rec.ham-radio
Date: 1990-02-13 14:40:51 UTC
From: ebrill@bronze.ucs.indiana.edu
Message-ID: <35664@iuvax.cs.indiana.edu>
Source record: 13506

In article <9002121259.AA05049@bunny.gte.com> pescatore_jt%ncsd.dnet@GTE.COM writes:
>> I was licensed at the age of 12, and was very active on cw as a teenager,
>> reaching a code proficiency level of 40 wpm. At 18, I went away to
> ^^^^^^^^^^^^^^^
>> college and, like many others, gave up ham radio completely. About 10
> ^^^^^^^^^^^ ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

><Colleges and Universities have ham radio clubs. If yours does not, then
><start one. Just because dorm rooms don't offer much chance to operate does
><NOT mean its time to just give up on ham radio. Use a club station.
>
>Any real college guys out there? What's it like now? Unless the beer is
>always warm now and the women ugly (TBWCS), I would say radio should still
>come in third. 73 John WB2EKK @N4QQ PESCATORE_JT%NCSD@GTE.COM

Well, we have both camps here at IU. I am currently the President of the
Indiana U Amateur Radio Club. Simply put, our members don't have the time
or motivation (myself at the top of this list) to get over to the station
and turn everything on just to talk to people. Sure, when there's good DX
you'll find a few people over there, but most of us are just plain too
busy with other things (some study, some chasing women, some sleep) to commit
a lot of time to K9IU.

73,
Ed Brill -- University Computing Services | SysOp, The IU PC-Link Central BBS
Indiana University, Bloomington, IN 47405 | (812) 855-7252 -- 3/12/24/96/14.4
INTERNET: ebrill@subcomm.ucs.indiana.edu | KA9TAW @ K9IU [ham radio packet]
"You mean BITNET isn't the only network we have to access the outside world?"

979. azden pcs-6000

Newsgroup: rec.ham-radio
Date: 1990-02-13 15:11:24 UTC
From: slightbo@infocenter.UUCP
Message-ID: <125736@infocenter.UUCP>
Source record: 13481

I am considering the purchase of the azden pcs-6000 2meter tranceiver.
Primarily because of its vhf coverage. Especially the aircraft band.
Has anyone out there had any experience with this model, i.e. likes
dislikes etc. I'll post any responses if I get them.

Sam Lightbourne ki4jj

Phone (305) 587-2900
CIS 73437,2630
UUCP: uunet!gould!infocenter!slightbourne
INTERNET: encore.com!gould!slightbourne

980. Re: INFO-HAMS Digest V90 #172

Newsgroup: rec.ham-radio
Date: 1990-02-13 15:14:00 UTC
From: IWNQ500@INDYVAX.IUPUI.EDU
Message-ID: <DC2D835A5FBF0020B8@INDYVAX.IUPUI.EDU>
Source record: 13482

Concerning the No-code/code forever debate let me toss in my opinion:
1- Code keeps the riff-raff out like a wet paper towel.
2- Look at the freq. 14.313,3.913,3.898,and other spots on the SSB dial.
Here we have the 145.25 which is inhabited by CBers,drunks,idiots,lids and
bootleggers. There are a *few* hams there (unless you include the control
op then theres several hams there) so Code is not a filter but a barrier
to those who don't care about the HF bands. I like code and would like it
to stay around but I don't like it to be a requirement. Frankly, I wouldn't
want to be tested on Packet or SSB if I wanted to work FM or CW. So
Why test for Code? Test for tech is a must since we *can* work on
our own stuff. (CBers can't if I'm not mitasken) Let no-code become
a reality and Let's get back into tech!

73 DE N9IIT
Mike Jezierski
BitNet: IWNQ500@INDYVAX
Internet: IWNQ500@indyvax.iupui.edu

981. Re: Common Pro-Code Arguments Debun

Newsgroup: rec.ham-radio
Date: 1990-02-13 15:16:00 UTC
From: stevedak@cpe.UUCP
Message-ID: <37400007@cpe>
Source record: 13483

> A No-Code license just lowers the requirements for a license.
> Since some proposals for a new license class increase the level of the
> written exam beyond that of the Technician, and grants fewer privileges
> than the Technician has, the argument is clearly false.

This is only true to the extent that such proposals are actually implemented.
I did not get much of a sense that this will happen from reading the FCC
proposal. I have no objection to code free. However, if technical competence
is the objective, it should examined for honestly.

> 5 WPM is not a barrier for anyone seriously interested in ham radio.
> Neither is a written exam on the technical characteristics of packet
> radio, but we would not expect to force everyone to learn these things
> even though most hams could if they just put their mind to it.

Are you arguing for a theory free class of license? Perhaps we should have
exams that are only rules and regs and CW. The idea is not without merit if
it could serve some useful end such as getting more people involved in public
service.

>-Phil Howard, KA9WGN--

Steve Dakin WQ5N

982. College ARC's

Newsgroup: rec.ham-radio
Date: 1990-02-13 15:18:28 UTC
From: Joel_Glickman@MTS.RPI.EDU
Message-ID: <1676550@MTS.RPI.EDU>
Source record: 13484

WB2EKK writes:
>Any real college guys out there? What's it like now? Unless the beer is
>always warm now and the women ugly (TBWCS), I would say radio should still
>come in third. 73 John WB2EKK @N4QQ PESCATORE_JT%NCSD@GTE.COM

College clubs are still alive and well!

I am a former president of W2SZ (The RPI (Rensselaer) ARC) and am happy
to report that our club is doing very well right now. I have seen interest
waver over the past three years, but right now, we have a great group of
students, alumni, and community members involved in the club.

There's certainly time enough for radio in college, if you make the time.
Our club is pretty active in many facets of the hobby and we find that
amateur radio is a great avenue for tinkering, experimenting, and relaxing.
Yeah, the ugly girls and the beer are still around, but amateur radio still
has its place among college hams. We find enough time to study, put up
antennas, fix radios, operate VHF/UHF contests, and still gawk at ugly
girls and drink beer.

Sure there are still a bunch of hams on campus that don't get involved,
although I can never understand why, but there are enough of us active to
keep the club going strong. By the way, some of the oldest ARC's are collge
ARC's. For example, W2SZ (previously just 2SZ) has been around since about
1921!! Paging through some of the old logs revealed such breakthroughs as
the club's first 28 Mhz contact.. Neat.. And that was when *everything* was
homebrew.

-Joel Glickman
Rensselaer Polytechnic Institute ARC

983. List of Ham Manufacturers

Newsgroup: rec.ham-radio
Date: 1990-02-13 15:41:55 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9002131550.AA00363@ti.com>
Source record: 13485

****** LISTING OF HAM GEAR MANUFACTURERS ADDRESSES AND PHONE NUMBERS *********

1. The following is provided as an information resource only and is not
intended as an advertisement, endorsement, or recommendation regarding
the manufacturers, products, or services. (am I covered?)

2. This is a volunteer list, i.e., nobody got paid to compile it. Remember
that you get what you pay for (or at least, you pay for what you get!)
Although an effort is made to keep this list as accurate as possible,
no guarantees are made as to its content.

Please submit corrections and additions to RLWEST@FLOPN2.CSC.TI.COM

3. Thanks to KC5NG and WD5N for the original list.

--Good luck, de Bob WA8YCD

---

1. YAESU U.S.A. SERVICE DEPT. (213) 404-4884
17210 EDWARDS RD SERVICE TURN-AROUND RUNS 8-10 WEEKS.
CERRITOS, CA 90701 LITERATURE (800) 999-2070
(213) 404-2700 CHIP MARGELLI, V.P. CUSTOMER SERVICE
PARTS DEPT. (800) 633-4455 LABOR RATE (GET THIS) IS $50.00 PER HOUR. **

1A. FOX TANGO PARTS 747 S.MACEDO BLVD, PORT ST.LUCIE, FL 34983
(COMPANYS NEW OWNERS IRCI) (407) 879-6868 FAX # (407) 878-8856

2. ICOM AMERICA, INC. PARTS: BELLEVUE, WA (206) 454-8155
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FAX (213) 618-8758
13. AMERITRON Service (419) 531-3024
14. AZDEN Customer Service (404) 769-8706
Repair (2-4pm only) (404) 769-8706
FAX (7pm - 10am) (404) 769-7970
15. B & W Customer Service (215) 788-5581
16. BUTTERNUT Svc/parts/tech info (512) 398-7117
17. CUSHCRAFT Svc/parts/tech info (603) 627-7879
18. ETO Customer Service (719) 260-1191
FAX (719) 260-0395
19. HY-GAIN Rotor Parts (402) 465-7021
Antenna/tower parts (402) 465-7022
Technical assistance (800) 328-3771
20. JRC Customer Service (212) 355-1180
21. TELREX Customer Service (201) 775-7252
22. TEN-TEC Service/parts (615) 453-7172

Items 11 thru 22 above are third-hand from computer BBS, so can't vouch
for accuracy. DE WD5N

984. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-13 16:35:26 UTC
From: beams@norvax.UUCP
Message-ID: <485@norvax.UUCP>
Source record: 13486

> start one. Just because dorm rooms don't offer much chance to operate does
> NOT mean its time to just give up on ham radio. Use a club station.
>
> --Phil Howard, KA9WGN--
> <phil@ux1.cso.uiuc.edu>

Phil, it's true that dorm rooms don't offer much opportunity to indulge amateur radio, but it can be done. In 1972, I lived in Garner Hall on the University of Illinois campus (you ought to recognize the dorm to which I'm referring). I was then WA9SQY, and my friend Gary (now NJ9Z, formerly WB9H??) lived down the hall from me. He and I were both on the top (4th) floor, but his room faced the outside of the (metal-sided) building, while mine faced the courtyard. We both had our rigs on campus--mine a Heath HW-100, his a Drake R4/T4 combo--and we hung a 40/15-meter dipole from his window and tied the ends to some trees conveniently placed on the north side of the building. We then ran a length of RG-58U out through the ventilation slots in the transom above his doorway and suspended it from the ceiling tiles in the hallway; it entered above my door. We also wired a couple of junk-box relays in a bistable configuration and connected the relays to the auxiliary switch contacts of our rigs. If Gary would power up his rig while the antenna was unused, it would connect to his equipment and would prevent me from taking the antenna. Conversely, if I were to power up my rig, the antenna would connect to my equipment if it were not already in use; Gary would be prevented from taking the antenna until I relinquished it. Given that I was in engineering and he was majoring in art and thus had much different homework habits, there was never any instance of us having an antenna contention problem. Looking over the old logs, I see that I worked Argentina and Germany on 15CW from there; CW had the advantage of producing less trouble with the ubiquitous dorm stereo systems than SSB, though I do see some SSB contacts logged.

The best part of the story, though, was the response of the dorm maintenance personnel; they asked, with a great deal of suspicion, "what is that black wire for?" And I told them that it was for "High-power, high-frequency ionospheric electromagnetic-wave propagation phenomena research," and, dropping my voice to a confidential whisper, "there's enough power in that cable to burn your fingers if you try to cut it." They left it strictly alone, and Gary and I were left in peace to pound brass from our rooms.

By the way, Gary and I had heard nothing from each other since graduation until two years ago, when he called me out of the blue. Turns out we were within repeater range of each other! We've been keeping skeds since, and one of our first shared memories was the story of the dipole hung from his dorm window.

73, Dave KK9Y ('74, MS '77)

--
UUCP: ...seismo!uwvax!astroatc!norvax!beams
US Mail: David Beams / Norland Corporation / Fort Atkinson, WI 53538-8999
Registered Professional Thaumaturgist -- Hours by Appointment Only

985. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-13 16:36:20 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <3765@kd4nc.UUCP>
Source record: 13520

In article <9002121718.AA09174@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>Matt Bartley asked about how you could recognize code tapped out with rocks
>or pipes.
>The old telegraph code (I forgot its name) used spacing. I gather therefore
>that an SOS would be sent with 3 quick taps, a long space, three taps with a
>slightly longer space between taps than between the "S" taps, a long space, and
>three quick taps. An even longer space would separate the individual "SOS"
>groups.

The "old telegraph code" is called Morse Code. Hardly anyone uses it any
more. Nowadays, amateur radio operators use a code called "International
Morse Code". The two codes are quite different. For example the letter C
in International Morse is '_._.' while in Morse Code it is '.. .'. Yes
spaces INSIDE letters. The FCC allows Morse Code to be used by Amateur
Radio Operators, but only for domestic contacts. Seems odd that so many
people on this net are so vocal in wanting to retain a requirement for
a code that is restricted to domestic contacts.

73 Gary KE4ZV

986. CALL FOR VOTE: rec.radio.noncomm

Newsgroup: rec.ham-radio
Date: 1990-02-13 16:45:52 UTC
From: dsrekrg%prism@gatech.edu
Message-ID: <5942@hydra.gatech.EDU>
Source record: 13487
Cross-posted to: news.announce.newgroups,news.groups,rec.music.misc,rec.arts.misc,rec.radio.shortwave,rec.ham-radio

```
This is the CALL FOR VOTES for the creation of a new newsgroup
to provide a forum for the discussion of noncommercial radio
among broadcasters and listeners.

Vote by replying to this article. Votes must be clearly stated
as for or against rec.radio.noncomm as described in this article.

Votes will be accepted until March 13, 1990.

NAME: rec.radio.noncomm
CHARTER: unmoderated discussion of noncommercial radio.
Some topics to discuss are:
- listener opinion
- noncommercial AM/FM radio of the college, community, and NPR variety
- carrier current and cable based radio
- do trade journals manipulate or aid?
- upcoming conventions such as the Nat'l Assoc. of Broadcasters/BEA
meeting in Atlanta and the Intercollegiate Broadcasters Society in NY
- the newly released "Public Radio in the 1990s" report by The Public
Radio Expansion Task Force
- the FCC and its regulations
- obtaining and managing non-commercial grants
- programming sources

Rob Gibson, General Manager, WREK 91.1 MHz
Georgia Tech, Atlanta Georgia, 30332 404/894-2468
uucp: ...!{allegra,amd,hplabs,seismo,ut-ngp}!gatech!prism!dsrekrg
ARPA: dsrekrg@prism.gatech.edu
```

987. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-13 16:53:22 UTC
From: sde@larry.sal.wisc.edu
Message-ID: <834@larry.sal.wisc.edu>
Source record: 13508

First, a word about power line bypass capacitors. 200 V capacitors are NOT adequate, and failure could be a safety hazard, since most audio equipment is not grounded. (Large transients appear on all power lines.) For 120 V lines, capacitors rated 1.4 kV are usually used. Even the standard 1 kV capacitors are marginal.

For the ham who lives in an urban area, audio interference can be a real challenge. Many neighbors may be affected, and few will understand that it is not the amateur's fault. Even though the problem can always be fixed at the receiveing end, it can involve quite a lot of work. In addition, some of the remedies can adversely affect the performance of the audio equipment. An amateur, no matter how friendly and well-intentioned, cannot be expected to perform the necessary modifications to a dozen or more neighbors' equipment. In addition, some of those neighbors may not be too receptive to the idea of someone messing around with their expensive stereo systems. Obviously, the ultimate solution is to require that all electronic equipment be properly shielded and filtered. This is not likely, however, since it would increase the cost of all such equipment, and benefit only an insignificant proportion of consumers. We amateurs ourselves, unfortunately, are part of that insignificant proportion.

I'd be interested in hearing about the approaches taken by other hams in dealing with the problem.

Scott Ellington, K9MA sde@larry.sal.wisc.edu

988. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-13 18:24:05 UTC
From: chartnes@bbn.com
Message-ID: <52163@bbn.COM>
Source record: 13510

Hi

Just a quick note of trivia. I have a friend who was shot down
in VIET NAM. While in a P.O.W. camp he communicated with other pow's
using Morse on the walls between the cells. They used sticks or other
objects to tap out the dots and would drag the stick across the wall
to form the dashes. He said that this was his only contact while a
POW and it kept him from going crazy.

This method could be used by your earthquake victims mentioned
in the previous message.

Hope that this was of some interest to you.

TGOB
CLARK HARTNESS, WD5GDA

ps. Code is a barrier only to the Handicapped and those who think they are!!!

My opinion is mine and no one elses.

989. Re: There's plenty of time for radios a

Newsgroup: rec.ham-radio
Date: 1990-02-13 18:30:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500406@ux1.cso.uiuc.edu>
Source record: 13525

Well, if you helped encourage more interest in the ham radio group, then you could ALSO socialize with the ham radio group.

Get women into ham radio, and you guys can chase them there, although chasing them by radio might be construed as "business" :-) We definitely need more YL's in the fold.

Once hams on campus are socializing, you even meet together in various public drinking establishments and guzzle some of the brew with the other hams.

You don't have to be in the station and operating every minute of being part of the ham radio group. Just socializing with the others is enough, as long as there are enough of them (and you are one of "them" to the others, so be there, and what about the YL's chasing the guys?).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

990. Re: Kenwood 731a mods

Newsgroup: rec.ham-radio
Date: 1990-02-13 18:35:13 UTC
From: ewb@raybed2.UUCP
Message-ID: <1464@raybed2.UUCP>
Source record: 13488

In article <4589@mmsac.UUCP>, jim@mmsac.UUCP (Jim Lips Earl) writes:
> I bought a 731 yesterday, and performed the mod that involves moving
> one resistor and clipping another for out-of-band operation. Well,
> removing the one chip resistor does enable the cross-band repeater
> function, and that works like a champ, and clipping the other resistor
> does enable out-of-band reception, but it still doesn't allow
> out-of-band transmission. I have a business repeater on 461 that I'd
^^^^^^^^^^^^^^^^^^^^^^^^

Just a quick reminder, operation of this type is illegal. An FCC
TYPE ACCEPTED radio is necessary for operation there. You are
endangering your commercial and amateur licenses. As I remember
all the FCC has to do is prove that the equipment on hand can be
operated out of band and they have a case. I could be wrong here.
If I am I am sure someone will correct me.

I have a TM-631 that can be modified for TX out of band. I choose
not to mod it to do so because I an sure some day my fat fingers
will hit the "band" switch on the mike, and switch 154.325 (local fire freq)
into the main band JUST as I give my call sign. OOPS ! As a matter as fact I
already have done it but the radio just gives me a boop and does not TX there.

Give it a lot of thought before using ham gear in the business band!
The FCC is not stupid (contrary to popular belief) and will only
take so much abuse before they start a crack down on manufacturers
and operators.

> Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
> KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
> The opinions stated herein are all mine.

Gene WA1UXA

991. Re: Voice Mail Box For Repeaters ?

Newsgroup: rec.ham-radio
Date: 1990-02-13 18:39:04 UTC
From: cb@cci632.UUCP
Message-ID: <34043@cci632.UUCP>
Source record: 13511

There are also some other PC based boards available. The Watson Board
from Natural microsystems is one (I actually bought one at a ham-fest).
This one has a 1200 (other configs have 2400 etc) modem, touch tone
decode and voice record playback capaility. You got the memory/disk space
it uses it. I think they're priced at the $199.00 to start. Software
is included including drivers for different programming languages. This
woul make on great repeater controller with expandability, another
radio another board...

Dialogic Corp also make PC based boards. I have one of they're old ones.
It doesnot have a phone interface, but a speaker/mike interface. I don't
have a line on thier newer stuff, but it works basically the same as the
above mentioned board.

There is also GW instruements which has MAC based stuff (but it's more $).
\
Hope this is useful info....

--

email: cb@cci632 or !rochester!kodak!n2hkd!curtis
Curtis Braun, N2HKD, Computronics, PO Box 1002 Fairport NY, 14450

992. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-02-13 18:40:15 UTC
From: cb@cci632.UUCP
Message-ID: <34044@cci632.UUCP>
Source record: 13512

For those of you who have never seen a "halo" on top of a building
with lighting rods during an electrical storm, there is a thing
called ground shift.
There was a building that belonged to one of the Bell operating
companies that was built with lightning rods on the building. However
the land it was built on was not taken into account (it's make up).
From my understanding (given to me by the expert consultant we hired)
the ground was nonhomgenous (electrically due to a difference in earth
compounds) which in turn created a non uniform ground pottential.
In short the ground rod in the northwest corner of the building was
NOT at the same ground potential as the grounding rod at the southeast
corner of the building. Normally this was not a problem, however the
the lighting rod installation included a binding (at the roof) of all
the lighting rods by a braided cable. Now if I only kept a copy of the
pictures we had of the lighting "halo" that ocurred.

This kind of makes me wonder wether a single "earth" ground with
all my wires going to it is better than multiple "earth" grounds
with some of my wires going to it (but not shared)?
--

email: cb@cci632 or !rochester!kodak!n2hkd!curtis
Curtis Braun, N2HKD, Computronics, PO Box 1002 Fairport NY, 14450

993. Re: Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-02-13 18:59:02 UTC
From: TROTH@RICEVM1.RICE.EDU
Message-ID: <9002170927.AA02146@ucbvax.Berkeley.EDU>
Source record: 13489

>+There is no "devil" in code.
>+...
>
> Oh yes there is! The very idea that someone "needs" 20 WPM skills in CW to
>be granted an EXTRA is old-age thinking.
>...

This debate is stupid. It's religious. Neither side will listen to the
other's sensible reasons. Why do we have to put up with it annually?

Erik, you have a lot of good reasons for supporting your "no code" view.
So why resort to calling CW "old". Sure it's old, but you have plenty
more logical reasons for doing away with it than that.

"Campers, for your own safety, please DO NOT feed the bears."
Rick Troth <TROTH@RICEVM1.RICE.EDU> ------------ Rice ONCS VM Systems Support

994. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-13 19:27:17 UTC
From: rlong@phonon.eng.ohio-state.edu
Message-ID: <4219@quanta.eng.ohio-state.edu>
Source record: 13509

I have had fundamental overload problems with my neighbors TV
and my own for years. We (he is understanding) have tried many
things. He even bought a new TV (Sony) thinking it would cure
it but it did not!

So - finally a solution. An ad in one of the ham magazines caught
my eye. It is TCE Labs 5818 Sun Ridge San Antonio, TX 78247.
Phone 1-800-KILL-TVI. Ask for the BX cable TV filter for $24.95
including shipping. It is a high pass filter which also apparently
breaks up currents on the coax. Again I have tried other solutions
which were supposed to do this (like two 75-300 ohm baluns back to
back) but they did not work for me. This TCE unit absolutely
eliminated the interference. They will ship before they receive
payment and promise your money back if it doesn't work.

I have absolutely no connection with this company but after my
years of trouble I thought you all would like to know.

73 de Ron W8GUS.

-=-
Ronald K. Long, Ph.D.
Ohio State Univ EE Dept., 2015 Neil Ave., Columbus, OH 43210
rlong@phonon.eng.ohio-state.edu

995. Re: There's plenty of time for radios after college

Newsgroup: rec.ham-radio
Date: 1990-02-13 20:29:09 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Feb13.202909.6485@Neon.Stanford.EDU>
Source record: 13514

In article <9002121259.AA05049@bunny.gte.com> pescatore_jt%ncsd.dnet@GTE.COM writes:

>I was a radio nerd in high school and I've been a radio nerd since college,
>but when I was in college, I drank beer, chased women, and drank beer.

Odd. At W9ODD, we drank beer, ran contests, drank beer...

At W6YX, we drink beer, run pileups, drink beer...

I'm not too sure why, but one of the chief components of every college ham
station I've ever been in has been a well - stocked fridge...

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

996. College & Ham Radio

Newsgroup: rec.ham-radio
Date: 1990-02-13 21:09:00 UTC
From: BETZ-A@osu-20.ircc.ohio-state.edu
Message-ID: <12566103654041@osu-20.ircc.ohio-state.edu>
Source record: 13515

I sure can relate to 'no time now for radios.' The schedule I am running in school precludes getting up to the Ohio State ARC (station W8LT) more than once a week. And this is usually the day we have club meetings! I tend to make up for it by operating a lot during the summer, though. As for chasing women: I've been married for 3.5 years.

Ham plates in Ohio cost an extra $5.00 a year. Its really a cheap vanity plate. I have one and like it.

Drew WJ8K

997. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-13 21:11:55 UTC
From: kchen@Apple.COM
Message-ID: <38604@apple.Apple.COM>
Source record: 13516

dube@cpdvax.csc.ti.com (DUBE TODD) writes:

>The old telegraph code (I forgot its name) used spacing. I gather therefore
>that an SOS would be sent with 3 quick taps, a long space, three taps with a
>slightly longer space between taps than between the "S" taps, a long space,
>andthree quick taps. An even longer space would separate the individual
>"SOS" groups.

re: dashless morse:

Is there some OT railroader on the net who can give us the real poop on
how it was really done? I had the impression that the morse "sounders"
actually created TWO clicks for each dash or dot. Another folklore I have
heard had the downwards click sounding different from the upwards click.
So that it is more like a "click-clack" for a dot and a "click.....clack"
for a dash. None of the 800 c/s tone the wimpy youngsters use. :-)

re: Communicator class license:

I am another one who supports opening up the CW portions of the HF bands to
the "Communicator" class licensees. Certainly, no riff-raff would be demented
enough to pound brass when s/he could be shouting into a microphone, now,
would they?? As for excluding bad fists, they don't even test you on
sending CW anymore for any of the Amateur license tests given by the VECs.

This would allow the newly admitted members of the Amateur community to
experiment with HF propagation and the like. Surely, lack of CW proficiency
is no indication of lack of ingenuity, is it? You don't *have* to answer
their CQs if they send at 2 WPM, afterall. No, this is not a case of sour
grapes, either; I have authorization to sign /AE. So, even a person who has
worked his tail off *recently* to get his CW speed up is capable of welcoming
people who have no incentive to learn yet another coding scheme.

Kok Chen kchen@apple.COM, kk6dp
Apple Computer, Inc.

998. Alternative proposal on No-Code

Newsgroup: rec.ham-radio
Date: 1990-02-13 21:55:50 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <9920@ttidca.TTI.COM>
Source record: 13490

(as a preface:)
In article <30500400@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
+ (in response to this)
+> If you have a Communicator license and then pass a 5wpm test, you'll get
+> the same privileged now accorded to Techs, but without being issued a
+> Tech license. (Which, according to the proposal, would no longer be
+> issued.) Instead, you'll use a special suffix with your Comm callsign.
+
+That's a really bad idea. They should just issue it as a class endorsement
+and leave it at that.
+
+--Phil Howard, KA9WGN--
+<phil@ux1.cso.uiuc.edu>

Yes, it's a horrible idea. So here's a (IMHO) better alternative:

Communicator Class - 10 meters and up, 200PEP and all that jazz.
No CW only a 60 question technical theory and
Radio Law exam. Callsigns to be new Group E!
This will settle the issue of who's-who!(Format== WC6XXXX; XXXX==ABCD, etc.)

[Novice ops to be grandfathered all privs of Communicator plus their
CW on the lower-HF bands with no limit on renewals. Upgrades to General
require a 70% passing score on Element 3a & 3b.

Tech ops that passed the full Element 3, or Ele 3a &3b are grandfathered
General Class status.]

General Class - Element 1b (13 WPM cw) will no longer be required. Only the
5 WPM test of Element 1a. will apply.

Advanced Class - NO CHANGES.

Extra Class - Element 1c (20 WPM cw) will no longer be required. Only the
5 WPM test of Element 1a. will apply.

There, now we have only 4 different licenses, all beyond Communicator must
satisify the ITU agreement with 5 WPM, and the only people who are gonna
scream bloody murder are those that have already passed the 13 or 20 WPM
code tests! To these folks I would ask the following:

1) Have you delved into RTTY? SSTV? ATV? AMTOR? ASCII? PACKET? OR OSCAR?
- well I have! A lousy TECH! I've done every mode but DSP and SS and
those are next on my list. (Are you as involved?="?")

2) Are you a member of ARRL? AMRAD? AMSAT? A local ARC? A net?
- I'm into all of the above ("?")

3) Have you built an HF linear? a TNC? your own computers? A rig? an antenna tuner or beam antenna? An audio processor unit? A vox for an oldtime tube rig that didn't have one? A DDS that works with common 5-7MHz VFO rigs?
- I've done these things, and enjoyed the thrill of homebrewing no-end! ("?")

4) Have you ever done any serious repair work on any modern (post 1970) gear? Changed an IC? Any surface mount components? Found a bad EEROM-EPROM-ROM? Fixed an HT? Changed out a ROM version of a micro for an EPROM version and then written your own code for new features? ("?")

5) Ever taught a Novice class? Elmered A n y o n e?? E V E R ??
-I can claim 12 exellent additions to our ranks, 5 of whom are now Techs and struggling with the 13wpm...4 of these have already passed Element 4a! ("?")

S C O R I N G:

A) If you answered no to any one of these 5 questions, don't bother talking to me about the "need" for CW skills beyond 5 wpm, it's just bullshit and you'd only make yourself look like an ass. Amateur Radio is about technology and the Art of Radio Science. Which has about as much to do with "blazing-brass" as being able to play drums..yeah, they're both communications skills but neither has much to offer you when you need your rig fixed!

B) If you can honestly claim to have answered yes to all 5..and you insist that 13 WPM cw skills will make me a better Amateur..you'd better be able to quantify that in 200 words or less so that we can all understand it and agree on it. You'll earn the respect of everyone in the Amateur Service and I'll buy you a drink of choice and toast to your wisdom and long life!

C) If you answered no to 3 or more of the above you are a LID and should be calling 976 numbers instead of wasting 3-5KHz of 75 meters to complain about your latest aches and pains! ;-)

Think about it...'73!
--
-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **

999. college ham club activity (a PR thing to get funding)

Newsgroup: rec.ham-radio
Date: 1990-02-13 22:01:28 UTC
From: rfc@briar.philips.com
Message-ID: <80797@philabs.Philips.Com>
Source record: 13491

Something we used to do (maybe they still do) at Syracuse Univ ham club station was to offer to send Valentine's Day greetings via ham radio traffic. We set up a table and staffed it with some reasonably normal looking people :-) and took down messages and addresses.
This gets remembered at the time for getting funds for new equipment, etc, from the student activity council, student government, or whatever it's called.
I realize that it's too late this year, should have posted this earlier! hope this helps next year. 73 de WA2ISE

1000. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-02-13 22:23:33 UTC
From: sde@larry.sal.wisc.edu
Message-ID: <835@larry.sal.wisc.edu>
Source record: 13517

A single ground is best, assuming it has low enough resistance. I doubt the halo was due to the multiple grounds. The difference in potential between different ground rods is small, except during a lightning strike. If, for example, your antenna were grounded to one ground rod, and your transmitter to another, a lightning strike could cause a very large current to flow through the feedline and transmitter. Even a nearby strike might cause enough difference in potential between the two ground points to cause a hazardous situation.

Scott Ellington, K9MA sde@larry.sal.wisc.edu

1001. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-13 22:28:35 UTC
From: jws@hpfcso.HP.COM
Message-ID: <7500014@hpfcso.HP.COM>
Source record: 13379

The policy for ham call plates varies by state. Here in Colorado, we pay $2.00 over the usual license fees for amateur call plates, which is much less than the "vanity" plate charge.

John Schmidt, NK0R

1002. Hurray for no-code

Newsgroup: rec.ham-radio
Date: 1990-02-13 22:31:38 UTC
From: byrnes@sunwhere1.DAB.GE.COM
Message-ID: <3502@ge-dab.GE.COM>
Source record: 13513

In article <9034@portia.Stanford.EDU> mdbomber@portia.Stanford.EDU (Matt Bartley) writes:
>
>I had a question about the talk of how code can be useful in cases of
>being buried in an earthquake, etc., by tapping messages with rocks or
>pipes.
>
>But what I wonder is, how can you recognize this? Dots and dashes would
>sound the same. Or at least, you couldn't really tell a dash from a dot
>and a space. How do you this?
>--
> Matt Bartley
>
> Kirk: "Spock! Where's that power you promised?"
> Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

The reason I included even his .signature in my reply will follow...

Matt, as a Star Trek fan, think about the scene in ST V (the newest movie).

Kirk, Spock, and McCoy, are locked in the "brig". Scotty, "Taps" them
instructions in morse, that are perfectly readable.

This code is sent much less than 5 words per minute. So it proves that
13 wpm and above is not necessary. :-) SMILEY

Seriously, though it is time that the CW folks realize that CW is no longer
necessary for operations unless it is CW operations. The international
regulations don't require 13 wpm or above. CW proficiency has no bearing on
voice, packet, atv, fax, rtty, etc...

KA4WDK

--
Arthur J. Byrnes
Facts is facts, even if you don't like them......
Disclaimer; These views are those only of the author, Arthur.

1003. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-13 22:34:07 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500015@hpfcso.HP.COM>
Source record: 13521

Re: Ham license plates

Why? So hams can recognize each other. Or so you can brag. Or so
civil authorities have a chance at identifying supplemental assisting
vehicles in emergencies.

Or so you know who to beep 'HI' to on the horn. (Which will cause the
no-code folks to wave the finger at you for the misinterpreted insult.)

In high crime areas, call-plates invite theft of your radio.

It is also a recognition by some state legislators in some states that
hams help in emergencies and therefore deserve a little token recognition.

I have 'em on my jeep.

Ron Miller
NW0U

1004. Re: no-voice license

Newsgroup: rec.ham-radio
Date: 1990-02-13 23:01:46 UTC
From: byrnes@sunwhere1.DAB.GE.COM
Message-ID: <3503@ge-dab.GE.COM>
Source record: 13519

In article <24466@ut-emx.UUCP> oo7@ut-emx.UUCP (Q. Burpington-Smythe) writes:
>
>(Several good paragraphs on a no-voice license)

>Derek Wills (AA5BT, G3NMX)

This is a great proposal, let's let the of's who want CW get their own
license class and get them out of packet, voice, atv, amtor, rtty etc..

of= old fart (Can't call them an old man, that would be sexist. Besides,
most of them just want to keep people out, "Because I had to
learn CW, they should too." Sounds like an old fart to me.)

Oh, yea Derek, Q signals are CW abbrevations and should not be used during
voice communications, but those of's have bad memories.

(Asbestos suit on...)

KA4WDK

--
Arthur J. Byrnes
Facts is facts, even if you don't like them......
Disclaimer; These views are those only of the author, Arthur.

1005. College ARC's

Newsgroup: rec.ham-radio
Date: 1990-02-13 23:10:42 UTC
From: akers@CORONA.ITD.MSSTATE.EDU
Message-ID: <9002132310.AA25766@Corona.ITD.MsState.Edu>
Source record: 13492

The club station at Mississippi State University, W5YD, is alive and well! It does suffer from the same problem as the other college clubs... almost all the members are engineering students and it tough to fit it in the schedule. However it has just started a novice program that had 29 people sign-up.

I've had some great times at the station... without even turning on the radios.

Also have done lots of DX, talked to my grandfather, father and brother (all hams scattered over the south), worked contests and just generally had a blast.

I'm out of college now (Thank God!!!) but still go to meetings and try to help out. It has been worth it.

+-------------------------------------+----------------------------------+
\| Phillip Akers | (601)325-2240 |
\| Work: akers@.itd.msstate.edu | Packet: WA4DDE@W5VZF (39759) |
\| Play: cup.portal.com!pakers@sun.com | IP address: 44.42.0.117 (WA4DDE-8)|
\+-------------------------------------+----------------------------------+
\

1006. Phone line voltages.

Newsgroup: rec.ham-radio
Date: 1990-02-13 23:13:00 UTC
From: bob%50781.decnet@JALCF.WPAFB.AF.MIL
Message-ID: <9002170429.AA16140@ucbvax.Berkeley.EDU>
Source record: 13493

I think the maximum voltage on a phone line ringer is 115. The farther you are (topographically) from the local hub, the less the voltage. I believe the dial tone runs at 40v. Therefore, capacitor breakdowns should be based on the 115 volts. Or, put a VOM across you phone lines and have your neighbor call! You'll read RMS too.

Bob, N5GNA

P.S. I test airplanes, not phones.

1007. Re: Geo-stationary orbit elements

Newsgroup: rec.ham-radio
Date: 1990-02-13 23:36:03 UTC
From: fpa@qualcom.qualcomm.com
Message-ID: <1302@qualcom.qualcomm.com>
Source record: 13380

In article <9002130812.AA20331@ucbvax.Berkeley.EDU> MROWEN@STLAWU.BITNET (Mike Owen W9IP) writes:
>I would like to test a satellite-tracking program
>on a geo-stationary (or is it geo-synchronous?) orbital

>already included in Kelso's weekly data postings,
>you could just tell me the name of the satlllite so I'll

There are LOTS of geosynch satellites in Kelso's recent postings.
Examples include GOES 2,3,4,5,6, TDRS 1,2,3, Gorizont 19, Raduga 24,
1989-101A, JCSAT, 1990-002B. To find these, i used InstantTrack. It
keeps all the satellites Kelso distributes in its database at once.
I just popped up the satellite elements screen, and held down the
right arrow key. This flipped me thru the satellites like flipping
rapidly thru the pages of a book. I just watched for satellites with
a period on the order of 1436 minutes. Equivalently, you could just
look at one of Kelso's files, and look for satellites with a mean
motion on the order of 1.0027 . Then to be geoSTATIONARY, you would
also need a very low inclination (theoretically zero, but typically
might be 1 degree or so), and an eccentricity very near zero.
A side note: The NASA/NORAD element sets for geostationary satellites,
as distributed by Kelso, don't look very stationary. I haven't looked
closely, but i suspect that the elements they compute are just noisy.

1008. Re: Common Pro-Code Arguments Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-14 00:01:22 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Feb14.000122.23792@NCoast.ORG>
Source record: 13494

As quoted from <1990Feb12.195012.22321@Neon.Stanford.EDU> by paulf@bodega.stanford.edu (Paul Flaherty):

```
+---------------
| In article <64840027@hpl-opus.HP.COM> labelle@hpl-opus.HP.COM (George LaBelle) writes:
| > A morse code test is a good filter. If someone dosen't want to put
| > the effort into it, they don't deserve a licence!
| > (I don't believe this, but this is the main argument I keep getting.
| > Your thoughts??)
|
| On the first count (nice steep skirts, corresponding to keeping the riffraf
| out), CW seems to be fairly decent filter. I'll agree that there is some
| merit to the concept of requiring some self discipline in the entry test
| for the amateur service, and learning an archaic skill is certainly one
| way of testing for this. And, empirically, it seems to work; the jerk to
| nice person ratio for ham radio is rather low, certainly lower than the
| general population. As with any filter, there is bleedthrough, and there
+---------------
```

I'd say so. I heard an AM ham on 3985 a week or so ago (sorry, I missed the ID)---a few minutes after I tuned him, he was stomped on by an SSB'er and ended up in what sounded like an argument of sorts about who got to use the frequency. (One-sided, from my perspective: the ICF-7700 doesn't do SSB, and I haven't upgraded to the 2010 yet; the AM'er was polite, I don't know what the SSB'er was saying.)

At 3.985 MHz, I doubt that either was a pirate using a modified CB rig.

```
+---------------
| are some real wierdos out there. There are other means for determining
| self discipline that are at least as effective; separating the written
| exam into rules and theory, and then making the rules exam MUCH tougher
| comes to mind.
+---------------
```

Sounds good to me.

```
+---------------
| They have no intention of ever using the mode. And, continuing CW as
| a requirement only contributes to the image of a clique. The term
| "hazing" comes to mind.
+---------------
```

I thought of that as well; although CW *does* have merit, so you can't really call it "hazing". I currently perceive it being pushed as a sort of "badge of honor".

++Brandon
--
Brandon S. Allbery allbery@NCoast.ORG, BALLBERY (MCI Mail), ALLBERY (Delphi)
uunet!cwjcc.cwru.edu!ncoast!allbery ncoast!allbery@cwjcc.cwru.edu

1009. Re: Packet radio license without co

Newsgroup: rec.ham-radio
Date: 1990-02-14 00:10:18 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Feb14.001018.24018@NCoast.ORG>
Source record: 13495

As quoted from <30500396@ux1.cso.uiuc.edu> by phil@ux1.cso.uiuc.edu:
+---------------
| > Oh yes there is! The very idea that someone "needs" 20 WPM skills in CW to
| > be granted an EXTRA is old-age thinking. There is simply no excuse for any
| > form of CW skills test beyond 5 WPM. In the earliest day of licensing, the
|
| IMHO, you are correct EXCEPT for a license class that WOULD (since no such
| class exists) granted MORE code privileges ONLY.
|
| Having to pass 20 WPM code to get more VOICE or RTTY privileges is stupid.
+---------------

Dumb question: what about redesigning the license system to use technical levels *and* skills? The current structure could be retained and then each class would have sub-classes for voice, RTTY/packet, CW, etc. One could hold multiple sub-classes at the same time; I suspect voice privileges would be granted automatically. I note that the FCC proposal already contains a hint of this in the proposal that Communicator class plus 5 WPM CW would grant Technician privileges.

The rules-and-theory test would be supplemented by tests relevant to the mode of operation; one would start out with the voice license, then take a Morse code test for CW operation, etc. (I don't know what would be relevant to packet or RTTY, since I'm not very familiar with them.)

Just a random idea from an aspirant....

++Brandon
--
Brandon S. Allbery allbery@NCoast.ORG, BALLBERY (MCI Mail), ALLBERY (Delphi)
uunet!cwjcc.cwru.edu!ncoast!allbery ncoast!allbery@cwjcc.cwru.edu

1010. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-14 00:33:36 UTC
From: scott@csusac.csus.edu
Message-ID: <1990Feb14.003336.24765@csusac.csus.edu>
Source record: 13523

In article <1232@unsvax.NEVADA.EDU> storkus@arrakis.nevada.edu.uucp (Mike Storke (N7MSD)) writes:
> One tip with the capacitors, not mentioned before: Make sure they can
>withstand at least around 60-70 volts on the phone line. Each time the phone
>rings, it will send that kind of voltage through the line, and you will blow
>the cap if it is less than this value.

Use a 120V cap...ring voltage is around 100VAC...

--
L. Scott Emmons

...[!ucbvax]!ucdavis!csusac!scott
ucdavis!csusac!scott@ucbvax.berkeley.edu

1011. License Plates

Newsgroup: rec.ham-radio
Date: 1990-02-14 01:18:57 UTC
From: BERTSCH-S@osu-20.ircc.ohio-state.edu
Message-ID: <12566149157010@osu-20.ircc.ohio-state.edu>
Source record: 13518

The reason hams have callsign license plates is so every neighbor
within 10 blocks knows who to blame for any and all RFI problems.
Kind of like wearing a sign that says "Kick me" :-)

1012. College Amateur Radio Clubs

Newsgroup: rec.ham-radio
Date: 1990-02-14 01:34:00 UTC
From: IZZYH79@OAC.UCLA.EDU
Message-ID: <9002170431.AA16366@ucbvax.Berkeley.EDU>
Source record: 13496

As an officer of the UCLA Amateur Radio Club, I can also testify as
to low club station useage. In a way, it's almost a Catch-22:
in order to attract hordes of avid new members, we need to hold
their interest through activities. To have those activities, we
need member participation. We have tried scheduling events with
few committed members in hope of attracting more, but it doesn't
seem to help a whole lot.
I think one of the factors influencing non-participation is
the fact that most of the active members tend to be engineering
students, who are generally quite busy with classwork. On those
rare occasions when we have breaks from the workload, ham radio
tends to loose out to the wilder life... Maybe if we installed
a wet bar in the operating room? :-)
Arun WC6V

1013. Re: No code class..

Newsgroup: rec.ham-radio
Date: 1990-02-14 01:40:12 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500405@ux1.cso.uiuc.edu>
Source record: 13526

> (For example - Why would the FCC allow a communicator-class liscensee
> who has not passed a code exam opperate HF CW? Beats me!)

Probably because someone made this up!

I've heard a number of different reports about what the proposal actually is, and there are in fact some conflicts in these reports. But none of them so far has said that the FCC suggests giving HF privileges to someone who has not passed a Morse Code exam.

I am waiting for the ACTUAL PROPOSAL to appear in the Federal Register. That way I will know I have the real thing, correct and complete.

Sometimes I am amazed at the degree to which people AVOID "getting it right". I researched the matter that has been posted here concerning the FCC's issue on a 24 hour ban of adult programming for braodcast, and have found it to also be far from correct. I am preparing a summary of the actual facts in that matter for later posting (and yes, I finally found out what is REALLY going on with that).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1014. Re: Letters needed....

Newsgroup: rec.ham-radio
Date: 1990-02-14 01:40:50 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500407@ux1.cso.uiuc.edu>
Source record: 13377

> The determination of what is decent/indecent on broadcast media is a
> political issue, not an amateur radio issue. I suggest that political
> debate of this subject should be moved to another net.

As it turns out, the posting that brought this up in the first place was highly misleading. It is in fact NOT a political issue in regards to what did cause it to be brought up. If you fully research the matter you will find out what is really up.

The CORRECT place for the matter actually is misc.legal because it happens to be a JUDICIAL situation right now.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1015. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-14 01:44:43 UTC
From: tad@ssc.UUCP
Message-ID: <482@ssc.UUCP>
Source record: 13497

In article <257.25D689AD@uscacm.UUCP>, Mike.Boyle@f36.n376.z1.FIDONET.ORG (Mike Boyle) writes:
> My neighbor is a lic. HAM operator. His transmissions interfere with ALL
> electronic items in my house. His voice is on the TV, stereo, and even the
> telephone when he is transmitting. I have told him about the problem on
> several occasions and he pretty much said it was a problem with all of my
> stuff. C'mon. ALL of my stuff is faulty? My question is, what can I do to
> get him to quit this frustrating interference?
> --
> --
> Mike Boyle == ...!usceast!uscacm!36!Mike.Boyle

I can sympathize. Some of my neighbors have the same problem with me. The basic problem is that the manufacturers of consumer electronics equipment build the stuff with NO fundamental design toward supressing interference from radio transmitters. The FCC tried to address this problem a few years ago by requiring manufacturers of VCRs, phones, stereos, TVs, etc to meet some kind of MINIMUM standards of immunity to radio frequency energy. What happpened was the pro-business Reagan FCC easily buckled under pressure from the manufacturers of these products, who didn't want any government regulation to deal with. What they proposed, and the FCC accepted, was a so-called "voluntary" system, where they promised to solve each problem (like yours) on an individual basis. So what you need to do is to contact these same manufacturers, and get them to solve your problems, as they promised the FCC that they would.

I am assuming that your ham neighbor is running his station legally, and he is not transmitting any measurable radio energy outside of the frequencies that he is licensed by the government to operate on. What you might ask the manufacturer of your phone, for instance, is why a telephone is picking up any radio signals at all? You might also ask the manufacturer of your TV why, if for instance you have the TV tuned to 500 MHz watching a TV station broadcasting at 100,000 watts, why a ham transmitter in your neighborhood transmitting with maybe 100 watts on 14 MHz is bothering your TV?

The manufacturer of your TV should be able to fix you up with a high pass filter that will reject all radio energy below 50 MHz. If it still picks up your neighbors transmitter, the manufacturer might be asked (if this is the case) why they designed a device (a TV) which essentially uses radio energy, but ignored one of the basic design criteria for radio frequency devices....that is to shield it by putting it in a metal case, rather than plastic?

Anyway, good luck. The American Radio Relay League, 225 Main St,
Newington, CT 06111 has some good material on reducing interference.

Tad Cook
tad@ssc.UUCP
KT7H

1016. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-14 01:47:20 UTC
From: karn@ka9q.bellcore.com
Message-ID: <20006@bellcore.bellcore.com>
Source record: 13522

In article <52163@bbn.COM> chartnes@vax.bbn.com (Clark Hartness) writes:
> Just a quick note of trivia. I have a friend who was shot down
>in VIET NAM. While in a P.O.W. camp he communicated with other pow's
>using Morse on the walls between the cells. They used sticks or other
>objects to tap out the dots and would drag the stick across the wall
>to form the dashes. He said that this was his only contact while a
>POW and it kept him from going crazy.

In a magazine interview a few months ago, William Shatner told of a cab driver who said he had been a POW in Vietnam. During the long days of confinement he and his cellmates acted out Star Trek episodes with each other. He claimed that this made the difference between staying sane and losing it completely.

Following Clark's lead, I hereby suggest that a Star Trek Trivia Quiz be made a mandatory part of a ham radio license exam.

Phil

1017. Texas Star

Newsgroup: rec.ham-radio
Date: 1990-02-14 01:48:47 UTC
From: guhsd000@crash.cts.com
Message-ID: <1483@crash.cts.com>
Source record: 13498
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I'm trying to locate a a company called Texas Star, they manufacture radio equipment for CB, Ham (Transmitters/linears), and I hear tell of more recently they have come out with audio processors and other monitoring equipment such as meters, scopes, etc.

I heard of them on a the radio, but havn't been able to raise the station who was going to look for the address for me. Anyone know of them?

The only "Texas Star" I've located is an oil drilling supply company, located in Texas, surprised?

Please reply to me directly....

1018. Re: Kenwood 731a mods/Retuning VCO

Newsgroup: rec.ham-radio
Date: 1990-02-14 02:01:05 UTC
From: mikew@hpsad.HP.COM
Message-ID: <1530039@hpsad.HP.COM>
Source record: 13499

> From: jim@mmsac.UUCP (Jim Lips Earl):

> (...) clipping the other resistor
> does enable out-of-band reception, but it still doesn't allow
> out-of-band transmission. I have a business repeater on 461 that I'd
> like to be able to access with the 731, but I can't.

This may be because the VCO needs to be retuned to work this part of
the band. The radio may not even be listening up there, even though
the dial reads ok.

\begin{soapbox}

NOTICE What you want to do with this radio is NOT LEGAL, and for
good reason. The business band use requires a type accepted radio,
which must meet tighter specs for frequency tolerance and spurious
emissions, among other things. If you must use the radio for both ham
and non-ham purposes, buy a commercial radio. There is no problem
with using them on the ham bands, and the extra price will assure a
non-interfering unit. Interference with public safety communications
is a really bad idea.

Rare *emergency* use is another matter...

\end{soapbox}

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsadmjw.hp.com
mikew%hpsad@hp-sde.sde.hp.com

HP Signal Analysis Div. Volunteer firefighter/EMT
1212 Valley House Dr. Penngrove Fire Prot. Dist.
Rohnert Park, CA 94928 Penngrove, CA
(707)794-4454
****

1019. Re: Communicator License PR Docket 90-5

Newsgroup: rec.ham-radio
Date: 1990-02-14 02:05:02 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500408@ux1.cso.uiuc.edu>
Source record: 13378

First of all, DO NOT rely on the news release for facts to base your comments on. DO NOT rely on what is posted here, either. Go to your nearest library that has federal documents and read the actual PROPOSAL itself (which will have the real details). Then you can make your comments based on the facts.

What you must do for filing comments on a rulemaking proceeding (and this is what this is) you need to read FCC rules Part 1. Ask the librarian for the "Code of Federal Regulations", look for the 5 books marked "Title 47", select the 1st and 5th books (Part 1 is in book 1, and Part 97 is in book 5). Read the index to Part 1 and find the section on rulemaking proceeding. There will be references in those rules about the form and copies necessary for both informal and formal comments.

I don't have all the details in front of me right now, so I cannot make a posting yet on what to do. There will be time for that. But you could if you want to, research it on your own, and actually LEARN how the bureaucracy of the Federal Government is working.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1020. Re: Kenwood 731a mods/Retuning VCO

Newsgroup: rec.ham-radio
Date: 1990-02-14 02:06:44 UTC
From: mikew@hpsad.HP.COM
Message-ID: <1530040@hpsad.HP.COM>
Source record: 13500

Please read my response to your earlier posting. This really is not a good idea, and it is not legal either. Don't spoil the out-of-band mod for its legitimate users.

thanks.

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsadmjw.hp.com
mikew%hpsad@hp-sde.sde.hp.com

HP Signal Analysis Div. Volunteer firefighter/EMT
1212 Valley House Dr. Penngrove Fire Prot. Dist.
Rohnert Park, CA 94928 Penngrove, CA
(707)794-4454
****

1021. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-14 05:11:46 UTC
From: michaelb@mikebat.UUCP
Message-ID: <277@mikebat.UUCP>
Source record: 13501

> I am sure this point has been brought up before, but let me emphasize it.
> There are times when knowing the code can be very useful and even save
> lives.

There are times when knowing CPR can be very useful and even save lives.
There are times when knowing a foreign language can be very useful ....
There are times when knowing how your car works can be very useful ....
There are times when firearm safety can be very useful and even save ...
There are times when a bizillion other things can be very useful ....

We are all required to know International Morse code because it was recognized
as incredibly important to merchant ship safety in the early part of this
century. (Anyone who doesn't think the FCC believes this try to get a
commercial license. Yes, I have one.) If code is so extremely important
and ultra reliable, why is the requirement that all vessels exceeding
500 Tons have a CW station being phased out in favor of the EPIB devices?
(EPIB=Emergency Position Indicator Beacon)

No one is going to restrict the ships from using code if they want to do so.
Probably all of the vessels which regularly use code now will continue to
use code after the requirement is gone. For what code does, it seems to
work well. The maritime service, however, is leaving the hams in
the dust. We seem to have come full circle now. The hams were once the
cutting edge of electronics. We are now the last holdouts of a dead era.

As a matter of record for everyone who wants to know how much code I
work: I don't recognize my own call sign in code. I have never connected
a key to my rig.

Michael \113\101\067\132\116\132

--
Michael Batchelor / KA7ZNZ uunet!wshb!mikebat!michaelb

Ships don't come in; they're built. -- (I don't know who said it.)

1022. No Code (how about no theory!)

Newsgroup: rec.ham-radio
Date: 1990-02-14 05:49:37 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9002140549.AA08858@tecnet1.jcte.jcs.mil>
Source record: 13502

Well, geez everyone else is writing something on this subject, and since the "snowball" has already become an avalanche... why not me?

Some people like code.... but that shouldn't have anything to do with forcing it on someone else, right? Makes sense.

Some people don't like code, but had it forced on them and they're pissed off about it. Seems to make sense too.

A requirement to learn morse has not kept out the undesirable elements as can be proven by listening to either 2 meters, or 75 phone (depending where you live in this country). That's a given too!

And I could go on and on and on. So it is very LOGICAL to completely do away with ALL morse (international) code requirements, and we all should welcome a "Communicator Class" correct? Then why do I feel nervous about it?

I guess it has something to do with human nature. I honestly believe that people value most what they had to work for the hardest. What they are "given" they tend not to respect. What they worked hard for they tend not to "give" away. The majority of hams had to "work" to learn CW and as such they usually tend to "value" the license. I think there is an unspoken fear that those that come into the hobby without having to "work" for it will not value it, and others might suffer the consequences of such an attitude.

I am not espousing CW as a necessary form of "hazing", (as I am sure someone might think from reading this) however it occurs to me that any written test can be memorized and the material quickly forgotten (if it ever was "learned") after the test is taken. I defend this statement by the evidence of how many hams today can repair their own equipment. I know I invite flames here, but I am very sorry to report that in this area there are very few people that can use a meter correctly let alone an oscilloscope. Maybe there are many good reasons for this, but the fact is.... they are not technicians in any way, shape, or form.... nor do they want to be.

I hear it said (by very many of late) that they resent being required to learn something that there is no logical reason to bother with, something that they'll never use, something that is inefficient and is a total waste of time... for them. I am of course again talking about Morse Code.

Well, OK!!! But hey.. let's do away with the theory requirement too. Why not? You say that it is required because we are allowed to work on our own radios right? Well folks, guess what? A CB'er is allowed

to work on his own equipment too! NO!!! I can feel the heat already! I stand ready to be corrected, but recent questions to the FCC in this regard have led me to believe that ANYONE can work on ANY radio, with the exception of certain emergency service type radios to include Marine VHF and Aeronautical NAV/COMS (airplane radios). The station licensee is still held responsible for the emission and spectral purity requirements, but he is NOT required to have anyone special "do the work". This sounds amazingly similar to ham radio to me, and minus the vastly greater modes and power, there doesn't seem to be much difference in the requirements of who can work on the gear.

So why should ANYONE be required to take a theory test? Hey, a lot of people don't WANT to build anything, nor do they want to REPAIR anything. Why should they be required to LEARN something that they have no use for and is a complete waste of their time! Sure they could memorize it and then forget it, but hey... IT'S THE PRINCIPLE OF THE THING, AND THEY RESENT IT! If the radio breaks.. then it goes back to the factory. If they want to get on packet, well.. they'll buy a TNC and plug in the cable. What's the big deal? If a person is a technical wizard, then there is no need to test him on his skill, and if he wants to contribute to the hobby and has the skill, then the test won't serve to motivate him any further!

There are a LOT of people that would make TERRIFIC hams, but they just can't seem to pass that darn written test. They are GREAT at the Morse code thing.. they can zip out 35 words per... but they just can't seem to get the hang of that old OHMS LAW thing. Why should we restrict these people from the public frequencies of HAM RADIO? After all they are just going to BUY a radio anyway, and odds are that they can figure out how to turn the "off" switch to the "on" position!

Yes, I am being sarcastic. But it is amazing how similar the arguments for a "no theory" license could be to the current "no code" debate and make just as much sense.

Believe it or not, I accept a no code license as inevitable and it may even turn out to be the best thing since sliced bread. I sure hope it does. However... CB radio used to be a disciplined and fun band where teen-agers experimented with antennas and even played around with morse code. They exchanged QSL cards and never spoke a word of profanity. Of course this was WAY WAY back when, right after amateur radio lost 11 meters as a ham band. For some reason these people valued the privilege of being able to talk on a radio, beats me as to why. My only concern is that someday the average ham will lose the same views as those old time CB'ers had "way back when".

Everything changes I guess.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

1023. Re: Modifications

Newsgroup: rec.ham-radio
Date: 1990-02-14 06:37:12 UTC
From: keithm@wicat.UUCP
Message-ID: <440@wicat.UUCP>
Source record: 13504

In article <258.25D689AF@uscacm.UUCP> Mark.Proctor@f12.n376.z1.FIDONET.ORG (Mark Proctor) writes:
>RE: Re: 2004/2005 modifications
>
>While we are on the subject of modifications, could you tell me how to
>increase the usability of a Bearcat BC 200XLT hand held? Unlocking the 800
>MHz band is my primary concern. Also, since this scanner is unable to scan at
>30 spacing, how will this affect it's use in the 800 MHZ band?

A friend of mine has succeeded in doing this.

As soon as he has written it up, I will post the
modification.

It opens up the cellular band as well as 66-88Mhz.

It only requires addition of a small spdt switch.

Film at eleven...

one more line to make this stupid news posting program
happy and to waste bandwidth...

--
Keith McQueen, Wicat Systems Inc. , (801)224-6400 | My opinions are |
N7HMF @ NV7V (84058), 147.34+, 147.28+, 449.675- | all mine... |

1024. Re: Geo-stationary orbit elements

Newsgroup: rec.ham-radio
Date: 1990-02-14 07:47:04 UTC
From: karn@ka9q.bellcore.com
Message-ID: <20009@bellcore.bellcore.com>
Source record: 13505

In article <1302@qualcom.qualcomm.com> fpa@qualcom.UUCP (Franklin Antonio) writes:
>A side note: The NASA/NORAD element sets for geostationary satellites,
>as distributed by Kelso, don't look very stationary. I haven't looked
>closely, but i suspect that the elements they compute are just noisy.

Yes, the NORAD elesets for high altitude objects are rather noisy. This has been a problem for the AMSAT phase III satellites (Oscars 10 and 13); G3RUH occasionally produces "smoothed" sets that give excellent predicts for very long intervals. Another problem for geostationary satellite orbits is that the longitude-dependent assymetries in the earth's gravitational field become very important. I don't think any of the orbit models currently used the popular ham satellite tracking programs take these into account. (They usually consider only the much larger latitude-dependent assymetries.) NORAD has released a set of FORTRAN programs designed to be used with their element sets, and the one for high altitude satellites is quite hairy.

Not that the geostationary satellites themselves are perfectly stationary, of course. Some time ago, when I returned to WMPB-TV for a visit, they were uplinking Wall Street Week to a Westar satellite. For the heck of it I took a look at their downlink signal on a vectorscope that was synchronized to house (uplink) subcarrier. (For those who are not into video engineering, a vectorscope is a test instrument that displays the color subcarrier in a video signal in polar coordinates on a CRT. Color saturation at any given instant is represented by the amplitude of the vector, and hue by its phase.)

Anyway, the pattern on the vectorscope was rotating very slowly, caused by the relative motion of the satellite with respect to the earth (and the earth station). Since the color subcarrier has a wavelength of approximately 80 meters, one complete rotation of the color subcarrier on the scope corresponds to a change in relative distance of half that amount, or 40 meters (because the signal covers the distance twice in a round trip). Subcarrier phase changes corresponding to a foot or so of distance are easily seen and measured.

Not bad precision out of a slant range of about 40,000 km. If I could get a whole day's figures (instead of just one half hour) I could determine the orbit of the satellite quite precisely. It would be very interesting to watch the display when the satellite control station commands a station keeping maneuver.

Phil

1025. You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-14 11:57:31 UTC
From: hobbit@topaz.rutgers.edu
Message-ID: <Feb.14.06.57.29.1990.2395@topaz.rutgers.edu>
Source record: 13408

Suppose someone told you back in the Glory Days of computing that you wouldn't be allowed to use a given system until you had memorized, in HEX, the bootstrap code, and were required to be able to toggle it all in within a certain time limit? You'd be pretty pissed, since all you wanted to do was run your Fortran monstrosity on the already-running system. If you *did* have to boot the machine you could always read the hex off a piece of paper, or better yet, fix the machine to have it in ROM.

The educational system in general is rife with people who insist that the student rote-memorize a lot of things he will never again have use for. This doesn't mean the teacher is good; it means that the student falls asleep and forgets it all right after the exam. Unless, of course, he is interested in the subject material.

So step into the 90s, guys! Let people who really *want* to learn code do so freely, but leave the rest of us alone.

_H*

1026. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-14 13:35:00 UTC
From: stevedak@cpe.UUCP
Message-ID: <37400008@cpe>
Source record: 13524

>Could somebody explain to me the advantage of having a license
>plate with the person's call sign on it? Does this cost as much
>as the usual personalized license plates?

>I keep seeing them, and I keep wondering... Thanks!
--
>Scott McCalmont Dept. of Electrical Engineering

I don't know if there is any advantage unless you are likely to become involved in a lot of public service (eg. marathons, disaster relief, etc.) where quick and positive identification of your vehicle could be helpful. Here in Texas, they only charge two or three dollars to process the application. The cost of the plates themselves is the same as the standard non-personalized ones.

Steve Dakin WQ5N

1027. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-14 14:26:46 UTC
From: julian@bongo.UUCP
Message-ID: <320@bongo.UUCP>
Source record: 13381

In article <1990Feb14.003336.24765@csusac.csus.edu>, scott@csusac.csus.edu (L. Scott Emmons) writes:
> In article <1232@unsvax.NEVADA.EDU> storkus@arrakis.nevada.edu.uucp (Mike Storke (N7MSD)) writes:
> > One tip with the capacitors, not mentioned before: Make sure they can
> >withstand at least around 60-70 volts on the phone line. Each time the phone
> >rings, it will send that kind of voltage through the line, and you will blow
> >the cap if it is less than this value.
>
> Use a 120V cap...ring voltage is around 100VAC...
>
For telephone use, any capacitor should be rated at minimum 250V. For larger values, the capacitor should be Mylar. Smaller values can use Ceramic caps, but use the highest voltage rating you can find, but still no lower than 250V.

The ring voltage is not the only high voltage on the phone line. The inductive pulse generated by taking a phone off-hook, or rotary dialing (What dat?) can be above 300V. If you don't believe me, place your fingers across the line and flash the hookswitch a couple of times.

Besides the "official" voltages found across a phone line, there are also accidents and acts of God. Power lines can fall across phone lines. Lightning can send some impressive voltages down a phone line. If you want to see what a phone should withstand on its terminals, read FCC Part 68 or Bell Pub 48005.

The above should also be borne in mind when using semiconductors. Diodes used in bridges etc should be rated at 1KV Min.

And yes, you can use MOVs on phone lines. Much phone equipment uses them. The 120 - 150V ones are OK, but the use power when the phone rings and 250V ones are often used to get around the problem.

Yours
--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

1028. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-14 15:01:19 UTC
From: dkazdan@cwsys2.cwru.edu
Message-ID: <1990Feb14.150119.3328@usenet.ins.cwru.edu>
Source record: 13409

Re: Ham license plates

Cheap vanity plates certainly are my reason.

BTW, my in-queue reading at the BMV last licensing session was the Ohio book of license plate identifications. The ham plate example was a K6.

The west coast influence is getting out of hand.

73,

--David

1029. Re: 66-88MHz coverage on scanners.

Newsgroup: rec.ham-radio
Date: 1990-02-14 15:20:47 UTC
From: hschu@nvuxj.UUCP
Message-ID: <502@nvuxj.UUCP>
Source record: 13382

The frequency range 70-88 MHz (approx.) is also used for public safety organizations in Germany and some other European countries. In Germany it is called the '4 m - band'; most police, fire departments, civil defense, ambulance services, etc. have their nets here, mainly repeater systems with repeater inputs below 80 MHz ('low band') and outputs 9.6 MHz higher ('high band'). Transceivers (FuG 7b, FuG 8b) are full-duplex, synthesized, 8 W output. Channel designations begin with 4 or 5 (e.g. 409, 506) and have 20 kHz spacing. Modulation is NBFM.

Hope this helps!

Hermann
--
Hermann Schumacher, PhD, EMT
Bellcore, Red Bank NJ 07701 e-mail: hschu@nyquist.bellcore.com
Phone : (201) 758-3310 Packet: DF2DR@WB2COP-4
The standard disclaimers apply ....

1030. Re: Ground problem

Newsgroup: rec.ham-radio
Date: 1990-02-14 15:48:22 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9002141548.AA17966@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 13383

It sounds like there is RF in the shack. I have had similar problems and there are two types of solutions: keep the RF out of the shack, or reduce the suceptability of the equipment. I have not had much luck with either approach. I tried a MFJ Artificial Ground. It did reduce the level of RF in the shack, but seemed quite sensitive to anything changing. I later sold it to a friend who had a worse problem, and it fixed his problem. My was the keyer picking up the RF and locking key down. I shielded the keyer and its cable. Put all sorts of bypassing and filters on the cable and that helped also. However, neither of these approaches alone completely solved the problem. I never had the opportunity to try it with both in place...

-- Doug WA6VVV

1031. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-14 15:49:55 UTC
From: bjb@hubcap.clemson.edu
Message-ID: <7995@hubcap.clemson.edu>
Source record: 13384

With the current discussion of Amateur Radio Service Licence plates, i was wondering if anyone else has run into the same problem as I recently encountered here in South Carolina.

Amateur Radio Service plates are one year, renewable, and cost only $1 more than normal plates (as opposed to $13 EXTRA for personalized ones). I have a lease car, and for the past three years, have had no problem getting my plate.

This year, the day that my then-current tag was expiring, I found out that I was being DENIED the special plate because my name did not appear on the registration in the same form as it does on the license (due to the lease, the registration is in the name of the leasing company IN CARE OF my name). According to their new interpretation of the laws regarding issuing ARS license plates, I was no longer eligible.

All of this was done, of course, after I had already called three times and spoke to three different officials (within 6 weeks of this) and had been told that my plate was being issued and was on it's way... I was checking because I had upgraded and wanted to be sure that my new call was going to appear on the plate.

Not having the call on the plate hurts, because I am active in RACES and AREA and the local peace officers recognize those plates and allow those with proper RACES or Emergency Preparedness identification onto sites where we are needed... without this plate, I have had to secure ADDITIONAL identification which has to be specially verified (in other words, it's a large pain in the butt).

Anyone else with similiar horror stories?

73 de BJ, KM4RB

--
BJ Backitis (KM4RB) | BJB@CLEMSON.BITNET | "There are a great many
Info. Systems Development | BJB@HUBCAP.CLEMSON.EDU | people in this country
Clemson Univ. Division of | {...}!emory!hubcap!bjb | who, through no fault of
Comp. & Info. Technology | All usual disclaimers | own, are sane."

1032. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-02-14 16:38:22 UTC
From: rjd@dell.dell.com
Message-ID: <5521@dell.dell.com>
Source record: 13410

In article <9002130348.AA14607@DELPHI.MIT.EDU> dmb@DELPHI.MIT.EDU (David M. Bruce) writes:
|To modify the 200XLT for recieve of cellular service:
[hardware modification omitted]

Ummm.... You might find it much (MUCH) easier to simply add 27.1 MHz to the cellular frequency that you want to receive. I can search through the 894.0125 to 915 MHz area and find ALL sorts of cellular traffic on my Bearcat 200XLT.... Though I never listen to it :-)...

Also... This doesn't void your warranty like the modifcation will.

BTW: I thought the mod was to *add* a resister, not cut one out....

Randy Davis UUCP: dell.dell.com!rjd

1033. Re: shoe's on the other hand now (was Re: Learn the <*> code!)

Newsgroup: rec.ham-radio
Date: 1990-02-14 16:47:00 UTC
From: derekt@col.hp.com
Message-ID: <4380069@col.hp.com>
Source record: 13385

/ col:rec.ham-radio / phil@ux1.cso.uiuc.edu / 9:06 pm Feb 11, 1990 /

> I was amused to read Chris J. Davis's diatribe against ham radio. In it,
> he called hams a bunch of jerks for wanting to hang on to Morse. The
> really funny part is that he acts like this is something WE are doing to
> HIM....as if me and the other folks who managed to pass the Morse test
> somehow make up the FCC regulations in our spare time!

No, WE are doing it to OURSELVES.

> I am not against no-code, but after reading Chris' vitrolic ravings,
> and seeing his statement that the Morse test is the only thing keeping
> him from becoming a ham, maybe keeping Morse isn't such a bad idea....

Somehow I get the impression you don't want him to be a ham. Why?
Can you explain just what the character of personality is that is not
good for ham radio? Can you prove it? If you can, I will gladly
petition the FCC to add a personality profile exam to the other
stupid test we now give to try and filter the good from the bad.

> I noticed in the ARRL bulletin #7 that the FCC finally came out with
> their no-code proposal. The ARRL bulletin states that the FCC
> proposal would stop Novice licensing in favor of a communicator license
> that is good for 220 MHz and above! There would be no more entry
> level HF license! What a shame.

We could just make General 5 WPM. It would be a fine entry level.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1034. Re: INFO-HAMS Digest V90 #177

Newsgroup: rec.ham-radio
Date: 1990-02-14 16:51:22 UTC
From: DFAH100@BGUNOS.BITNET
Message-ID: <9002170519.AA19087@ucbvax.Berkeley.EDU>
Source record: 13386

Hi there!

I'll appreciate any help on how to get a copy of the
Operator's Manual of the AZDEN PCS-5000.
I tried to get one from the distributor in the US, but
was told that this model is obsolete, and they don't have
any manuals (they sent me the Service Manual, but it has
no operations information).

I didn't succeed to use the PL and the touch tones (I checked
and I have the IC's for these two functions). I also didn't
find out how to change the split freq's for repeater use
(I can do that using the A and B VFO's).

(My BITNET account number is DFAH100@BGUNOS)

73 - Emanuel, 4X1GV

1035. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-14 17:02:33 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880120@hpfcdc.HP.COM>
Source record: 13387

There is a really useful TVI troubleshooting flowchart in the ARRL Amateur Handbook. Maybe the noisy neighbor can find one, and walk through it with you.

I recently found the cause of my TVI problem - it was a corroded connection on the TV antenna. When I hit it with 500 watts from any amateur band, the corrosion acted as a diode, and then retransmitted harmonics (diodes produce harmonics all by themselves, because they have a nonlinear voltage/current characteristic). Since a TV antenna is a tuned circuit, it selected FOR the harmonics within the TV bands and re-radiated them.

Perry Scott
KF0CA

1036. What Happened to Woody?

Newsgroup: rec.ham-radio
Date: 1990-02-14 17:14:30 UTC
From: aaker@Apple.COM
Message-ID: <38634@apple.Apple.COM>
Source record: 13411

I haven't heard the Russian Woodpecker on the HF bands in a long time. Have they stoppped? Have they changed frequencies in order to skip over the amateur radio bands? Its usually a good indicator of the current propogation from USSR to me at any given time. Has anyone heard a reliable news report about this? Anyone want to make up a good rumor about this? 73, Mark NT6G
aaker@apple.com

1037. Call Plate Wait in State

Newsgroup: rec.ham-radio
Date: 1990-02-14 17:18:50 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12566323898.12.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 13388

Here in New York, I have been waiting for my call plate for over a year.
From what I hear, this is not uncommon in New York state. cost is $16
initialy, $5 extra every year.

I think the state should pay us to advertise we are hams (via the plates)!

Len WF2V @ Wa2TVE

1038. Need old Hammarlund coils and National Dials

Newsgroup: rec.ham-radio
Date: 1990-02-14 18:13:45 UTC
From: daved@hplsla.HP.COM
Message-ID: <5720058@hplsla.HP.COM>
Source record: 13389

I'm building a 1930s style TRF broadcast/shortwave receiver, and
I need a few authentic parts to complete the set.

If you have any of these items for sale (or swap), please
let me know. Thanks very much.

o Coil set, Hammarlund SWK-4 (set of four 4-pin coils, covering
17 to 270 meters); included coils numbered 41, 42, 43, 44 coils

o Coil set, Hammarlund SWK-6 (set of four 6-pin coils, covering
17 to 270 meters); included coils numbered 61, 62, 63, 64

o National Velvet Vernier Drum Dial, Type H

o National Velvet Vernier, flat type -- any style, but preferably with
illuminated dial (need two of these)

%%
% Dave Dintenfass %
% uucp: hplabs!hplslb!daved domain: daved%hplslb@hplabs.hp.com %
% Hewlett-Packard Lake Stevens Instrument Division %
% 8600 Soper Hill Road Everett, WA 98205-1298 %
% (206) 335-2632 %
%%

1039. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-14 18:26:46 UTC
From: jans@tekgvs.LABS.TEK.COM
Message-ID: <6863@tekgvs.LABS.TEK.COM>
Source record: 13390

<jws@hpfcso.HP.COM (John Schmidt)>
<The policy for ham call plates varies by state.>

In Oregon, it's a one-time $5.00 charge -- sticker renewal costs nothing extra.
Real vanity plates are $20 extra up front *and* at each renewal!

Getting the MVD cretins to understand what you want is another matter. It took
two levels of management to figure out what I wanted, and a third to find the
proper form.

Someone once told me that in Alaska hams are such a valued resource that any
ham who gets call plates enjoys free registration. Fact, or legend?

Jan Steinman - N7JDB
Tektronix Electronic Systems Laboratory
Box 500, MS 50-370, Beaverton, OR 97077
(w)503/627-5881 (h)503/657-7703

1040. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-14 19:16:04 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250123@hpnmdla.HP.COM>
Source record: 13391

RE: Dashless Morse.

The code in use on the air today is properly called "International" code or something like that. "Morse" refers to the old land-line telegraph code.

Morse was never originally intended to be received by ear. They used a paper tape travelling under a pen. When the key was pressed, the pen lowered and made a mark on the tape. The term "mark" is still used to refer to the "key down" state in RTTY transmissions.

The tapes were then read visually by operators trained for the purpose. Some of them soon found, however, that they could copy the code aurally by listening to the clicks of the receiving machine. Edison, for example, was one of the young "hot shots" who learned to do this.

Later, the pen-and-ink machines were replaced by "sounders" and all reception was done by ear. When radio came along, with it's continuous tone (or buzz, in the case of spark), the International code was invented.

Al N1AL

1041. Drake R4C Mods

Newsgroup: rec.ham-radio
Date: 1990-02-14 19:16:04 UTC
From: holt@hp-sdd.hp.com
Message-ID: <3297@hp-sdd.hp.com>
Source record: 13392

Does anyone out there have any experience or comments (good or bad) about the Sherwood Engineering mod kits for the Drake R4C? Thanks.

Holt Mebane, N4HR

UUCP : uunet!ucsd!hp-sdd!holt or hplabs!hp-sdd!holt
Internet: holt@sdd.hp.com
USmail: 16399 W. Bernardo Drive, San Diego CA 92127-1899 USA
Phone : (619) 592-4882

1042. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-14 19:39:52 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <8363@shlump.nac.dec.com>
Source record: 13412

In article <52163@bbn.COM>, chartnes@bbn.com (Clark Hartness) writes...
> Just a quick note of trivia. I have a friend who was shot down
>in VIET NAM. While in a P.O.W. camp he communicated with other pow's
>using Morse on the walls between the cells. They used sticks or other
>objects to tap out the dots and would drag the stick across the wall
>to form the dashes. He said that this was his only contact while a
>POW and it kept him from going crazy.

A recent article in (I think) a Sunday newspaper magazine described
the tap-code used in the Hanoi Hilton. The alphabet was divided into
a 5x5 grid; the X and Y coordinates were tapped out.

It wasn't morse. (Incidentally, a number of published works on codes
have described "prison codes" like this.)

Of course, even if the original posting were true, it wouldn't be an
argument for requiring ham radio operators to learn morse. It would be
an argument for requiring soldiers to learn morse. Yours for the
all-volunteer military,
fred k1io

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

1043. Re: INFO-HAMS Digest V90 #180

Newsgroup: rec.ham-radio
Date: 1990-02-14 21:28:00 UTC
From: IWNQ500@INDYVAX.IUPUI.EDU
Message-ID: <DB30077452FF0050DC@INDYVAX.IUPUI.EDU>
Source record: 13393

On College-based ham radio:
The situation here at IUPUI is: They call this place "Degrees 'r' Us"
because it is so dead. There is no interest in anything here. A frat
can't even start here due to lack of interest. We have a station (W9PU)
that consists of a Collins KWM-2 and a Drake TR4C and a Yaesu Memorizer.
The antennas are falling down (A tri bander beam and a 6-2 meter beam)
and the old rotors are froze up. There are new Channel Masters that the
school bought but now won't let us up on the roof to fix them.
"Liability and State Law" they claim. Oh well...so much for college radio.
I'm not too keen on the "Keg and Key" idea...too much of that down on
3913.
On no-code:
I've tried recruiting people into ham radio. I learned the code at age
12. Got my novice at 13. (I'm 20 now) SO why does it seem that we must drop
code to justify our ranks? I'm in favor of the proposal but it just
doesn't seem right that we do that. All code and theory takes is determination
and a little effort.
Back to recruiting, I used to wear my HT on me and when someone asks, I give
a small recruitment speech on Ham radio. They seem to think that it's nothing
more than some sort of noisemaker, and it does wonders to Walkmans (them
cheap junks), so nobody seems to like it after that.

CUL&73 DE N9IIT
Mike Jezierski
Bitnet: IWNQ500@INDYVAX
Internet: IWNQ500@indyvax.iupui.edu

1044. Re: There's plenty of time for radios after college

Newsgroup: rec.ham-radio
Date: 1990-02-14 21:28:36 UTC
From: wdh%oversteer@Sun.COM
Message-ID: <131826@sun.Eng.Sun.COM>
Source record: 13394

In article <1990Feb13.202909.6485@Neon.Stanford.EDU>, paulf@bodega.stanford.edu (Paul Flaherty) writes:
> In article <9002121259.AA05049@bunny.gte.com> pescatore_jt%ncsd.dnet@GTE.COM writes:
>
> >I was a radio nerd in high school and I've been a radio nerd since college,
> >but when I was in college, I drank beer, chased women, and drank beer.
>
> Odd. At W9ODD, we drank beer, ran contests, drank beer...
>
> At W6YX, we drink beer, run pileups, drink beer...
>
> I'm not too sure why, but one of the chief components of every college ham
> station I've ever been in has been a well - stocked fridge...
>
> --
> -=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
> ->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

Drinking beer and operating...sounds like too much fun. Isn't this illegal?

What is the allowable blood alcohol level for each license class?

Is the level different for CW versus SSB?

Is a belch considered malicious interference?

...just a slight diversion from Round X of the code/nocode wars
...Dennis Henderson, N6TTW

1045. Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-14 21:54:20 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002142221.AA29869@ti.com>
Source record: 13395

Kok Chen suggests that the "communicator class" licensee be given what is currently the CW bandspace. He also incicated that he has a newly-acquired Extra Class authorization. So let me make a proposition: Lets let the Communicator Class have the bandspace now set aside for the Extras (Most of it in the HF bands is on the CW end anyway).

I post this as tongue-in-cheek commentary on arguments involving what bandspace to make available to the new license class. Most of them sound like politicians who demand spending cuts, but "cut somewhere else, not in my area". It makes more sense IMHO to carve into the commonly-used voice space, since there is much more of it. My guess is that Kok Chen does little CW work, whether or not he can copy 20WPM. Otherwise, I don't think he would have made a suggestion that would, in effect, take away all the bandspace he has to operate in. Now the question arises: "Why did he expend the trouble and effort to obtain the Extra?" The challenge? so he can be a VEC? a sort of status symbol? to have access to more bandspace? The answers to these questions might as easily apply to those who take the time to learn CW in order to get on the air in the Ham bands (as opposed to, say, the CB band)

1046. Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-14 21:54:20 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002142221.AA29864@ti.com>
Source record: 13396

Kok Chen suggests that the "communicator class" licensee be given what is currently the CW bandspace. He also incicated that he has a newly-acquired Extra Class authorization. So let me make a proposition: Lets let the Communicator Class have the bandspace now set aside for the Extras (Most of it in the HF bands is on the CW end anyway).

I post this as tongue-in-cheek commentary on arguments involving what bandspace to make available to the new license class. Most of them sound like politicians who demand spending cuts, but "cut somewhere else, not in my area". It makes more sense IMHO to carve into the commonly-used voice space, since there is much more of it. My guess is that Kok Chen does little CW work, whether or not he can copy 20WPM. Otherwise, I don't think he would have made a suggestion that would, in effect, take away all the bandspace he has to operate in. Now the question arises: "Why did he expend the trouble and effort to obtain the Extra?" The challenge? so he can be a VEC? a sort of status symbol? to have access to more bandspace? The answers to these questions might as easily apply to those who take the time to learn CW in order to get on the air in the Ham bands (as opposed to, say, the CB band)

1047. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-14 22:17:21 UTC
From: k2ph@cbnewsj.ATT.COM
Message-ID: <3864@cbnewsj.ATT.COM>
Source record: 13397

From article <1990Feb14.003336.24765@csusac.csus.edu>, by scott@csusac.csus.edu (L. Scott Emmons):
> In article <1232@unsvax.NEVADA.EDU> storkus@arrakis.nevada.edu.uucp (Mike Storke (N7MSD)) writes:
>> One tip with the capacitors, not mentioned before: Make sure they can
>>withstand at least around 60-70 volts on the phone line. Each time the phone
>>rings, it will send that kind of voltage through the line, and you will blow
>>the cap if it is less than this value.
>
> Use a 120V cap...ring voltage is around 100VAC...
>

Better use much more than that. Ringing voltage is anywhere from
86 to 100 volts rms at 20 Hz superimposed on a dc voltage that can
be anywhere from about -42 to -56 volts (at least in what used to
be the Bell System). Given that peaks on the 20 Hz sine wave can
run up to about 140 volts, you get voltage swings of at least 200
volts in one direction, and you should be allowing some safety factor.

--
==========
Bob Schreibmaier K2PH | UUCP: att!lzss!k2ph or k2ph@lzss.att.com
AT&T Bell Laboratories | ARPA: k2ph%lzss@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

1048. Re: License Plates

Newsgroup: rec.ham-radio
Date: 1990-02-14 23:20:37 UTC
From: stevew@wyse.wyse.com
Message-ID: <2611@wyse.wyse.com>
Source record: 13398

In article <12566149157010@osu-20.ircc.ohio-state.edu>
BERTSCH-S@osu-20.ircc.ohio-state.edu (Steve Bertsch) writes:
>The reason hams have callsign license plates is so every neighbor
>within 10 blocks knows who to blame for any and all RFI problems.
>Kind of like wearing a sign that says "Kick me" :-)

You've almost got it right, the plates are so that they can identify
you even when your NOT home. The 75 foot tower usually does a better
job of saying "Kick Me!"

73's de Steve KA6S

1049. New License Class(es)

Newsgroup: rec.ham-radio
Date: 1990-02-15 00:33:21 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002150033.AA05061@cmr.ncsl.nist.gov>
Source record: 13399

The FCC has opened Pandora's box by proposing license-class restructuring, not just a no-code license. I fear that they have not fully thought out the effects of their proposal to cease issuing Novice and Technician licenses. Whether or not the FCC issues NEW Novice and Tech tickets, the present holders will be around for many decades. The Commission is proposing a new Communicator class of license, so we'll now have SIX classes of licenses..... make that SEVEN, since they also propose both "code" and "no-code" variants of the new class. WOW!!!!!!!!!!!!

I understand that the FCC ham database program was written to allow only six license classes. It would be painful and expensive for them (to contract out) to change this program. I would be surprised if they had any intention of any such change. I suspect the FCC doesn't see the "Communicator w/code" and "Communicator wo/code" to be different classes, but aren't they really?

I am such an O.F. that "I have a dream" that maybe we should try to propose a license structure going part-way back to the good old days of just Class A (now Advanced) and Class B (now General) licenses. Maybe with no-code, etc., it might take three or four classes, BUT CERTAINLY NOT SEVEN.

Even when "incentive" licensing came along in the 50s, all calls came from the same pool. Then the "administrative neatness" folks arrived and the present call zoo started. As soon as they allowed the old call to be kept upon upgrade, the whole special calls for special classes concept fell apart - but has been continued anyway.

How should the FCC reduce the license-class proliferation, accomodate the current licensees with roughly their current priviledges, and (if you believe in it) add a no-code class????????

I'm not happy with the approaches I've thought of; what do you suggest? I look at "endorsements" as really being additional license classes - you'd have to use bits in the data base to keep track of them, and they just ADD to the zoo of too many increments of priviledges (IMHO).

Putting on flame-proof suit, I am
Bob W3OTC

No employer endorsement implied.

1050. The handwriting is on the wall...

Newsgroup: rec.ham-radio
Date: 1990-02-15 00:34:22 UTC
From: karn@jupiter.bellcore.com
Message-ID: <20015@bellcore.bellcore.com>
Source record: 13422

FCC AMENDS PRIVATE OPERATIONAL FIXED MICROWAVE SERVICE RULES
TO FOSTER RADIO LANS
8 February 1990 PR Docket 88-191
The Federal Communications Commission has amended its rules governing the use of the 10.6 and 18 GHz bands by licensees in the Private Operational Fixed Microwave Service (POFMS).
Among the changes intended to promote more use of these channels, the FCC decided to allow 18 GHz licensees to operate multiple low-power transmitters (radio LANs), instead of one high-power transmitter serving a number of remote stations, within their defined coverage areas; removed the "digital only" restriction from the 10.6 and 18 GHz bands (however, "video entertainment" can't be distributed in the 18 GHz channels); changed the application procedure so licenses can be issued on a "first come, first served" basis; set a 35 mile separation standard for co-channel systems (instead of 50 miles as before); and eliminated the need for detailed interference analyses as part of most POFMS applications. Under the new rules, applicants must notify the operators of nearby systems assigned to the adjacent channels and prepare an interference analysis only if one of them objects to the proposed facility.
Under the new rules for radio LANs, a licensee would specify a coordinate as the geographic center of the proposed network, with the right to put multiple low-power devices within a certain radius from that reference point without the need for additional coordination. The 35-mile standard would apply to the central coordinates of radio LANs operating in the same channel. According to an FCC news release, "the 35 miles separation standard would provide an adequate service area of approximately 12 miles and will better accommodate new station entry."
During the question period, FCC Commissioner Marshall asked Ralph Haller, chief of the Private Radio Bureau, if he expected a lot of people to apply for 18 GHz radio LAN licenses. "I certainly do expect that the band may be widely used for that, and there has been some expression of interest already in that kind of operation," he replied.
News media contact: Patricia A. Chew (202-632-5050)
Private Radio Bureau contact: Michael Lewis (202-632-6940)
[This posting from Capital OnLine's "Airwaves Conference."

1051. Bearcat 100XLT mods. (wanted)

Newsgroup: rec.ham-radio
Date: 1990-02-15 02:44:49 UTC
From: mlefebvr@ireq.hydro.qc.ca
Message-ID: <583@s3.ireq.hydro.qc.ca>
Source record: 13400

Has anyone heard about mods for the Bearcat 100XLT
portable ? I've seen postings about the 200XLT but
I don't know if any of these mods would apply to
my unit.

Thanks for any help.

Marc Lefebvre, IREQ: Institut de Recherche d'Hydro-Quebec
Analyste / Analyst. 1802 Montee Ste-Julie, Varennes,
mlefebvr@ireq.hydro.qc.ca Prov. Quebec, CANADA J3X 1S1.
uunet.uu.net!clyde.concordia!s3!mlefebvr Tel: 514 652-8554 fax: 514 652-8555

--
Marc Lefebvre, IREQ: Institut de Recherche d'Hydro-Quebec
Analyste / Analyst. 1802 Montee Ste-Julie, Varennes,
mlefebvr@ireq.hydro.qc.ca Prov. Quebec, CANADA J3X 1S1.
uunet.uu.net!clyde.concordia!s3!mlefebvr Tel: 514 652-8554 fax: 514 652-8555

1052. Re: Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-02-15 02:56:22 UTC
From: michaelb@mikebat.UUCP
Message-ID: <278@mikebat.UUCP>
Source record: 13401

```
: +There is no "devil" in code.
:
: Oh yes there is! The very idea that someone "needs" 20 WPM skills in CW to
: be granted an EXTRA is old-age thinking.
:
: And after all,
: the hobby is supposed to be about T E C H N O L O G Y not blazing-brass! ;-)
: --
: -Avatar-> (aka: Erik K. Sorgatz) KB6LUY
```

I want to publicly apologize for my outburst to Mr. Sorgatz several months ago. Anyone who can think this lucidly about code has to have something going for him.

Michael
--
Michael Batchelor / KA7ZNZ uunet!wshb!mikebat!michaelb

Ships don't come in; they're built. -- (I don't know who said it.)

1053. Re: Wanted: Recommendation for a CHEAP 24 hour clock

Newsgroup: rec.ham-radio
Date: 1990-02-15 03:05:42 UTC
From: gary@sci34hub.UUCP
Message-ID: <585@sci34hub.UUCP>
Source record: 13402
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1990Feb1.194316.3098@chinet.chi.il.us>, megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
= seen lots of expensive types, but surely someone must make an inexpensive
= LCD or LED clock that has 24 hour format.

Easiest and cheapest is to buy a $10.00 LCD watch that does 24-hour
time, and glue it to your clipboard or other handy surface.

= Mark E. Sunderlin: IRS Technocrat in Winchester, VA
= aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203

--
Gary Heston { uunet!sci34hub!gary } System Mismanager
SCI Technology, Inc. OEM Products Department (i.e., computers)
Hestons' First Law: I qualify virtually everything I say.

1054. College Clubs(again)

Newsgroup: rec.ham-radio
Date: 1990-02-15 03:45:19 UTC
From: GR6588@SIUCVMB.BITNET
Message-ID: <9002170530.AA19927@ucbvax.Berkeley.EDU>
Source record: 13403

With all the college club members comming out of the woodwork, I feel compelled to drop my input as well. As former officer and present member of the Southern Illinois Univerisity ARC, I can understand where time for studies, radio, and "extracurricular activies" could be time consuming. The club here is alive and kicking and doing quite well. This past year we have seen a significant increase in involement, especially in new members. We are in the process of installing an NETROM packet node, quite active on the HF bands, and all round doing quite well. Just got a stack of cards back from the BURO and we are only 3 short of DXCC. (Most of those countries have been worked withing the last years or so.) As far as the station facilites go, it is not "top of the line" but I find it quite, if not VERY, competitive. I have only had three instances when I have not been able to break the pileup for that rare DX country. I still find time to work DX between my full time job and grad school. So, there are some of us out there still plucking away on the air. By the way, last year three Universities (U of Illinois, U of Arizona, and SIU were the heads of a college net that met on Saturday afternoon. If anyone is interested in getting this started again, lemme know. Speaking of warm beer, I am on my way to have a cold one. What the heck, work is only 6 hours away.

Kelly Jones
BITNET: GR6588 @ SIUCVMB
PACKET: KE9KD @ WD9EBQ

Cheers all

1055. Re: Common Pro-Code Arguments Debunked

Newsgroup: rec.ham-radio
Date: 1990-02-15 04:49:46 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12889.25DA3576@stjhmc.fidonet.org>
Source record: 13404

> From: labelle@hpl-opus.HP.COM (George LaBelle)

> > I'll happily debunk more myths as they appear.
>
> A morse code test is a good filter. If someone dosen't want to
> put
> the effort into it, they don't deserve a licence!
>
> (I don't believe this, but this is the main argument I keep
> getting.

It's obviously not working. If you don't believe it, spend an evening listening to <fill in name of voice band>.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1056. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-15 04:49:58 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12886.25DA3572@stjhmc.fidonet.org>
Source record: 13405

> From: kchen@Apple.COM (Kok Chen)
>
> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>
> >The old telegraph code (I forgot its name) used spacing. I gather
> therefore
> >that an SOS would be sent with 3 quick taps, a long space, three taps with
> a
> >slightly longer space between taps than between the "S" taps, a long
> space,
> >andthree quick taps. An even longer space would separate the individual
> >"SOS" groups.
>
> re: dashless morse:
> ------------------
> Is there some OT railroader on the net who can give us the real poop on
> how it was really done? I had the impression that the morse "sounders"

The sounder created two clicks - one on make and another on break. The length of time betwen them determined whether it was a dash or a dot. The make click and the break click commonly sounded different, depending on sounder design and spring tension adjustment.

An interesting sidenote on the original landline telepgraph: Samuel F. B. Morse's original instruments used pens to make marks on paper tape. Operators were to 'read' the marks and translate them into written text. Ol' Sam was blown completely out of the water later when he noticed his experienced operators were writing down the messages from the sound without looking at the tapes. Apparently, the notion that it was possible to copy telegraph signals by ear had never occurred to him.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1057. Re: Who needs another license class?

Newsgroup: rec.ham-radio
Date: 1990-02-15 04:50:19 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12887.25DA3573@stjhmc.fidonet.org>
Source record: 13406

> From: kjh@pollux.usc.edu (Kenneth J. Hendrickson)
>
> VHF/UHF/SHF/EHF folks very pissed off at you. Don't take away my
> right to operate CW!

Nobody is proposing that. Just that those on VHF who aren't going to use it,
needn't be tested on it.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1058. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-15 04:50:26 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12888.25DA3575@stjhmc.fidonet.org>
Source record: 13407

> From: karn@ka9q.bellcore.com (Phil Karn)
>
> In article <12683.25D5A6DB@stjhmc.fidonet.org>
> Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:
> > > One "FIX" is to make the Communicator class have ALL amateur privileges
> > > on frequencies above 30 Mhz and keep the Novice class and allow one to
> > > hold BOTH Novice and Communicator classes in a single license (the dual
> > > class idea was proposed to the Commission in my petition).
> >
> >I'll vote for that. It's a very sensible solution. The satellite users
> will
> >bitch, but there are better bands for that anyway.
> >73 de Jim Grubs, W8GRT
>
> The AMSAT Board of Directors (of which I am a member) is on record as
> supporting a no-code license with full privileges above 30 Mhz. Among
> other things, we want them to have access to the Microsats now in orbit
> (they listen on 2 meters).

Great!!! That's a really big boost to 'the cause'. I'm still not certain it
makes sense not to start with full privileges above 30 mHz. For openers, the
FCC among others have been bitching about underuse of 6 meters for a long time.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1059. Grounding(?) Problem

Newsgroup: rec.ham-radio
Date: 1990-02-15 11:31:26 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9002151131.AC00041@adam.DG.COM>
Source record: 13413

CEO summary:
Bruce Sawyer writes that his rig stays in transmit mode when using CW with the beam pointing towards the rig. He seems to have the rig grounded (:-), but to me, it sounds like the RF is going in through the keying circuit...try using coax and bypass caps on the lead going from the key to the rig. If you have an electronic keyer, check that it's not being overloaded by RF as well.
good luck,

Peter Simpson, KA1AXY (508) 870-9837
Data General Corp M/S E132
Westboro, MA 01580 Internet: PZS@ADAM.DG.COM

1060. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-15 11:54:42 UTC
From: jay@splut.conmicro.com
Message-ID: <Q_8
Source record: 13434

In article <257.25D689AD@uscacm.UUCP> Mike.Boyle@f36.n376.z1.FIDONET.ORG (Mike Boyle) writes:
>My neighbor is a lic. HAM operator. His transmissions interfere with ALL
>electronic items in my house. His voice is on the TV, stereo, and even the
>telephone when he is transmitting. I have told him about the problem on
>several occasions and he pretty much said it was a problem with all of my
>stuff. C'mon. ALL of my stuff is faulty? My question is, what can I do to
>get him to quit this frustrating interference?

Every last thing is getting interfered with? That's actually pretty unusual. Still, it's quite likely that he's radiating a clean signal, and that your electronics - particularly if they're cheap or old - are picking up something they're not supposed to. The FCC has run several studies, and they all come back the same: the majority of consumer electronics are woefully inadequate when it comes to rejecting signals they're not designed to receive, such as your neighbor's transmitter. There's a book they publish on the subject, which you can get free by contacting your nearest FCC office.

One little-known item: the FCC standards for telephone equipment do nothing to protect them from RFI (radio frequency interference/interception), and the phone company is your only hope there. They can provide filters to keep the signal from coming in on the line into your house. You have to press them pretty hard, though.

I know it's frustrating, but he's (probably) right: it IS your stuff. All of it. He's putting out a signal he's licensed to radiate, and if your electronics are receiving it, I suggest you deal with the manufacturers about it. (This assumes he's putting out a clean signal, which is reasonable to assume for modern ham gear.)

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
{attctc,bellcore}!texbell!splut!jay +--
Free the DC-10!

1061. Re: What Happened to Woody?

Newsgroup: rec.ham-radio
Date: 1990-02-15 12:14:42 UTC
From: s36572u@puukko.hut.fi
Message-ID: <1990Feb15.121442.8015@santra.uucp>
Source record: 13424

In article <38634@apple.Apple.COM> aaker@apple.com (Mark Aaker) writes:
>I haven't heard the Russian Woodpecker on the HF bands in a long
>time. Have they stoppped? Have they changed frequencies in order
>to skip over the amateur radio bands? Its usually a good indicator
>of the current propogation from USSR to me at any given time. Has
>anyone heard a reliable news report about this? Anyone want to
>make up a good rumor about this? 73, Mark NT6G
>aaker@apple.com

The following is only hear-say:

If I've understood this thing correctly, the Woodpecker was a russian
global radar system. It was (is) located at Krasnoyarsk and it was fed
the power of one medium sized power plant...But no longer, since Gorba
& Perestrojka pretty much got rid of the cold war, this radar station was
considered unneccessary and was therefore shut down. Maybe someone has got
more accurate info on this thing?

73 de OH2MBM

1062. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-15 15:02:09 UTC
From: dubner@hpspkla.spk.hp.com
Message-ID: <4630011@hpspkla.spk.hp.com>
Source record: 13414

> Could somebody explain to me the advantage of having a license
> plate with the person's call sign on it? Does this cost as much
> as the usual personalized license plates?

> I keep seeing them, and I keep wondering... Thanks!
> --
> Scott McCalmont Dept. of Electrical Engineering
> jsm1@dukee.egr.duke.edu Duke University, Durham, NC 27706

Here's another advantage, Scott: it makes it easy to remember your license plate number. Seriously! This is moderately helpful when checking into motels.

But in spite of this and the larger advantages, I discarded my ham plates a couple of years ago. The problem was that (in Idaho where I reside), call letter plates are treated as a "special" and are not automatically renewed by mail. It was necessary to make a trip to the Motor Vehicle Department each and every year during work hours and stand in line to pay my extra $5. It didn't seem worth the effort :-(

... Joe, K7JD

Joe Dubner K7JD | Hewlett Packard Company | dubner@hpspkla.HP.COM
| TAFC-34 M.S. 2I | (509) 921-3514 (work)
| Spokane, WA 99220 | (208) 772-3657 (home)

1063. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-15 16:47:07 UTC
From: glens@tekigm2.MEN.TEK.COM
Message-ID: <8296@tekigm2.MEN.TEK.COM>
Source record: 13436

In article <7995@hubcap.clemson.edu> bjb@hubcap.clemson.edu (BJ Backitis) writes:
>This year, the day that my then-current tag was expiring, I found out
>that I was being DENIED the special plate because my name did not appear
>on the registration in the same form as it does on the license (due to
>
>Anyone else with similiar horror stories?

Yup -

When I was in high school, my cars were registered under my dad's name because it made a *big* difference to the insurance weenies (they kinda start salivating when they see stuff like "Age: 17 Sex: M Car: 1968 Camaro w/ V8"). Anyway, this made it nice for insurance, but nearly impossible to get a ham plate with *my* call on the car since I wasn't the registered owner. They had no with problem putting Dad's call on, but it's just not the same :).

I just gave up until after I turned 18 and had another car to register. The only snag was when they showed up with one "KA7AYF" plate and one "KA7AFY" plate. Apparently Guido hadn't had his morning coffee yet.

The earlier comment about nobody knowing anything when you apply is certainly true in Washington State, too.

- Glen

--
Glen R. Sands KA7AYF |
Tektronix, Inc. PO Box 3500 M/S C1-925 | glens@tekigm2.MEN.TEK.COM
Vancouver, WA 98668 (206)253-5819 |

1064. Re: I need vacuum tubes ...

Newsgroup: rec.ham-radio
Date: 1990-02-15 16:58:00 UTC
From: andy.fenstad@canremote.uucp
Message-ID: <90030913423527@masnet.uucp>
Source record: 13415

> Is there anybody out there who knows where I can get or order some
> vacuum tubes (i.e.- Sylvania 6l6). I am secretly refurbishing, and
> the keyword here is refurbishing, my mothers antique Wurlitzer juke.
> Offhand I don't know the specific part numbers, but I can go home
> and look. This would be of great importance to me, and would be a
> great Birthday present for her. Absolutely any information would
> be immensely appreciated. Please e-mail me.

You could try a phone call to WES Electronics here in Winnipeg.
The phone number and address are:

WES Electronics
1515 King Edward St.
Winnipeg, Manitoba
R3H 0R7

(204) 632-1260

I just called there and talked to Dennis (ask for him when you call)
and they have stock on the 6l6 and 6CA7. He said they are about the
only two they are going to stock, but they have a good source in
Sylvania Canada. They have dumped a lot of tubes since I worked there
(2 years ago), but still have a bunch they want to get rid of. Give
them a call and you may get results!

Ciao!

~ QNet 2.03: Pokey's Place Winnipeg MB (204) 253-1342 (V9600) *NorthAmeriNet*

1065. Thermal Noise and Random Thoughts

Newsgroup: rec.ham-radio
Date: 1990-02-15 16:59:31 UTC
From: DEFRANCO@TOPS20.RADC.AF.MIL
Message-ID: <12566582524.10.DEFRANCO@TOPS20.RADC.AF.MIL>
Source record: 13416

Just a couple of quick items. First, the code/no-code debate seems to be restarting again. Please let it lie. The sides are already taken and positions established. I was a non-ham supporter of no-code, until I got tired of waiting. I figured I was an intelligent adult who wasn't going to let some silly 5 WPM code test get in my way! I borrowed some practice tapes from some ham friends, and within 10 days passed both code and written tests with very little effort. (PLEASE - this does not imply that everyone can do that) Within the next month or so I intend to have my Tech license. So, to everyone who says they want to be a ham but think code is a stupid requirement, all I can say is that you either wait for the codeless license class, which could take some time, or put the power of positive thinking (where have I heard that phrase?) to work and pass the code test.

Second item: Capacitors for filtering on telephone lines should be rated 200 WVDC. I spent ten years doing phone system work, and almost every circuit that places caps across the two-wire line pair is rated 200 volts. Ringing voltage applied at the central office is normally 105 VAC, but it is superimposed upon the -48VDC central office battery power. If you look at the potssible peak voltage is it 149v (peak ring) plus 48 v (dc battery) for a total of 197 volts. Be safe - use a 200 volt cap.

Third item: (okay, I got carried away) Ground rods and grounding are topics that have been widely discussed, especially how to get good ones. If the ground is for the AC power system, the NEC requires not more than 25 ohms, which in my book is almost useless. Consider a fault that applies 120VAC to the ground wires in a house. At 25 ohms, the ground system will only conduct about 5 amps, not even enough to trip a circuit breaker. Even worse, if your rig dumps RF into the same system, it will probably radiate more energy than it conducts to ground. Here's some suggestions to consider:

1. If the ground conductivity is good in your area (either due to high ground water or constantly moist soil from high rainfall), a good ground system should consist of three 10 foot copper-clad ground rods driven at the vertices of a 10 foot equilateral triangle. The three rods should be wired together with nothing smaller than #2 wire. It can be bare or insulated. Wires should be tied to the rods with clamps AND anti-oxidizing compound, usually available at electrical supply houses. The alternative is to braze, not solder, the wires to the rods. This arrangement will normally produce a ground system with less than 5 ohms earth resistance, often less.

2. In areas where little gournd moisture exists, the bentonite method works well, as it holds moisture and effectively expands the area

over which ground currents are distributed. Note that other methods that rely on ionic salt saturation will only work if you constantly "water" the system. Dry earth conducts poorly regardless of how much salt or copper sulphate you deposit into it.

3. In general, any time you install more than one ground rod, you will have potential differences between them - hence the reason for the large wires tying them into a single unit. This type of multi-rod system is quite common for large towers, large ground mounted power transformers, and electrical switchgear.

4. Finally, the old-time solution of tying to a cold water pipe is becoming very dangerous, as many water systems have moved to plastic piping, which as we should all know, conducts current very reluctantly. Unless you are sure the copper lines in your house also tie into cast iron distribution pipes, put in your own grounding system.

Carl DeFranco
(call sign on its way)
defranco@tops20.radc.af.mil

1066. Removing Braid from Coax

Newsgroup: rec.ham-radio
Date: 1990-02-15 17:17:54 UTC
From: holt@hp-sdd.hp.com
Message-ID: <3304@hp-sdd.hp.com>
Source record: 13435

I need to extract the braid from some RG-8 coax for use as a ground strap. Does anyone have any nice methods that are not too skill-intensive? (I can't judge the depth on a long cut accurately enough.) Thanks.

Holt Mebane, N4HR

UUCP : uunet!ucsd!hp-sdd!holt or hplabs!hp-sdd!holt
Internet: holt@sdd.hp.com
USmail: 16399 W. Bernardo Drive, San Diego CA 92127-1899 USA
Phone : (619) 592-4882

1067. College Radio Days

Newsgroup: rec.ham-radio
Date: 1990-02-15 19:19:00 UTC
From: jwhitson@wpi.wpi.edu
Message-ID: <8348@wpi.wpi.edu>
Source record: 13417

I would personally add a YES!! there is time for
radio in college!!!

In particular, here at WPI, we have the WPI Wireless
Association, W1YK, founded in 1909, the oldest college
wireless club in America. We have about 15 members, most
of whom are licensed. Those who aren't come up to the
'Shack (our shack is on the roof of one of the taller
buildings on campus, good coverage everywhere) to either
be social, or to use equipment under supervision. It
works out really well. I personally *got* my tech in
college, in fact, as a graduate student no less.

The best advantage: Lots of friends and fun.

The 2nd best advantage: The club can afford all kinds
of equipment (i.e. a Kenwood TS-940S, tower, antenna
arrays, packet stations, and repeaters) that we can
get access to, that mostly I could only wish to afford
outside of college.

The workload is tough, true, but there is *always* time
for radio, even if just one or two times a week. As for
YLs, well, the ratio at WPI is 7:1, so what difference
does it make!?!!? :-) We may soon have our first female
member (she says she has a license, but can't remember
her call), so even that is getting better. She's cute,
too ... (sorry about editorial comments).

--
---------- If at first you don't succeed, so much for skydiving ---------
John Whitson: Internet: jwhitson@wpi.wpi.edu Bitnet: jwhitson@wpi.bitnet
73's from KB2GNC/1 UUCP: uunet!wpi.wpi.edu!jwhitson
---------- Anything with this tag on it is purely my own opinion ---------

1068. BC-WA Alert radio problem

Newsgroup: rec.ham-radio
Date: 1990-02-15 19:31:58 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9002170631.AA23312@ucbvax.Berkeley.EDU>
Source record: 13418

I have a BC-WA Weather Alert radio from Bearcat. This is one of the desk type black radios with a big black rocker switch on the top front.

The problem I am having is that the local NOAA weather radio service tends to pop off the air occasionally. When this happens, the radio falsely triggers, presumably due to the white noise being fed to the tone decoder when the carrier goes away. Not so bad during the day but at night it's a drag as you can imagine :-).

Has anyone found a way to fix this? I guess one way would be to add a squelch circuit to the radio but that would be a lot of work. Any info would be appreciated.

Thanks very much. I'll post a solution if I find one.

"It's never too late to have a happy childhood."
- Unknown

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

1069. UNIDEN 2510 High Power Modification

Newsgroup: rec.ham-radio
Date: 1990-02-15 19:40:46 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9002151940.AA13152@bunny.gte.com>
Source record: 13419

Has anyone tried the modification for the UNIDEN 2510 10 meter radio that was shown in 73 magazine (Spetember 1989, I think). Several freinds of mine had tried it and it doesn't seem to do anything. I think there was also a mod to get the radio to work above (for satellite stuff) and below (don't ask me why) the 10 meter band. That mod doesn't seem to work, either.

Is this just another example of shoddy Wayne Green-sim or does anyone know how to make these modifications work? 73 John WB2EKK @N4QQ
PESCATORE_JT%NCSD@GTE.COM

1070. Re: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-15 21:07:07 UTC
From: bradt@hpindda.HP.COM
Message-ID: <5120007@hpindda.HP.COM>
Source record: 13420

>The educational system in general is rife with people who insist that the
>student rote-memorize a lot of things he will never again have use for.
>This doesn't mean the teacher is good; it means that the student falls
>asleep and forgets it all right after the exam. Unless, of course, he
>is interested in the subject material.

>So step into the 90s, guys! Let people who really *want* to learn code
>do so freely, but leave the rest of us alone.

>_H*

What's the "90's" got to do with anything. The basis for code requirements are not based on the current level of technology or how much of a variety of equipment is available to use the amateur bands.
The "rest of us" include people who want to use the various bands without taking the time to learn the rules, regulations, and proper uses of the amateur airwaves. Learning code simply shows that you are willing to learn certain disciplines to exercise this privilege. If this is too much work for you(and others), go use CB!!
Having to know code simply keeps out those not willing to take the time to learn amateur radio's basic foundations.

--Brad Taylor KB6ENW

1071. Need help locating tube for friend

Newsgroup: rec.ham-radio
Date: 1990-02-15 21:17:10 UTC
From: pascoe%edcd.dnet@GTE.COM
Message-ID: <9002152117.AA17012@bunny.gte.com>
Source record: 13421

Does anyone out there know of any sources for RCA 4065 triodes? Any help
will be appreciated. Please e-mail unless you absolutely can't.

Dave Pascoe KM3T | Internet: pascoe%edcd@GTE.COM
| km3t%jjmhome@m2c.m2c.org
Day (617)455-5704 | UUCP: {harvard}!m2c!jjmhome!km3t
Eve (508)881-8720 | Packet Radio: km3t @ k1ugm.ma.usa.na

1072. Looking for info about OSCAR stuff.

Newsgroup: rec.ham-radio
Date: 1990-02-15 22:59:04 UTC
From: brians@sequent.UUCP
Message-ID: <29594@sequent.UUCP>
Source record: 13423
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

I am looking for an inexpensive way to start using the oscar sats.
I would like to buy an hf rig (used) that is good enough that a converter
can be put on it to work the vhf and uhf frequencies.

Can anyone give me some feed back about this.
--
Brian Sheets KA7KDX _ /| "I'll be back"
5544 N Burrage. \`o_O'
Portland Or. 97217 ( ) Aachk! - Arnold Schwarzenegger,
503-526-4091 U Phft! Any movie he's been in.

1073. Reciprocal permits for Italy and Switzerland

Newsgroup: rec.ham-radio
Date: 1990-02-15 23:44:43 UTC
From: mrapple@quack.UUCP
Message-ID: <5122@quack.UUCP>
Source record: 13425

Could someone please mail me the details on getting
a reciprocal permit for a less-than-one-month stay
in Switzerland and Italy? If at all possible, I
would like to obtain such permits BEFORE leaving,
rather than try to get through customs without
proper documentation (they may think I'm some kind
of spy :-)). The station will be a 5w 2M HT,
and an address in-country is not yet available.
I have an Advanced class license, call is N6QQQ.

Thanks in advance. If there is sufficient "me-too"
mail, I will summarize and post.
--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~+~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
quack!mrapple@uop.edu ! President
...pacbell!uop!quack!mrapple ! National Society for the
N6QQQ @ WB6V (packet radio) ! Prevention of Speed Bumps
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1074. Re: CB'er problems!

Newsgroup: rec.ham-radio
Date: 1990-02-16 00:16:47 UTC
From: johne@hpvcfs1.HP.COM
Message-ID: <22040001@hpvcfs1.HP.COM>
Source record: 13426

<<<
> My advice is to RDF 'em and then turn 'em in. Other than that, although it
>may be illegal, is to chop their coax early in the morning and then listen to
>them when they scream that their radio (or maybe linear) finals blew up in
>a cloud of smoke!

Tactics like these will only work once. They will most likely go out and
get a new and more powerful final. They will also hide the coax and install
a dummy lead that might be connected to 120 VAC. Try putting a pin into that.
I should also mention that people who believe in illegal CBing also like big
dogs and guns. If these people are your neighbors then the best place to call
is Mayflower.

John Eaton
!hpvcfs1!johne

1075. Re: Removing Braid from Coax

Newsgroup: rec.ham-radio
Date: 1990-02-16 00:30:34 UTC
From: tomb@hplsla.HP.COM
Message-ID: <5720059@hplsla.HP.COM>
Source record: 13427

holt@hp-sdd.hp.com (Holt Mebane) writes:
>I need to extract the braid from some RG-8 coax for use as a ground strap.
>Does anyone have any nice methods that are not too skill-intensive? (I can't
>judge the depth on a long cut accurately enough.) Thanks.

There are cutters made that only go to a limited depth, but you
probably will have a hard time finding the "right" one. If you
have the right tools around, you can easily make one, however.
Simplest is just a machinist's clamp holding a razor blade so that
about 1/32" of it sticks out (that is a corner of the blade, not the
whole length). However, I usually just use a sharp knife across the
coax, essentially flat against it. It seems pretty easy to hold the
cut so it exposes but doesn't go thru the braid.

Good luck ...

Or how about just leaving the braid on the coax and using the whole
thing as the ground strap??

73, K7ITM

1076. Re: License Plates

Newsgroup: rec.ham-radio
Date: 1990-02-16 00:33:58 UTC
From: bobw@col.hp.com
Message-ID: <4380070@col.hp.com>
Source record: 13428

>Re: Ham license plates
>Why? So hams can recognize each other. Or so you can brag. Or so
>civil authorities have a chance at identifying supplemental assisting
>vehicles in emergencies.
>
> [stuff deleted]
>
>It is also a recognition by some state legislators in some states that
>hams help in emergencies and therefore deserve a little token recognition.
>
>I have 'em on my jeep.
>
>
>Ron Miller
>NW0U
>----------

So what Ron's saying is "there really is no good reason for call
letter plates."

I've got them on my jeep, too.

Bob Witte KB0CY

1077. A.C.E. Newsletter - Feb.1990

Newsgroup: rec.ham-radio
Date: 1990-02-16 03:01:58 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <174@ka2qhd.UUCP>
Source record: 13429
Cross-posted to: rec.radio.shortwave,rec.ham-radio

THE LOS NUMEROS UPDATE

HAVANA MOON
MoonBeam Press
PO Box 149, Depart. BB
Briarcliff Manor, NY 10510

==========
On the plum in flower
By my eave,
The pale moon hangs
At the dawning hour.
-- Tenro
==========

BULLETIN

015UTC Monday, 01-21-90. "Foghorn" observed on the air-to-ground frequency of 6577 kHz. As if AERINC didn't already have enough trouble, what with Numbers transmissions and other types of jammers.

0200 UTC Monday, 01-21-90. The electronic war (?) continues at a highly elevated level as 6577 kHz is bombarded - not only by the "Foghorn", but by a "Buzz Saw Jammer", and the usual 5-D Spanish transmission. Said frequency being rendered totally useless for numerous aircraft in flight.

WAKE UP, State Department!

Exclusive to A*C*E - At some few times during the month of June, 1989, the 5-D Spanish transmission on 6577 kHz was determined to be originating from within a 25-mile radius of Managua, Nicaragua. This information, as usual, from those sources that decline to be identified.
* * * * * * * * * *

* Numbers 101, Part 3 *

Type 3 Transmission Formats

"Atencion 133 00 30" (repeated for several minutes)
"30" (repeated for less than one minute)
xxxxx xxxxx . . . (ciphertext or crypt)
"Final" (repeated twice)

The first three digits are the identifier, with the following two digits an unknown. The last two digits before the crypt are the "group count" digits.

To the best of my knowledge, this transmission format is seldom heard - I would be very interested in reception reports from any of you who might encounter it.

And speaking of reception reports, the *IDEAL* report would consist of the Identifier, Group Count and the first three and last 5-digit groups of the crypt. This in conjunction with the usual details regarding frequency, time in UTC, etc. Now, while I realize that this is time consuming and out of the question for most - any of you who would be willing to spend the time would be contributing greatly to Numbers research efforts.

If you listen very carefully to 5-digit and CW transmissions, you'll find that the pause after every tenth group is slightly longer than that between the other groups of the crypt. If you were to record the transmission at 2.4 cm and then play it back at 1.2 cm, you would notice the pause following the tenth group to be very prominent.

The number of groups is twelve per minute in 5-digit Spanish. The very same for 4-digit English and Spanish. The only exception I've noted in this cadence is in the live, or non-computer generated 5-digit Spanish transmissions.

LADIES DAY AT THE A*C*E

Traditionally, our hobby has been dominated by the male of the species. Look what we've been missing! Well it's time to put those days behind us, guys - because the female of the species has much to offer this hobby and profession.

First - They look a hell of a lot better than we do.
Second - Their skill at ferreting out numbers transmissions is unparalleled.
Third - They just don't get involved in the stupid in-fighting that so many of us 'self-proclaimed experts' so often find ourselves mixed up in. More on in-fighting in a later edition of The A*C*E.

Now I am fully aware that my stance on this issue will result in a hasty - and as usual, ill-prepared - meeting of NOG (National Organization of Guys) to immediately nish HM from saiorganization for ever and ever, amen.

B that's okay, guys. I'm sure that NOW (Nation Organization of Women), while perhaps skeptical at first, will eventually welcome me with open arms.

And just fortarters, here are just a few of the things YLs have contributed to the hobby -

. Potato-Chip, a DC-basedemme, who joins us every Saturday night on-line, is well versed in the ins and ts of the ECPA.

. Ira's Mom - w has her own shortwave radio (which she does NOT share with Ira) - indicates that she s discovered a relationship between Radio Havana Cuba and some few Numbers transmissions. How about sharing the info, Mom?!

. Thyss - a California-based YL who also joins us on Saturday nights. Though only a beginner, she soaks up knowledge aster than one of Rosie's paper towels!

. And lest we forget - there's the highly esteemed Lani Petit, whose shoes I am now attempting to fill. Where are you Lani? The high heels are bothering my feet - and the guys at NOG are giving me a rough time.

. There are Pop'Comm's maven of Radio Nostalgia, Alice Brannigan, Monitoring Times' Gayle Van Horn and Jean Baker and Sharon Churcher and Trudy Miller of Penthouse.

. There's Linda Reneau (KA1UKM) and Joyce Sawtelle of 73 Amateur Radio Magazine and Carol Johnson of Portal Communi-cations.

. And then there's the indefatigable Kristin Kaye - of "Bits, Bytes & BBSs - who has lots and lots of the shadowy types who lurk about the Virginia countryside in a tizzy!

Let's welcome them with open arms, guys - no pun intended, of course!

AND NOW . . . Since this is Ladies Day At The A*C*E, reception reports, for the most part, will be those of Kristin Kaye, of UeL fame (UeL - no relationship to PTL) - with an emphasis on Slavic (?) Numbers transmissions - preceded by musical tones.

4032 kHz 0600 UTC AM 5-D Slavic kk/NY

4881 kHz 0000 UTC AM 5-D Slavic kk/NY
0100
0200
0300
0500

0530
0600 (This parallel to 4032 kHz transmission above)
1900
2100
2200

To my knowledge, no one has ever positively identified this language. Probably not Russian, says kk - no guttural sounds - Czech? Serbo-Croatian? We're just not sure. Give a listen -

this one is there practically every hour on the hour through the day and night. Given propagation issues this one is very curious, indeed.

RACING WITH THE MOON

John Fulford of FL and Zel Eaton of MO report Numbers transmissions in the 32 MHz range. Some years back, Numbers transmissions were reported in the 40 MHz range. I reported this in very small detail in "Uno, Dos, Cuatro."

Strange things happening these evenings on 6840 kHz. Maintain a close watch. 6802 kHz, after a long absence, once again active, and don't forget the mystery of 6835 kHz - shared by Air Force 1, Air Force 2, 5-D Spanish Numbers, and now - by a major electronics manufacturer which has just been granted an experimental license for this frequency. Talk about strange bedfellows . . .

HM's ELECTRONIC RECEPTION REPORT

To: HAVANAMOON
From: John Brewer
Subject: Numbers Intercepts
Date: Sat, 23-Dec-89 08:37:52 PST
Lines: 45

Date Time Freq/Mode Comments
---
15 DEC Z 0145z 6.824.8 AM YL #s, interesting because of the fact that another YL station (#s), was either mixing with, or being transmitted from the background. The station appeared to have a different YL "voice" and different numbers being "read." Both stations disappeared after the "primary" YL station left the air.

Format was "Atencion, Atencion, Atencion" followed by #s groups, repeated, then numbers groups till end of transmission.

CONTRIBUTORS CORNER

John Fulford (WA4VPY), Zel Eaton, Jim Vickonoff, Ira Martin, Ira's Mom, Don Bishop, Mark Pierce, John Brewer and Kristin Kaye.

HAVANA MOON'S COSMIC SPOTLIGHT

This month's Cosmic Spotlight shines on Ira's Mom. Mom will be receiving a one-year subscription to Electronics Handbook, published by C&E Hobby Handbooks, courtesy of Havana Moon and "Los

Numeros."

Next month's winner - to be selected at random, of course - will be the recipient of an original tape recording of one of the most unusual radio intercepts I have ever heard. More about that below! Get those intercepts in!

* * * * * * * * * *

There's been a truly peculiar transmission moving about the spectrum lately, best described as a "Foghorn". Well, could it be that the "Foghorn" is a new and sophisticated jamming device?

One recent Saturday Night while "Numbers Chasing" with the Amigas on "Los Numeros" we came across the "Foghorn" on 7920 kHz at 0500 UTC. Signal strength was very powerful, ranging from well over S9 at my QTH to S7-S8 on the West Coast. And that's not all. Underneath the "Foghorn" was a PAB (phonetic alphabet station) transmitting five character phonetic groups! I noted the signal strength of the Numbers Station to be around S7. Reception was extremely weak in San Diego, and not heard at all in San Jose. This (these) transmissions continued until approximately 0540 UTC. After the phonetic transmission ended, the "Foghorn" continued to transmit.

The phonetic groups were broadcast by a YL using the standard international phonetic alphabet but with decidedly non-standard pronunciation.

Example: LEE-MAH (Lima) NO-VEM-BEER (November)
EEN-DI-YAH (India) U-NEE-FORM (Uniform)

Use of non-standard pronunciation is an indication that the receive-site may use a voice-recognition system.

Back to the "Foghorn" - it was later found jamming 6925.5 kHz, a known KKN50 frequency. It was learned the following day that a complaint was filed by the State Department as a result of this interference.

A new form of jammer? Who? And why? Any thoughts?

An interesting sideline from Harry Helms - Harry says KKN50's marker transmission was greatly enhanced by this mysterious "Foghorn" with nomadic tendencies. Any ideas, folks? It's got the self-appointed experts confused - this, much to their chagrin! And if you think this group is confused, you ought to see the tizzy the professionals are in . . .

HAVANA MOON's PREDICTIONS FOR 1990

Ira Martin will become romantically linked to a world-famous female rock star. This will lead to Mr. Martin's photo being plastered on the front page of many issues of The National

Inquirer.

Harry Helms sightings will become more frequent than Elvis sightings as he is seen scouring McDonald's dumpsters * for Covert Corner material. I beg of you, folks - don't let this happen. YOU're in control. Get Harry some reports before he has to move on to Burger King!

The first Numbers transmission reception report received via a tooth filling will be logged by The A*C*E. The sender of this report will immediately receive a crushed and empty Tecate can. Contents of said can will have been disposed of in HM's own unique style (hic).

John Fulford will get his check or money order off to The A*C*E for a membership - provided he is not molested by any more Mafia Dons.

Ira's Mom will set The A*C*E record for Numbers reception reports while her son frolics on the Riviera with the above mentioned YL.

And last - but certainly not least - Ed Anger, of Weekly World News fame - will be verbally attacked by Andre Provacateur. Look out Ed - Provacateur's World has no room for you! And you're going to be madder than Fred the Fed with no E-Mail system to invade! And if you haven't yet picked up a copy of The Weekly World News - don't start now!

* * * * * * * * * *

Well, folks - the intercept database is ready for distribution. It'll be available in two formats - one print-out by time, and another by frequency. And for you Commodore users out there, a diskette-version will be made available at a later time, if demand warrants.

Here's what you'll need to do: Send a check or money order in the amount of $3.00 made payable to The A*C*E to the Club post office box. Include a stamped, self-addressed #10 envelope with your request. PLEASE - no requests to my Chicago address directly. Distribution methods will be worked out with Kirk.

I'll assume all costs so that the entire $3.00 will go to The A*C*E Treasury.

The first run is now in its final stages, and barring any unforseen computer snafus, will be ready a week to ten days after this issue of The A*C*E reaches you.

* * * * * * * * * *

HAVANA MOON RECOMMENDS

If you haven't done so already - be sure to pick up a copy of the February, 1990 edition of Popular Communications Magazine, and join me and John Fulford, for a "Magical Mystery Tour" of Miami's mysterious KKN39. See it as a "KKN Station" has never before been seen. And I mean that quite literally, folks!

And contact Grove Enterprises for shipping and pricing information about the all new "Shortwave Directory." This 1990 edition contains a new and revised Numbers section, courtesy of Yours Truly.

George Zeller's 1990 edition of "The Pirate Directory" - soon to be available from Tiare Publications.

* * * * * * * * * *

Special thanks to "Fred the Fed", The "Los Numeros" On-Line Amigas, and Olivier Schmidt of The Intelligence Newsletter for a recent profile of HM and Harry Helms. Thanks, also, to Sweden Calling DX'ers, Fred Maia's W5YI Report and Wayne Green of 73 Amateur Radio Magazine for recent mentions of "Los Numeros" and Portal Communications.

Hope to see all of YOU on "Los Numeros" soon. And by the way, you'll find The A*C*E Digest and Veried Response there - courtesy of Kirk Baxter and John Arthur!

And don't forget, guys - introduce a YL to the hobby. You'll be glad you did. And as the legendary Gene Nobles, of WLAC fame used to say - "Titillate your sensibilities."

We miss you - somewhere in time, Gene. And as far as you guys at NOG are concerned, you can . . .

See you at the Denny's on the Beach. Time now for a Tecate and . . .

On second thought, folks, I just might give up Tecate. You see, while on the patio just now, I saw a huge, furry creature with beady eyes running up and down my Cable TV line - I just may switch to Kool-Aid - SharkleBerry Fin . . .

Havana Moon y Amigas
33469

=-=

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This column initially appeared in the 1/90 Edition of The A*C*E Bulletin, a monthly publication of The Association of Clandestine Radio Enthusiasts. For more information, write to PO Box 11201, Shawnee Mission, KS 66207. Sample copies $1.50.

=-=

1078. Shortwave Pirate Radio Address List

Newsgroup: rec.ham-radio
Date: 1990-02-16 03:18:28 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <175@ka2qhd.UUCP>
Source record: 13430
Cross-posted to: rec.radio.shortwave,rec.ham-radio

```
+++++++++++++++++++++++++++++++++++++++
*** ** *** an A*C*E Special Feature ***
*** ***
*** THE DIRECTORY ***
*** editi 13 ***
*** by John Arthur ***
*** (C) Dec. 1989, all rights reserved ***
*** **
+++++++++++++++++++++++++++++++++++++++

These are the known mailing aresses of active and planned North
American Free Radio stations, revised to 19 November 1989.
MW and FM frequencies givenhere known.

- - - - - - - - - - - - - - -
KEY:
* = also on shortwave
? = existence questionable
BC = Broadcast/Broadcasting
R = Radio
RF = Radio Free
Int'l= Internatial
Svc = Service
Vo Voice of
Vot = Voicef the
WW = Worldwide
- - - - - - - - - - - - - - -

443 Sheridan Rd Dept A, Waukeegan, IL 60085:
R Stardust Int'l?

3434 North Pacific Highway, Medford, OR 97501:
FR One

Monticello, ME 04760:
R Newyork Int'l

TAGAR, Room 6 Union Bldg, Stony Brook, NY 11794:
United World R, Vo F Long Island

Box 140, Toronto, ONT M1L 1B1:
CCAT, COAX, Canadian Club R?

Box 142, Cottekill, NY 12419:
WJDI-1620
```

Box 314, Clackamas, OR 9701
Vo Tomorrow-1616*

Box 452, Wellsville, NY 195:
KCCR, KFAT, KMUD, BS, KROK, KXVN-830//92.7, Lazer 95, Plan 9,
R Contraband, R Emerald Forest, R EXP, R GarbanzoRF Mumbo-Jumbo,
R NortCoast Int'l, R USA, Secret Mtn Lab Ltd, Toynbee R,
Vo Aphrodite, Vo Bob, Vo Fubar, Vot Goen Eagle, Vo Lester,
Vo Laryngitis, Vot Rainbow, 74-WKUE, WQTU-1620*, WYMN, Xray R,
Zeppelin R WW, Zodiac Radio

Box 8, Slanesville, WV 25444:
Howdy Doody R, KRUD, Midnite R, One More V From America R, R
Chesapeake Bay Int'l, R Comedy Club Int'l, R Ftulence, RFM, Vo
Epileptic Catfish, Vo MonotonyVo Stench, WCPR, WENJ, WHIP, WKND,
WKZP, WOMB, WB, WXZR

Box 1133, Valleyview, Alberta T0H 3N0:
Maple Leaf R?

UPO Box 3114, Kingston, NY 12401:
Officla R, Pirate R Network, R Clandestine, R Morania, R No, Vo
Communism, WART

Box 3751, Chatsworth, CA 91313:
KREC?

Box 5074,ilo, HI 96720:
-- use Box 452, Wellsville, NY 14895 --

Box 6527, Baltimore, MD 21219:
East Coast Pirate R, Secret Society R, WTNU

Box 23792, Phoenix, AZ 85063:
Faasy BC Stn, FNTC-101.3

Box 40554, Washington, DC 20016:
Black Box R,irate R New England-1616*, R Angeline, R Espiro,
R Lymph Node Int'l, R Ohm, The Crooked Man,A Express, WBNY,
WBST-666*, WWW

..-. .-. . . .-. .- -.. .. ---

In contacting a free radio station:

Whever an address is announced, use it. If no addss is announced
use the address listed here. a pinch, write to onef the primary
maildrops but don't hold your breath.

Do not expeca 'drop to pay for your QSL; enclose adequate postage
(three mint first class stamps) for forwarding and reply. Do not send
a SASE unless specificly requested by the station. Outside USA send
two or three IRCs; if no IRCs are available, send a dollar or two.

Announcing a maildrop is not a quarantee of response; don't blame
the 'drop if you never hear from the station. 'droperators are not

QSL Managers, they only handle mail. Broadcasters should keep their promises.

Avoid asking about location; it's a dumb question that Operators only answer to mislead correspondents. Most, hower, will answer questis about power or equipment, and appreciate your technical observations, bandscans and cassetteecordings.

-.-. --.- -.-. --.- -.. -..-

If you operate and desire audience contact, use a maildrop for some security. The open 'drops are:
Box 452, Wellsville, NY 14895
Box 628, Slanesville, WV 25444
Box 1087, S Valley, CA 91352
Box 2112, Johnson City, TN 37605
Box 5074, Hilo, HI 96720
Box 6527, Baltimore, MD1219
Box 40554, Washington, D20016
Write for details before using any address.

Operators and listeners are reested to confirm activity and address information for periodic updates The Directory. Write to:
RD# 1 Box 15A, Belfast, NY 14711.

Thanks to Kirkaxter, Arthur G. Pym, n Spooner, Andrew Yodeand George Zeller for assistance compiling this list.

The Directory may NOT be reproduced for commercial use without e

1079. No Code Licence Plate Scanner Mods

Newsgroup: rec.ham-radio
Date: 1990-02-16 03:41:00 UTC
From: flloyd@sunburn.West.Sun.COM
Message-ID: <646@west.West.Sun.COM>
Source record: 13431

Hmmmm is the signal-to-noise ratio going up here or what????

-fred

| Fred Lloyd AA7BQ flloyd@West.sun.com |
| Sun Microsystems, Inc. ...sun!flloyd |
| Phoenix, AZ |

1080. Re: Reciprocal permits for Italy and Switzerland

Newsgroup: rec.ham-radio
Date: 1990-02-16 03:43:33 UTC
From: mrapple@quack.UUCP
Message-ID: <5123@quack.UUCP>
Source record: 13432

mrapple@quack.UUCP (Nick Sayer) writes:

>Could someone please mail me the details on getting
>a reciprocal permit for a less-than-one-month stay
>in Switzerland and Italy?...

Sorry, I meant Italy and Austria...
--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~+~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
quack!mrapple@uop.edu ! President
...pacbell!uop!quack!mrapple ! National Society for the
N6QQQ @ WB6V (packet radio) ! Prevention of Speed Bumps
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1081. Havana Moon's On-Line Service

Newsgroup: rec.ham-radio
Date: 1990-02-16 03:53:58 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <176@ka2qhd.UUCP>
Source record: 13433
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Havana Moon's "Los Numeros" On-Line

** WHAT I"LOS NUMEROS" **

"Los Numeros" is anld Shortwave tradition it's been around
in one form or anothe- since the days when HANA MOON first
hit the Radio scene!

It first appeared as a column in the Newark News Radio Club
Bulletin and later in Monitoring Times. Havana Moon and "Los
Numeros" claim a large and loyal following among hobbyists
and professionals alike.

This nest "Los Numeros" is aull featured magazine-rmat
Shortwave Listening Conference bad on an internationally
accessible comter system operated by the Portal* Communica-
tions Company of Cupertin California.

"Los Numeros" On-Line brgs quality, immediacy d relevant
information to the serious Shortwave Listener - andt does
something no other communicatio or monitoring publication
can do - it provides a unie opportunity for the subscriber
to interact one-on-one with the Expes!

"Los Numeros" On-Line is the perfect blend of two of the
world's most excitingnd fastest growing electronics hobbies -
Shortwave Listening and Personal Comping.

It featus Articles by the Expes in radio and relatedields,
Radio-related Software, Club Inrmation, Special Interest
Groups, Intelligence Updates, a Cryp Corner, On-Line News-
letters and much, much more. The most unusual thing y'll
find here is a weekly *LIVE* DX'g and Numbers Chasing sessi
with Havana Moon y Amigas.

"Los Numeros" On-Line selecd the Portal* System because of
its unique characteristics, including friendly user interface,
on-line documentation, flexibility - d aboe all - its afford- ability.

dditionally, Portal* provides "Los Numeros" Onine subscribers
with access to its E-Mail Gateways to UUCP, ARPA and BITNET.

Portal* is linked to The Usenet, an intnationally distributed
conferencing neork which spans four continents, 30 countries
and tens of thousands of users on over 70 computer systems.

"Los Numeros" On-Line is tomorros technology today - whope
to see you as part of this coinuing tradition!

** WHO IS HAVANA MOON?*

Havana Moon ithe pseudonym of a verwell known figure in
Shortwave Radio, on both the hobby a the professional levels.
He is a former Intelligence Officer w is acknowledged to be
one of the leading experts in the curioushortwave phenomenon
known as "Spy NumberTransmissions."

He has itten two popular books,Uno, Dos, Cuatro - A Guide
Tohe Numbers Stations" a "Los Numeros: The Numbers Sta-
tions ide" both published by Tiare Publications of Le
Geneva, WI."Uno, Dos, Cuatro" has been reviewed numerous times
in such publications as 73 Amateur Radio Magazine, Cryptogia,
Fact SheeFive, The Fessenden Reew and the IntelligencNews-
letter. no, Dos, Cuatro" is caied by The National Inlli-
gence Book Study Center.

He has authored hunds of articles which havappeared over
t years in the major radimonitoring and related publica-
tions, including Monitoring Times and Popular Communicatio.
He is currently a contributing editor to a number of well-known
publicaons, including Popular Communications, The A*C*E
Bulletin, The Intelligence Newsletter d Umbra et Lux. He
is presently Clandestine Consultant to Popular Communications
and has contributed recently to Grove Enterprises' "Shortwave
Directory."

Havana Moon was featured in Sharon Churcher's "USA Confidential"
column in the December, 1988 edition of Penthouse Magazine. He
has done numerous radio talk-shows, most recently a special feature
on Radio Netherlands' world-famous "Media Network" with Jonathan
Marks.

** A PEEK AT THE TABLE OF CONTENTS **

. FEATURES by some of Shortwave Radio's best known authors,
including Harry Helm *Secret Shortwave Spectm*, Dr. John
Saosuosso's *Political Ponderings - The Politics Behind
Shortwave Broadcasting*, Gerry Dter's *Clandestine Confi dential*, Jo Arthur's *Veried
Response*, Kirk Baxter's
ACE Digest and Havana Moon's *ThNumbers Stations Log*,
to name just few.

. DEPARTMENTS which provide an oortunity for interaction -
includingALK BACK, What's HOT!, The RF "Source", HM's
RF Curiosity Shop, Ye Olde SWL Fendship Connection and
lots more.

. Program schedules and frequency listings and related informa-
tion for the major English-language INTNATIONAL BROADCASTERS.

. A DATABASE of downloadable soware for Commodore, IBM
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. FORUMS for a dozen or more Special Intere Groups, includ-
ing Antique Radios, Cert Communications, HFeronautical
Radio, Pirates, DXg and Utilities - LowFs, NASA Radio and a
special conferen for Newcomers to Shortwe Radio - HM's
*RADIO*101*, to name st a few.

. On-line NEWSLETTERS inclung Harry Helms' red hot *Umbra
et Lux, Eli Messinger's *Radiogram*, Radio Sweden's
Sweden Calling DX'ers and Kirk Bter's *A*C*E Digest*.

. HAVANA MOON Y AMIGAS - weekly *LIVE* DX'g and Numbers Chasing with the experts.

. A QUARTERMASTER'S DEPOT with on-line offerings by some of
of Shortwave Radio major publishers, disibutors and
nufacturers, including Tiare Publications, Gro Enter-
pris and CRB Research.

. Message Boards f Radio Clubs including ANARC, A*C*E and
NASWA.

For information - conct Customer Service@cuportal.com or
ll Rich at 408-973-911(9-5 PST) - or write tme -
havanamoocup.portal.com - hope u'll join us.

osts are extremely competitive vis-a-vis other On-Line
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ed access tPortal plus computer cnect time.

Portal can be accessed a number of different ways - either directly
for the cost of the telephone call, or via Telenet direct connec
Telenet connect charges range from $10 - $2.50/hour depending on
whether orot you use a PC Pursuit Account.

International connect charges may be higher. For specific infor-
mation, contact Telenet Customerervice, 1-800-TELENET.

1082. Re: lid filters

Newsgroup: rec.ham-radio
Date: 1990-02-16 05:00:42 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Feb16.050042.8149@Neon.Stanford.EDU>
Source record: 13444

In article <4812@utastro.UUCP> oo7@utastro.UUCP (Wheldon T. Beaune) writes:
>While that sounds like a strong argument, it's not quite logical. You should
>judge the efficiency of a filter not just by what it lets through but by what
>it keeps out. In my 2-3 years of hamming, I have come across a few people
>who can't pass either or both of the written and cw tests, and who (I think
>most people would agree) are no loss to ham radio at all.

As I pointed out earlier, nobody disputes that the "CW Filter" has nice steep
skirts. However, that's only one of two critical criteria. The other one
is insertion loss, and from that aspect, it's a terrible filter.

So, you've never met anyone worth dropping the CW requirement for?

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

1083. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-02-16 09:32:49 UTC
From: erc@khijol.UUCP
Message-ID: <1331@khijol.UUCP>
Source record: 13445

In article <1224@anasaz.UUCP> john@anasaz.UUCP (John Moore) writes:
>]ku>I don't think I could even if I tried, and because I basically agree
>]ku>with Dr. Richard Stallman of MIT that software should be free, and
>]ku>because releasing this software will be good for the amateur radio
>]ku>community as a whole:
>
>As one who both produces software for a living, and manufactures
>and sells repeater controllers (True Value Software TVS-701), I have
>to say that the general idea that software should be free is a bit
>idealistic. While I love using PD software, I would point out that
>a lot of good software is only produced because it is NOT free.

Well, Richard and the folks up at MIT are doing a good job at writing GNU
(GNU's not UNIX). According to their newsletter, they are planning to use the
MACH kernel, and have gcc, gcc++, gdb, and lots of the standard UNIX utilities
already done, so I don't think it's "idealistic" at all.

Seems like the ones not supporting the idea of FSF are the ones that have a
vested interest in maintaining the status quo. By the way, John, do you
send in your money for all those "PD" software packages you use?
--
Ed Carp N7EKG/5 (28.3-28.5) uunet!cs.utexas.edu!khijol!erc
Austin, Texas (512) 832-5884 "Good tea. Nice house." - Worf
Opinions expressed are mine. Copyright 1990 Edwin R. Carp. All Rights Reserved.

1084. Re: Another no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-16 13:20:48 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9002170643.AA24049@ucbvax.Berkeley.EDU>
Source record: 13437

> Communicator Class - 10 meters and up, 200PEP and all that jazz.
> No CW only a 60 question technical theory and
> Radio Law exam. Callsigns to be new Group E!
> This will settle the issue of who's-who!(Format== WC6XXXX; XXXX==ABCD, etc.)
> ----
It looked like a good idea to me till I got to the call sign part.
I guess these guys won't be allowed to run packet, being as their call sign
won't fit in a TNC. AX.25 only allows 6 characters and the SSID. :-)

But other than that I like it!!

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

1085. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-16 14:40:04 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <12978.25DC11CA@stjhmc.fidonet.org>
Source record: 13462

> From: alanb@hpnmdla.HP.COM (Alan Bloom)
>
> RE: Dashless Morse.
>
> The code in use on the air today is properly called "International" code
> or something like that. "Morse" refers to the old land-line telegraph
> code.
>
> Morse was never originally intended to be received by ear. They used a
> paper tape travelling under a pen. When the key was pressed, the pen
> lowered and made a mark on the tape. The term "mark" is still used to
> refer to the "key down" state in RTTY transmissions.
>
> The tapes were then read visually by operators trained for the purpose.
> Some of them soon found, however, that they could copy the code aurally
> by listening to the clicks of the receiving machine. Edison, for
> example,
> was one of the young "hot shots" who learned to do this.

It was noticed by Morse himself long before Edison came along that copying by ear was not only possible but faster.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1086. Callsign server, where?

Newsgroup: rec.ham-radio
Date: 1990-02-16 15:45:00 UTC
From: 390624331@UWPLATT.EDU
Message-ID: <D9D611A9EABF8022D6@uwplatt.edu>
Source record: 13438

Awhile back someone on the net posted a message about a callsign server, but since we don't use an IBM here the command to get to it is not tcp <bunch of #s>
.
Could you tell me how to get to it with a VAX? All I need is the name of the server and where it is, and maybe I can figure it out from there.
Thanks, Randy WK9M

1087. Code, no code: cross post from rec.ham-radio.packet

Newsgroup: rec.ham-radio
Date: 1990-02-16 15:59:20 UTC
From: root@sbcs.sunysb.edu
Message-ID: <5498@sbcs.sunysb.edu>
Source record: 13455

(cross post from rec.ham-radio.packet)

In article <1181@swbatl.UUCP> ammrk@swbatl.UUCP (Mike R. Kraml) writes:
> Besides, is this really against Morse Code, or are we simply trying to lax
>the rules because the 'New' generation is just to damn lazy to learn the stuff
>and 'Earn' their license. OK, lets say we elimate the code. Great, that will
>work for a while, but what will we do in a couple of years when the potential
>hams say 'Why should I learn Radio Theory, when all I have to do is hook my
>packet modem up to my radio, plug it in to the wall, throw on an antenna, and
>press the send key', yep, I guess its then time to elimate the radio theory.
>I think this isn't really a question of technology any more, its a question of
>laziness, its the American way, rules to stiff, can't hack it, lets make it
>easier, lets change the rules. COME ON!!! It ain't that hard to learn Morse
>Code. Quite whining and just do it!

This is just too much. Mike, how is it that you have come to
believe that you have any more rights than your fellow citizens?
If you think about it, code/no-code is more an issue of the
right of people to access a resource. It is NOT a matter of
laziness or whining.

I for one have come to the opinion that most of our spectrum
should be given over to a public digital radio service, cellular,
and perhaps some space reserved for the people who are really
moving the state of the art forward (eg satellite, digital, networking,
etc). The basic premise here at work is whether Amateur Radio
serves the public good (on the average) more than just reassigning
the spectrum to other services. Some cycles put forth by
a few amateurs involved in Hugo, SF earthquake, etc do not pay the
bills. Sorry. It is my opinion that one useful service to throw
some spectrum at would be something like Usenet, as the knowledge
base created by such networks can only work to our advantage as a
society. We should foster networks such as Usenet by dumping the
Amateur allocations between 50 mHz -> 3 gHz and building the media
required to set up such networking. Licensing would be just a
tech exam. No doctrines on content or use. No grandfathering of
current hams. Amateur Radio used to serve the purpose of creating
various knowledge bases, but lately it seems more a media of endless
contests below 30 mHz, and endless bowling/gall bladder/"I'm driving
to get cigarettes", etc discussion above 30 mHz. What is it that
gives us the right to sit and bullshit on 2 meters for free, when
one car over the guy with the cellular phone has to pay $0.50/minute
to have the same discussion? We need peristroika (sp?) for the ARS
and we need it badly.

> Mike Kraml - Manager-Separations MECHANIZATION - SWBT - (The Techies)

Rick Spanbauer, WB2CFV
State U of NY/Stony Brook

1088. Re: no-voice license

Newsgroup: rec.ham-radio
Date: 1990-02-16 16:07:11 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500016@hpfcso.HP.COM>
Source record: 13465

>
> --Phil Howard, KA9WGN--
> Actually, the OF's don't believe so much in "I had to learn it [CW], so they
> have to, too", but rather more likely believe in "I don't want any association
> with anybody who can't/won't do what I did to get here".
^^
or equivalent

With this minor clarification, this expresses my thoughts on the subject.

Something not worth working for isn't worth having. Amateur radio is
a privilege after all.

Ron (thought it was worth working for at age 13) Miller NW0U
- OF at age 33-

1089. Re: INFO-HAMS Digest V90 #195

Newsgroup: rec.ham-radio
Date: 1990-02-16 16:20:43 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9002161620.AA29912@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 13439

Subject: Lid Filters
I doubt that the CW filter has steep skirts. One of my doughters passed the 5 wpm code test knowing about 10 letters of code. She passed because she copied "ood" and they asked the manufacturer of the specified rig. The answer was obviously Kenwood. Likewise she got 7 or 8 others right.

-- Doug
WA6VVV

1090. Public Digital Radio Service NPRM

Newsgroup: rec.ham-radio
Date: 1990-02-16 16:57:00 UTC
From: root@sbcs.sunysb.edu
Message-ID: <5499@sbcs.sunysb.edu>
Source record: 13457

Does anyone have a copy of the proposal (or was it an NPRM) for a Public
Digital Radio Service that was circulated on rec.ham-radio some time ago?

Rick Spanbauer
State U of NY/Stony Brook

1091. Need info on Tempo/VHF One 2m rig

Newsgroup: rec.ham-radio
Date: 1990-02-16 18:04:32 UTC
From: michaelb@mikebat.UUCP
Message-ID: <279@mikebat.UUCP>
Source record: 13440
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,misc.wanted

I'm thinking of converting an old Tempo/VHF One 2 meter rig to
a packet station. It has an accessory jack on the back, but I don't
have any docs on the thing. I've looked for ads from Tempo in all of
the ham magazines recently and can't find them. If any one has the pin-
out of the connector or an address for Tempo (if they're still around)
please send me mail.

Thanks,
Michael
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb

Ships don't come in; they're built. -- (I don't know who said it.)

1092. receivers vs. transceivers

Newsgroup: rec.ham-radio
Date: 1990-02-16 18:39:16 UTC
From: djk@cs.columbia.edu
Message-ID: <1990Feb16.183916.18864@cs.columbia.edu>
Source record: 13461
Cross-posted to: rec.ham-radio,rec.radio.shortwave

--text follows this line--
Recently I have been thinking of upgrading from an ICF-2010 shortwave receiver to a table top model (NRD-525 or R-5000), but I'm also becoming interested in Ham radio too. My question is whether I should go with one of these receivers plus a separate transmitter, or with a single transceiver. The RDI White Papers for both of these receivers are extremely complimentery. Is the reception on any transciever in a somewhat higher price range (up to $1500) as good as either of these receivers? Are there advantages to having the receiver and transmitter in one package? Any suggestions?

Thanks,
David Kurlander
--

David Kurlander Department of Computer Science
djk@cs.columbia.edu Columbia University

1093. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-16 19:13:28 UTC
From: michaelb@mikebat.UUCP
Message-ID: <280@mikebat.UUCP>
Source record: 13441

```
> > other things, we want them to have access to the Microsats now in orbit
> > (they listen on 2 meters).
>
>
> Great!!! That's a really big boost to 'the cause'. I'm still not certain it
> makes sense not to start with full privileges above 30 mHz. For openers, the
> FCC among others have been bitching about underuse of 6 meters for a long time
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

OK, maybe I'm the only one who can read the hand writing on the wall.

!!!NOW HEAR THIS BOYS AND GIRLS!!!

***** 6 meters is going away in the next few years. *****

I can hear all the complaints now. "You're nothing but a doomsayer."

Well, just think back a few years to "Novice Enhancement." Only the
real dummys couldn't figure out that 220-222 MHz was on the way out.

Now the FCC just proposed to restrict any real growth in ham radio
from 6 meters. It seems clear as a bell to me they want to be poised
to take it away just after we lose any court battles over 220-222.

Think about it.

Michael
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb

Ships don't come in; they're built. -- (I don't know who said it.)
```

1094. Re: WEBER sat Picture Format, etc.

Newsgroup: rec.ham-radio
Date: 1990-02-16 21:13:56 UTC
From: bowen@cs.Buffalo.EDU
Message-ID: <17878@eerie.acsu.Buffalo.EDU>
Source record: 13458

In article <612@idacrd.UUCP>, mac@idacrd.UUCP (Robert McGwier) writes:
> Both WEBER and AMSAT will be offering picture decoding software (NOT
> DONE YET!)

Is someone doing a c64 version? If not, I'm probably stupid enough to
volunteer. 8-)

Devon

1095. Re: Good Earth Grounds

Newsgroup: rec.ham-radio
Date: 1990-02-16 21:23:28 UTC
From: pozar@hoptoad.uucp
Message-ID: <10284@hoptoad.uucp>
Source record: 13463

In article <34044@cci632.UUCP> cb@cci632.UUCP (Just another hired gun (n2hkd)) writes:
>This kind of makes me wonder wether a single "earth" ground with
>all my wires going to it is better than multiple "earth" grounds
>with some of my wires going to it (but not shared)?

About two months ago in one of the trade broadcast
engineering rags, there was an very good and detailed article
descibing grounding at a new transmitter installaion. I don't
remember if it was an AM or FM. The article went on to describe
the grounding as several rods pounded into the ground then tied
together via copper braid and chemically welded at the
connections.

The concrete was poured one and around the rods. I belived
that they took into account some conductivity that the cement
might have.

As I have thrown the article away, some one may have a copy
out there and perhaps post the Rag and date of the article.

Tim

--
Tim Pozar Try also...
Internet: pozar@toad.com
Fido: 1:125/555
PaBell: (415) 788-3904
USNail: KKSF / 77 Maiden Lane / San Francisco CA 94108

1096. Re: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-16 21:30:33 UTC
From: jay@splut.conmicro.com
Message-ID: <8L9
Source record: 13464

In article <Feb.14.06.57.29.1990.2395@topaz.rutgers.edu> hobbit@topaz.rutgers.edu (*Hobbit*) writes:
>Suppose someone told you back in the Glory Days of computing that you
>wouldn't be allowed to use a given system until you had memorized, in
>HEX, the bootstrap code, and were required to be able to toggle it
>all in within a certain time limit?

Funny you should use that example; that's exactly what I had to do - in the course of my paid employment - to use the computer I worked on. 32 bytes of Tarbell SSSD floppy controller boot code. On the front panel of an IMSAI 8080 with a cranky flip-flop.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
{attctc,bellcore}!texbell!splut!jay +--
Free the DC-10!

1097. Buying from Japan

Newsgroup: rec.ham-radio
Date: 1990-02-16 21:39:52 UTC
From: pvh@Apple.COM
Message-ID: <38695@apple.Apple.COM>
Source record: 13456
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Just been perusing the February '90 issue of the Japanese CQ. It sure makes ours like wimpy in the ad department. Anyway, I can't believe the price difference between the American & Japanese versions of radios. I've been thinking about getting an ICOM 24-AT, which in this country lists for $629. In Japan (where manufacturers plainly post their retail prices in their ads... what a concept) the price of the AT is 59,800 yen. At current exchange rates (about 144 yen to the $) this works out to about $415. Huh? I always thought HTs were over priced, but this is silly.

Either the Japanese simply want more people to get into ham radio (look at the ratio of the number of Japanese hams to American hams, their no-code license etc.) or American middle men and/or government tariffs are putting the gouge on..

So my question is has anyone here ever purchased a transceiver from Japan and succesfully modified it for American frequencies and been happy with that. Or have you been sorry you didn't have a USA warranty etc. I have contacts in Japan so getting the radio is no problem. I'm just wondering if it's more hassle than the money savings is worth.

Thanks,

Pete

PS - does anyone know about Standard and whether they import all their ham gear? I know that Heath sells some of Standard's HTs under the Heath name (unfortunately not the nice looking dual dand HT), but they have some nice looking base stations that I don't think are brought in to this country. (the tri-band C50 for one)

1098. Ridicule of code

Newsgroup: rec.ham-radio
Date: 1990-02-16 22:39:13 UTC
From: michaelb@mikebat.UUCP
Message-ID: <281@mikebat.UUCP>
Source record: 13442

Another use of morse code as a symbol of outmoded technology has arrived
in my mailbox. On the back page of a Northgate special insert to the
March 1990 [whisper] Computer Shopper [embarassed blush] (thought I
might need to put the year - some in our ranks aren't aware of when we are)
there is a good natured jab at morse code comparing it with their
latest keyboard.

I wonder how many communications people consider hams the laughing-stock
of the communications world? I certainly do.

--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb

Back when *I* got *MY* license *WE* had to pass the code test.
And I thought it was a damn stupid idea then too.

1099. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-16 22:55:22 UTC
From: clayj@microsoft.UUCP
Message-ID: <51002@microsoft.UUCP>
Source record: 13443

All this discussion about interference...I've just gotta chime in here:

About 6 months ago, we started hearing all sorts of noise on our baby monitor (the little 49Mhz cheapies). Of couse, since it's a part 15 device, there was little we could do LEGALLY, but I did manage to trace the SOURCE of the interference to the cellular phone tower 150 or so away from our house (our cordless phone also picked up the interference, and by looking at the frequencies, with the help of a ham, we discovered that 49Mhz is a logical place for the local oscillators on a cellphone transmitter). When I called the local cellphone company (the ones who owned the tower) I eventually got a call from some lawyer, who lectured me about ECPA, and ASSURED me that they could NOT be heard on ANYTHING except "authorized equipment" or on "an illegally modified scanner".

Anyway, a week or so ago, my neighbor, who has a cellphone in his car, mentioned that he was having trouble using the cellphone from his driveway (lots of noise, poor signal). He reported the problem, and late last week, the cellphone guys were out climbing around on the tower. Guess what? No more interference on the baby monitor or our cordless phone!

Clay jackson

1100. Re: Alternative proposal on No-Code

Newsgroup: rec.ham-radio
Date: 1990-02-16 23:01:08 UTC
From: chris@cups.la.locus.com
Message-ID: <3462@oolong.la.locus.com>
Source record: 13468

In article <11754@ucsd.Edu> brian@ucsd.edu (Brian Kantor) writes:
> Diving in with both feet:
>
> There should only be two classes of ham licence in the USA: both will
> have sufficient law and theory to ensure that the operator has at least
> some idea what he's doing (equivalent to today's General class exam,
> perhaps), and one will have a CW exam.

This has the elegance of true genius, IMHO. Although some may object to the amount of theory that would be required to make such an examination meaningful, I have a feeling that most of the arguments against it would be pretty weak simply because technical proficiency is one of the things that is supposed to distinguish hams from the CB crowd... at least it used to.

>
> The CW exam licence will allow operation below 30 MHz as internation
> treaty seems to require; the other will not. All other privileges are
> the same. Since the treaty requirement doesn't seem to require anything
> more than a knowledge of International Morse, this could be a simple as
> translating a paragraph of text into dots and dashes, and another
> paragraph of dots and dashes into text. Those few who really WANT to
> operate CW will acquire the skill to do so, just as those who do
> satellites, TV, packet, etc. do.

This is similar to the arrangement that exists (existed?) in the UK. It has worked very well there for many years. Apart from the relative scale of the two nations, ham radio is very similar, and I see no good reason why such an arrangement couldn't work here.

> People who want to prove that they're better than the rest of the rabble
> can take exams for technical proficiency much as current CW whizzers
> get CW proficiency certificates. The existing volunteer examiner setup
> is ideal for supplying both.

Absolutely. There is a lot of personal satisfaction to be gained from taking on a challenging task and accomplishing it. Those who want to increase their code proficiency would have some recognized milestones to aim for, and those already proficient could be officially recognized. To some people that's important, to others it's not. The point is that the choice would be available to the individual, and that's a far cry from having an arbitrary code requirement rammed down your throat if you want to operate on the ham bands, regardless of mode.

> This scheme gets the FCC out of the incentive business, lets those of
> use who don't need to show off our qualifications get back to serious

> hamming, and makes so much sense that it hasn't a snowflake's chance in
> Hell of ever happening.
> - Brian

Well, it gets my vote. Anyone else?

__ __ o __
| |__| |__| | |__ Chris J. Davis lcc!chris@seas.ucla.edu
|__ | | | \ | ___| (213) 338-7820 ...!{ucla-se|turnkey}!lcc!chris
Any opinions or claims above are mine, unless I stole them from someone else.

1101. Re: College & Ham Radio

Newsgroup: rec.ham-radio
Date: 1990-02-17 01:07:52 UTC
From: wb8foz@mthvax.cs.miami.edu
Message-ID: <1990Feb17.010752.14685@mthvax.cs.miami.edu>
Source record: 13469

```
# > Drew WJ8K
#
# What a GREAT call for someone who is at Ohio State!!
# ...being in the shadow of John (Mr. Antennas) Kraus W8JK.
#
Does the station still have that 1/3 mile longwire?
I remember seeing it and an Original War of the Worlds Jam All
TVs in the Free World rig (ie a BC-610) about 20 years ago. I always
wonder how they got the 610 up there. Did the entire front line
carry it for the exercise????

--
A host is a host & from coast to coast...wb8foz@mthvax.cs.miami.edu
no one will talk to a host that's close..............(305) 255-RTFM
Unless the host (that isn't close).....................pob 570-335
is busy, hung or dead..................................33257-0335
```

1102. Four License Classes are Enough

Newsgroup: rec.ham-radio
Date: 1990-02-17 01:14:17 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002170114.AA12125@cmr.ncsl.nist.gov>
Source record: 13473

FOUR CLASSES OF LICENSE ARE ENOUGH (For discussion)

Here's a suggested table of license classes and privileges. The
goal is to keep the number of license classes and test elements low.

Present		Proposed	
Class	Code Theory	Class	Code Theory Bands
Extra	20 Extra	Extra	20 Extra Present Extra
Advanced	13 Adv.	Advanced	13 Adv. Present Advanced
General	13 Gen	No longer issued, grandfathered into Advanced	
Tech.	5 Tech	Basic	5 Basic Present Nov/Tech CW plus everything above 28.0 MHz
Novice	5 Novice	No longer issued. Blanket expiration Dec 31, 2000. Code credit given toward Basic requirements.	
----------		Communicator*	0 Basic Everything above 220.0 MHz

This removes the "almost-no-theory" Novice entry route. Is that good?
Many of you disagree with the 220 MHz limit for Communicators, but that is
not a key element of this proposal; the reduced number of classes/tests is.
In about eleven years we would have just four license classes. Remember that
in low-sunspot years 10 meters is a local-contact-only band much of the time.

* I haven't yet been convinced that we need a no-code Communicator class.
If there is no no-code class, then just keep the current structure. We
don't need change for its own sake.

73, Bob W3OTC

My employer does not endorse these views.

1103. Re: License Plates

Newsgroup: rec.ham-radio
Date: 1990-02-17 02:57:37 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500417@ux1.cso.uiuc.edu>
Source record: 13460

Illinois allows at least 7 characters on vanity plates so you should be able to get a vanity-multiple plate for your extra vehicles even with a 2x3 call on it if you are in Illinois. I have also seen a space inserted on one plate WITH 7 letters, so maybe there is room for 8, or you can put a space between the call and a digit.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1104. Re: A.C.E. Newsletter - Feb.1990

Newsgroup: rec.ham-radio
Date: 1990-02-17 04:51:56 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <13123@cbnewse.ATT.COM>
Source record: 13329
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <174@ka2qhd.UUCP>, somebody wrote:

> ... because the female of the species has much to offer this hobby and
> profession.
> .... There are Pop'Comm's maven of Radio Nostalgia, Alice Brannigan...

I guess this means there are still PopComm readers
who believe that Alice Brannigan really exists and
is female (vs. merely a pen name for PopCom's male
editor).

Enjoy the illusion. :-)
--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

1105. Re: Need old Hammarlund coils

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90021702470478@masnet.uucp>
Source record: 13327

I have a number of old plug in coil units for various radios. I will check the box and let you know.

73 de Dean, VE1CBF
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1106. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90021702470500@masnet.uucp>
Source record: 13328

>This year, the day that my then-current tag was expiring, I found out
>that I was being DENIED the special plate because my name did not
>appear on the registration in the same form as it does on the license
>(due to the lease, the registration is in the name of the leasing
>company IN CARE OF my name). According to their new interpretation
>of the laws regarding issuing ARS license plates, I was no longer
>eligible.
>
That's standard procedure in Nova Scotia. The name on the registration
must be that on the amateur radio licence or you can't get your plates.
It was a pain when I was in college as I was a member of EMO(Emergency
Measures Organization) and ARES but the car was registered to my father
to take advantage of lower insurance rates.

What can you do when you live in a shoe? (Move to a boot and get laced!)
<grin>

73, Dean VE1CBF
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1107. Re: Looking for AMSAT address

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90021702470516@masnet.uucp>
Source record: 13330

>I am interested in contacting the AMSAT office via US mail. Does
>anyone know the address?

AMSAT can be reached at the following address....

AMSAT
Radio Amateur Satellite Corporation
P.O. Box 27
Washington, D.C.
20044

73 de VE1CBF
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1108. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913425137@masnet.uucp>
Source record: 13446

>This year, the day that my then-current tag was expiring, I found out
>that I was being DENIED the special plate because my name did not
>appear on the registration in the same form as it does on the license
>(due to the lease, the registration is in the name of the leasing
>company IN CARE OF my name). According to their new interpretation
>of the laws regarding issuing ARS license plates, I was no longer
>eligible.
>
That's standard procedure in Nova Scotia. The name on the registration
must be that on the amateur radio licence or you can't get your plates.
It was a pain when I was in college as I was a member of EMO(Emergency
Measures Organization) and ARES but the car was registered to my father
to take advantage of lower insurance rates.

What can you do when you live in a shoe? (Move to a boot and get laced!)
<grin>

73, Dean VE1CBF
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1109. Re: Need old Hammarlund coils

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913425115@masnet.uucp>
Source record: 13447

I have a number of old plug in coil units for various radios. I will check the box and let you know.

73 de Dean, VE1CBF
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1110. Re: There's plenty of time fo

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913425065@masnet.uucp>
Source record: 13448

PF>college ham station I've ever been in has been a well - stocked
PF>fridge...

The main support for one end of an oerating desk for our college station (VE1SFX) one year WAS a fridge!<grin>

73 de VE1CBF

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1111. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913423632@masnet.uucp>
Source record: 13449

Hi Scott,
.
I don't know how many advantages there are to call plates. They are
more a personal thing - I know many hams who don't like them for one
reason or another.
.
On the up side they are distinctive, let officials know who you are in
the event of participation in emergencies, and let other hams identify
each other when traveling.
.
On the down side they mark a vehicle which in all likelihood is carrying
radio equipment increasing likelihood of theft.
.
As to cost it varies considerablly. Here in Nova Scotia they cost an
extra $10 when you first register the plates and about $5 extra
a year unless you need new plates and then it's another $10. The
personalized or "vanity" plates here are by comparison an extra $100 on
initial registration and I beleive an extra $10 a year.
.
Some places don't have them at all.
.
Cheers & 73 de VE1CBF

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1112. Re: Looking for AMSAT address

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913425159@masnet.uucp>
Source record: 13450

>I am interested in contacting the AMSAT office via US mail. Does
>anyone know the address?

AMSAT can be reached at the following address....

AMSAT
Radio Amateur Satellite Corporation
P.O. Box 27
Washington, D.C.
20044

73 de VE1CBF
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1113. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913425093@masnet.uucp>
Source record: 13451

>
>The best part of the story, though, was the response of the dorm
>maintenance personnel; they asked, with a great deal of suspicion,
>"what is that black wire for?" And I told them that it was for
>"High-power, high-frequency ionospheric electromagnetic-wave
>propagation phenomena research," and, dropping my voice to a
>confidential whisper, "there's enough power in that cable to burn
>your fingers if you try to cut it." They left it strictly alone, and
>Gary and I were left in peace to pound brass from our rooms.
>
>By the way, Gary and I had heard nothing from each other since

Sounds familiar Dave. A friend and I did about the same thing, stringing
a long wire from a 4th floor dorm window to the roof of a girls dorm
some distance away. It worked great except that it produced the nicest
interference in the adjoining room over stereo speakers and over the
current-carrier radio station on campus. Limited us to operating certain
times but we got on the air with a FT200 and an TenTec Argo.

Cheers!
73 de Dean,VE1CBF ('78)
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1114. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90021702470423@masnet.uucp>
Source record: 13474

Hi Scott,
.
I don't know how many advantages there are to call plates. They are
more a personal thing - I know many hams who don't like them for one
reason or another.
.
On the up side they are distinctive, let officials know who you are in
the event of participation in emergencies, and let other hams identify
each other when traveling.
.
On the down side they mark a vehicle which in all likelihood is carrying
radio equipment increasing likelihood of theft.
.
As to cost it varies considerablly. Here in Nova Scotia they cost an
extra $10 when you first register the plates and about $5 extra
a year unless you need new plates and then it's another $10. The
personalized or "vanity" plates here are by comparison an extra $100 on
initial registration and I beleive an extra $10 a year.
.
Some places don't have them at all.
.
Cheers & 73 de VE1CBF

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1115. Re: There's plenty of time fo

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90021702470439@masnet.uucp>
Source record: 13475

PF>college ham station I've ever been in has been a well - stocked
PF>fridge...

The main support for one end of an oerating desk for our college station (VE1SFX) one year WAS a fridge!<grin>

73 de VE1CBF

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1116. Re: Learn the <*> code!

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:15:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <900217024704 61@masnet.uucp>
Source record: 13476

>
>The best part of the story, though, was the response of the dorm
>maintenance personnel; they asked, with a great deal of suspicion,
>"what is that black wire for?" And I told them that it was for
>"High-power, high-frequency ionospheric electromagnetic-wave
>propagation phenomena research," and, dropping my voice to a
>confidential whisper, "there's enough power in that cable to burn
>your fingers if you try to cut it." They left it strictly alone, and
>Gary and I were left in peace to pound brass from our rooms.
>
>By the way, Gary and I had heard nothing from each other since

Sounds familiar Dave. A friend and I did about the same thing, stringing
a long wire from a 4th floor dorm window to the roof of a girls dorm
some distance away. It worked great except that it produced the nicest
interference in the adjoining room over stereo speakers and over the
current-carrier radio station on campus. Limited us to operating certain
times but we got on the air with a FT200 and an TenTec Argo.

Cheers!
73 de Dean,VE1CBF ('78)
---
* Via ProDoor 3.1 : : MUI Sydney, Nova Scotia (902) 564-5022
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1117. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:16:00 UTC
From: ben.tremblay@canremote.uucp
Message-ID: <90021702470538@masnet.uucp>
Source record: 13331

Two point need echo for emphasis here:
first is that both parties share responsibilities
second is that we shouldn't have to put up with poor design in our consumer grade gear (what the hay, manufacturers are often amazingly sensitive to feedback, and they've probably got great data banks...fire off a letter or two!)
A lot of RFI can be fixed with a couple of capacitors or a choke in the power line (which works more or less like turning the extra length into a very crude coil which "chokes" the high-frequency RF).
There are always a lot of hams around who can come up with a quick fix...sounds like the neighbor is a LID!
bdt x ve6bbt

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1118. Re: Packet radio license with

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:16:00 UTC
From: ben.tremblay@canremote.uucp
Message-ID: <90021702470560@masnet.uucp>
Source record: 13332

From a survivalist point of view CW is what Esperanto was meant to be, a universal language (of sorts).
From a ham point of view, CW is a filter...show me another medium that is so open to abuse and yet so (relatively) well behaved?
There's no reason to bar communications/innovation minded people from the ether, and I don't really think there's that much of a conflict (Marconi wasn't using/could not have dreamed of SSB) so long as there's an understanding of the different need and the different desires. When I had my "best of all possible worlds" filter operating, I had no problem with the 40 metre AM stations...and I've been operating 40 ever since. Does anyone **really** want those freqs for packet?!
How long has Wayne Green been yelling at us to use 220 and up. What better way than a new wave of digi-peaters and birds. So we'd have the "transmit" priviledge (for the appliance operators sorry!), the "voice" priviledge, and for the truelly communicative, the CW.
All we need to do is focus on the common ground, i.e. communications.
bdt

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1119. Re: Packet radio license with

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:16:00 UTC
From: ben.tremblay@canremote.uucp
Message-ID: <90021702470576@masnet.uucp>
Source record: 13334

"Old-time" CW was propogated by switching DC on and off, so, in
effect, you would be listening to a relay (you never built one of those?
a nail, some wire, and a strip out of a tin can? I guess that's what
makes me work CW on 40!)
But nobody **nobody** works CW at 2WPM...once you get comfortable
with it, the speed climbs because slow speed is so
bbooorrrrrriiiiinnnngggg!

bdt

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1120. Re: NOISY NEIGHBOR

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:16:00 UTC
From: ben.tremblay@canremote.uucp
Message-ID: <90030913425175@masnet.uucp>
Source record: 13452

Two point need echo for emphasis here:
first is that both parties share responsibilities
second is that we shouldn't have to put up with poor design in our consumer grade gear (what the hay, manufacturers are often amazingly sensitive to feedback, and they've probably got great data banks...fire off a letter or two!)
A lot of RFI can be fixed with a couple of capacitors or a choke in the power line (which works more or less like turning the extra length into a very crude coil which "chokes" the high-frequency RF).
There are always a lot of hams around who can come up with a quick fix...sounds like the neighbor is a LID!
bdt x ve6bbt

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1121. Re: Packet radio license with

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:16:00 UTC
From: ben.tremblay@canremote.uucp
Message-ID: <90030913425197@masnet.uucp>
Source record: 13453

From a survivalist point of view CW is what Esperanto was meant to be, a universal language (of sorts).
From a ham point of view, CW is a filter...show me another medium that is so open to abuse and yet so (relatively) well behaved?
There's no reason to bar communications/innovation minded people from the ether, and I don't really think there's that much of a conflict (Marconi wasn't using/could not have dreamed of SSB) so long as there's an understanding of the different need and the different desires. When I had my "best of all possible worlds" filter operating, I had no problem with the 40 metre AM stations...and I've been operating 40 ever since. Does anyone **really** want those freqs for packet?!
How long has Wayne Green been yelling at us to use 220 and up. What better way than a new wave of digi-peaters and birds. So we'd have the "transmit" priviledge (for the appliance operators sorry!), the "voice" priviledge, and for the truelly communicative, the CW.
All we need to do is focus on the common ground, i.e. communications.
bdt

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1122. Re: Packet radio license with

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:16:00 UTC
From: ben.tremblay@canremote.uucp
Message-ID: <90030913425219@masnet.uucp>
Source record: 13454

"Old-time" CW was propogated by switching DC on and off, so, in
effect, you would be listening to a relay (you never built one of those?
a nail, some wire, and a strip out of a tin can? I guess that's what
makes me work CW on 40!)
But nobody **nobody** works CW at 2WPM...once you get comfortable
with it, the speed climbs because slow speed is so
bbooorrrrriiiiinnnngggg!

bdt

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1123. Re: Alternative proposal on No-Code

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:47:00 UTC
From: john@frog.UUCP
Message-ID: <12275@frog.UUCP>
Source record: 13472

In article <9920@ttidca.TTI.COM>, sorgatz@ttidca.TTI.COM (Avatar) writes:
> Yes, it's a horrible idea. So here's a (IMHO) better alternative:
> Advanced Class - NO CHANGES.
> Extra Class - Element 1c (20 WPM cw) will no longer be required. Only the
> 5 WPM test of Element 1a. will apply.

Does this mean that to upgrade from Advanced to Extra you have to FORGET
8 WPM worth of code? ("NO CHANGES."?)

--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

1124. Re: Alternative proposal on No-Code (frustrated CW'er whines)

Newsgroup: rec.ham-radio
Date: 1990-02-17 05:51:36 UTC
From: chris@cups.la.locus.com
Message-ID: <3487@oolong.la.locus.com>
Source record: 13471

In article <30500416@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>> I think your idea of abolishing the CW tests is a very poor idea. There
>> are two reasons that I will cite:
>> (2) The use of CW has great practical benefit, and it is
>> indispensable in many instances. The one instance I will cite
>> is weak signal work at VHF/UHF/SHF/EHF. I have tried to work
>> many operators on aurora who refused to use CW (probably because
>> they were incapable) and thus was unable to make many of these
>> contacts. These (unsuccessful) attempts took many minutes of
>> time (and thus wasted bandwidth), while a quick CW contact would
>> have been easy and taken less than 15 seconds. I have been very
>> frustrated with people who do not have CW skills, and thus
>> refuse to use it where it is appropriate.
>
> (2) The use of packet has great practical benefit, and it is
[...]
> frustrated with people who do not have packet skills, and thus
> (2) The use of ATV has great practical benefit, and it is
[...]
> frustrated with people who do not have ATV capability, and thus
>
>--Phil Howard, KA9WGN--
><phil@ux1.cso.uiuc.edu>

Har! Har! You really showed him.

Above is a prime example of a tunnel-visioned ham who has the
conceit to condemn others who, in his lofty opinion, "refused
to use CW (probably because they were incapable)". Well, even
_if_ they were incapable of using CW, what's it to you, pal?
Who gave you the right to decide the admission standards?

This same person then goes on to whine about being frustrated
with "people who do not have CW skills", "and thus refuse to
use it where appropriate". This is brilliant. I suppose his
definition of appropriate here really means "when he wants CW
to be used, to satisfy his selfish wants".

Well, here's a piece of unsolicited advice for you, pal, if you
are really that frustrated with hams who don't/can't use CW at
your convenience. Disconnect your antenna and plug the feed
line into a nice big shielded dummy load, reinsert your head
into your rectum, whine all you want about how you think
you're better than those of us who don't/can't/won't use code

and how you think you are the HamBandModePolice, stamp your
foot, and count the days until we get to play too.
__ __ o __
| |__| |__| | |__ Chris J. Davis lcc!chris@seas.ucla.edu
|__ | | | \ | ___| (213) 338-7820 ...!{ucla-se|turnkey}!lcc!chris
Any opinions or claims above are mine, unless I stole them from someone else.

1125. Arguing over No-code

Newsgroup: rec.ham-radio
Date: 1990-02-17 06:09:53 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13048.25DD5E5B@stjhmc.fidonet.org>
Source record: 13335

I don't think any purpose is served by arguing among ourselves over whether no-code is good, bad, or indifferent. The real point seems to be that the FCC gives every indication that THEY want it and will wash their hands of us if we fight them on it.

They must think the same of us now as the Army brass did in '39 and '40 of the old duffers who wanted to keep the cavalry on horseback. When you think about it in those terms, the Code Forever troopers look pretty ludicrous.

That's no way to keep our bands.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1126. NO CODE LICENSES VS KEEPING CODE

Newsgroup: rec.ham-radio
Date: 1990-02-17 10:10:30 UTC
From: edw@wells.UUCP
Message-ID: <78@wells.UUCP>
Source record: 13459
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Dear Friends,
I am new to a Ham radio license (KA3VRV), however, not new to ham, commercial communications, etc.. I'm President of a small high tech computer design and development company involving computer hardware and/or software systems. This includes many specialty areas such as robotics, data communications, CAD/CAM, etc, etc, etc.....far from being a lazy person. Wouldn't you say?

As far as code goes, this has been my inhibitor to getting a license up until now...but I finally got it. I almost had it 20 years ago, but the code didn't interest me then (nor did a code only license back then), and doesn't thrill me now either. I do understand the many good (an well justified) reasons to have the Morse code (minimal radio needed for transceive, gets through were others forms have more difficulty, etc.). I'd like to have a General license now, however, the code's going to hold me for a while.

I think that what ought to be done now is that all ham's be forced to have a minimum code speed of say 5 WPM, a rounded radio theory/history background. Then from there create a list of achievements that have to be met to get to higher license classes. Something like trying to make a balanced meal for a day's eating, or getting a degree from college.

This would allow the new Novice class license to have an overview of ALL forms of communications at a minimal level (code, AM, FM, SSB, pulse, RTTY, packet, etc.). From there the higher class tickets would require a "points" system, 30 points for a tech, 70 General...well you get the idea. The points could be generated by learning and testing for skills in a wide variety of subjects related to amateur radio.

Think of this, this allows every ham to become efficient at what they prefer to do to their best advantage (and the ham communities) AFTER MASTERING THE MINIMUM REQUIREMENTS FOR NOVICE CLASS.

The new novice class would actually require a more rounded general radio background for testing to get to be a ham, from that point on there would be many specialties. This would also keep the "10-4 good buddies" out of ham radio, however, allow more "specialist" to join and enjoy ham radio (as well as benefit the entire ham community).

Think about this for a minute. Wouldn't it be a boring world if all "extra class" careers were just lawyers or doctors? We wouldn't have any chemist, biologist, metallurgist, engineers.....or radio operators!

--
==
Edward E. Wells Jr., President Voice: (215)-943-6061
Wells Computer Systems Corp., Box 343, Levittown, Pa. 19058
{dsinc,francis,hotps,houxl,lgnp1,mdi386,pebco}!wells!edw

1127. Re: Removing Braid from Coax

Newsgroup: rec.ham-radio
Date: 1990-02-17 14:13:14 UTC
From: brian@ucsd.Edu
Message-ID: <11808@ucsd.Edu>
Source record: 13470

You know you can buy braid already removed (actually, never installed)
and flattened on spools at your local wire supplier. It's even
reasonably cheap, although admittedly not as cheap as ripping it off
free surplus coax would be.
- Brian

1128. Removing Braid from Coax

Newsgroup: rec.ham-radio
Date: 1990-02-17 14:20:51 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13049.25DD5E5C@stjhmc.fidonet.org>
Source record: 13333

> From: holt@hp-sdd.hp.com (Holt Mebane)
>
> I need to extract the braid from some RG-8 coax for use as a ground
> strap.

Why extract it? Use it as is. Trim a little insulation jacket off whereever a connection is required. At each end, connect the center coductor and braid together through a 0.1 mfd capacitor.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1129. Hams per Capita, Various Countries

Newsgroup: rec.ham-radio
Date: 1990-02-17 14:32:51 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002171432.AA12828@cmr.ncsl.nist.gov>
Source record: 13466

Why are there so many US radio amateurs??? The "incidence" of ham radio in the developed countries does not seem to be closely related to any of the factors shown in the table below. I can't find data on the annual fee for license renewal in the various countries. The US free-renewal and ten-year license probably account for our high place in the list. If the US had an annual fee, might we be nearer Canada in the list?
The call book seemed wrong on the number of hams in Japan and some other countries, so they are not listed.

One Ham/ People	Sq mi per Ham	Pop Density /sq mi	Approx No-Code License	Per Cap Income	Country
506	1.6	305	Y	$11 K	Denmark
520	16	32	Y	$ 7 K	New Zealand
539	8	68		$13 K	USA (50 states)
667	14	48	Y	$12 K	Sweden
726	22	33	?	$14 K	Norway
768	154*	5*	Y	$10 K	Australia
826	0.9	931	Y	$13 K	Netherlands
845	1.4	601	Y	$ 8 K	Great Britain
958	1.5	626	Y	$11 K	West Germany
992	165*	6*		$13 K	Canada
1043	35	30	?	$ 2.3K	Argentina
1078	5	204	Y	$ 4.5K	Spain
2039	2.4	840	Y	$10.5K	Belgium
3160	6	493	?	$ 6.5K	Italy

* Much of the territory is unpopulated

Comments???
73, Bob W3OTC

1130. Re: INFO-HAMS Digest V90 #198

Newsgroup: rec.ham-radio
Date: 1990-02-17 14:54:48 UTC
From: ROGERDAL@LAVALVM1.BITNET
Message-ID: <90Feb17.145528est.58029@ugw.utcs.utoronto.ca>
Source record: 13467

signoff

1131. Re: no-voice license

Newsgroup: rec.ham-radio
Date: 1990-02-17 16:41:55 UTC
From: sterling@cbmvax.commodore.com
Message-ID: <9711@cbmvax.commodore.com>
Source record: 13336

In article <7500016@hpfcso.HP.COM> ron@hpfcso.HP.COM (Ron Miller) writes:
>
>
> >
> > --Phil Howard, KA9WGN--
> > Actually, the OF's don't believe so much in "I had to learn it [CW], so they
> > have to, too", but rather more likely believe in "I don't want any association
> > with anybody who can't/won't do what I did to get here".
> ^^
> or equivalent
>
> With this minor clarification, this expresses my thoughts on the subject.
> Something not worth working for isn't worth having. Amateur radio is
> a privilege after all.
>
> Ron (thought it was worth working for at age 13) Miller NW0U
> - OF at age 33-

Personally, I think some "OF's" have an understandable fear of becoming technologically obsolete. This phenomonon is evidenced in many other areas of human endeavor where technology has made major changes to the way things are done.

I'd be curious to know how many would change their mind about code requirements if they had to be re-examined every 5 years on both code proficiency and current ham radio technology. ;-)

73
Rick (An OF of 46 and ham of 30 years ;-)) N2CGI (Computer Guy Iconoclast)

``Don't get all excited ... its only 1's and 0's'' Anonymous

1132. John Kraus

Newsgroup: rec.ham-radio
Date: 1990-02-17 19:25:53 UTC
From: BETZ-A@osu-20.ircc.ohio-state.edu
Message-ID: <12567133458013@osu-20.ircc.ohio-state.edu>
Source record: 13337

In ref to Phil's posting:

It really is a great callsign, seeing that John Kraus' is W8JK.
This makes for a great conversation piece on the air. I still
need to meet him, however.

Drew WJ8K

1133. Ohio State ARC

Newsgroup: rec.ham-radio
Date: 1990-02-17 19:38:09 UTC
From: BETZ-A@osu-20.ircc.ohio-state.edu
Message-ID: <12567135691013@osu-20.ircc.ohio-state.edu>
Source record: 13338

We are also having problems getting new members involved.
Time constraints on current members often preclude activities
necessary to drum up new faces, I'm afraid.

As for the antennae we are using: for 10,15, and 20 meters
we have a 3-element cubical quad at about 135 feet (positioned
atop the southeast belltower of the Ohio Stadium). For 40,
80, and 160 meters, we have a 600 (maybe more?) foot long-wire
suspended from the stadium over to the McCracken Power Plant.
We also put a 40 meter dipole up about 3 weeks ago.

Drew WJ8K

1134. Re: There's plenty of time for radios after college

Newsgroup: rec.ham-radio
Date: 1990-02-17 21:47:39 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <2239@ultb.isc.rit.edu>
Source record: 13346

>Any real college guys out there? What's it like now? Unless the beer is
>always warm now and the women ugly (TBWCS), I would say radio should still
>come in third. 73 John WB2EKK @N4QQ PESCATORE_JT%NCSD@GTE.COM

Yeah, there's still lots of beer to drink, and there's still lots of
women to chase. For club members here, though, it's a break from the
parties in which you hear the same music and see the same people and
stand around and do the same _nothing_ -- fun, but only for the first
three weeks of the semester, and then it gets old.

The nice thing about amateur radio is that there's STILL a lot of 'unknown'
out there - i.e. ham radio other than SSB and 2-meters - and places to
experiment. It's VERY hard to find the time to do these things, and I
often feel like I'm in an island of technology which outside hams are
not likely to traverse.

The other problem is that universities don't see a tremendous point in
all of this, and underfund us. Combine that with the fact that almost
every university club I've come in contact with reports the same situation:
dwindling membership, and a few eggheads (like me) keeping the system
going. (Can't tell you how many membership lists I've ... uhh ...
"adjusted" to keep them off my back :-)).

-Chris
--
Christopher E. Piggott, N2JGW cep4478@ultb.isc.rit.edu
President n2jgw@n2jgw.ampr [44.69.2.1]
Rochester Institute of Technology N2JGW @ WB2WXQ
Amateur Radio Club K2GXT CEP4478@RITVAXA.BITNET

1135. Re: Buying from Japan

Newsgroup: rec.ham-radio
Date: 1990-02-17 21:49:35 UTC
From: tad@ssc.UUCP
Message-ID: <488@ssc.UUCP>
Source record: 13341
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Pete Helme asked about saving money by buying ham gear in Japan.

One thing that has really surprised me is that whenever a Japanese ham comes to visit me, they always want to buy Japanese gear HERE to save money! The last time JH3HBF was here (1988), he said that because the Yen had risen so much against the dollar, the JA ham manufacturers had cut their profits on USA bound gear to the bone, so that US hams could still afford to buy it! He used a VISA card issued by a Japanese bank to buy some VHF gear here by mailorder, had it shipped to the next stop on his trip, and claimed that he saved a bundle.

73,
Tad Cook
Seattle, WA
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

1136. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-18 00:39:02 UTC
From: kchen@Apple.COM
Message-ID: <38713@apple.Apple.COM>
Source record: 13339

dube@cpdvax.csc.ti.com (DUBE TODD) writes:

>Kok Chen suggests that the "communicator class" licensee be given what is
>currently the CW bandspace. He also incicated that he has a newly-acquired
>Extra Class authorization. So let me make a proposition: Lets let the
>Communicator Class have the bandspace now set aside for the Extras (Most
>of it in the HF bands is on the CW end anyway).

As to the overcrowding of bands, I agree with OM Todd that the way
the bands are segregated according to CW proficiency is not to my liking
either. Countries that have a single class of HF license seem to do
fine. Being able to communicate more rapidly in CW should be reward
enough by itself for bringing one's code speed up. Why do we need to
reserve space for those who do?

Moreover, I sincerely doubt that there will be a sudden horde of
barbaric Communicator class licensees crowding our bands frantically
working CW. Remember, these are the same people we were accusing of
being too lazy to even want to learn morse, much less operate in it :-)

Perhaps Mr. Todd is afraid that by allowing the newcomers in on CW
would mean that the current Novice and Technician folks would have to
compete with more people for spectrum space. Look at it another way -
they will also have more interesting people to talk to, too. We all will.
Isn't this what it is all about? To let more people into the folds?
To enrich Amateur Radio? Remember, these guys and gals would already
have passed the written. And, if they willingly operate CW on HF, they
are *not* the riff-raffs that we are trying to exclude.

> Now
>the question arises: "Why did he expend the trouble and effort to obtain the
>Extra?" The challenge? so he can be a VEC? a sort of status symbol? to
>have access to more bandspace?

Why do people scale mountains? Because it is there! (Actually, Mr.
Todd forgot to list being able to operate space-earth :-) :-).

Originally, when I decided to get a Ham license last June, I had only
intended to get an Advanced. And when I only flunked 1C when I went
to take my tests (hey, since they let you take all the tests in one
sitting for the same $4.95, why not take all 8?), I practiced like crazy
and got the Extra upgrade two weeks later. So, the "extra effort" (pun
intended) that Mr. Todd alludes to is quite minimal.

The only reason it was that easy is that I have been on the periphery
of Amateur Radio for almost 30 years. :-) I finally went for the license
because I wanted to experiment with an antenna form in a way in which

dependence on the Reciprocity Theorem may not be convincing enough.
(Translation: I need to be able to emit RF :-). I assure you it is not
so that I can discuss Geritol on 80. However, it looks like the microSats
are going to get me sidetracked - PSK modems are more fun than cross-field
antennas :-) [Thanks, AMSAT!]

Kok Chen kchen@apple.com, kk6dp
Apple Computer, Inc.

1137. Weather Satellite Information

Newsgroup: rec.ham-radio
Date: 1990-02-18 00:56:43 UTC
From: jlulejia@jarthur.Claremont.EDU
Message-ID: <4461@jarthur.Claremont.EDU>
Source record: 13340

I am trying to gain some information about several
of the weather satellites which can be received by
the public. I am familiar with the NOAA and METEOR
frequencies and formats, but I would like to receive
some other satellites and weather pictures. I am
particularly interested in COSMOS, TIROS, Landsat,
and another satellite I can receive and decode.

If you can provide any of this information I would
be much obliged.

Thanks & 73!

John Lulejian, KA6TCY
President, Claremont Colleges ARC

1138. ANS: Arguing over No-code

Newsgroup: rec.ham-radio
Date: 1990-02-18 00:59:39 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9002180059.AA02694@tecnet1.jcte.jcs.mil>
Source record: 13347

zaphod.mps.ohio-state.edu!usc!cs.utexas.edu!asuvax!
stjhmc!f1.n234.z1.fidonet.org!Jim.Grubs@tut.cis.ohio-state.edu

>Jim Grubs writes:

>I don't think any purpose is served by arguing among ourselves over
>whether no-code is good, bad, or indifferent. The real point seems
>to be that the FCC gives every indication that THEY want it and will
>wash their hands of us if we fight them on it.

No disagreement at all over not arguing over this, but I do have one
quick question. I have been reading where other people are also making
reference to the FCC "washing their hands" of us if we fail to go along
with them or fight them on this no code issue.

Where is this coming from? Can someone quote a reliable source for this
attitude//statement? In itself it concerns me more than any issue over
"code" or "no-code" and the reasons for that are obvious. But is this
just so much rumor mongering? I would like to know the FACTS behind
this statement. Not hearsay please.

>They must think the same of us now as the Army brass did in '39 and
>'40 of the old duffers who wanted to keep the cavalry on horseback.
>When you think about it in those terms, the Code Forever troopers
>look pretty ludicrous.

I don't think that people that are concerned about the future of ham radio
are "ludicrous" in any way, shape, or form. The people FOR "no-code" in
most cases are just trying to hold on to a requirement that they feel will
have a good chance of instilling some respect for the service among the
people that are taking the test. Maybe they are right, and maybe they are
wrong... but I honestly think that EVERYONE'S heart is in the right place,
both for and against code. There is no need to make innuendo that the
pro-code people are "old duffers" or "Code Forever Troopers".

Be that as it may... isn't your second paragraph in direct contradiction
with your first one? I.E. "I don't think any purpose is served ...."

Mark Bitterlich
WA3JPY@WB4UOU
mgb@tecnet1.jcte.jcs.mil

1139. Communicator Class and the Deaf

Newsgroup: rec.ham-radio
Date: 1990-02-18 01:10:38 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <2241@ultb.isc.rit.edu>
Source record: 13345

I haven't seen this thought up, but the no-code license will let
deaf and hearing impaired people become hams much more easily. This
may be an issue here in Rochester, as we have a very large deaf community
and R.I.T. is host to the National Technical Institute for the Deaf.

Just a random thought.

--
Christopher E. Piggott, N2JGW cep4478@ultb.isc.rit.edu
President n2jgw@n2jgw.ampr [44.69.2.1]
Rochester Institute of Technology N2JGW @ WB2WXQ
Amateur Radio Club K2GXT CEP4478@RITVAXA.BITNET

1140. RE: Expanding HF Phone Bands

Newsgroup: rec.ham-radio
Date: 1990-02-18 02:51:24 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002180251.AA13306@cmr.ncsl.nist.gov>
Source record: 13342

The way I've always heard it, as soon as the US proposes to widen its HF phone bands, the FCC and ARRL mail boxes fill with complaints from HAMS all around the world who don't want THEIR operation (partly phone) to be smothered by the babble of impolite US hams they hear in the US phone bands.

If you lived in a DX country, wouldn't you want some HF frequencies where you could operate phone without every contact being destroyed by US DX hunters?

For example, PJ9EE (who is also a K4) is getting tired of six (where there is little phone operation outside the US phone band) because all his rag-chews are interrupted by the "Break..I need your country" problem. If they only knew that he won't QSL because of this problem.

Maybe rag-chewing isn't very high-tech, but DX hams are people too.

So, Kok Chen, since something like half the HF-band hams in the World are in the US, expanding the US HF phone bands immediately results in "Ugly American" complaints from around the globe. Maybe it's another not-in-my-back-yard situation, but their representatives attend the international allocation meetings just like ours.

This isn't just hear-say, I got complaints directly when I visited the ITU ham station in Geneva years ago.

73, Bob W3OTC

1141. Re: A.C.E. Newsletter - Feb.1990

Newsgroup: rec.ham-radio
Date: 1990-02-18 13:22:26 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <27059@cup.portal.com>
Source record: 13343
Cross-posted to: rec.radio.shortwave,rec.ham-radio

To try to limit the amount of 'bouncing mail' as a result of the line noise reflected in the recent posting of my 2/90 ACE column - the correct E-Mail address on the Internet is:

havanamoon@cup.portal.com

1142. ICOM R71A vs. Kenwood R-5000

Newsgroup: rec.ham-radio
Date: 1990-02-18 16:40:27 UTC
From: n188av@tamunix.tamu.edu
Message-ID: <4266@helios.TAMU.EDU>
Source record: 13348
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I was looking at the specs of both the Kenwood R-5000 and
ICOM R71A, and it appears that from this the ICOM is superior
both in terms of sensitivity and selectivity (standard available
filters) on all the bands. However, a few reviews I have seen
indicate that the Kenwood is better overall. Based on these specs alone
it would appear that the ICOM is better.

Are there any "hidden" specs or intangibles, so to speak, that I am not
aware of? Reliabilty? Audio quality? Mods and accessories? Inconvenient
operation? Design trade-offs? Noise? etc ...
Both receivers cost the same at EEB.

Any comments on this? Please email if this is not of general interest.
Thanks.

--

Sriram Narayan 810446 Texas A&M University |
INTERNET: narayan@tamunix.tamu.edu | Go Alain Prost!
BITNET: narayan@TAMVXEE |

1143. Re: ICOM R71A vs. Kenwood R-5000

Newsgroup: rec.ham-radio
Date: 1990-02-18 16:44:04 UTC
From: n188av@tamunix
Message-ID: <4267@helios.TAMU.EDU>
Source record: 13349

In article <4266@helios.TAMU.EDU> n188av@tamunix.tamu.edu (Sriram Narayan) writes:
>Both receivers cost the same at EEB.
>
>Any comments on this? Please email if this is not of general interest.
>Thanks.
>
Oops, my signature should read n188av@tamunix.tamu.edu in previous
posting.

>--
>Sriram Narayan 810446 Texas A&M University |
>INTERNET: narayan@tamunix.tamu.edu | Go Alain Prost!
^^^^^^^^^^^^^^^^^^^^^^^^
>BITNET: narayan@TAMVXEE |

--

Sriram Narayan 810446 Texas A&M University |
INTERNET: n188av@tamunix.tamu.edu | Go Alain Prost!
BITNET: narayan@TAMVXEE |

1144. Re: New License Class(es)

Newsgroup: rec.ham-radio
Date: 1990-02-18 16:59:57 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <2242@ultb.isc.rit.edu>
Source record: 13344

Last year some time, someone (I don't remember who it was) suggested to me having license classes with endorsements ... if you passed a CW test, you had access to HF ... if you passed a packet radio test, you got a packet "endorsement"...Neat idea, I thought -- but if you're talking about license classes, you're right - this idea is nifty, I think, but imagine the mess it would create by having many, many combinations of license "classes".

--

Christopher E. Piggott, N2JGW cep4478@ultb.isc.rit.edu
President n2jgw@n2jgw.ampr [44.69.2.1]
Rochester Institute of Technology N2JGW @ WB2WXQ
Amateur Radio Club K2GXT CEP4478@RITVAXA.BITNET

1145. X10 information (non-dimmer wall switch)

Newsgroup: rec.ham-radio
Date: 1990-02-18 20:03:12 UTC
From: wht@n4hgf.uucp
Message-ID: <130@n4hgf.uucp>
Source record: 13350

Forgive the post here of non ham-related (?) information, but
someone here was looking for non-dimmer X10 wall switches to
avoid RFI. From sci.electronics:

```
@@ Newsgroups: misc.consumers.house,sci.electronics
@@ Subject: Leviton X10 compatible devices
@@
@@ >From a press release:
@@
@@ Advanced Control Technology (ACT) of Indianapolis, Indiana, has acquired
@@ Leviton's Powerline Control Components (PCC) Commercial Products Line.
@@ . . . Leviton will continue to carry its residential powerline carrier
@@ products, Decora Electronica Controls (DEC), as part of its Decora
@@ electrical wiring device line through its electrical distributors
@@ nationwide.
@@
@@ ACT can be reached at 800-229-7078
@@
@@ This equipment is X10 compatible, but of higher quality than that which
@@ can be purchased at the usual X10 suppiers. In addition, devices
@@ not available as X10 (e.g., a wall switch suitable for fluorescent
@@ lights) is available from these companies.
@@
@@ dgc
@@
@@ David G. Cantor
@@ Department of Mathematics
@@ University of California at Los Angeles
@@ Internet: dgc@math.ucla.edu
@@ UUCP: ...!{randvax, sdcrdcf, ucbvax}!ucla-cs!dgc
@@
@@
--
-----------------------------------------------------------------
Warren Tucker, Mountain Park, Georgia ...!gatech!kd4nc!n4hgf!wht
Hacker Extraordinaire d' async PADs, pods, proteins and protocols
Tridom Corporation, VSAT communications leader, an ATT subsidiary
```

1146. Apology to K Chen

Newsgroup: rec.ham-radio
Date: 1990-02-18 22:35:40 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002182235.AA00310@cmr.ncsl.nist.gov>
Source record: 13354

I apparently had my cast of characters wrong in a recent posting where I mentioned K Chen. I hereby apologize to him.
73, Bob W3OTC

1147. Re: Hams per Capita

Newsgroup: rec.ham-radio
Date: 1990-02-18 22:53:26 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002182253.AA00329@cmr.ncsl.nist.gov>
Source record: 13353

Phil Karn has noted that I listed Canada as NOT having a no-code license, while , in fact, they do have the no-code Digital class. My ommision was intentional. There are SO few Digital tickets that one could say that Canada PRACTICALLY doesn't (yet) have a for-the-masses no-code ticket like the other countries mentioned.
73, Bob W3OTC

1148. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-02-18 23:16:06 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9002190812.AA24908@ucbvax.Berkeley.EDU>
Source record: 13355

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #648 -
Alouette 1
1 00424U 62B-A 1 90 31.57938329 .00000276 00000-0 32091-3 0 2579
2 00424 80.4618 60.7518 0022115 264.4236 95.4396 13.67289074364022
ATS 1
1 02608U 66110 A 90 32.93698741 -.00000164 00000-0 99999-4 0 1028
2 02608 13.4270 14.7955 0003109 258.6138 101.3904 1.00392596 1196
ATS 3
1 03029U 67111 A 90 35.97925921 -.00000075 00000-0 99999-4 0 2895
2 03029 13.0398 22.2851 0025430 202.3657 157.5717 1.00272205 81471
Cosmos 398
1 04966U 71 16 A 90 37.90175265 .00036107 16500-4 21568-3 0 5347
2 04966 51.5409 200.2011 2373207 265.9612 66.9070 10.84377968577439
Starlette
1 07646U 75010 A 90 36.04543397 .00000008 00000-0 54057-4 0 106
2 07646 49.8248 319.8869 0206359 114.8857 247.3640 13.82130138757503
LAGEOS
1 08820U 76039 A 90 42.36575780 .00000004 00000-0 00000 0 0 49
2 08820 109.8621 312.0284 0044880 265.0073 94.5239 6.38664809 65906
GOES 2
1 10061U 77048 A 90 43.10170499 -.00000011 00000-0 99999-4 0 3627
2 10061 7.7608 65.3301 0012899 177.7007 182.4332 1.00264604 7782
GPS-0001
1 10684U 78020 A 90 43.28397586 .00000009 00000-0 99999-4 0 3240
2 10684 63.6394 93.4164 0115684 199.1643 160.5096 2.00557946 73349
GPS-0002
1 10893U 78 47 A 90 42.25533637 -.00000026 00000-0 00000 0 0 951
2 10893 64.4408 334.3058 0160647 25.9137 334.8751 2.00549401 86141
GOES 3
1 10953U 78062 A 90 43.15509449 .00000086 00000-0 99999-4 0 8132
2 10953 6.6334 68.0295 0022230 184.2844 175.8604 1.00279106 3349
SeaSat 1
1 10967U 78064 A 90 41.98738678 .00000570 00000-0 24128-3 0 2331
2 10967 108.0194 59.7835 0002489 247.6640 112.4231 14.35410185608344
GPS-0003
1 11054U 78093 A 90 42.05659547 -.00000025 00000-0 00000 0 0 1601
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2 11054 63.9534 330.6478 0056501 117.9512 242.6698 2.00565278 83156
Nimbus 7
1 11080U 78098 A 90 41.74621860 .00000086 00000-0 93821-4 0 6314
2 11080 99.2034 309.4885 0009852 63.3770 296.8385 13.83394990570558
GPS-0004
1 11141U 78112 A 90 41.15534726 .00000009 00000-0 00000 0 0 2658
2 11141 63.6869 93.3976 0058170 317.4260 42.2043 2.00563467 81837
NOAA 6
1 11416U 79 57 A 90 42.51491779 .00000859 00000-0 37199-3 0 9690
2 11416 98.5219 37.9242 0012509 126.3917 233.8402 14.26474249552010
GPS-0005
1 11690U 80 11 A 90 43.28804947 .00000010 00000-0 00000 0 0 9029
2 11690 64.1341 95.2918 0161271 196.0699 163.4724 2.00557769 87733
GPS-0006
1 11783U 80 32 A 90 41.60826559 -.00000025 00000-0 00000 0 0 390
2 11783 63.7602 330.2573 0146119 60.4852 300.9891 2.00572246 71787
GOES 4
1 11964U 80 74 A 90 37.66324939 .00000085 00000-0 00000 0 0 1322
2 11964 6.1037 70.7690 0030565 107.6617 252.7449 0.99227203 4355
GOES 5
1 12472U 81049 A 90 36.02659186 -.00000244 00000-0 99999-4 0 8217
2 12472 3.1430 77.4630 0003193 293.7142 66.3126 1.00263271 30920
DE 1
1 12624U 81 70 A 90 39.27622481 .00000002 00000-0 -80514-4 0 3263
2 12624 89.0979 149.0740 6230773 325.1202 6.5968 3.51028323257596
SME
1 12887U 81100 A 90 43.09815170 .00021241 00000-0 50773-3 0 4814
2 12887 97.6576 83.7264 0004193 114.0359 246.1262 15.41512036461943
Meteor 2-08
1 13113U 82 25 A 90 42.50192992 .00000146 00000-0 12100-3 0 6915
2 13113 82.5368 228.5151 0016361 108.2363 252.0567 13.84131568398341
Salyut 7
1 13138U 82 33 A 90 43.83509216 .00037398 00000-0 56759-3 0 448
2 13138 51.6053 209.2578 0000746 177.7307 182.3780 15.54221224445459
Cosmos 1383
1 13301U 82 66 A 90 41.91927579 .00000125 00000-0 13626-3 0 5358
2 13301 82.9275 33.3088 0028059 145.6506 214.6469 13.67798968380411
LandSat 4
1 13367U 82 72 A 90 41.98457065 .00000075 00000-0 21794-4 0 2315
2 13367 98.1818 106.8948 0003504 145.2513 214.8911 14.57123771402927
Meteor 2-09
1 13718U 82116 A 90 42.03432084 .00000273 00000-0 13713-3 0 8569
2 13718 81.2413 47.8514 0057309 40.2583 320.2811 14.13443736369298
IRAS
1 13777U 83 4 A 90 40.31009462 -.00000022 00000-0 -32767-5 0 7161
2 13777 99.0298 239.0303 0012235 23.4990 336.6742 13.98731652 29067
Cosmos 1447
1 13916U 83 21 A 90 43.16382249 .00000097 00000-0 95884-4 0 6738
2 13916 82.9477 104.5004 0039446 126.2073 234.2735 13.74008399345507
TDRS 1
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1 13969U 83 26 B 90 42.01324335 -.00000208 00000-0 00000 0 0 9263
2 13969 4.1666 66.8508 0006073 253.8658 106.3064 1.00269920 91817
GOES 6
1 14050U 83 41 A 90 41.20848903 .00000113 00000-0 00000 0 0 696
2 14050 1.9192 79.7892 0001114 270.1730 90.1990 1.00286805 8997
OSCAR 10
1 14129U 83 58 B 90 34.75628196 .00000058 00000-0 00000 0 0 4549
2 14129 25.8770 220.5439 6002722 115.5981 316.6520 2.05879647 21983
GPS-0008
1 14189U 83 72 A 90 43.69633187 .00000008 00000-0 99999-4 0 7054
2 14189 63.3002 91.7949 0141965 217.3193 141.7626 2.00560659 48260
Meteor 2-10
1 14452U 83109 A 90 42.49902417 .00000594 00000-0 24891-3 0 8150
2 14452 81.1623 53.6522 0095418 126.3033 234.6969 14.22583100326564
LandSat 5
1 14780U 84 21 A 90 41.94285336 -.00000329 00000-0 -68164-4 0 445
2 14780 98.1362 104.1841 0001950 199.6837 160.4289 14.57144229316333
UoSat 2
1 14781U 84 21 B 90 43.72634733 .00001882 00000-0 36059-3 0 6102
2 14781 97.9660 100.2843 0011898 284.8327 75.1550 14.64879203317748
GPS-0009
1 15039U 84 59 A 90 41.26340961 .00000007 00000-0 00000 0 0 8062
2 15039 63.0445 91.0820 0018794 242.2893 117.6020 2.00562949 41493
Cosmos 1574
1 15055U 84 62 A 90 40.78008662 .00000164 00000-0 16453-3 0 8235
2 15055 82.9588 156.2199 0027173 320.9318 38.9873 13.73324912282585
Meteor 2-11
1 15099U 84 72 A 90 38.82053518 .00000194 00000-0 16612-3 0 9956
2 15099 82.5306 178.9520 0012568 302.1621 57.8322 13.83785486282708
GPS-0010
1 15271U 84 97 A 90 40.66062049 -.00000026 00000-0 00000 0 0 7480
2 15271 63.2854 329.9057 0105750 324.8420 34.4668 2.00572263 38595
Cosmos 1602
1 15331U 84105 A 90 42.67615009 .00002758 00000-0 38373-3 0 1676
2 15331 82.5393 117.1750 0024944 25.1297 335.0997 14.77294420289551
NOAA 9
1 15427U 84123 A 90 41.47134926 .00000458 00000-0 26925-3 0 4794
2 15427 99.1628 38.3959 0015410 8.4897 351.6532 14.12431408266096
Meteor 2-12
1 15516U 85 13 A 90 43.30118533 .00000329 00000-0 28541-3 0 1534
2 15516 82.5370 113.7763 0017295 156.7109 203.4839 13.84279236254270
Cosmos 1686
1 16095U 85 86 A 90 42.99915376 .00071933 00000-0 10812-2 0 4949
2 16095 51.6017 213.4231 0000733 192.9696 166.8857 15.54199263246428
GPS-0011
1 16129U 85 93 A 90 43.31585189 .00000008 00000-0 00000 0 0 4105
2 16129 63.8194 91.8823 0121131 150.3622 210.4088 2.00559987 31856
Meteor 3-1
1 16191U 85100 A 90 40.55946665 .00000043 00000-0 99999-4 0 8929
2 16191 82.5439 67.9193 0021180 67.3418 292.9951 13.16894364206760
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Meteor 2-13
1 16408U 85119 A 90 40.92153870 .00000253 00000-0 21664-3 0 5674
2 16408 82.5318 30.5016 0016703 359.8354 0.2798 13.84291749208449
Mir
1 16609U 86 17 A 90 43.81501869 .00109236 00000-0 14284-2 0 3961
2 16609 51.6187 236.5884 0018893 158.3257 201.8757 15.57576127228680
SPOT 1
1 16613U 86 19 A 90 42.23019709 -.00000134 00000-0 -53830-4 0 7594
2 16613 98.7135 118.5136 0000987 150.1078 210.0163 14.20051672 46059
Meteor 2-14
1 16735U 86 39 A 90 40.50357158 .00000126 00000-0 10354-3 0 3523
2 16735 82.5339 57.7876 0016117 68.1105 292.1767 13.84045091187286
Cosmos 1766
1 16881U 90 43.44471136 .00002004 00000-0 28077-3 0 8633
2 16881 82.5254 175.6393 0023340 38.6563 321.6311 14.76894443190736
EGP
1 16908U 86 61 A 90 39.33458006 -.00000015 00000-0 20168-3 0 1680
2 16908 50.0103 292.1270 0010555 226.9308 133.0642 12.44384985158814
FO-12
1 16909U 86 61 B 90 23.89068611 -.00000025 00000-0 99999-4 0 1785
2 16909 50.0168 339.9003 0011453 184.7940 175.2781 12.44403507156880
NOAA 10
1 16969U 86 73 A 90 43.37592846 .00000635 00000-0 29645-3 0 3385
2 16969 98.6148 74.0504 0012489 275.3965 84.5786 14.23454808176854
Meteor 2-15
1 17290U 87 1 A 90 41.11574258 .00000327 00000-0 28554-3 0 3300
2 17290 82.4706 322.9217 0012698 323.8930 36.1366 13.83855663156520
MOS-1
1 17527U 87 18 A 90 43.18845006 -.00000038 00000-0 -15260-4 0 4035
2 17527 99.1225 117.2871 0000857 79.8749 280.2517 13.94847829151831
GOES 7
1 17561U 87 22 A 90 42.90528454 -.00000044 00000-0 99999-4 0 4152
2 17561 0.0542 231.1025 0003401 270.3515 218.5433 1.00271011 4168
Kvant-1
1 17845U 87 30 A 90 43.04503741 .00050388 00000-0 66808-3 0 9943
2 17845 51.6132 240.4476 0018989 154.7393 205.2137 15.57539949164614
DMSP B5D2-3
1 18123U 87 53 A 90 41.95519859 .00000549 00000-0 30947-3 0 4778
2 18123 98.8190 234.2328 0015129 25.8802 334.3121 14.13862571136565
RS-10/11
1 18129U 87 54 A 90 42.95824198 .00000079 00000-0 80538-4 0 351
2 18129 82.9225 61.0483 0013277 104.5043 255.7605 13.72058787132273
Meteor 2-16
1 18312U 87 68 A 90 41.05342850 .00000220 00000-0 18868-3 0 3683
2 18312 82.5542 31.0553 0010818 255.4231 104.5679 13.83598560125402
Meteor 2-17
1 18820U 88 5 A 90 41.05888001 .00000257 00000-0 22011-3 0 1988
2 18820 82.5434 91.5277 0016126 326.7514 33.2631 13.84293047102598
DMSP B5D2-4
1 18822U 88 6 A 90 41.98448426 .00000358 00000-0 18156-3 0 3930
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2 18822 98.6655 283.5111 0005679 278.9309 81.1225 14.21260536104899
AO-13
1 19216U 88 51 B 90 41.42885779 -.00000159 00000-0 99999-4 0 733
2 19216 57.0308 169.3778 6891138 220.8787 59.0778 2.09703020 12748
OKEAN 1
1 19274U 88 56 A 90 42.97790193 .00000933 00000-0 13084-3 0 6452
2 19274 82.5164 274.7001 0022237 167.4460 192.7277 14.76354832 86446
Meteor 3-2
1 19336U 88 64 A 90 42.90434846 .00000390 00000-0 99999-3 0 3692
2 19336 82.5274 6.0498 0015842 268.2614 91.6585 13.16878759 74468
NOAA 11
1 19531U 88 89 A 90 38.37829014 .00000162 00000-0 99688-4 0 1957
2 19531 98.9674 346.6621 0011187 292.6512 67.3474 14.11438024 70654
TDRS 2
1 19548U 88 91 B 90 32.11069484 .00000131 00000-0 99999-4 0 715
2 19548 0.0185 156.0496 0002283 149.6426 54.3202 1.00275632 4085
Cosmos 2001
1 19796U 89 11 A 90 43.57330217 -.00001011 00000-0 99999-3 0 3542
2 19796 63.0079 108.9191 7146606 319.7502 5.1077 2.00607649 7309
GPS BII-01
1 19802U 89 13 A 90 35.34513610 .00000016 00000-0 99999-4 0 684
2 19802 55.0712 202.6476 0060751 157.6649 202.5881 2.00560950 7084
Akebono
1 19822U 89 16 A 90 43.72914159 .00028903 00000-0 18182-2 0 4371
2 19822 75.1237 299.2280 4215422 300.6290 24.5062 7.04757072 24623
Meteor 2-18
1 19851U 89 18 A 90 42.29878461 .00000189 00000-0 16080-3 0 1493
2 19851 82.5252 328.7626 0014718 4.3434 355.7844 13.83931390 48157
TDRS 3
1 19883U 89 21 B 90 35.73991215 -.00000235 00000-0 99999-4 0 534
2 19883 0.0414 92.6754 0004646 191.2880 75.9537 1.00268038 2569
GPS BII-02
1 20061U 89 44 A 90 40.51431542 -.00000031 00000-0 00000 0 0 481
2 20061 54.7158 21.0166 0082216 172.4185 187.7045 2.00563631 4938
Nadezhda
1 20103U 89 50 A 90 40.98742531 .00000156 00000-0 15492-3 0 751
2 20103 82.9574 18.7540 0039220 34.1181 326.2475 13.73560253 30256
GPS BII-03
1 20185U 89 64 A 90 39.98539122 .00000016 00000-0 99999-4 0 406
2 20185 54.9347 203.3278 0026569 142.4781 217.6703 2.00563831 8125
Soyuz TM-8
1 20218U 89 71 A 90 41.95431676 .00016364 00000-0 22296-3 0 1595
2 20218 51.6187 245.9153 0019198 149.5412 210.6616 15.57478688 24609
Activnyi
1 20261U 89 80 A 90 43.80323393 .00000321 00000-0 99999-4 0 2812
2 20261 82.6017 307.5085 1259059 259.4848 86.2577 12.43215285 17136
Activnyi RB
1 20262U 89 80 C 90 43.24430560 .00000780 00000-0 24384-3 0 1369
2 20262 82.6005 307.8711 1260855 260.8057 84.8630 12.42962196 17062
Magion 2
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1 20281U 89 80 B 90 43.79301996 .00002025 00000-0 63863-3 0 2922
2 20281 82.6001 307.4832 1259191 259.4629 86.2570 12.43379684 17131
GPS BII-04
1 20302U 89 85 A 90 24.26182608 -.00000030 00000-0 99999-4 0 405
2 20302 54.7308 322.9201 0039138 309.5421 50.1182 2.00572809 1868
Meteor 3-3
1 20305U 89 86 A 90 42.22619048 .00000100 00000-0 24541-3 0 494
2 20305 82.5534 306.8457 0014936 285.4767 74.4727 13.15851134 14383
COBE
1 20322U 89 89 A 90 41.57607881 .00004713 00000-0 31561-2 0 487
2 20322 99.0252 53.1790 0007538 1.8313 358.2854 14.01197315 11753
Kvant-2
1 20335U 89 93 A 90 43.04504090 .00047156 00000-0 62624-3 0 1112
2 20335 51.6145 240.4425 0018505 154.5888 205.3815 15.57538122 12215
GPS BII-05
1 20361U 89 97 A 90 33.52882820 .00000016 00000-0 99999-4 0 138
2 20361 54.9564 145.6749 0065192 44.4514 316.0652 2.00551200 1029
Progress M2
1 20373U 89 99 A 90 39.96519137 .00040609 00000-0 54269-3 0 643
2 20373 51.6179 255.8868 0019612 143.3281 216.8138 15.57412172 6997
Cosmos 2053
1 20389U 89100 A 90 37.69776942 -.00009522 00000-0 -52566-3 0 841
2 20389 73.5350 12.9155 0009246 142.4199 217.7513 15.13845107 6312
1989 100B
1 20390U 89100 B 90 37.89506855 .00003174 00000-0 17917-3 0 452
2 20390 73.5364 12.4933 0008510 140.5643 219.6170 15.13676726 6346
Cosmos 2054
1 20391U 89101 A 90 36.43219190 -.00000113 00000-0 99999-4 0 683
2 20391 1.4298 273.9944 0013700 184.1560 176.3791 1.00219912 420
1989 101D
1 20394U 89101 D 90 28.80723554 -.00000044 00000-0 99999-4 0 179
2 20394 1.4580 273.7841 0010326 45.7172 314.6587 0.98249334 330
Skynet 4A
1 20401U 90 34.46985689 0.00000105 0 342
2 20401 3.3785 303.9369 0021714 52.1684 308.2156 1.00597179 216
JCSAT
1 20402U 90 1 B 90 37.19418073 -.00000138 00000-0 99999-4 0 218
2 20402 0.2478 260.8796 0002589 13.7330 85.3249 1.00270543 340
1990 001D
1 20404U 90 38.32261194 0.00002626 17207-2 0 331
2 20404 21.5429 270.3906 7209065 196.3238 114.5390 2.34605795 883
1990 001F
1 20406U 90 38.86337825 0.00007184 19135-2 0 300
2 20406 26.7137 254.6073 5866581 226.3657 66.9195 4.22382468 1597
LEASAT 5
1 20410U 90 2 B 90 43.00729711 .00000069 00000-0 99999-4 0 200
2 20410 3.3572 323.2276 0123468 185.4228 174.4466 1.00278402 273
1990 002C
1 20411U 90 2 C 90 42.48767456 .00009451 00000-0 22431-2 0 333
2 20411 27.1885 99.6673 5237963 54.2797 343.9557 5.20519032 1655
```

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Cosmos 2056
1 20432U 90 44.69473748 0.00000412 16961-3 0 191
2 20432 74.0364 271.3444 0024457 290.9203 68.9317 14.29716039 3727
1990 004B
1 20433U 90 41.66136549 0.00000626 24470-3 0 192
2 20433 74.0374 276.7571 0032986 306.2556 53.5566 14.31240654 3305
SPOT 2
1 20436U 90 44.23828301 0.00000160 83795-4 0 385
2 20436 98.7197 120.4635 0000681 89.5544 270.5621 14.20019281 3159
UO-15
1 20437U 90 44.62512111 0.00000106 50400-4 0 183
2 20437 98.7066 121.0545 0011762 152.2010 207.9803 14.28484893 3227
AO-16
1 20438U 90 44.27832103 0.00000162 73360-4 0 172
2 20438 98.7131 120.7079 0010367 151.2831 208.8933 14.28263414 3171
UO-14
1 20439U 90 44.69380251 0.00000230 10736-3 0 196
2 20439 98.7151 121.1402 0011686 151.9903 208.1914 14.28573477 3233
DO-17
1 20440U 90 44.69329997 0.00000290 13189-3 0 100
2 20440 98.7137 121.1374 0011843 151.8868 208.2957 14.28606284 3232
WO-18
1 20441U 90 44.69148636 0.00000240 11147-3 0 107
2 20441 98.7129 121.1395 0012397 152.5478 207.6364 14.28719783 3231
LO-19
1 20442U 90 44.76044417 0.00000244 11288-3 0 153
2 20442 98.7134 121.2107 0012722 152.5597 207.6248 14.28787613 3243
Ariane RB
1 20443U 90 5 H 90 41.24076527 .00000507 00000-0 21146-3 0 219
2 20443 98.6136 117.5484 0011928 139.7193 220.4882 14.30155278 2736
1990 006A
1 20444U 90 44.47406511 0.00000280 92951-3 0 268
2 20444 62.8002 111.9358 7373418 288.1534 9.4333 2.00661734 445
1990 006B
1 20445U 90 44.86446822 0.00995067 38138-4 10331-2 0 378
2 20445 62.8059 33.3354 0159989 122.6212 239.1745 15.89395225 3402
1990 006C
1 20446U 90 6 C 90 42.55120812 .00000284 00000-0 -17320-3 0 239
2 20446 62.8125 112.1077 7322191 288.1134 9.7830 2.06384357 402
1990 006D
1 20447U 90 45.08031884 0.05133299 41140-4 76345-3 0 532
2 20447 62.8114 31.4968 0091426 116.1570 244.7309 16.21593785 3453
1990 005C
1 20450U 90 8 C 90 43.62682006 .00179603 -76621-6 19265-2 0 311
2 20450 37.6536 245.3423 6016448 214.9326 84.4136 4.12203689 777
GPS BII-06
1 20452U 90 8 A 90 42.71582496 -.00000001 00000-0 99999-4 0 168
2 20452 54.6451 261.0851 0035423 56.3556 304.0131 2.00568286 324
1990 008B
1 20453U 90 8 B 90 43.69354189 .00006274 00000-0 75571-3 0 226
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2 20453 35.6442 159.8219 0592696 278.2838 75.1082 14.04458713 2642
Cosmos 2057
1 20457U 90 45.27803838 0.00757349 39741-4 29097-3 0 528
2 20457 62.8235 255.4896 0131842 92.1744 269.5147 16.06062913 3147
Cosmos 2058
1 20465U 90 44.71989293 0.00001609 24203-3 0 194
2 20465 82.5063 313.1052 0022282 226.7262 133.2057 14.73762179 2102
1990 010B
1 20466U 90 10 B 90 42.27336353 .00000747 00000-0 10984-3 0 135
2 20466 82.5079 315.3619 0021809 238.6689 121.2370 14.74029134 1733
PRC-26
1 20473U 90 44.33080948 -.00000265 10000-3 0 154
2 20473 0.1625 288.8998 0003569 46.9584 24.1710 1.00288299 119
1990 011B
1 20474U 90 44.00573713 0.00014757 37550-2 0 64
2 20474 30.6723 303.3726 7270123 184.4591 162.2060 2.29718393 166
1990 012A
1 20476U 90 44.85674946 0.00223526 15966-4 64032-3 0 243
2 20476 65.8401 349.0939 1357731 145.5257 224.1953 13.10466731 938
1990 012B
1 20477U 90 45.21978904 0.00420732 16218-4 91496-3 0 261
2 20477 65.8485 348.1784 1347702 144.8219 224.9855 13.15183830 981
MOS-1B
1 20478U 90 45.28795292 -.00001330 -10000-2 0 175
2 20478 99.0782 116.1217 0005507 315.7782 44.3374 13.93559134 1006
1990 013B
1 20479U 90 13 B 90 43.64436974 .00003457 00000-0 78179-2 0 123
2 20479 99.0575 113.5837 0540833 330.6192 26.5453 12.83154187 773
FO-20
1 20480U 90 44.50219377 -.00000139 -28393-3 0 101
2 20480 99.0577 114.2801 0540667 328.6914 28.2935 12.83110964 881
1990 013D
1 20491U 90 13 D 90 42.79250962 -.00000102 00000-0 -16797-3 0 94
2 20491 99.0595 113.0255 0469961 325.0506 28.2823 13.02714357 73
1990 014A
1 20494U 90 44.97010334 -.00296910 -41844-2 0 186
2 20494 51.6115 230.7908 0023579 171.6403 189.8626 15.57512653 434
1990 014B
1 20495U 90 43.90661600 0.17105238 60466-4 55862-3 0 111
2 20495 51.5666 235.5886 0004384 139.3381 221.2764 16.44635105 273
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Dr TS Kelso Asst Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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1149. Re: Alternative proposal on No-Code (frustrated CW'er whines)

Newsgroup: rec.ham-radio
Date: 1990-02-18 23:51:46 UTC
From: tad@ssc.UUCP
Message-ID: <492@ssc.UUCP>
Source record: 13357

In response to a posting by Phil, Chris says:

>Above is a prime example of a tunnel-visioned ham who has the
> conceitto condemn others who, in his lofty opinion, "refused
>to use CW (probably because they were incapable)". Well, even
>_if_ they were incapable of using CW, what's itto you,pal?
> Who gave you th right to decide the admission standards?

Chris, Phil didn't set the "admission standards". YOU are the
one who said he would never learn the code. The code requirement
is already on the books. Phil didn't invent it. He took the
trouble to pass the test....and now because you wont, you are
BLAMING Phil!

Chris raves on....

> Well, here's a piece of unsolicited advice for you, pal, if you
> are really thatfrustrated with hams who don't/can't use CW at
>your convenience. Disconnect your antenna and plug thefeed
> line ino a nice big shielded dummy load, reinsert your head
> into your rectum, whineall youwant about how you think
>you're better than those of us who don't/can't/won't use code
>and howyou think you are the HamBandModePolice, stamp your
>foot, and countthe days until we get to play too.
> __ _o __
> | |__| |__| | |__ Chris J. Davlcc!chris@seas.ucla.edu
> |__ || | \ | ___| (213) 338-78...!{ucla-se|turnkey}!lcc!chris
> Any opinions or claims above ae mine, unless I stole them from someone
>else.

I am not anti-no-code, but Chris is yelling at US because he wants
us to support him in his quest to get a license without passing part
of the test? WHY?? Does this mean that if I continue to support
no-code, that someday we'll have to put up with this crap from Chris
ON THE AIR?

73,

Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

1150. African DX

Newsgroup: rec.ham-radio
Date: 1990-02-19 02:16:41 UTC
From: oo7@ut-emx.UUCP
Message-ID: <24759@ut-emx.UUCP>
Source record: 13352
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Ben Krepp (benk@inmet.inmet.com) says:

While doing a casual scan of the low-end of the 60 meter band yesterday (14 February) at about 2220 UTC I noticed that ELWA from Monrovia, Liberia on 4760 kHz was coming in "like gangbusters". A check of the rest of 60 meters revealed that signals from most West and Central African stations were much stronger (and propagation-disturbance free) than I've noticed in quite a while.

With hardly any effort at all I was able to log:

4760 kHz ELWA Liberia
[...other interesting stuff deleted]

It would seem that there was a pretty good DX opening between West and Central Africa and (at least) eastern North America yesterday.

Did other folks experience such a good DX opening to West and Central Africa yesterday, and - perhaps more important - has anyone noticed if this good DX is holding up today?

This weekend there was a major (ARRL) contest, and there were indeed some very good signals from Africa on the 'low' bands. In particular, on 80m (3500 KHz), EL2CX in Liberia was stronger than most European stations, and ZD8Z (Ascension Island, running 100w) was even stronger. There was also a very strong station from Zaire (9Q5BG) - in fact, it seemed suspiciously strong to me, but in view of the above comments perhaps I should be more trusting. The above, and some 'vanilla' S. Africans, were all at their strongest within an hour or so of 0500 UTC in Texas.

There were also some awesome signals from Africa on 10 meters at dawn. Fun!

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

1151. Re: Hams per Capita, Various Countries

Newsgroup: rec.ham-radio
Date: 1990-02-19 04:30:30 UTC
From: julian@bongo.UUCP
Message-ID: <324@bongo.UUCP>
Source record: 13359

In article <9002171432.AA12828@cmr.ncsl.nist.gov>,
rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
> Why are there so many US radio amateurs??? The "incidence" of ham radio

I found Bob's table very interesting. My experience with some of
the league leaders may be of interest:

Denmark has the most Hams per capita. It is a country of about
five million - yes less people than Greater Disneyland, yet they
have their own currency and a seat in the UN. The ham licence is
pretty easy. It is a simple bingo test. They have a no-code and a
Novice licence. As I recall, the novice automatically upgrades
in allowable power etc after a year.

The explosion of hams was in my experience an exodus of CB
refugees. But Denmark is a pretty "techie" country with an easy
licence. The regs used to state that you could only talk about
matters that you would not normally talk about on the phone.
There is no "public service" and emergency stuff. Ham radio is
supposed to be for educational and experimental purposes.

Sweden is even more techie than Denmark, this is also reflected
in the ham population who tend to be more builders and
experimenters than the Danes.

Norway, alas I do not have much experience with the Norgies.
Their terrain makes VHF a bit tricky. As I recall, you had to
have an OK from the local fuzz that you were a good boy before
they granted a licence. This requirement may have been dropped. I
know that in the mid 70s they still had a code requirement - one
of the last EU countries that did.

Britain has a pretty tough licence exam. They are pretty
bureaucratic and hard to deal with. But once you get through the
exam, the only difference between HF or VHF/HF access is a 12 WPM
Morse Test. As I recall this test is now administered by the
amateurs themselves.

You may be interested to look at some numbers which is
"Telephones per 100 people" taken from "The World's Telephones"
AT&T Long Lines 1981 (Sorry I don't get sent them anymore, so my
data is a tad old)

Telephones per 100 People: 1981

Denmark 63.7
New Zealand 56.7

U.S.A. 83.7
Sweden 79.5
Norway 45.3
Australia 52.5
Netherlands 50.8
Great Britain 49.6
West Germany 46.4
Canada 67.2
Argentina 10.4
Spain 31.0
Belgium 36.7
Italy 33.7

Note that the above list is in the same order as the previous
posting with the top of the list having the most hams and the
last country having the least.

Interesting that the countries with the most hams per capita
seem to have the most phones per capita.

--
Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

1152. Re: Buying from Japan

Newsgroup: rec.ham-radio
Date: 1990-02-19 08:16:10 UTC
From: pvh@Apple.COM
Message-ID: <38748@apple.Apple.COM>
Source record: 13356
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Hmmm. Well, with the exchange currently around 144 yen per dollar, I think your Japanese ham friends are doing just fine. Another interesting thing is that ICOM HTs, while among the highest priced HTs in this country, are among the lowest priced in Japan! The Yaesu 728 dual band (the 470 over here) currently sells for about 61,800 yen and the ICOM 24-AT, 59,800 yen (that's about a $15 difference). The Kenwood 75-AT is the same price as the 24-AT at 59,800 yen. I think the highest priced HTs in Japan are from Standard listing at over 62,000 or 63,000 yen.

1153. RTTY DX Notes, 2/16/90

Newsgroup: rec.ham-radio
Date: 1990-02-19 12:14:04 UTC
From: gws@n8emr.UUCP
Message-ID: <1435@n8emr.UUCP>
Source record: 13360

```
============================================================
| Relayed from CIS easyplex via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================

SB ALL @ ALLUSA $RTDX1602
RTTY DX Notes, 1of3, 2/16/90

RTTY DX Notes For Weekending 16th February 1990
Part 1 of 3.
BID: $RTDX1602

From the many reports received during the week, it would seem that the
bands have been fairly active, with some rare DX on air and with more
promised in the near future. We hope that the conditions keep getting
better. Then maybe, some of this good DX will hear some of the poor VK
stations calling out in vain.

Our thanks this week go to I5FLN, JA1BLV, JA5TX, JG1NBD, OD5NG, TG9VT,
VK2EG, W1DA, W2JGR, W6/G0AZT, W0LHS and the Tri-State DX Association VHF
packet cluster. Thanks chaps for all your good information.

Bandpass:

Friday 9:
4K2OIL 14094 at 0015Z QSL
ZP6EM 14091 at 0110Z
UA9YE 14085 at 0145Z
SV5MAH 14085 at 0148Z
UA3TM 21091 at 1515Z
HS0E 14085 at 1540Z QSL
VP8BFH 14093 at 2040Z
TZ6VV 21093 at 2130Z
VS6CX 14095 at 2144Z
BY1QH 14091 at 2355Z
GJ4YMX 14091 at 2358Z

Saturday 10:
VP8BFH 14093 at 0020Z
JW7SP 14082 at 0149Z QSL
BY1QH 14089 at 0252Z
8P6RY 14088 at 0410Z
J28TY 14092 at 0436Z
ZL3AAT 14083 at 0456Z
ZS3NH 14074 at 0540Z ARQ
JX9CAA 14083 at 1020Z
```

RL8PYL 28085 at 1210Z
RH0Y/RA4LM 14085 at 1251Z QSL
AH6Q/TJ 28086 at 1310Z
4K2OT 21090 at 1616Z QSL
EL2MR 28087 at 1627Z QSL
HR2JAE 21090 at 1845Z QSL
6W6JX 28086 at 2030Z

Continued in part 2.
/EX
SB ALL @ ALLUSA $RTDX1702
RTTY DX Notes, 2of3, 2/16/90

RTTY DX Notes For Weekending 16th February 1990
Part 2 of 3.
BID: $RTDX1702

Sunday 11:
HR2JAE 21090 at 0021Z
JW7SP 14087 at 0155Z
FO5LQ 14074 at 0255Z ARQ
VP8BFH 14093 at 0355Z
FR5ZD 14090 at 0420Z
EL7D 28087 at 0833Z
ZD8BOB 21088 at 0838Z
HS1BV 21089 at 1146Z
J28TY 28097 at 1147Z
TA3B 21095 at 1229Z
TU2BB 28095 at 1444Z
9Q5BG 28087 at 1505Z QSL
JY9IU 14091 at 1557Z
LY2BOK 21085 at 1613Z
UB5IPU 21088 at 1652Z
9J2AL 28093 at 1715Z
5V7DP 21089 at 1850Z
FM5FA 21085 at 2000Z

Monday 12:
XW8KPL 21081 at 0115Z QSL
BY1QH 14093 at 0148Z
FK8BG 14074 at 0740Z ARQ
JW7SP 21083 at 0758Z
H44SH 14085 at 0816Z
VS6CX 14083 at 1000Z
AH6Q/TJ 28090 at 1005Z
RO4OR 21085 at 1159Z Note
J28TY 28082 at 1350Z
JX9CAA 14084 at 1555Z
4K2OIL 14082 at 2016Z
VP8BFH 14093 at 2240Z
TU2BB 14090 at 2305Z

Tuesday 13:
4K2OIL 14085 at 0036Z
UZ9CWA 14087 at 0605Z
9V1JY 14095 at 1009Z
UZ3AYR 28087 at 1420Z
XW8KPL 14092 at 0413Z
GU0/KD7TT 21091 at 1745Z
TZ6VV 21090 at 1800Z
HS1BV 14088 at 1823Z
HK0/N3JT 14092 at 2310Z QSL

Wednesday 14:
EA8VV 14087 at 0005Z
TU2BB 14095 at 0110Z
HK0/N3JT 14095 at 0110Z
RA9YD 14082 at 0310Z
FK8BG 14074 at 0600Z ARQ
GU0/KD7TT 14083 at 1703Z
5V7DP 21092 at 1718Z
C53FC/5U7 21092 at 1726Z
JX9CAA 14083 at 1753Z
Z21EZ 14089 at 1820Z

Continued in part 3.
/EX
SB ALL @ ALLUSA $RTDX1802
RTTY DX Notes, 3of3, 2/16/90

RTTY DX Notes For Weekending 16th February 1990
Part 3 of 3.
BID: $RTDX1802

Thursday 15:
TZ6VV 14090 at 0105Z
V31AR 14080 at 0240Z ARQ
HK0/N3JT 14090 at 0250Z
BZ1FB 14077 at 1108Z ARQ

QSL Information:

4K2OIL, Franz Joseph Land cards go to Box 341 Omsk 644099 USSR.

HS0E and XW8KPL cards go to Minoru Hisamatsu, Box 59, Kyoto Nishi 616, Japan.

JW7SP cards go to LA3T.

RH0Y/RA4LM collects from Box 88, Dimitrovgrad-12, Ulyanovsk Obl, 433510. USSR.

4K2OT cards go via UB5KM.

EL3MR QSLS via WA8LKS.

HR2JAE is at Box 2020, San Pedro, Sulva, Honduras.

9Q5BG will QSL via F5JT.

HK0/N3JT QSLS via his home call.

Notes of Interest:

XW8KPL has now gone QRT, but he has left the equipment with the natives, and so maybe they will come back on the air soon.

RO4OR is a new call for Moldavia.

D2ALA is now QRV on RTTY.

JH1LBR will sign T32LB from 22nd to 27th March.

A French station is reported to have worked S2AX on 6th February. No further information.

F2CW trip to Sudan has been delayed until September.

JX9CAA will be on Jan Mayen until October.

JA3AUQ will operate 8Q7 from 27 February until 4th March.

Cocos Islands: TI2JJP and TI2CC hope for TI9 either mid February or mid March.

RL8PYL plans for IS0XV (Spratly): 15-30 March, RTTY of course. But they need donations, which may be sent to Joint Venture Kinlong, In Bank Foreign Trading Of Vietnam, Ho Chi Minh City. Phone: 37.0.870.0.579.

OH2BG is going to Avis Island in the 2nd week of March. Plans for Jarvis and Conway later in the year.

USSR prefixes of note. 4K0 floating ice islands, 4K1 Antarctica, 4K2 Franz Joseph Land, 4K3 European arctic islands, excluding Franz Joseph Land. 4K4 Asian arctic islands.

GL DE DX1 (VK2SG) via TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1154. Re: FCC release on no-code proposal

Newsgroup: rec.ham-radio
Date: 1990-02-19 12:52:04 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500418@ux1.cso.uiuc.edu>
Source record: 13358

> Actually, there seems to be a pool of evidence that disagrees with this
> claim. Learning the code is often described as a language skill, which
> is quite easy for younger folks.

At the early ages of learning their native language, kids can very easily pick up on other means of communication. Even the kids that end up being the whiz kids and computer nerds in their teens, can learn multiple languages (I mean like Russian, French, Japanses, Esperanto, Morse Code, etc.) very easily IF GIVEN THE CHANCE. Often, and especially at a young enough age, they won't even need to be motivated.

> Some of the 'whiz-kids' may not want to bother with the code, but a much
> larger number of folks their age could do the code more easily than they
> could do the harder theory.

As the ages get later and later, the groups begin to divide up. There is an emphasis now on trying to get more technically inclined people into the hobby because today, very few people are technically inclined in areas of high tech that are a part of our hobby. This is not to say that those who lack technical inclination cannot contribute, because they can, in their own way.

WE HAMS NEED TO BE MORE FLEXIBLE IN ALLOWING PEOPLE TO CONTRIBUTE TO THE HOBBY, THE SERVICE, AND THE PUBLIC, IN EACH THEIR OWN WAY. WE CANNOT MAKE EVERYONE DO AND BE EVERYTHING; THERE IS TOO MUCH IN THIS HOBBY FOR THAT. THERE IS NO REAL REASON FOR LIMITING CHOICES IN ARBITRARY SUBJECTS. LET'S TEST NEW HAMS ON WHAT MATTERS, AND ENCOURAGE THEM TO TEACH THEMSELVES WHAT WE FIND INTERESTING.

> Are we such elitists that we now want only technical wizards, with no
> encouragement for non-technical folks?

Right, we need to make sure the pendulum doesn't end up swing the other way.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1155. PC repeater controller - need Modem control signals

Newsgroup: rec.ham-radio
Date: 1990-02-19 14:40:27 UTC
From: syspt@njitx.njit.edu
Message-ID: <425@njitx.njit.edu>
Source record: 13370

I am porting repeater controller code from a R.S. TRS-80 mod 4 (TRSDOS)
to a PC clone. I currently use the mod4's modem control
signals DTR, DSR, etc to control the CW, rsig in and xmit out signals.

I need to know how to toggle the modem control signals or any other form
of input/output signals on a PC from BASIC.

Does anyone have repeater controller code for a PC that can be posted?

Thanks, Pete WW2I

Please mail directly to SYSPT@ADMIN1.NJIT.EDU

1156. The Perceived Threat to 6 Meters

Newsgroup: rec.ham-radio
Date: 1990-02-19 15:05:01 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9002200803.AA14329@ucbvax.Berkeley.EDU>
Source record: 13374

>OK, maybe I'm the only one who can read the hand writing on the wall.
>
> !!!NOW HEAR THIS BOYS AND GIRLS!!!
>
> ***** 6 meters is going away in the next few years. *****
>
>I can hear all the complaints now. "You're nothing but a doomsayer."
>
>--
>Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb

Before the S/N ratio gets much higher than it already is, I will try and put this one out of its misery. A few years ago a grab was made for a portion of the 6 meter band for use as a Public Data Radio Service. It cited under-use of the band as justification for approval. The FCC agreed with the under-use statement and even agreed with the need for a PDRS, however the proposal was turned down based on the fact that 50-54 is an amateur exclusive allocation in this hemi-sphere. This is by international agreement (IARU). Unless the next WARC changes this, which I think highly unlikely, of all the VHF/UHF/SHF bands, 6 meters is the least likely candidate for a grab by any other service.

I followed this case very closely because at that time both myself and my wife were very active on 6 meter FM and SSB.

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

1157. Re: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-19 16:28:14 UTC
From: michaelb@mikebat.UUCP
Message-ID: <284@mikebat.UUCP>
Source record: 13351

> >wouldn't be allowed to use a given system until you had memorized, in
> >HEX, the bootstrap code
>
> Funny you should use that example; that's exactly what I had to do - in
> the course of my paid employment - to use the computer I worked on.
^^^^^^^^^^^^^^^^

This isn't a flame. Let's use this as an example. If someone were going to pay me to use code I would probably be up to 35 wpm in a couple of months. NOBODY, I repeat NOBODY, has ever given me a dime to be involved in ham radio.

I can set at a terminal and do all sorts of arcane things on a UNIX system from memory because I am paid to do them. A lot of the things I find very boring, but I know them because it feeds me and my family. (As an example, write a quick and dirty awk filter for the seven dirty words. I don't find awk a FUN language.)

Ham radio is supposed to be a HOBBY. If we are to have any chance of surviving, we have to make the expected benifit worth the trouble of getting a license. The benifit of ham radio is the privilidge of using moderatly new technology (if you stay away from code and 2mFM); the cost is more drugery than most can stand. I don't find awk any more interesting than code but I'm more than willing to learn the syntax. The difference is *I get paid to know awk.*

Either we need to make the benifit of learning code tremendously more attractive, or we need to make the impediment to entering ham radio more realistic. Realistically, we probably can't do anything to push the envelope for ham technology without a large influx of new blood. Some people are doing some wonderful things with technology (the GRAPES 56kb network for instance) but there aren't enough people with enough background to make these things common place for some time to come. The people with the background to make these things happen aren't interested in code.

Just some thoughts. Flame me if you want.
Michael

--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb

Back when *I* got *MY* license *WE* had to pass the code test.
And I thought it was a damn stupid idea then too.

1158. Re: Cheap Radios

Newsgroup: rec.ham-radio
Date: 1990-02-19 20:17:24 UTC
From: rusty@cadnetix.COM
Message-ID: <11451@cadnetix.COM>
Source record: 13362

In article <1990Feb12.204547.10722@cs.pitt.edu> hoffman@speedy.cs.pitt.edu (Bob Hoffman) writes:
>... cellular providers pay a rebate to the installer ...
> The rebate is on the order of $300, so that $200 phone really costs more like $500.

Yes, but you can still BUY the radio for $200, right? Let it be installed, then take it out and do whatever you really had in mind with it in the first place, and when you are done, putting it back in is easier because they have already done all the wiring for you, right? Or, maybe I've missed something....

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1159. Re: INFO-HAMS Digest V90 #206

Newsgroup: rec.ham-radio
Date: 1990-02-19 21:18:00 UTC
From: UCSBPM@UWPLATT.EDU
Message-ID: <D74C0AF15F5FA00382@uwplatt.edu>
Source record: 13375

Julian Maccassey (N6ARE) writes:
>>>Denmark has the most hams per capita.
I beleve Pitcairn Island has that disignation, with 6 or seven hams
and a total population of 50 or so. I am not positive about these
numbers , but it was mentioned in a recent (late 89) QST.
Maybe Denmark has the most hams per capita for any country of respectable size.

Brian P. McCarty, N9IWP
bitnet:UCSBPM@UWPLATT
internet:UCSBPM@UWPLATT.EDU
p.s. I think this is my 1st post (Hi Randy)

1160. Re: Hams per Capita, Various Countries

Newsgroup: rec.ham-radio
Date: 1990-02-19 21:55:42 UTC
From: AFZ1@psuvm.psu.edu
Message-ID: <90050.165542AFZ1@psuvm.psu.edu>
Source record: 13228

In article <324@bongo.UUCP>, julian@bongo.UUCP (julian macassey) says:
>
>In article <9002171432.AA12828@cmr.ncsl.nist.gov>,
>rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
>> Why are there so many US radio amateurs??? The "incidence" of ham radio

>The regs used to state that you could only talk about
>matters that you would not normally talk about on the phone.
>There is no "public service" and emergency stuff. Ham radio is
>supposed to be for educational and experimental purposes.
>
This is true in Malaysia and most of the South East Asian countries. There is
a lot of restrictions on what you can say. Politics is definitely out.

>As I recall, you had to
>have an OK from the local fuzz that you were a good boy before
>they granted a licence. This requirement may have been dropped. I
>
When I applied for the Malaysian ticket, I had to furnish two reference letters
and take an oath of secrecy. This requirements are due to the communist
insurgencies and the authority feels that ham radio might be used for the
wrong purpose.
> Britain has a pretty tough licence exam. They are pretty
>bureaucratic and hard to deal with.
>
Malaysia followed the footsteps of Britain (being its former colony). So the
exams are twice a year based on the City and Guilds R.A.E. This in itself
slows down the process of recruiting new hams.

Interestingly enough, my first ticket was obtained here and I just applied for
the 9M2 call from here. All the above actually discourages people from taking
up the hobby. There are about 200 hams compared to a population of 15m.
Hams are considered an elite group or "bourgoise" unfortunately.

>--
>Julian Macassey, n6are julian@bongo.info.com {ucla-an!denwa!bongo!julian
>N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
<< >>
<< AHMAD F. M. ZAIN, PH.D. BITNET : AFZ1@PSUVM >>
<< 316 COMM AND SPACE SCIENCE LAB PACKET : N3FLX@WA7SSO.PA.USA.NA >>
<< ELECTRICAL ENGINEERING EAST RADIO 9M2DX@9M2BBS.MYS.AS >>
<< PENNSYLVANIA STATE UNIVERSITY AMPR.ORG : 44.080.0.133 >>
<< UNIVERSITY PARK, PA 16802. "TIME IS LIFE" >>

<< >>
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

1161. CSDP program

Newsgroup: rec.ham-radio
Date: 1990-02-19 21:56:43 UTC
From: wim@hlis07.dec.com
Message-ID: <8477@shlump.nac.dec.com>
Source record: 13361

Hello Amsat lovers,

Can someone tell me more about the Command Station Development Program from
AMSAT.

Please reply direct to me.

73's de PA3AGZ

Wim Beekman PA3AGZ wim@hlis07.dec.com
Digital Equipment Corp. -- or -- !decwrl!hlis07.dec.com!wim
Utrecht, the Netherlands -- or -- wim%hlis07.dec@decwrl.dec.com

** Standard disclaimer **

1162. WEBER picture format

Newsgroup: rec.ham-radio
Date: 1990-02-19 22:41:29 UTC
From: gopstein@soleil.UUCP
Message-ID: <958@soleil.UUCP>
Source record: 13367

After spending the weekend with a pile of hex dumps and Bob McGwier's hints, I think I have the WEBER picture format figured out.

The picture consists of 242 lines of 645 pixels each. Even numbered lines are not sent, so there are only 121 lines in the transmitted data.

Each packet to "PHOTO-x" (where x is the picture number) starts with a three byte header. The first two bytes are taken together as a 16-bit integer which is the x-location of the first pixel transmitted in this packet (0-644). The third byte is the line number (y-location) of the first pixel in this packet (0-241). Note that data in one packet is not necessarily from a single line -- nor does it necessarily start at the beginning of a line. Within a packet, you need to keep track of each pixel's x-ccordinate and wrap to the next line when it exceeds 644. As mentioned below, a pixel's x-coordinate is 3 plus the previous one in the packet.

Within a packet, a zero pixel value marks the start of run-length-encoding. The byte following the zero is the number of pixels in the run. The next byte is the value of the pixels in the run. Real zeros in the data are set to 1.

Now it begins to get strange. A picture is sent in three parts - first pixels 0,3,6,9,...,642 are sent for every odd-numbered line. Then pixels 1,4,7,...,643 are sent for every odd-numbered line. Finally, pixels 2,5,8,...,644 are sent for every odd-numbered line. The data from the even-numbered lines is never sent. Each of these three passes starts at a new packet.

The first pass (starting with line 1, pixel 0) is preceeded by a packet whose second and third bytes are 255. This marks the packet as an informational header. The rest of this special packet contains ascii text describing the picture.

It appears as though the three passes are the Red, Green, and Blue data from the same image. If this is true, the final bitmap (after assembling the three passes) has the following format:

r0,g0,b0,r1,g1,b1,...,r214,g214,b214

for each of the 121 lines.

So far, only PHOTO-9 has anything that resembles a picture. My guess is that the satellite is still tumbling, so they only get reasonable pictures when the lens happens to be pointing at earth when the exposure is made.

My next posting will contain C code to extract the picture data from
stored KISS frames and display it on a VGA display.

Rich Gopstein, KD2CQ
--
Rich Gopstein

..!rutgers!soleil!gopstein

1163. WEBER picture C code

Newsgroup: rec.ham-radio
Date: 1990-02-19 22:43:59 UTC
From: gopstein@soleil.UUCP
Message-ID: <959@soleil.UUCP>
Source record: 13366

This is the result of a weekend of studying the hex dumps of
WEBER photo data. It is not intended to replace the full-blown
software that WEBER is working on, but it will help to document
their format in the mean time.

These programs are not robust. They are a hack, but they work.
If anyone has constructive criticism or helpful suggestions, I'd
appreciate hearing them.

This posting consists of three programs to decode and display
WEBER pictures. The first program - photo.c - reads raw KISS
frames, extracts the picture data to a binary file and prints out
interesting information while going through the KISS file.
Some of the AX.25 and KISS code was taken from TLMDC, written
by Bob McGwier. Note that photo.c will only read KISS from
a disk file - not a COM port. I use ZCOMM to capture the KISS
data to a file.

MERGE.C will take two binary picture files, use the second to
fill in missing pixels in the first and write the result to a
third file.

SHOW.C will display one of the three images stored in a picture
file on a VGA display. You can specify which image (1,2, or 3) to
use. The image is shown in monochrome (grayscale).

These were all developed on an IBM-PC clone with MSC 5.1, but they
will probably run on anything.

I can probably provide UUENCODED executables, if someone needs them.

The binary picture file is just the raw picture data assembled
into 121 lines of 645 pixels each (for a total of 78045 bytes).

```
---------------------------- PHOTO.C -----------------------------
/*********************************************************************/
/* PHOTO.C -- extract WEBER format picture data from a KISS file */
/* Copyright 1990, Richard Gopstein */
/* This program may be copied, modified, or used for non-commercial */
/* purposes as long as this message is included. */
/* */
/* Portions of this program were derived from TLMDC, written by */
/* Bob McGwier. These portions are identified below. */
/* */
/*********************************************************************/
```

```
#include <stdio.h>
#include <ctype.h>
#include <malloc.h>
#include <string.h>

#define LINELEN 645
#define PICSIZE 80000
#define NUMLINES 121

/* KISS constants */

#define FEND 0300 /* Frame End */
#define FESC 0333 /* Frame Escape */
#define TFEND 0334 /* Transposed frame end */
#define TFESC 0335 /* Transposed frame escape */

unsigned char huge pict[PICSIZE];

unsigned char pkt[3000];
FILE *dumpr;
FILE *outfile;
int xmax, ymax, xloc, yloc;
char picture[50];

main(argc,argv)
int argc;
char *argv[];
{
int i;
int frame_l, datalen;
char to[50], from[50];
static unsigned char data[500];
static char header[200];

if (argc != 3) {
fprintf(stderr, "Usage: photo KISS-file outfile\n");
exit(0);
}

if ((dumpr = fopen(argv[1],"rb")) == NULL) {
perror("Error opening input file");
exit(1);
}

frame_l = 0;

/* open the output file, and init the picture array */

init_photo_data(argv[2]);

/* get the KISS frames from the disk file and process them */

while (frame_l != -1) {
frame_l=dsk_frame(pkt,dumpr);
if (frame_l < 0 ) {
```

```
fclose(dumpr);
break;
}

/* parse the AX.25 format */

ax25r(pkt,frame_l, to, from, header, data, &datalen);

if (strncmp(to, "PHOTO", 5) != 0) {
if ((strncmp(to, "STATUS", 6) && strncmp(to, "TLM", 3) &&
strncmp(to, "LSTAT", 5) && strncmp(to, "WASH", 4) &&
strncmp(to, "TIME", 4))) {

/* print "interesting" packets */

printf("\n%s -> %s\n",from,to);
fixcr(data, datalen);
printf("%s\n", (char *) data);
}
} else {

/* note the AX.25 destination address which contains the */
/* photo number. */

strcpy(picture, to);

/* if this packet is a picture header, print it */

if ((data[1] == 255) && (data[2] == 255)) {
fixcr(data+3, datalen-3);
printf("\nHeader: %s\n", (char *) (data+3));
} else {

/* otherwise, it's real picture data */

printf(".");
photo_data(data, datalen);
}
}
}
printf ("\n");

/* output the binary picture file */

print_photo_data();

}

/* ax25r and dsk_frame are modified versions of the functions of the */
/* same name in TLMDC, written by Bob McGwier */

/* AX.25 frame receiver, does nothing about state since you don't
have a transmitter! */

ax25r(frame,framel,to,from,header,data,datalen)
unsigned char *frame;
```

```
int framel, *datalen;
char *to, *from;
unsigned char *data;
char *header;
{
unsigned char *buf,*bufc;
int j;

int done;

buf = bufc = frame;
buf[framel]=0;

for (j=0; j<6; j++) {
if ((*to = (*buf++ >> 1)) != ' ') to++;
}
*to++ = '-';
*to = ((*buf++) >> 1 & 0xF);

if (*to < 10) *to += '0';
else *to += 'A' - 10;

*++to = '\000';

do {

for (j=0; j<6; j++) {
if ((*from = (*buf++ >> 1)) != ' ') from++;
}
*from++ = '-';

done = *buf & 0x1;

*from = ((*buf++) >> 1 & 0xF);

if (*from < 10) *from += '0';
else *from += 'A' - 10;

from++;
*from++ = ',';

} while (!done);

*(from-1) = '\000';

switch((*buf) & 0x1) {
case 0 : { /* It is an I frame */

sprintf(header,"NR=%1u P/F=%1u NS=%1u PID=%2X\n",
(unsigned) (((*buf)&0xE0)>>5),
(unsigned) (((*buf)&0x10)>>4),
(unsigned)(((*buf)&0xF)>>1),
(unsigned) (char *) buf[1]);
```

```
buf += 2;
*datalen = 0;
while ((buf - frame) < framel) {
*data++ = *buf++;
(*datalen)++;
}
*buf++ = '\000';

bufc = (unsigned char *) header+strlen(header)-1;
if (*(bufc=(unsigned char *) header+strlen(header)-1) != '\n') {
*bufc = '\n';
*(bufc+1) = 0;
}
break;
}
case 1: {
switch( (*buf) & 0x2) {
case 0: {
switch ((*buf) & 0xC) {
case 0: {
sprintf(header,"RR NR=%1u P/F=%1u\n",(unsigned) (((*buf) & 0xE0)>>5),
(unsigned) ((*buf) & 0x10)>>4);
break;
}
case 4: {
sprintf(header,"RNR NR=%1u P/F=%1u\n",(unsigned) (((*buf) & 0xE0)>>5),
(unsigned) ((*buf) & 0x10)>>4);
break;
}
case 8: {
sprintf(header,"REJ NR=%1u P/F=%1u\n",(unsigned) (((*buf) & 0xE0)>>5),
(unsigned) ((*buf) & 0x10)>>4);
break;
}
}
break;
}
case 2:{ /* UI */
switch(((*buf) & 0xE0)>>5) {
case 0 :{
if ((*buf & 0x0C) != 0) sprintf(header," DM\n");
else {
sprintf(header," UI: PID=%X \n",(unsigned)buf[1]);

buf += 2;
*datalen = 0;
while ((buf - frame) < framel) {
*data++ = *buf++;
(*datalen)++;
}
```

```
*data++ = *buf++;
/* (*datalen)--; */
bufc = (unsigned char *) header+strlen(header)-1;
if (*(bufc=(unsigned char *)header+strlen(header)-1) != '\n') {
*bufc = '\n';
*(bufc+1) = 0;
}
}
break;
}
case 1: {
sprintf(header," SABM\n");
break;
}
case 2: {
sprintf(header," DISC\n");
break;
}
case 3: {
sprintf(header," UA\n");
break;
}
case 4: {
sprintf(header," FRMR\n");
break;
}
}
break;
}
}
break;
}

}
}

/* ax25r and dsk_frame are modified versions of the functions of the */
/* same name in TLMDC, written by Bob McGwier */

/* Decode the raw KISS frames which have been stored on DISK*/

int dsk_frame(ubuf,dat_file)
unsigned char *ubuf;
FILE *dat_file;
{

int c,frame_size;
unsigned char *buf;

while((c=fgetc(dat_file)) != FEND)
if (c == EOF)
if (feof(dat_file)) return -1;
```

```
kludge_garb:

buf=ubuf;

while( (c = fgetc(dat_file)) == FEND)
if (c == EOF)
if (feof(dat_file)) return -1;

c = fgetc(dat_file); /* ignore KISS type code */
if (c == EOF)
if(feof(dat_file)) return -1;
frame_size = 0;
do{
if(c == FESC){
c = fgetc(dat_file);
switch(c){
case TFEND:
*buf++ = FEND;
frame_size++;
break;

case TFESC:
*buf++ = FESC;
frame_size++;
break;

default:
break;
}
}
else{
if (c == EOF)
if(feof(dat_file)) return -1;
*buf++ = c;
frame_size++;
}
c = fgetc(dat_file);
} while( c != FEND);

*buf++ = c; /* for testing purposes */

/* If we get a short frame becuase the main loop doesn't read
except after it sends a command, go and restart this frame,
i.e., assume that the "end" is the start of a new frame. */

if (frame_size<14) goto kludge_garb;
return frame_size;
}

/* change <return> to <newline> in text packets */

fixcr(data, datalen)
unsigned char *data;
int datalen;
```

```
{
while (datalen--) {
if (*data == '\r') *data = '\n';
data++;
}
*data++ = '\n';
*data = '\000';
}

/* open the output binary file and zero out the picture array. */
/* this is necessary to know which pixels are missing from the input data */

init_photo_data(filename)
char *filename;
{
long i;

if ((outfile = fopen(filename, "wb")) == NULL) {
perror ("Error opening outfile");
exit(1);
}

for (i=0; i<PICSIZE; i++) {
pict[i] = 0;
}

}

/* output a pixel to the picture file. Note that the x-location is */
/* incremented by three between writes, and wrapping occurs at the end */
/* of lines */

byte_out( byte)
unsigned char byte;
{
if (yloc > ymax) ymax = yloc;
if (xloc > xmax) xmax = xloc;

pict[((long) yloc) * LINELEN + (long) xloc] = byte;
xloc += 3;
if (xloc >= LINELEN) {
xloc = xloc - LINELEN;
yloc++;
}
}

/* process the picture data from an AX.25 packet */

photo_data( data, datalen)
unsigned char *data;
int datalen;
{
int i,j;
```

```
static int num = 0;
int len;

int x,y;

/* extract the pixel number and line number */

x = (data[0] << 8) | data[1];
y = data[2] / 2;
data += 3;
datalen -= 3;

/* set the current pixel number and line number for use in byte_out */

setxy(x, y);

j = 0;

/* output each pixel in the packet */

while (datalen > 0) {

if (*data != 0) {
byte_out(*data);
} else {

/* if the pixel is 0, it marks the start of RLE */

if (datalen < 3) return;
len = *(++data);
data++;
datalen -= 2;

/* output the RUN */

for (i = 0; i<len; i++) {
byte_out(*data);
}
}
data++;
datalen--;
}

/* this can never happen */

if (datalen < -1) {
fprintf(stderr, "Error, datalen went negative\n");
exit(1);
}

}

/* output the picture to the output file */

print_photo_data() {
int i, j;
```

```
unsigned char line[LINELEN];
unsigned char huge *pictptr;

pictptr = pict;

for (i=0; i<NUMLINES; i++) {
for (j=0; j<LINELEN; j++) {
line[j] = *pictptr++;
}
fwrite(line, sizeof(line), 1, outfile);
}

fprintf(outfile, "\n");
fclose(outfile);
printf("Stored: %s\n", picture);
printf("\nXmax = %d, Ymax = %d\n", xmax, ymax);

}

/* set the current pixel number and line number */

setxy( int x, int y) {
xloc = x;
yloc = y;
}
------------------------------ SHOW.C ----------------------------
/*********************************************************************/
/* SHOW.C -- Display WEBER format picture data files on a VGA display */
/* Copyright 1990, Richard Gopstein */
/* This program may be copied, modified, or used for non-commercial */
/* purposes as long as this message is included. */
/* */
/*********************************************************************/

#include <graph.h>
#include <stdio.h>

#define LINELEN 645
#define PICSIZE 80000
#define NUMLINES 121

long far colors[256];
unsigned char line[LINELEN];

main(int argc, char *argv[]) {

int pixel;

int i;
int color;
int x, y;
struct videoconfig config;
FILE *infile;
```

```
if ((argc > 3) || (argc < 2)) {
fprintf(stderr, "Usage: show picfile [imagenumber]\n");
exit(1);
}

if (argc == 3) {
color = atoi(argv[2]);
if ((color < 1) || (color > 3)) {
fprintf(stderr,"Image number must be 1, 2, or 3\n");
exit(1);
}
} else {
color = 1;
}

if ((infile = fopen(argv[1], "rb")) == NULL) {
perror("error opening input file");
exit(1);
}

_setvideomode(_MRES256COLOR);
_getvideoconfig(&config);

for (i=0; i<256; i++) {
colors[i] = ((i/4) << 16) | ((i/4) << 8) | (i/4);
}

_remapallpalette(colors);

_setcolor(255);

for (y=0; y<NUMLINES; y++) {
fread(line, LINELEN, 1, infile);
if (feof(infile)) break;

for (x = 0; x<LINELEN; x+=3) {

_setcolor(line[x+color]);

_setpixel(x/3, y);
}
}

fclose(infile);
while (!kbhit());

_setvideomode(_DEFAULTMODE);

}
---------------------------------- MERGE.C -------------------------
/*********************************************************************/
/* MERGE.C -- Merge WEBER format picture data files. */
/* Copyright 1990, Richard Gopstein */
/* This program may be copied, modified, or used for non-commercial */
/* purposes as long as this message is included. */
```

```
/* */
/*********************************************************************/

#include <stdio.h>

#define LINELEN 645
#define PICSIZE 80000
#define NUMLINES 121

long far colors[256];
unsigned char line1[LINELEN];
unsigned char line2[LINELEN];

main(int argc, char *argv[]) {

int pixel;

int i;
int x, y;
FILE *infile1;
FILE *infile2;
FILE *outfile;
long zeros;

if (argc != 4) {
fprintf(stderr, "Usage: merge infile1 infile2 outfile\n");
exit(1);
}

if ((infile1 = fopen(argv[1], "rb")) == NULL) {
perror("error opening input file 1");
exit(1);
}

if ((infile2 = fopen(argv[2], "rb")) == NULL) {
perror("error opening input file 2");
exit(1);
}

if ((outfile = fopen(argv[3], "wb")) == NULL) {
perror("error opening output file");
exit(1);
}

zeros = 0;

for (y=0; y<NUMLINES; y++) {
fread(line1, LINELEN, 1, infile1);
fread(line2, LINELEN, 1, infile2);

if (feof(infile2) || feof(infile1)) break;

for (x = 0; x<LINELEN; x++) {
```

```
if (line1[x] == 0) {
if (line2[x] == 0) {
zeros++;
} else {
line1[x] = line2[x];
}
}
}
fwrite(line1, LINELEN, 1, outfile);
}

printf("%ld missing pixels remain.\n", zeros);

fclose(infile1);
fclose(infile2);
fclose(outfile);

}
```

Rich Gopstein, KD2CQ
--
Rich Gopstein

..!rutgers!soleil!gopstein

1164. Re: Removing Braid from Coax

Newsgroup: rec.ham-radio
Date: 1990-02-19 23:40:00 UTC
From: pfluegerm@valley.UUCP
Message-ID: <48bed6b7.15840@valley.UUCP>
Source record: 13368

For reasonably short lengths, I've found it easiest to expose a couple
inches of the center conductor (and insulation), clamp this to a vice,
and pull the outer insulation off.

The braid comes off with the outer insulation, then easily
pulls out of it. For longer lengths it takes more effort
(start from the clamped end, working out to the free end and repeat).

Seems like I've done this with lengths up to about 10 ft.
--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

1165. Need Kenwood 2550 Mod.

Newsgroup: rec.ham-radio
Date: 1990-02-19 23:54:21 UTC
From: Wally.Southwell@f12.n376.z1.FIDONET.ORG
Message-ID: <267.25E2684E@uscacm.UUCP>
Source record: 13363

Help??? I need the mods for a Kenwood 2550 mobile. I know that it is against the law to transmit on non-amateur freq. with a non-type accepted radio. ...matter of fact, I really only the RX mods.... So no lectures, PLEASE.?.?.?

Also, while I'm asking the Great Network gods for blessings, I could also use help in getting a old Galaxy H.F. rig back on the air. I do not have a book or manual and all it'll do is receive. I blew a capacitor first time it was powered up after buying it. Got that replaced and checked all the tubes(they were okay). No matter what I try, I can't figure where the X'mit is not working. Any ideas, hints, incantations, or worse - a manual???
I'll be glad to arrange payment for a service manual if someone will stand at a copier for the required time......

Thanks,
Wally.......

with no tag!

--
--
Wally Southwell == ...!usceast!uscacm!12!Wally.Southwell

1166. Re: College ARC's

Newsgroup: rec.ham-radio
Date: 1990-02-20 00:22:01 UTC
From: glens@tekigm2.MEN.TEK.COM
Message-ID: <8341@tekigm2.MEN.TEK.COM>
Source record: 13364

In article <1676550@MTS.RPI.EDU> Joel_Glickman@MTS.RPI.EDU writes:

>keep the club going strong. By the way, some of the oldest ARC's are collge
>ARC's. For example, W2SZ (previously just 2SZ) has been around since about
>1921!! Paging through some of the old logs revealed such breakthroughs as

Oh, YEAH?? Well...
Washington State University's ARC, W7YH, was formed in *1911* with the call of
WC (for Washington College)...and is the oldest radio club in the nation, even
older than the Holy Order of ARRL :).

- Glen

--
Glen R. Sands KA7AYF |
Tektronix, Inc. PO Box 3500 M/S C1-925 | glens@tekigm2.MEN.TEK.COM
Vancouver, WA 98668 (206)253-5819 |

1167. Re: Havana Moon's On-Line Service

Newsgroup: rec.ham-radio
Date: 1990-02-20 03:15:21 UTC
From: roskos@IDA.ORG
Message-ID: <1990Feb20.031521.12774@IDA.ORG>
Source record: 13369
Cross-posted to: rec.radio.shortwave,rec.ham-radio

ka2raf@ka2qhd.UUCP (Chris Crosby Lakewood NJ) writes:
> Havana Moon was featured in Sharon Churcher's "USA Confidential"
> column in the December, 1988 edition of Penthouse Magazine. He
> has done numerous radio talk-shows, most recently a special feature
> on Radio Netherlands' world-famous "Media Network" with Jonathan
> Marks.

I hope that if he has another talk show, he will post a message saying so
before-hand in here. I'd like to hear him.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

"Folks shouldn't be messing around with other folks interrupts."
-- E. Larsen

1168. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-20 05:10:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90022000102164@masnet.uucp>
Source record: 13243

>There was someone compiling the definitive list of callsign plate
>information, state by state; whatever happened to that?

Well, if they are I should correct some erroneous info I popped into
this thread last week. In Nova Scotia the callplates are available
without fee the first time and without any extra annual fee's either. If
you require replacement plates (ie for damaged ones) then the cost is
$10.The person to whom the vehicle is registered must be the licence
holder to get call plates.

<wdm>
VE1CBF

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1169. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-20 05:10:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913425362@masnet.uucp>
Source record: 13365

>There was someone compiling the definitive list of callsign plate
>information, state by state; whatever happened to that?

Well, if they are I should correct some erroneous info I popped into
this thread last week. In Nova Scotia the callplates are available
without fee the first time and without any extra annual fee's either. If
you require replacement plates (ie for damaged ones) then the cost is
$10.The person to whom the vehicle is registered must be the licence
holder to get call plates.

<wdm>
VE1CBF

~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1170. A nice 2M antenna (the stealth antenna)

Newsgroup: rec.ham-radio
Date: 1990-02-20 05:34:08 UTC
From: mrapple@quack.UUCP
Message-ID: <5131@quack.UUCP>
Source record: 13376

I live in a condo, and needed a stealth antenna, so I decided to
try a delta-loop. Trouble is, they have a high impedance, so I
built a 1:9 balun out of a torus and some wire, and the loop.
Here's the details:

Get a torus. I used one from Palomar Engineers' RF Ferrite Toroid
Kit. Included in the kit are the instructions for the transformer.
Take three pieces of wire. Lay the wires side by side. Label one
side with even numbers, and the other with even numbers. Wrap them
around the toroid as a group at least 15 times. Now solder pieces
2 and 3 together, and 4 and 5 together. The 2/3 joint is connected
to the center conductor of a 50 ohm coax. Wire 1 goes to the shield.
Wire 6 and 1 are the output to the loop.

Now cut a wire 79" long. Connect one end to wire 6 of the transformer,
the other end to wire 1. Insulate all connections.

You can arrange the loop in a triangle, a loop, a square or whatever
you like. The wire must reside in a plane, must be stretched out,
and must not cross itself. For vertical polarization, the plane the
wire resides in should be vertical. A circle is the best orientation,
but I've had excelent results with a delta. According to my sources,
this antenna is directional perpendicular to the plane of the wire.

Checks with an el-cheapo 11 meter wattmeter give a 1.5:1 SWR across
the entire 2 meter band. Whether or not that means anything is open
to interpretation :-).

If there are any glaring errors in this post, please e-mail me and
I'll post corrections.

--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~+~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
quack!mrapple@uop.edu ! President
...pacbell!uop!quack!mrapple ! National Society for the
N6QQQ @ WB6V (packet radio) ! Prevention of Speed Bumps
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1171. Re: Alternative proposal on No-Code (Tad, read _then_ post)

Newsgroup: rec.ham-radio
Date: 1990-02-20 05:41:16 UTC
From: chris@cups.la.locus.com
Message-ID: <3614@oolong.la.locus.com>
Source record: 13371

In article <492@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>In response to a posting by Phil, Chris says:
>
[several lines of drivel deleted]
>
>Chris, Phil didn't set the "admission standards". YOU are the
^^
>one who said he would never learn the code. The code requirement
>is already on the books. Phil didn't invent it. He took the
^^^^^^^^^^^^^^^^^^^^^^^^^^
>trouble to pass the test....and now because you wont, you are
^^^^^^^
>BLAMING Phil!
^^^^^^^^^^^^

NO. DEAD WRONG! YOU HAVE MISUNDERSTOOD. FOOT IN MOUTH.
Tad, you misunderstood my posting completely. 100% wrong.
I was >>>NOT<<< blaming Phil, or even addressing Phil _except_
in the very first line "Har! Har!...." (kind of a mumbled
noise of _approval_/_agreement_ in case you're confused).

Look again, carefully, and you will see that. I just did, and
I noticed that Phil's posting didn't contain a line identifying
the person that _he_ was following up to. And _that_ person is
the person that my posting was addressing, NOT Phil.

BTW, if you look at my previous postings on this thread you will
see that I concur with many of Phil's stated views on this subject.
So Tad, read before you post, eh? I don't think my posting was
misleading regarding who it was addressing, but if it was, then
I apologize to all concerned, especially Phil. 100% unintentional.
>
>Chris raves on....
>I am not anti-no-code, but Chris is yelling at US because he wants
>us to support him in his quest to get a license without passing part
>of the test?

Not quite. It wouldn't be part of the test anymore. And
since you're "not anti-no-code", you're not one of the "US".

>WHY?? Does this mean that if I continue to support
>no-code, that someday we'll have to put up with this crap from Chris
>ON THE AIR?

No, it doesn't. Tad, relax.
>

>73,
>Tad Cook
>tad@ssc.UUCP
>KT7H @ N7HFZ.WA.USA.NA

Tad, you clearly grabbed the wrong end of the stick assuming
that I was raving at Phil. Dead wrong. Maybe the original
poster (the person Phil quoted) has some comments to make?

__ __ o __
| |__| |__| | |__ Chris J. Davis lcc!chris@seas.ucla.edu
|__ | | | \ | ___| (213) 338-7820 ...!{ucla-se|turnkey}!lcc!chris
Any opinions or claims above are mine, unless I stole them from someone else.

1172. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-20 06:26:27 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13146.25E0E57E@stjhmc.fidonet.org>
Source record: 13233

```
* Forwarded from "Ham"
* Originally from Matt Horbund
* Originally dated 15 Feb 90 14:50:02

In a message of <Feb 10 18:41>, Jim Grubs (1:234/1) writes:

> > > * Forwarded from "REC.HAM-RADIO"
> * Originally from John Liu
> * Originally dated 10 Feb 90 12:36:02
>I am sure this point has been brought up before, but let me emphasize it.
(..Much Deleted...)
>
>While a no code license is appealing in some ways, I personally feel it
>would be a great loss for people knowing the code and those who don't.
>Let me explain. Imagine for instance a no-code license was established,
>and
>I for one reason or another didn't have the time or energy to learn morse
>code on my own. If somebody was trapped and was trying to communicate to
>me
>in morse code, I would feel terrible! Now, consider a person who knows the
>code, like the person trapped who I was trying to help. He would feel
>TERRIBLE, too!
I don't think 'feeling terrible' has ANYTHING to do with knowing or not knowing
Morse Code. I know the code and rarely use it. I haven't been in that
isolated situation of someone being trapped, as I'm sure 90% of us haven't.
>
>Maybe I stated my opinion poorly, but all I am trying to say is: there are
>times when knowing the code is extremely helpful, and it would be a shame
>to abolish it from licensing requirements.
They aren't abolishing it, they are just making an entry license...without
code. From what I read of it, the no-coder can take the 5wpm and get his
tech...which I think is good..give them a LITTLE taste, then they'll want
more. And if they dont want more, then we're no better or worse off than we
were before...

--Matt
KB7HYF

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org
```

1173. Buying from Japan

Newsgroup: rec.ham-radio
Date: 1990-02-20 06:26:30 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002200630.AA13061@ti.com>
Source record: 13372

The discussion about the difference in prices of radios in Japan and in the US can gain from a study of the difference in price of a Mazda in Japan and the price in the US...or, `for that matter, the difference in the price of a Mercedes-Benz in Germany and in the US. At the root of these differences is Mercedes-Benz in Germany and in the US. At the root of these differences is the "protective" tariffs. Another factor is the age-old "supply/demand" concept.

Dube Todd N5PDK

1174. Re: no-voice license

Newsgroup: rec.ham-radio
Date: 1990-02-20 06:26:39 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13147.25E0E582@stjhmc.fidonet.org>
Source record: 13227

> From: ron@hpfcso.HP.COM (Ron Miller)

> Something not worth working for isn't worth having. Amateur radio is
> a privilege after all.

Agreed, but why is a code test the ONLY way to "work" for a license? In this
day and age a tougher technical exam makes more sense.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1175. Re^2: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-20 07:28:38 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1677@aurora.AthabascaU.CA>
Source record: 13373

bradt@hpindda.HP.COM (Brad Taylor) writes:
>The "rest of us" include people who want to use the various bands without taking the
>time to learn the rules, regulations, and proper uses of the amateur airwaves. Learning
>code simply shows that you are willing to learn certain disciplines to exercise this priv-
>ilege. If this is too much work for you(and others), go use CB!!

I have a no-code Canadian Digital Amateur license. VE6PDQ to you, my
friend ;-). I have no truck or trade with the chicken banders.

My exam covered electronics (at our Advanced Level), modulation
theory, digital theory and packet techniques. It was a "sit down and
write for three hours" type of exam - essay, not multiple-choice. I
did not have access to a question bank. I learned the stuff from
university level textbooks (and lots of hacking on the KA9Q and PE1CHL
code, and our various Vaxen/Suns/what-have-you's).

I also had to do a regs-and-operating-procedures exam. Just like
everybody else. What's this jazz about not taking time to learn the
ropes? CW isn't the ropes, it's a mode. I understand my chosen mode.

>Having to know code simply keeps out those not willing to take the
>time to learn amateur radio's basic foundations.

Rote memorization is the foundation of Amateur Radio? Your problem is
you assume that if a person doesn't want to pound brass, he/she/it
just must absolutely positively have as his/her/its only goal
phone-band ragchewing. As somebody has pointed out, that fact that
all those HF phone op's I hear blathering on about the weather have
passed the code test tends to make your arguement pretty weak :-).

>--Brad Taylor KB6ENW

You're living in the past. A mode is not a weltanschung. It's a mode.
Amateur Radio, on the other hand, is an attitude and an adventure.
I plan to have both :-).
--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

1176. Re: TI-99/4A Packet

Newsgroup: rec.ham-radio
Date: 1990-02-20 14:55:26 UTC
From: daveh@compnect.UUCP
Message-ID: <470@compnect.UUCP>
Source record: 13229

The question was asked about using a TI 99/4A on packet. In addition to the
99/4A you need:
RS232 (either card in PEB or old sidecar version)
Terminal Emulator (TEII will work but is not very useful, TELCO is better)
Disk controller
32K memory
Disk Drive
Editor/Assembler or Extended BASIC cartridge (to run TELCO)
TNC

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!ka3adu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

1177. Licensing in different countries.....

Newsgroup: rec.ham-radio
Date: 1990-02-20 15:15:12 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <20.Feb.90.15
Source record: 13230

Julian Macassey, n6are <julian@bongo.info.com {ucla-an!denwa!bongo!julian>
says::

> Britain has a pretty tough licence exam. They are pretty
>bureaucratic and hard to deal with. But once you get through the
>exam, the only difference between HF or VHF/HF access is a 12 WPM
>Morse Test. As I recall this test is now administered by the
>amateurs themselves.

Yes it used to be that you had to go to a British Telecom office to take the
code test. Now, you can take the test (by appointment) with the RSGB at
many radio rallies. 12WPM gets you your HF privileges.
I wouldnt go as far as to call the CEPT license 'bureaucratic' - after all, it
IS valid in most European countries! No hassle about reciprocal licensing
when you go to France for the weekend.

///Pete

1178. a WEBER picture in postscript

Newsgroup: rec.ham-radio
Date: 1990-02-20 15:44:07 UTC
From: gopstein@soleil.UUCP
Message-ID: <960@soleil.UUCP>
Source record: 13239
Body handling: 1 inline base64-encoded payload block was not displayed

Here is the postscript for PHOTO-9, the only WEBER photo so far
that has anything resembling anything.

The header to the picture is:

Picture was taken Sun Feb 18 04:53:08 1990
as picture #09 from bank #1 addresses 0095:00FF to 0000:2DF2

I believe that this put satellite somewhere over north east
India. My guess is that the picture is of a land mass, not
the edge of the earth (as it might appear).

I'm also guessing about the aspect ratio -- I've used approximately
645/242 which might be right...

```
%!
/inch {72 mul} def
/picstr 121 string def
/photo
{ 215 121 8 [215 0 0 -121 0 121]
{currentfile picstr readhexstring pop}
image
} def
0 300 translate
8 inch 3 inch scale
photo
```

[Inline base64-encoded payload not displayed]

Rich Gopstein

..!rutgers!soleil!gopstein

1179. No code and Chaos Band

Newsgroup: rec.ham-radio
Date: 1990-02-20 15:51:00 UTC
From: IWNQ500@INDYVAX.IUPUI.EDU
Message-ID: <D6A82CC8583F00C8F5@INDYVAX.IUPUI.EDU>
Source record: 13231

After reading the flamethrowers on here I'll say this:
There are a few here that not only want no-code but also no-test.
Fine. Glorified CB is all that will become of this once great hobby.
I'm reluctantly in favor of no-code but frankly, two things will
happen: 1- Anarchy will be victorious on the bands
2- The idiots that think it's funny to jam and make raunch
noises on thier rigs will ruin the public service end
of ham radio.
Like on the UHF/VHF bands where patches to police are commonly made so
some jackoff decides to fart and do whatever and use obscenities
towards the police officer on the other end...and they certainly
don't like it. When the FCC takes away the ham bands like they
might just do someday, the jammers will still be there...making
havoc and otherwise showing their gleuteus maximiuses.
I'm being grim but hopefully the no-code thing will pass and or die
and whoever the new amateurs may be will be welcomed into the hobby
like others were (like me).

Mike Jezierski N9IIT
Bitnet: IWNQ500@INDYVAX
Internet: Iwnq500@indyvax.iupui.edu

1180. Re: No Code (how about no theory!)

Newsgroup: rec.ham-radio
Date: 1990-02-20 16:00:53 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2613@wyse.wyse.com>
Source record: 13240

Interestingly, when I was getting upgraded from Tech to General I meet a lot of people who had big problems with the Technical side and had no problems with the code at all.

The problem with all of up "TECHO-WEENIES" is that we are spoiled. We work every day on technical problems and do not have to worry about the other areas. Such as writting, art, music, style. When a techincal problem is solved on a computer, Microwave device, Chemical compond or whatever. We do not have to write an Essay on how the problem was solved and its impact on society. The people who do that may not even understand the technical problems or the device.

It took me 4 months to get up to 13 WPM with 30-60 minutes of study +EVERY+ night. I passed the techical tests the first time with 1 week of study (I am up to Advanced now, I was a General for 1 week). But for me to get up to 20 WPM would be another 4 month effort, so right now that is not as important as other things in my life... I also saw people on the other side who were trying very hard to get the technical stuff done, but had the code complete (up to 20 WPM in some cases) but could not get past Tech.

I know this is hard to believe when you had now problem with the technical side. How much trouble do you think morse code is for a farmer (who had no engineering training) vs. the Technical side? I would conclude that the technical side was very tough, while the code came easy...

The point of all of this is the following:

Morse code is not a filter, just like the technical side is not a filter. The two forms help ballance the Ham community. I would sure hate to spend all day working on computers and then come home and talk about that all night...

So all of you who want to get a license do it... If you do not want to spend the effort (on the code or the technical) then be quiet.

You can ofcourse wait for the world to change and then you can try to become a ham...

DE KJ6NN
Phil

1181. Re: Upgrading TNC-1 to higher speeds

Newsgroup: rec.ham-radio
Date: 1990-02-20 16:07:11 UTC
From: chris@hplvli.HP.COM
Message-ID: <4590032@hplvli.HP.COM>
Source record: 13232

The TNC-1 has a modem "breakout" connector which allows it to operate with an external modem. You can check out this interface in the manual and schematics. In addition to this, provisions have been made to double the clock frequency of the 6809 to give more processing power, but this requires the "B" version of the MC6809 (MC68B09) processor and peripherals. You may even consider using the Hitachi 63B09 CMOS 6809. Since other timing parameters are settable using commands, the TNC-1 should take you to 9600 baud without too much problem. For a while, the FADCA and K9NG modems were available to experimenters which allowed 9600 baud operation. You may be able to find more info in the ARRL Networking Conference papers from about 5 years ago on all these topics. Sorry I cannot be more specific, but I don't usually have my TNC at work! 73 and CUL.....de WD5IBS (proud owner of 2 original TNC-1s!)
.....chris

1182. CW - QRP?

Newsgroup: rec.ham-radio
Date: 1990-02-20 16:40:56 UTC
From: Sylvan.Katz@weyr.FIDONET.ORG
Message-ID: <560.25E18672@weyr.FIDONET.ORG>
Source record: 13244

There is only one mode - CW - all the rest are spurious transmissions
Next:
I am going to the UK for 2 years ... I want to take a QRP rig with me and load up some 'bed springs' .... recommendation and suggestions welcome!
Syl - VE5ZX

--
Sylvan Katz - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Sylvan.Katz
Internet: Sylvan.Katz@weyr.FIDONET.ORG
Standard Disclaimers Apply...

1183. remove

Newsgroup: rec.ham-radio
Date: 1990-02-20 17:00:27 UTC
From: MORRIS%ORN.MFENET@CCC.NMFECC.GOV
Message-ID: <900220090027.2480012b@CCC.NMFECC.GOV>
Source record: 13234

Please remove me from the mailing list
Thank you

1184. Re: No Code (how about no theory!)

Newsgroup: rec.ham-radio
Date: 1990-02-20 18:57:43 UTC
From: root@sbcs.sunysb.edu
Message-ID: <5612@sbcs.sunysb.edu>
Source record: 13242

In article <2613@wyse.wyse.com> pgraham@wyse.UUCP (PC-NFS Philip Graham x1124 #) writes:
>It took me 4 months to get up to 13 WPM with 30-60 minutes of study
>+EVERY+ night. I passed the techical tests the first time with 1 week of

It took two months worth of listening to W1AW over summer vacation
to pick up 13 wpm. If I had to do it now, it would take longer as
I now know to "question authority" ;-)

>Morse code is not a filter, just like the technical side is not a filter.
>The two forms help ballance the Ham community. I would sure hate to spend
>all day working on computers and then come home and talk about that all
>night...

What people are saying, IMHO, is that ham radio needs technical
people to grow. And that technical training is part of our charter
to start with. Morse is a skill that is arguably less useful than
it was say 40 years ago. Though, metaphorically speaking, most
no-coders I know will not begrudge people who collect antique radios
their rights up until the point they claim all people should use
antique radios :-)

>Phil

Rick Spanbauer wb2cfv
State U of NY/Stony Brook

1185. WEBER picture and Gopstein

Newsgroup: rec.ham-radio
Date: 1990-02-20 19:06:32 UTC
From: mac@idacrd.UUCP
Message-ID: <616@idacrd.UUCP>
Source record: 13235
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Rich and others:

OUTSTANDING. You've got it almost completely correct. Your one error
is in the red green blue bit. Notice from your photo that the
beginning is the sync. AT the end of the line is the colorburst. This
is a straight NTSC picture that has been digitized by a board that fires
on the vertical sync. The picture you have put up as a postscript file
is WEBER Photo-9 and is picture of the limb of the earth. The satellite
is still spinning down and even though it takes only a 30-th of a
second for a NTSC frame, how many of you have tried hand holding a camera
for a 30-th of a second still shot? As the bird slows down and locks
magnetically (the rest of them have just done this and WEBER has greater
moments of inertia and more mass to despin and lock), the pix should not
smear as this one has. In your Postscript photo, any detail was washed
by this spinning other than the atmosphere along the earth's limb is
clearly visible. You should see it in color ;-). Soon, soon. Rich,
I will post the color decoding formulas so that you can do a little
trigonometry and recover the color information. The lines are NOT
sent alternately RGB, it is NTSC (Bleeccchhhh!).

Great work!!!

Bob

--

```
------------------------------------------------------------------------------
My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
------------------------------------------------------------------------------
```

1186. IBM PC Keyer Board

Newsgroup: rec.ham-radio
Date: 1990-02-20 19:16:02 UTC
From: Sylvan.Katz@weyr.FIDONET.ORG
Message-ID: <562.25E1B0BB@weyr.FIDONET.ORG>
Source record: 13236

Any one with information on software, public domain or otherwise, for an IBM PC which will turn it into a keyer would be appreciated.
Either leave a note or look for me around 14.010 - 14.025 @ 0100-0300Z most evenings.

Sylvan Katz VE5ZX
203 Ball Cres UUCP:alberta!dvinci!weyr!Sylvan.Katz
Saskatoon, Sask Internet: SYlvan.Katz@weyr.FIDONET.ORG
Canada S7K 6E1 Usually 14/21/28 CW 0000 - 0300 Z weekdays

--
Sylvan Katz - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Sylvan.Katz
Internet: Sylvan.Katz@weyr.FIDONET.ORG
Standard Disclaimers Apply...

1187. Re: Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-02-20 19:21:49 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1681@aurora.AthabascaU.CA>
Source record: 13245

sorgatz@ttidcb.tti.com (Erik Sorgatz - Avatar) writes:

> Oh yes there is! The very idea that someone "needs" 20 WPM skills in CW to
>be granted an EXTRA is old-age thinking.

And considering that hardly anyone builds their own gear any more,
I think the very idea that someone "needs" the electronic skills to
pass the technical portion of the exam to be granted an EXTRA is
old-age thinking.
--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

1188. Re: Buying from Japan

Newsgroup: rec.ham-radio
Date: 1990-02-20 19:27:32 UTC
From: eric@locus.com
Message-ID: <3629@oolong.la.locus.com>
Source record: 13237
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <38695@apple.Apple.COM> pvh@Apple.COM (Pete Helme) writes:
> ...
>So my question is has anyone here ever purchased a transceiver from Japan and
>succesfully modified it for American frequencies and been happy with that.
>Or have you been sorry you didn't have a USA warranty etc. I have
>contacts in Japan so getting the radio is no problem. I'm just wondering if
>it's more hassle than the money savings is worth.

I purchased my IC-32AT in Hong Kong. The only problem I ran into
was the fact that they use 430-440 for their "450" band (actually
it was rig to be used in Australia, according to labeling on the
box). I think Japan has the same 430-440 band. Upon returning
to the US, I called Icom and learned that it was no problem to
convert it to 440-450. 2 weeks and $50 later, I had my rig back.
I think it was worth it - even with the conversion cost, I was
still $150 ahead of the going price here.

1189. Re: Havana Moon's On-Line Service

Newsgroup: rec.ham-radio
Date: 1990-02-20 19:55:09 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1682@aurora.AthabascaU.CA>
Source record: 13258
Cross-posted to: rec.radio.shortwave,rec.ham-radio

> "Los Numeros" On-Line is the perfect blend of two of the
> world's most excitingnd fastest growing electronics hobbies -
> Shortwave Listening and Personal Comping.

Geez - I haven't been comping for a long time :-)

Can we please stop posting this commercial advertising hype
to the net? Whatever happened to the guidelines against
commercial traffic on the Internet?

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

1190. WEBER pic format

Newsgroup: rec.ham-radio
Date: 1990-02-20 20:06:47 UTC
From: mac@idacrd.UUCP
Message-ID: <617@idacrd.UUCP>
Source record: 13238
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Rich:

One more error you made, ALL lines are sent, you have just been unlucky
and have missed those times when the passes were transmitting the lines.
Once again, ALL lines are transmitted. I wondered why your weber.ps
looked so flat ;-). At any rate, an outstanding job. Amateur inventiveness
never ceases to amaze me. That is what these satellite projects are all
about.

DEVON: Just average four pixels and use four color representation. To bad
there is no good black and white on the commodore but you can always use
a B&w TV. A two level representation is not gonna get it, so give up
the resolution for another two levels.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

1191. Re: No Code (how about no theory!)

Newsgroup: rec.ham-radio
Date: 1990-02-20 20:16:38 UTC
From: trey@ut-emx.UUCP
Message-ID: <24816@ut-emx.UUCP>
Source record: 13241

In article <2613@wyse.wyse.com>, pgraham@wyse.wyse.com (PC-NFS Philip Graham x1124 #) writes:
> Interestingly, when I was getting upgraded from Tech to General I meet a lot
> of people who had big problems with the Technical side and had no problems
> with the code at all.
>
> I know this is hard to believe when you had no problem with the technical
> side.

This is how it was for me when I developed an interest in ham radio. I recall being frustrated that there was a step from Tech to General that only required code proficiency (something I was good at) but no such step up from my Novice license.

I remember asking how I should go about learning "the theory" and I got anwers like "read the ARRL Handbook." Yeah. Go find a 1972 era Handbook and read the first paragraph (I believe it's about electromagnetic waves or something) from the perspective of an eight year old. Right. I didn't even know what a lot of the words meant.

I believe that some of the technocrats occasionally lose sight of the fact that ham radio is a multidisciplinary endeavor. What first sparked my interest is that I could take a box of junk (say, a Viking Navigator) and make "wireless" contacts. It wasn't until after about five years of hamming that I started to develop interest in learning how the junk worked.

End of anecdote. Begin opinion.

And now for my contribution to the rekindled (*sigh*) code/nocode debate. If testing for amateur licenses is to include some variety of lid filter, be it a code test, a rigorous technical exam or whatever it takes to filter out lids/undesirables/criminals/whatever, it should be most rigorously applied to those who are permitted to use the 50 MHz band and down. Why? Because booish behaviour on these bands has the potential to wreck havok worldwide.

Personally, I don't think a rigorous technical exam would be enough to discourage someone talented and motivated enough to build a station capable of upsetting people worldwide on 1296.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

1192. Re: Communicator Class and the Deaf

Newsgroup: rec.ham-radio
Date: 1990-02-21 00:17:55 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490009@hprmokg.HP.COM>
Source record: 13246

cep4478@ultb.isc.rit.edu (C.E. Piggott) writes:

>I haven't seen this thought up, but the no-code license will let
>deaf and hearing impaired people become hams much more easily. This
>may be an issue here in Rochester, as we have a very large deaf community
>and R.I.T. is host to the National Technical Institute for the Deaf.
>
>Just a random thought.

Huh? Wouldn't it make more sense to visually or tactily copy Morse code
in this situation? Oh yeah, you must mean packet or RTTY...

1193. The perceived threat to 6 Meters

Newsgroup: rec.ham-radio
Date: 1990-02-21 01:14:51 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002210121.AA01664@ti.com>
Source record: 13247

I sincerely hope Bill Gunshannon is correct in his opinion that there won't be another grab for 6. While past attempts have failed, this is by no means a guarantee that they won't succeed in the (near) future. Radio doesn't change, but the people who use it and the people who make decisions do. We are all witness to the No-Code situation. Things WILL change when enough noise is made by one side, coupled with the slowly-dying noise level from the other side.

I was mildly surprised at the number of responses I received after I suggested that Hams ask for the space between 28 and 50. Apparently there is quite a bit of activity in there. When the available commercial space has dwindled to nil I think we can exect another attempt to get 6 meters. WARC is not a guardian of ham bandspace, and the loudest voice (usually the one with the most money) will prevail as it has in the past.

I still think we Hams could do worse than ask for more of that space; even if it is only a "best defense is a good offense" move.

1194. Amsat BBS number ?

Newsgroup: rec.ham-radio
Date: 1990-02-21 01:17:22 UTC
From: rwb@vi.ri.cmu.edu
Message-ID: <8096@pt.cs.cmu.edu>
Source record: 13248

Does AMSAT still run a dial-up BBS? What is its number?

rwb@vi.ri.cmu.edu

1195. Condesending attitude

Newsgroup: rec.ham-radio
Date: 1990-02-21 01:55:16 UTC
From: michaelb@mikebat.UUCP
Message-ID: <285@mikebat.UUCP>
Source record: 13249

I have been duly firebombed by my condesending attitude for my post
predicting the demise of 6 meters.

I freely admit my tone was inappropriate. I maintain that the communicator
proposal is as much a political manuver to reallocate 6 meters as it is
an honest attempt to help ham radio.

Michael
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb

Back when *I* got *MY* license *WE* had to pass the code test.
And I thought it was a damn stupid idea then too.

1196. SAREX-2 Testing Continues

Newsgroup: rec.ham-radio
Date: 1990-02-21 03:36:08 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <183@ka2qhd.UUCP>
Source record: 13250
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

```
* SAREX-2 TESTING CONTINUES *
============================

HR AMSAT NEWS SERVICE BULLETIN 049.01 FROM AMSAT HQ
SILVER SPRING, MD FEBUARY 18, 1989
TO ALL RADIO AMATEURS BT

Shuttle Amateur Radio Experiment #2 Undergoes Testing in Huntsville, AL

This week the Shuttle Amateur Radio Experiment #2 (SAREX-2) packet radio
station underwent extensive testing at the Marshall Space Flight Center in
Huntsville, AL according AMSAT Area Coordinator Ed Stluka (W4QAU). This
testing was being perfomed in conjuction with the training of STS-35 Payload
Specialist Ron Parise (WA4SIR) in the use of the ASTRO-1 experiment which will
be primary payload on that shuttle mission. The primary payload, ASTRO-1,
will be used to conduct a number of astronomical experiments. During the
several days of testing this week, radio amateurs in the Huntsville area were
invited to connect to WA4SIR and to receive a QSO number.

This special packet radio station flying on STS-35 on May 9, 1990 will give
each radio amateur who connects to WA4SIR a QSO number confirming their
contact. When the connecting station sends their QSL card in with this
contact number, they will receive back a beautiful QSL card commemorating this
HAM IN SPACE shuttle flight. The SAREX-2 packet radio station consist of a
Motorola 2M FM H/T with 5 watts ouput, a Heathkit HK-21 TNC-2, and a GRiD
laptop computer that has a 40 MB hard disk drive to store the calls of all the
stations connecting to WA4SIR during the nine day mission. The specially
written software which will be running the SAREX-2 packet station is designed
to allow for completely unattended operation and logging of the calls of all
connecting stations. It will also prevent duplicate QSO numbers being sent!
Although no digipeating will be allowed through SAREX-2, connecting to this
packet station will be like any terrestrial packet contact. Just use your
TNC along with your 2m tranceiver, and everything else is the same. After
you have connected and received your QSL number from WA4SIR, on subsequent
orbits you can watch for the SAREX-2 message beacons being sent periodically.
The message beacons will contain information about the flight of STS-35 and
other interesting items.

Look for more information about the SAREX-2 mission in AMSAT News Service
(ANS) bulletins and on AMSAT HF/VHF nets in the next couple of months. For
more specific information about the ASTRO-1 payload, contact the SPACELINK BBS
at (205) 895-0028.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
```

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

1197. Re: CALL FOR VOTE: rec.radio.noncomm

Newsgroup: rec.ham-radio
Date: 1990-02-21 05:35:33 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13182.25E22D76@stjhmc.fidonet.org>
Source record: 13251

> From: phil@ux1.cso.uiuc.edu
>
> When was the discussion period in this newsgroup proposal?

I missed it, too. If I'd known it was up for discussion, I'd have suggested a better name. This one sounds like entertainment for sergeants. I'd pick rec.radio.public.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1198. Re: List of Ham Manufacturers

Newsgroup: rec.ham-radio
Date: 1990-02-21 05:49:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500419@ux1.cso.uiuc.edu>
Source record: 13252

If you try to call Kenwood's service department by phone long distance, be prepared to pay a phone toll just to find out the line is busy.

This is because Kenwood has one of those wonderful systems that prompt you to enter the code number for particular departments. Thr trouble with these things is that you can make a lot of phone calls you have to pay for before you ever get in.

THIS is the reason that I no longer buy Kenwood gear.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1199. FO-20 digital mode active

Newsgroup: rec.ham-radio
Date: 1990-02-21 06:04:29 UTC
From: brian@ucsd.Edu
Message-ID: <11879@ucsd.Edu>
Source record: 13253

A friend advised me that the new Japanese ham radio satellite FO-20 had had its on-board BBS activated, so I tuned it in and here's what I saw during one pass this evening.

I don't know much more about this than what you see here, but I thought I'd share the session to get more people interested.

Equipment used to receive this was the TAPR PSK modem kit attached to my R-7000, and a 30-element circularly-polarized beam. The TNC was an MFJ 1270 with the PSK modem plugged into it. 435.910 is the downlink freq, +/- 9kHz of doppler locally. I'm told that this modem does the special Manchester-encoded AFSK needed to uplink, but I haven't tried that yet.

Anyway, here's what one pass looked like:
- Brian

```
cmd:8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>BEACON:JAS1b RA 90/02/20 19:20:58
000 661 655 637 706 836 844 830 001 610
618 001 487 512 514 506 511 514 655 001
671 667 671 666 999 647 880 063 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:21:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help
```

```
8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6LLO:JAS>
8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WA4EJR:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>K0RZ:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>K0RZ:JAS>
8J1JBS>BEACON:JAS1b RA 90/02/20 19:21:58
000 658 649 652 705 835 845 830 001 609
617 001 489 511 515 507 511 515 655 001
669 664 669 663 999 647 880 065 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:22:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>K0RZ:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>K0RZ:02/20 18:02 JH2XIL WC8J mail arigato
0745 02/20 17:41 WB6LLO W0SL MESSAGE
0743 02/20 17:39 K0RZ K8TL Mode-S
074
8J1JBS>K0RZ:2 02/20 17:37 WC8J KB5MU Glad to share TSR with AMSAT
0741 02/20 17:36 WA2FHL LU8DYF QSO
0740 02/20 17:35 N1CHM K0RZ
8J1JBS>K0RZ: Hello Bill
0739 02/20 17:31 K0RZ DB2OS Hi Peter
0738 02/20 17:31 WA2FHL JH1PEF QSO
0737 02/20 17:29 W0SL DL1CF
8J1JBS>K0RZ: MSG RECEIVED
JAS>
8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
```

```
Use H command for Help

8J1JBS>K0RZ:KILLED!
JAS>
8J1JBS>BEACON:JAS1b M0 90/02/20 19:23:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>W5GEL:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>W5GEL:JAS>
8J1JBS>K0RZ:TO?
8J1JBS>WB6LLO:JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>K0RZ:SUBJECT?
8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>K0RZ:Enter text, <CR>.<CR> to end.

8J1JBS>BEACON:JAS1b RA 90/02/20 19:23:58
000 657 653 651 704 835 846 829 001 600
618 001 491 511 517 509 513 517 655 001
665 661 667 660 999 647 880 068 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:24:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WA4EJR:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
```

```
Use H command for Help

8J1JBS>WA4EJR:JAS>
8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6HHV:JAS>
8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6HHV:JAS>
8J1JBS>WB6LLO:JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA4EJR:0664 02/20 08:58 WB6LLO WA4EJR MESSAGE
JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>BEACON:JAS1b RA 90/02/20 19:24:58
000 658 652 650 703 835 847 829 001 608
618 001 492 511 517 510 513 518 655 001
663 661 665 659 999 647 879 069 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:25:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA4EJR:0664 02/20 08:58 WB6LLO WA4EJR MESSAGE
TNX FER CALL JACK.CU ON OTHER BIRDS
73 DAVE

JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>WA4EJR:KILLED!
JAS>
8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WA4EJR:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WA4EJR-0 W6SHP -0 W5GEL -0 KJ1X -0

8J1JBS>WB6HHV:JAS>
8J1JBS>WA4EJR:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WA4EJR-0 W6SHP -0 W5GEL -0 KJ1X -0
```

```
8J1JBS>WA4EJR:JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA4EJR:0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO TNX
0750 02/20 18:22 9M2DT DB2OS TNX
074
8J1JBS>BEACON:JAS1b RA 90/02/20 19:25:58
000 660 651 650 702 835 844 831 001 605
618 001 493 511 518 511 515 518 655 001
662 659 664 657 999 647 880 071 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:26:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>K0RZ:END

8J1JBS>K0RZ:JAS>
8J1JBS>N5BF:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6LLO:JAS>
8J1JBS>WB6HHV:JAS>
8J1JBS>K0RZ:JAS>
8J1JBS>N5BF:JAS>
8J1JBS>KB5MU:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>KB5MU:JAS>
8J1JBS>K0RZ:++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50 fil
8J1JBS>K0RZ:e headers
F<d> : List file headers posted on day <d>
H : Show this message
K<n> : Kill a file numbered <n>
M : List file h
8J1JBS>K0RZ:eaders addressed to current user
R<n> : Read a file numbered <n>
U : List current user(s)
W : Write a file
JAS>
8J1JBS>N5BF:++ Available commands ++
```

```
B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50 fil
8J1JBS>WA8EBM:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>N5BF:e headers
F<d> : List file headers posted on day <d>
H : Show this message
K<n> : Kill a file numbered <n>
M : List file h
8J1JBS>WB6HHV:JAS>
8J1JBS>N5BF:eaders addressed to current user
R<n> : Read a file numbered <n>
U : List current user(s)
W : Write a file
JAS>
8J1JBS>WA8EBM:JAS>
8J1JBS>WA8EBM:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA8EBM:JAS>
8J1JBS>BEACON:JAS1b RA 90/02/20 19:26:58
000 662 651 649 701 836 846 829 001 564
617 001 494 511 518 512 515 519 655 001
660 659 662 655 999 647 880 072 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:27:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>N5BF:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA8EBM:JAS>
8J1JBS>KB5MU:NO. DATE UTC FROM TO SUBJECT

8J1JBS>KB5MU:0742 02/20 17:37 WC8J KB5MU Glad to share TSR with AMSAT
0657 02/20 08:46 WB6LLO KB5MU TNX
JAS>
8J1JBS>WA8EBM:JAS>
8J1JBS>N5BF:0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO TNX
0750 02/20 18:22 9M2DT DB2OS TNX
074
8J1JBS>N5BF:9 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail arigato
0745 02/20 17:41 WB6LLO W0SL MES
8J1JBS>WA8EBM:NO. DATE UTC FROM TO SUBJECT

8J1JBS>N5BF:SAGE
0743 02/20 17:39 K0RZ K8TL Mode-S
```

0742 02/20 17:37 WC8J KB5MU Glad to share TSR with AMSAT
0741 02/20 17:36 W
8J1JBS>WA8EBM:0735 02/20 17:17 LU8DYF ALL Greetings from Argentina.
0712 02/20 15:20 LW2DQO ALL Hola !!.... CQ CQ de
0705 02/20 14
8J1JBS>K0RZ:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA8EBM::23 JH1PEF ALL CQ CQ
0704 02/20 13:55 ON6UG ALL JD - USERS
0701 02/20 12:59 VK3DTO ALL @AMSAT BULLETINS
0694
8J1JBS>K0RZ:0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO TNX
0750 02/20 18:22 9M2DT DB2OS TNX
074
8J1JBS>N5BF:A2FHL LU8DYF QSO
0739 02/20 17:31 K0RZ DB2OS Hi Peter
0738 02/20 17:31 WA2FHL JH1PEF QSO
JAS>
8J1JBS>K0RZ:9 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail arigato
0745 02/20 17:41 WB6LLO W0SL MES
8J1JBS>KB5MU:0657 02/20 08:46 WB6LLO KB5MU TNX
TNX FER INFO PAUL.
WORKING INFINITELY BETTER.
SURE HELPS TO KNOW THE RULES.
73

JAS>NO. D
8J1JBS>KB5MU:ATE UTC FROM TO SUBJECT
0742 02/20 17:37 WC8J KB5MU Glad to share TSR with AMSAT
Yes Paul,
I would be glad to
8J1JBS>N5BF:TO?
8J1JBS>WA8EBM::23 JH1PEF ALL CQ CQ
0704 02/20 13:55 ON6UG ALL JD - USERS
0701 02/20 12:59 VK3DTO ALL @AMSAT BULLETINS
0694
8J1JBS>KB5MU: share the ARRL rotor driver with AMSAT users. Let me
write up a .DOC file and fix it up a little. Then I'll let you know.
Any b
8J1JBS>KB5MU:ody got a TSR driver for ICOM 275/475 Pair?
73's de Rich - Tel (216) 253-6747 [H] or (216) 923-9522 [W]
JAS>
8J1JBS>WA8EBM::23 JH1PEF ALL CQ CQ
0704 02/20 13:55 ON6UG ALL JD - USERS
0701 02/20 12:59 VK3DTO ALL @AMSAT BULLETINS
0694
8J1JBS>N5BF:SUBJECT?
8J1JBS>WB6LLO:JAS>
8J1JBS>WA8EBM:02/20 12:04 DB5ZP ALL problems with g3ruh and microsat`s

```
0667 02/20 10:05 ON6UG ALL FO-20 OVERCROWDED ?
0666 02/20
8J1JBS>N5BF:Enter text, <CR>.<CR> to end.

8J1JBS>WA8EBM: 10:02 I0LYL ALL MICROSAT UP DOWN FREQUENCIES
0655 02/20 08:44 VE6BJH ALL Tracking System
0618 02/20 06:37 ON6UG
8J1JBS>WA8EBM: ALL MODE JD USERS FILE
0579 02/20 02:41 JA0AQZ ALL CQ FROM JAPAN
0548 02/20 00:47 JH1PEF ALL
0515 02/19 18:01
8J1JBS>BEACON:JAS1b RA 90/02/20 19:27:58
000 661 651 648 701 836 846 831 001 574
618 001 495 511 519 513 516 520 654 001
658 658 661 654 999 647 880 074 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:28:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WA8EBM: 9M2BBS ALL GREETING
0514 02/19 17:42 JH2XIL ALL CQ on FO-20
0505 02/19 17:10 N8AM ALL Hello Earth
JAS>
8J1JBS>K0RZ:SAGE
0743 02/20 17:39 K0RZ K8TL Mode-S
0742 02/20 17:37 WC8J KB5MU Glad to share TSR with AMSAT
0741 02/20 17:36 W
8J1JBS>K0RZ:A2FHL LU8DYF QSO
0739 02/20 17:31 K0RZ DB2OS Hi Peter
0738 02/20 17:31 WA2FHL JH1PEF QSO
JAS>
8J1JBS>WB6LLO:++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50 fil
8J1JBS>WB6LLO:e headers
F<d> : List file headers posted on day <d>
H : Show this message
K<n> : Kill a file numbered <n>
M : List file h
8J1JBS>WA8EBM: 9M2BBS ALL GREETING
0514 02/19 17:42 JH2XIL ALL CQ on FO-20
0505 02/19 17:10 N8AM ALL Hello Earth
JAS>
8J1JBS>WB6LLO:eaders addressed to current user
R<n> : Read a file numbered <n>
U : List current user(s)
```

```
W : Write a file
JAS>JAS>++ Avai
8J1JBS>KB5MU:KILLED!
JAS>
8J1JBS>WB6LLO:lable commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50 file heade
8J1JBS>K0RZ:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 W6SHP -0 W5GEL -0 N5BF -0 KJ1X -0 KB5MU -0
WA8EBM-0

8J1JBS>WA8EBM:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6LLO:rs
F<d> : List file headers posted on day <d>
H : Show this message
K<n> : Kill a file numbered <n>
M : List file headers
8J1JBS>WB6LLO:addressed to current user
R<n> : Read a file numbered <n>
U : List current user(s)
W : Write a file
JAS>JAS>++ Available c
8J1JBS>WB6LLO:ommands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50 file headers
F<d>
8J1JBS>KB5MU:KILLED!
JAS>
8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6LLO: : List file headers posted on day <d>
H : Show this message
K<n> : Kill a file numbered <n>
M : List file headers address
8J1JBS>K0RZ:JAS>
8J1JBS>WC8J:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>KB5MU:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WC8J:JAS>
8J1JBS>WA8EBM:0704 02/20 13:55 ON6UG ALL JD - USERS
MODE JD USERS LIST COMPILED FROM USERS DATE FEB 20 1990
Please use this format
8J1JBS>KB5MU:0753 02/20 19:27 N5BF WA5NOM greetings
0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
```

```
0751 02/20 18:27 9M2DT WB6LLO T
8J1JBS>WB6HHV:NO. DATE UTC FROM TO SUBJECT

8J1JBS>KB5MU:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WB6HHV:0753 02/20 19:27 N5BF WA5NOM greetings
0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO T
8J1JBS>K0RZ:JAS>
8J1JBS>KB5MU:rigato
0745 02/20 17:41 WB6LLO W0SL MESSAGE
0743 02/20 17:39 K0RZ K8TL Mode-S
0741 02/20 17:36 WA2FHL LU8DYF QSO

8J1JBS>BEACON:JAS1b RA 90/02/20 19:28:58
000 662 650 647 701 835 844 831 001 602
618 001 496 511 520 514 517 521 655 001
657 657 658 653 999 647 880 076 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:29:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WB6LLO:ed to current user
R<n> : Read a file numbered <n>
U : List current user(s)
W : Write a file
JAS>JAS>JAS>JAS>TO?SUBJECT?
8J1JBS>KB5MU:JAS>
8J1JBS>WB6LLO:ed to current user
R<n> : Read a file numbered <n>
U : List current user(s)
W : Write a file
JAS>JAS>JAS>JAS>TO?SUBJECT?
8J1JBS>K0RZ:JAS>
8J1JBS>WA8EBM:0704 02/20 13:55 ON6UG ALL JD - USERS
MODE JD USERS LIST COMPILED FROM USERS DATE FEB 20 1990
Please use this format
8J1JBS>WA8EBM: to add your station. Tnx.

CALL ! NAME ! MODE
8J1JBS>WA8EBM: to add your station. Tnx.

CALL ! NAME ! MODE
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
```

```
8J1JBS>WA8EBM: to add your station. Tnx.

CALL ! NAME ! MODE
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WA8EBM: to add your station. Tnx.

CALL ! NAME ! MODE
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>N5BF:END

8J1JBS>KB5MU:NO. DATE UTC FROM TO SUBJECT

8J1JBS>KB5MU:0753 02/20 19:27 N5BF WA5NOM greetings
Merry Christmas Gil, This is my first message sent via FO-20 mailbox.
73, Courntey
7
8J1JBS>N5BF:JAS>
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>KB5MU:3, Courtney

JAS>
8J1JBS>WA8EBM: to add your station. Tnx.

CALL ! NAME ! MODE
8J1JBS>WA4EJR:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WA8EBM: to add your station. Tnx.

CALL ! NAME ! MODE
8J1JBS>WB6LLO:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help
```

```
8J1JBS>N5BF:TO?
8J1JBS>BEACON:JAS1b RA 90/02/20 19:29:58
000 657 649 647 699 835 844 830 001 602
617 001 498 510 521 515 518 522 655 001
655 655 657 651 999 647 880 077 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:30:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>W6TRW:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6LLO:JAS>
8J1JBS>WA8EBM: to add your station. Tnx.

CALL ! NAME ! MODE
8J1JBS>WA8EBM:M ! TNC ! MAILBOX ! ANT dwnlnk ! ANT uplnk ! Track syst
------------------------------------------------------------------------
8J1JBS>KB5MU:TO?
8J1JBS>N5BF:SUBJECT?
8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WA8EBM:M ! TNC ! MAILBOX ! ANT dwnlnk ! ANT uplnk ! Track syst
------------------------------------------------------------------------
8J1JBS>W6TRW:JAS>
8J1JBS>WB6LLO:TO?
8J1JBS>N5BF:Enter text, <CR>.<CR> to end.

8J1JBS>KB5MU:SUBJECT?Enter text, <CR>.<CR> to end.

8J1JBS>K0RZ:0751 02/20 18:27 9M2DT WB6LLO TNX
HI DAVE, TNX FOR THE 2ND MSG. SORRY FOR THE NAME ERROR. THE MBOX IS VERY INTERESTING.
MSG
8J1JBS>WA8EBM:---------
ON6UG ! Freddy ! G3RUH !TNC2C ! ON7RC ! 2m dish ! 9 el x-y ! HB 65c02
I0LYL ! Lucio ! G3RUH !TNC2 ! I0AZI
8J1JBS>WB6LLO:SUBJECT?
8J1JBS>K0RZ: CAN BE REPLY WITHIN HOUR, HI
73 de DAVID 9M2DT
JAS>
8J1JBS>WA8EBM: ! 2x21 el.or.! 2x17 el.or.! hand-made
DB2OS ! Peter ! JA2 !TNC1 ! DK0MAV ! 12el XY ! 20el X-yagi! ATARI-ST
```

Please se
8J1JBS>WB6LLO:Enter text, <CR>.<CR> to end.

8J1JBS>WA8EBM:nd your info to ON6UG via FO-20 .
JAS>
8J1JBS>WA8EBM:NO. DATE UTC FROM TO SUBJECT

8J1JBS>W6TRW:++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50 fil
8J1JBS>WA8EBM:0694 02/20 12:04 DB5ZP ALL problems with g3ruh and microsat`s
hello sat user !
i using here for fo-20 a modem from g3ruh.
8J1JBS>WA8EBM:.
on fo-20 the modem works very good , but i have problems to receive the
microsats, especially when the signals are not so stro
8J1JBS>K0RZ:NO. DATE UTC FROM TO SUBJECT

8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>W6TRW:e headers
F<d> : List file headers posted on day <d>
H : Show this message
K<n> : Kill a file numbered <n>
M : List file h
8J1JBS>WA8EBM:ng.
who have this or similar problems, or can me help ?

73, Hans DB5ZP
JAS>
8J1JBS>WB6LLO:END

8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WB6LLO:JAS>
8J1JBS>WA8EBM:ng.
who have this or similar problems, or can me help ?

73, Hans DB5ZP
JAS>
8J1JBS>K0RZ:0739 02/20 17:31 K0RZ DB2OS Hi Peter
Good to see you active on FO-20
Thanks for the Mode-S activity on
AO-13

73's Bill
JA
8J1JBS>BEACON:JAS1b RA 90/02/20 19:30:58
000 656 649 646 699 835 845 829 001 585
618 001 499 510 522 516 519 522 655 001
654 653 655 650 999 647 880 079 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:31:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>K0RZ:S>
8J1JBS>WA8EBM:NO. DATE UTC FROM TO SUBJECT

8J1JBS>W6TRW:eaders addressed to current user
R<n> : Read a file numbered <n>
U : List current user(s)
W : Write a file
JAS>
8J1JBS>WA8EBM:0666 02/20 10:02 I0LYL ALL MICROSAT UP DOWN FREQUENCIES

8J1JBS>WB6LLO:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA8EBM:---
From: I0LYL Pomezia, 20feb90
To : All
Subj: Microsat Up/Down Freq
8J1JBS>K0RZ:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 N5BF -0 KJ1X -0
KB5MU -0 WA8EBM-0 WA4EJR-0 W6TRW -0
8J1JBS>W6SHP:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WB6LLO:0745 02/20 17:41 WB6LLO W0SL MESSAGE
HI ROY
RR0742
JAS>
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WA8EBM:uencies (From AMSAT-UK OSCAR NEWS NUMBER 81. FEB 90)

```
--------------------------------------------------------------------------
8J1JBS>K0RZ:
JAS>
8J1JBS>W6SHP:JAS>++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>WB6LLO:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6LLO:0748 02/20 18:02 JH2XIL WC8J mail arigato

JAS>
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WA8EBM:uencies (From AMSAT-UK OSCAR NEWS NUMBER 81. FEB 90)
--------------------------------------------------------------------------
8J1JBS>W6SHP:JAS>++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>WA8EBM:uencies (From AMSAT-UK OSCAR NEWS NUMBER 81. FEB 90)
--------------------------------------------------------------------------
8J1JBS>W6SHP:JAS>++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WB6LLO:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6LLO:0751 02/20 18:27 9M2DT WB6LLO TNX
HI DAVE, TNX FOR THE 2ND MSG. SORRY FOR THE NAME ERROR. THE MBOX IS VERY INTERESTING.
MSG
8J1JBS>W6SHP:JAS>++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WA8EBM:uencies (From AMSAT-UK OSCAR NEWS NUMBER 81. FEB 90)
--------------------------------------------------------------------------
8J1JBS>WB6HHV:NX
```

```
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>BEACON:JAS1b RA 90/02/20 19:31:58
000 661 648 646 699 835 845 830 001 600
618 001 500 510 523 517 520 523 655 001
652 652 653 648 999 647 880 080 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:32:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WB6LLO: CAN BE REPLY WITHIN HOUR, HI
73 de DAVID 9M2DT
JAS>
8J1JBS>WA8EBM:-----
Satellite: Downlink Uplink
AO-16 (Pacsat) 1) 437.050 MHz 145.900, 145.920, 145.940, 145.960 MH
8J1JBS>W6TRW:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 N5BF -0 KJ1X -0
KB5MU -0 WA8EBM-0 W6TRW -0

8J1JBS>W6SHP:JAS>++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>K0RZ:NO. DATE UTC FROM TO SUBJECT

8J1JBS>W6SHP:JAS>++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>K0RZ:0757 02/20 19:30 WB6LLO W6SHP CONGRATS
0756 02/20 19:30 KB5MU N5BF Welcome!
0753 02/20 19:27 N5BF WA5NOM greeting
8J1JBS>W6TRW:JAS>
8J1JBS>K0RZ:s
0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO TNX
0750 02/20 18:22 9M2DT DB2OS TNX
0
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>K0RZ:749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail arigato
0745 02/20 17:41 WB6LLO W0SL M
8J1JBS>W6SHP:JAS>++ Available commands ++
```

```
B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>WA8EBM:-----
Satellite: Downlink Uplink
AO-16 (Pacsat) 1) 437.050 MHz 145.900, 145.920, 145.940, 145.960 MH
8J1JBS>K0RZ:ESSAGE
0743 02/20 17:39 K0RZ K8TL Mode-S
JAS>
8J1JBS>WA8EBM:z
2) 437.025 MHz
--------------------------------------------------------------------------------
LO-19 (L
8J1JBS>WA8EBM:z
2) 437.025 MHz
--------------------------------------------------------------------------------
LO-19 (L
8J1JBS>WA4EJR:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>W6SHP:JAS>++ Available commands ++

B : List file headers addressed to ALL
F : List latest 15 file headers
F* : List latest 50
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>W6SHP: file headers
F<d> : List file headers posted on day <d>
H : Show this message
K<n> : Kill a file numbered <n>
M : List fi
8J1JBS>KB5MU:END

8J1JBS>KB5MU:JAS>NO. DATE UTC FROM TO SUBJECT
0666 02/20 10:02 I0LYL ALL MICROSAT UP DOWN FREQUENCIES
------------------Lp8J1JBS>KB5MU:-----------------------------------------------------
-----
From: I0LYL Pomezia
8J1JBS>WA8EBM:usat) 1) 437.150 MHz 145.900, 145.880, 145.860, 145.840 MHz
2) 437.125 MHz
--------------------
8J1JBS>KB5MU:, 20feb90
To : All
Subj: Microsat Up/Down Frequencies (From AMSAT-UK OSCAR NEWS NUMBER 81. FEB 90)
----------------------------
8J1JBS>WA8EBM:-------------------------------------------------------------
WO-18 (Weber) 1) 437.100 MHz 145.900 MHz
```

```
8J1JBS>KB5MU:--------------------------------------------------
Satellite: Downlink Uplink
AO-16 (Pacsat) 1) 437.050
8J1JBS>WA4EJR:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WB6LLO:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA8EBM: 2) 437.075 MHz
--------------------------------------------------------------------------------
DO-17 (Dove) 1) 145.825 M
8J1JBS>KB5MU:MHz 145.900, 145.920, 145.940, 145.960 MHz
2) 437.025 MHz
----------------------------------------
8J1JBS>BEACON:JAS1b RA 90/02/20 19:33:00
000 658 648 645 698 835 845 828 001 581
618 001 501 510 524 518 521 524 655 001
651 650 652 646 999 647 880 082 167 000
010 111 000 000 111 100 001 100 000 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:33:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WA4EJR:JAS>
8J1JBS>WB6LLO:0751 02/20 18:27 9M2DT WB6LLO TNX
0652 02/20 08:38 WW8T WB6LLO atv
0528 02/19 21:39 YT3MV WB6LLO hello!
JAS>
8J1JBS>W6SHP:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA8EBM: 73 de I0LYL Lucio
JAS>
8J1JBS>KB5MU:--------------------------------------
LO-19 (Lusat) 1) 437.150 MHz 145.900, 145.880, 145.860, 145.840 MHz

8J1JBS>KB5MU: 2) 437.125 MHz
--------------------------------------------------------------------------------
WO-18 (Weber) 1)
8J1JBS>KB5MU: 437.100 MHz 145.900 MHz
2) 437.075 MHz
----------------------------------------------------------------
8J1JBS>KB5MU:----------------
DO-17 (Dove) 1) 145.825 MHz
2) " " " " MHz
------------------------------------------
8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6LLO:TO?
8J1JBS>K0RZ:NO. DATE UTC FROM TO SUBJECT
```

```
8J1JBS>K0RZ:0753 02/20 19:27 N5BF WA5NOM greetings
Merry Christmas Gil, This is my first message sent via FO-20 mailbox.
73, Courntey
7
8J1JBS>WB6LLO:SUBJECT?
8J1JBS>K0RZ:3, Courtney

JAS>
8J1JBS>WA4EJR:JAS>
8J1JBS>WC8J:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>KB5MU:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>KB5MU:0735 02/20 17:17 LU8DYF ALL Greetings from Argentina.
0712 02/20 15:20 LW2DQO ALL Hola !!.... CQ CQ de
0705 02/20 14
8J1JBS>K0RZ:TO?
8J1JBS>KB5MU::23 JH1PEF ALL CQ CQ
0704 02/20 13:55 ON6UG ALL JD - USERS
0701 02/20 12:59 VK3DTO ALL @AMSAT BULLETINS
0694
8J1JBS>WC8J:JAS>
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>KB5MU:02/20 12:04 DB5ZP ALL problems with g3ruh and microsat`s
0667 02/20 10:05 ON6UG ALL FO-20 OVERCROWDED ?
0666 02/20
8J1JBS>BEACON:JAS1b RA 90/02/20 19:33:58
000 658 647 645 697 835 844 829 001 601
618 001 503 510 525 519 522 525 655 001
649 649 650 645 999 647 880 083 168 000
010 111 000 000 111 100 001 101 001 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:34:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WB6LLO:Enter text, <CR>.<CR> to end.

8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>W6TRW:NO. DATE UTC FROM TO SUBJECT
```

```
8J1JBS>WB6HHV:NX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail a
8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA4EJR:0757 02/20 19:30 WB6LLO W6SHP CONGRATS
0756 02/20 19:30 KB5MU N5BF Welcome!
0753 02/20 19:27 N5BF WA5NOM greeting
8J1JBS>WC8J:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WA4EJR:s
0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO TNX
0750 02/20 18:22 9M2DT DB2OS TNX
0
8J1JBS>KB5MU: 10:02 I0LYL ALL MICROSAT UP DOWN FREQUENCIES
0655 02/20 08:44 VE6BJH ALL Tracking System
0618 02/20 06:37 ON6UG
8J1JBS>WA4EJR:749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail arigato
0745 02/20 17:41 WB6LLO W0SL M
8J1JBS>K0RZ:SUBJECT?
8J1JBS>WC8J:0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail arigato
JAS>
8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>N5BF:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WA4EJR:ESSAGE
JAS>
8J1JBS>N5BF:JAS>
8J1JBS>KB5MU: ALL MODE JD USERS FILE
0579 02/20 02:41 JA0AQZ ALL CQ FROM JAPAN
0548 02/20 00:47 JH1PEF ALL
0515 02/19 18:01
8J1JBS>K0RZ:Enter text, <CR>.<CR> to end.

8J1JBS>W6TRW:0757 02/20 19:30 WB6LLO W6SHP CONGRATS
0756 02/20 19:30 KB5MU N5BF Welcome!
0753 02/20 19:27 N5BF WA5NOM greeting
8J1JBS>N5BF:NO. DATE UTC FROM TO SUBJECT

8J1JBS>W6TRW:s
0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO TNX
0750 02/20 18:22 9M2DT DB2OS TNX
0
```

```
8J1JBS>W6TRW:749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail arigato
0745 02/20 17:41 WB6LLO W0SL M
8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>WA4EJR:NO. DATE UTC FROM TO SUBJECT

8J1JBS>WB6LLO:END

8J1JBS>W6TRW:ESSAGE
JAS>
8J1JBS>KB5MU: 9M2BBS ALL GREETING
0514 02/19 17:42 JH2XIL ALL CQ on FO-20
0505 02/19 17:10 N8AM ALL Hello Earth
JAS>
8J1JBS>WB6HHV:FO-20/JAS1b Mailbox ver. 2.00
commands [B/F/H/M/R/U/W]
Use H command for Help

8J1JBS>BEACON:JAS1b RA 90/02/20 19:34:58
548 397 669 676 725 836 846 831 001 609
618 001 503 510 526 520 523 526 655 001
649 649 650 649 999 647 879 083 168 000
010 111 000 000 111 100 001 100 110 000

8J1JBS>BEACON:JAS1b M0 90/02/20 19:35:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>WB6HHV:JAS>
8J1JBS>WB6LLO:JAS>
8J1JBS>WA4EJR:0756 02/20 19:30 KB5MU N5BF Welcome!
Glad to see you active on FO-20. Have you started receiving official
hassles about Q
8J1JBS>WA4EJR:RM to AO-13 downlinks yet? If not, brace yourself ...
73 -Paul
JAS>
8J1JBS>KB5MU:NO. DATE UTC FROM TO SUBJECT

8J1JBS>KB5MU:0694 02/20 12:04 DB5ZP ALL problems with g3ruh and microsat`s
hello sat user !
i using here for fo-20 a modem from g3ruh.
8J1JBS>N5BF:0758 02/20 19:33 WB6LLO YT3MV MSG
0757 02/20 19:30 WB6LLO W6SHP CONGRATS
0756 02/20 19:30 KB5MU N5BF Welcome!
0753
8J1JBS>N5BF: 02/20 19:27 N5BF WA5NOM greetings
0752 02/20 19:23 K0RZ N1CHM Mode-S Antenna
0751 02/20 18:27 9M2DT WB6LLO TNX
```

```
0
8J1JBS>WB6HHV:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0
KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0
8J1JBS>N5BF:750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigato
0748 02/20 18:02 JH2XIL WC8J mail ariga
8J1JBS>WA4EJR:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0
KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0
8J1JBS>WB6LLO:TO?
8J1JBS>WB6HHV:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0
KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0
8J1JBS>WA4EJR:
JAS>
8J1JBS>KB5MU:.
on fo-20 the modem works very good , but i have problems to receive the
microsats, especially when the signals are not so stro
8J1JBS>KB5MU:ng.
who have this or similar problems, or can me help ?

73, Hans DB5ZP
JAS>
8J1JBS>WB6LLO:SUBJECT?
8J1JBS>WB6HHV:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0
KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0
8J1JBS>WB6HHV:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0
KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0
8J1JBS>K0RZ:END

8J1JBS>WB6LLO:Enter text, <CR>.<CR> to end.

8J1JBS>K0RZ:JAS>
8J1JBS>BEACON:JAS1b M0 90/02/20 19:36:00
Mailbox is at your service from 90/02/17 13:31:00
The JD Transmitter is available in all orbits
during JD mode.

8J1JBS>K0RZ:NO. DATE UTC FROM TO SUBJECT

8J1JBS>K0RZ:0759 02/20 19:33 K0RZ N5BF Dove Mode-S
0758 02/20 19:33 WB6LLO YT3MV MSG
0757 02/20 19:30 WB6LLO W6SHP CONGRATS
0
8J1JBS>K0RZ:756 02/20 19:30 KB5MU N5BF Welcome!
0753 02/20 19:27 N5BF WA5NOM greetings
0752 02/20 19:23 K0RZ N1CHM Mode-S A
8J1JBS>N5BF:to
0745 02/20 17:41 WB6LLO W0SL MESSAGE
JAS>
8J1JBS>WB6HHV:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0
KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0
8J1JBS>KB5MU:NO. DATE UTC FROM TO SUBJECT
```

8J1JBS>N5BF:TO?
8J1JBS>WB6HHV:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0 KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0
8J1JBS>K0RZ:ntenna
0751 02/20 18:27 9M2DT WB6LLO TNX
0750 02/20 18:22 9M2DT DB2OS TNX
0749 02/20 18:08 JH2XIL WC8J mail arigat
8J1JBS>KB5MU:0704 02/20 13:55 ON6UG ALL JD - USERS
MODE JD USERS LIST COMPILED FROM USERS DATE FEB 20 1990
Please use this format
8J1JBS>N5BF:SUBJECT?
8J1JBS>K0RZ:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 KJ1X -0 KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0

8J1JBS>KB5MU:---------
ON6UG ! Freddy ! G3RUH !TNC2C ! ON7RC ! 2m dish ! 9 el x-y ! HB 65c02
I0LYL ! Lucio ! G3RUH !TNC2 ! I0AZI
8J1JBS>WB6HHV:WB6LLO-0 N8AM -0 WB6HHV-0 K0RZ -0 WC8J -0 W6SHP -0 W5GEL -0 WA4EJR-0 KJ1X -0 KB5MU -0 WA8EBM-0 N5BF -0 W6TRW -0

1200. Re: Questions about FCC NPRMs

Newsgroup: rec.ham-radio
Date: 1990-02-21 06:15:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500420@ux1.cso.uiuc.edu>
Source record: 13254

> I have been waiting to see just what the FCC really said regarding
> the proposed codeless class license. Since I have never followed
> NPRMs very closely before, I wonder if some of you could answer
> a few questions.
>
> 1. How long does it usually take for the summary of the NPRM to reach
> the Federal Register? I have not seen it in issues up through 2/12/90.

It usually takes a few days at least. I have seen things take more than
a week to make it into the FR.

> 2. How detailed is the summary of the NPRM published in the Federal
> Register? Does it describe the exact changes proposed to part 97,
> or will it be a general statement such as the press release posted
> to the net earlier?

It is usually plenty detailed for our purposes. It is better than a press
release.

> 3. How does the "complete text" of the NPRM differ from the summary?
> Would it be worthwhile to order the "complete text" of the NPRM
> from the Commission's copy contractor? Have any of you ever
> done this?

It may or may not be worth it to you. The complete text contains all the
material prepared by the staff, and often includes many referenced items.

I did order the complete text and original petitions for 87-14 from the copy
contractor. It was useful info at the time, but I doubt if I will need it
for 90-55.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1201. Re: Alternative proposal on No-Code

Newsgroup: rec.ham-radio
Date: 1990-02-21 06:17:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500421@ux1.cso.uiuc.edu>
Source record: 13255

> Look again, carefully, and you will see that. I just did, and
> I noticed that Phil's posting didn't contain a line identifying
> the person that _he_ was following up to. And _that_ person is
> the person that my posting was addressing, NOT Phil.
>
> BTW, if you look at my previous postings on this thread you will
> see that I concur with many of Phil's stated views on this subject.
> So Tad, read before you post, eh? I don't think my posting was
> misleading regarding who it was addressing, but if it was, then
> I apologize to all concerned, especially Phil. 100% unintentional.

I understood your posting, Chris.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1202. Re: Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-02-21 07:34:08 UTC
From: karn@ka9q.bellcore.com
Message-ID: <20160@bellcore.bellcore.com>
Source record: 13256

In article <1681@aurora.AthabascaU.CA> lyndon@cs.AthabascaU.CA (Lyndon Nerenberg) writes:
>And considering that hardly anyone builds their own gear any more,
>I think the very idea that someone "needs" the electronic skills to
>pass the technical portion of the exam to be granted an EXTRA is
>old-age thinking.

Lyndon, we've discussed this point in the past. The fallacy in the "so, why not a no-theory license?" argument is the following:

Yes, it's certainly possible to operate a modern radio with very little knowledge of electronic theory. Hundreds of thousands of cops, firemen, security guards, mobile phone users, etc, prove this every day.

But the real question is whether one would be able to contribute to the basis and purpose of the amateur service without some knowledge of electronic theory. I certainly don't want to dismiss the public-service aspects of amateur radio, but it's clear to me that amateur radio's real payoff to society is on the technical side. Not in the direct "spin-off" aspects (though they do exist) but rather in the opportunity that amateur radio gives people to learn about electronics and communications and to encourage them to apply their skills to a socially useful career.

Phil

1203. Re: No code and Chaos Band

Newsgroup: rec.ham-radio
Date: 1990-02-21 08:18:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500422@ux1.cso.uiuc.edu>
Source record: 13257

Maybe we should include on the theory test, lots of questions on direction finding. Then we have hams who are afraid they might be found, and hams who can do the finding. We don't do this anywhere near as much as we should.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1204. Update on WEBER picture format

Newsgroup: rec.ham-radio
Date: 1990-02-21 12:41:13 UTC
From: gopstein@soleil.UUCP
Message-ID: <961@soleil.UUCP>
Source record: 13259

Several people who have additional information about the WEBER picture format have let me know that there are a few errors in my original posting. Most importantly, the data is not RGB. It is just straight color NTSC sampled at three times the color burst frequency. It is theoretically possible to separate the chroma information from the luminance, but it's going to take some effort.

Secondly, it seems that even-numbered frames are occasionally transmitted. I'm still trying to figure out when. It's difficult to get a lot of data to analyze since the passes are so short and during the week I miss the morning passes.

In the future I will not post the sources to rec.ham-radio since it gets automatically forwarded to INFO-HAMS. I'll post to one of the usenet source newsgroups and send a note to rec.ham-radio.

Rich Gopstein, KD2CQ

--
Rich Gopstein

..!rutgers!soleil!gopstein

1205. RTTY and/or Packet with a TS-440s

Newsgroup: rec.ham-radio
Date: 1990-02-21 14:23:58 UTC
From: ewb@raybed2.UUCP
Message-ID: <1470@raybed2.UUCP>
Source record: 13260

Is there anyone out there who is presently using a Kenwood TS-440s and
any of the newer TNC/TU's like a KAM or PK-232 ? I'm considering various
hookup schemes and was wondering how you are doing it. Are you going in
the AFSK ports on the back or are you using ACC-2 ? Are you muting the mike
on the back connector etc. Any help would be appreciated. I hope to be
up on all mode HF soon.
Thanks
Gene WA1UXA

...!rayssd!raybed2!ewb
..!linus!raybed2!ewb
ewb@raybed2.ray.com

1206. Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-21 15:34:14 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1606@east.East.Sun.COM>
Source record: 13265

<<<< WARNING: Nocode opinion follows.... >>>>

I had promised myself that I wouldn't add to the noise on the nocode issue, but I've got to make one point: I am against the nocode proposal, but not because I think the CW test is a great screen, but it's the only one that exists at present. We have a written test scheme in which all the answers are printed in a book. Our tests are not tests of technical knowledge, they are tests of memorization ability only (short term memory at that). When I ask folks who are preparing for an upgrade exam if their intent is to understand the material or to "pass the test", the answer is always "pass the test of course". It's pretty sad when we have extra class licensees who don't understand even ohm's law, but they can (or could) tell you what the answers on the test were though. I for one, am very concerned what the final outcome will be if we eliminate the code requirement and still print all the answers in the manuals. I can only support a nocode proposal if it includes new written exams that are at least *somewhat* technically challenging. Maybe I'm paranoid, but when I listen to those guys on 27.405 to 28.000 (the "freeband"), I wonder how hard it will be for them to memorize a few answers...

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1207. RE: INFO-HAMS Digest V90 #210

Newsgroup: rec.ham-radio
Date: 1990-02-21 15:56:00 UTC
From: RAFI@BGUVMS.BITNET
Message-ID: <9002230802.AA04257@ucbvax.Berkeley.EDU>
Source record: 13261

HIGH TEMPERATURE SUPERCONDUCTORS

This new development is going to mean great new UHF and microwave
fron ends. I am very interested in hearing from anyone doing
research on this subject as I have something to offer: substrates.

73
Earl, 4Z4TJ
bitnet%"rafi@bguvms"

1208. Re: Broadcasting Video from RC Plane

Newsgroup: rec.ham-radio
Date: 1990-02-21 16:05:04 UTC
From: music@hpfcmgw.HP.COM
Message-ID: <1690049@hpfcmgw.HP.COM>
Source record: 13262

/ hpfcmgw:rec.ham-radio / jokim@jarthur.Claremont.EDU (John H. Kim) / 12:28 pm Feb 19, 1990 /

Recently, on TV, I saw someone using a radio controled (RC) airplane with a video camera mounted on it. ..... I came up with what I think is a rather innovative use for this (well if you must know, as a spotter plane for deep sea fishing-- .... etc...

--
John H. Kim | (This space to be filled when I
jokim@jarthur.Claremont.edu | think of something very clever
uunet!muddcs!jarthur!jokim | to use as a disclaimer)

My question is.... if you are a few miles out to sea, where ya gonna take off and land. And what happens if and when the plane engine qiuts and it is quite far away from the boat. You'll get tired of tossing about $1-$2 kbucks in the ocean every so often.

A friend of mine has a 'copter and I figured out that we could use one of the CCD video chips and all the support electronics stuff.
I thought that a modified UHF tuner pack (one of those old kind with all the open air tuning caps) could be fixed up for about 75 milliwatts at ~600 mhz. We could FM the signal out and have the appropriate demodulator at the recieving end (sattelite tuner section). All this stuff, lense, video electronics, uhf transmitter, and battery would weigh about 2 pounds.

That's a lot of weight for a small aircraft to lift. So that means that to get any type of performance, we'd need a larger 'copter. That's ok but a fully loaded 'copter will cost a lot of money. Fixed wing craft that isn't used for aerobatics is another situation.

It was only an idea, but it would have worked.

As far as being leagel.... well.... the emission was within the 100 miliwatt power requirements for liscense free operation, at the time.
I think that the current spec may be a radiated emission of within 10,000 microvolts field streingth at 1 meter.
(Right, like everyone is going to figure out how to measure this).
The frequency and details of transmission didn't matter here in Coloradio since there is little UHF TV activity and we wouldn't have interfered.

As far as a liscense is concerned, you don't don't need one for low power transmitters (less than 1/10th of a watt). However, this power level may not suit your needs and since you will probabily want to go with, say 5 watts of power to get any kind of range on the transmitter, and since this is

going to be used for commercial fishing (you will get paid for supplying information) you are looking at another can of worms altogether. A ham liscense won't allow you to use your radio communication for profit or gain.

'Nuff from me for now

John Wells (WA0LHB) in Ft. Fun, Coloradio

1209. WEBER Picture Format

Newsgroup: rec.ham-radio
Date: 1990-02-21 16:05:38 UTC
From: mac@idacrd.UUCP
Message-ID: <621@idacrd.UUCP>
Source record: 13276
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

(Netnews bombed, so I am sending these out together again!)

Rich:

One more error you made, ALL lines are sent, you have just been unlucky and have missed those times when the passes were transmitting the lines. Once again, ALL lines are transmitted. I wondered why your weber.ps looked so flat ;-). At any rate, an outstanding job. Amateur inventiveness never ceases to amaze me. That is what these satellite projects are all about.

DEVON: Just average four pixels and use four color representation. To bad there is no good black and white on the commodore but you can always use a B&w TV. A two level representation is not gonna get it, so give up the resolution for another two levels.

Rich and others:

OUTSTANDING. You've got it almost completely correct. Your one error is in the red green blue bit. Notice from your photo that the beginning is the sync. AT the end of the line is the colorburst. This is a straight NTSC picture that has been digitized by a board that fires on the vertical sync. The picture you have put up as a postscript file is WEBER Photo-9 and is picture of the limb of the earth. The satellite is still spinning down and even though it takes only a 30-th of a second for a NTSC frame, how many of you have tried hand holding a camera for a 30-th of a second still shot? As the bird slows down and locks magnetically (the rest of them have just done this and WEBER has greater moments of inertia and more mass to despin and lock), the pix should not smear as this one has. In your Postscript photo, any detail was washed by this spinning other than the atmosphere along the earth's limb is clearly visible. You should see it in color ;-). Soon, soon. Rich, I will post the color decoding formulas so that you can do a little trigonometry and recover the color information. The lines are NOT sent alternately RGB, it is NTSC (Bleeccchhhh!).

Great work!!!

Bob

P.S. Weber FINALLY published the protocol yesterday (thanks Rich, it was in response to your work). If it doesn't show up here today, I will post it tommorrow. I forgot it this morning (late to work, thanks to Microsat passes!)

--

My opinions are my own no matter] Robert W. McGwier, N4HY
who I work for! ;-)] CCR, AMSAT, etc.

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

1210. Ham Radio "Filters" other than CW

Newsgroup: rec.ham-radio
Date: 1990-02-21 16:35:03 UTC
From: DEFRANCO@TOPS20.RADC.AF.MIL
Message-ID: <12568150935.9.DEFRANCO@TOPS20.RADC.AF.MIL>
Source record: 13263

I'm sure we're all geting tired of the same repetitive arguments over code vs no-code, especially with the FCC Proposal in the open now. Two points keep rising to the top:

1) CW acts as a filter to keep out the "undesirables" who would turn ham radio into another CB world. Bullshit. What WILL keep them out, if anything can, is that ham equipment generally costs a lot more than CB gear. What created the big rush to CB was the popularization during the 70's by TV shows and songs like "Convoy". Every wanted to run right out and prove that they could be just as "country" as the next guy. I put a CB rig in my car as I did a lot of travelling at the time, and I wanted emergency communications available, and it was CHEAP. For $60.00, I was up. Of course, the thing was almost always useless because of the incredibly low signal/intelligence ratio.
As long as ham gear costs more than CB gear, we have little to fear. Besides, no one is seriously proposing elimination of all testing requirements, or even for code to acces HF bands.
Off the wall question: Where did -13- WPM come from? It's an unusual number for speed in a decimally oriented society (or are we, given 12 in/ft, 3ft/yd, etc.) Why not 5 WPM, 10 WPM, and 20WPM, (assuming a requirement)?

2) The FCC will turn against hams if we fight to no-code license and take away our allocations. Several people asked for some reference to FCC policy. I don't have the archives handy, but several months ago, when no-code was hot and heavy, there were quotes taken from the former FCC chairman that put forth that position rather explicitly. I believe either Phil Karn or Phil Howard might remember it.
What is important to remember is that useable spectrum is finite, and the FCC is faced with a growing demand for access to it. Given the general Government position to favor business over the private citizen, the FCC will tend to reallocate the RF space based on those priorities, regardless of how much the Amateur Radio world screams. Witness the reallocation of 220 MHz space.

I do not propose to cheapen the hobby by opening up ham bands to CB'ers as the doomsayers predict, but I do propose to take a more realistic look at how Amateur Radio fits into the "grand scheme" of things. The more parochial the ham community acts, the more we will be perceived as anachronisms whose loss will be mourned by few.

Carl DeFranco
(still waiting for a call)

1211. Satellite dishes

Newsgroup: rec.ham-radio
Date: 1990-02-21 17:09:13 UTC
From: ksrao@power.eee.ndsu.nodak.edu
Message-ID: <00932A2B.E1F5A940@POWER>
Source record: 13283
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I do not know if this is the correct newsgroup to post this article. But not finding any newsgroup seems to be directly relevent I am posting it here.

I want to know what will be the maximum sweep of longitudinal degrees that a satellite dish located in Fargo (appr 96W 47N) will be. I have a list of satellites (from WRTH) and some information about their transponders. I would like to know which of those satellites can be accessed. Any help will be greatly appreciated.

Thank you in advance

K. Sankara Rao ksrao@power.eee.ndsu.nodak.edu
Department of Electrical Engineering
North Dakota State University, Fargo

1212. EAA, Oshkosh Repeaters, Motorcycle?

Newsgroup: rec.ham-radio
Date: 1990-02-21 18:09:19 UTC
From: jle@hpfcdc.HP.COM
Message-ID: <7880121@hpfcdc.HP.COM>
Source record: 13264

So, is there a College Ham club at University of Wisconsin / Oshkosh?
Or are they all members of Fox River Valley ARC?

I am a pilot and will be in Oshkosh this summer for the annual
Experimental Aircraft Association meet July 27 - August 2. I would like
a list of the local repeaters (published in the repeater directory or
not) and access to the local phone patch for that week.

Assuming this actually reaches someone at UW/Oshkosh, I am also looking
for a motorcycle or moped to rent for that week. We are flying in and
staying at Gruenhagen for the week and don't want a car (too much hassle
parking). I can demonstrate insurance and 20 years of motorcycle
proficiency (and maybe trade an airplane ride?).

Please mail to me and I'll post a summary.

Jer/ Eberhard, (SLASH), HAM = N0FZD | Hewlett-Packard - MS99, 1UP10, 15' East
CAP SAR Pilot, COMM,INST,CFI-GLIDER | 3404 East Harmony Road (303) 229-2861
UUCP:hplabs!hpfcla!jle | Fort Collins, Colorado 80525-9599
ARPA:jle%hpfcla@hplabs.HP.COM

1213. Faux Pas

Newsgroup: rec.ham-radio
Date: 1990-02-21 18:23:20 UTC
From: BETZ-A@osu-20.ircc.ohio-state.edu
Message-ID: <12568170649007@osu-20.ircc.ohio-state.edu>
Source record: 13282

Well, I was at a party the other night, and I was talking with some guy I had just met. The conversation turned to hobbies, and I mentioned that I was an amateur radio operator. It turns out he was, too (I think his call might have been K8TUR, but I don't know for certain). Anyways, I went off into my usual long-winded griping about how we're going to lose the 900 MHz band to commercial interests, particularly the cellular phone industry. It turns out that this guy hadn't operated in years as an amateur. And he worked in the cellular phone business to boot! Oops! He was quite defensive of my blasting at the commercial service. Heh!

Drew WJ8K

1214. Re: College ARC's

Newsgroup: rec.ham-radio
Date: 1990-02-21 19:22:17 UTC
From: trey@ut-emx.UUCP
Message-ID: <24858@ut-emx.UUCP>
Source record: 13266

In article <1676550@MTS.RPI.EDU> Joel_Glickman@MTS.RPI.EDU writes:
>keep the club going strong. By the way, some of the oldest ARC's are collge
>ARC's. For example, W2SZ (previously just 2SZ) has been around since about
>1921!! Paging through some of the old logs revealed such breakthroughs as

Speaking of university clubs ...

The University of Texas at Austin ARC, W5EHM (W5 Echo [Hotel|Hike] Motel)
as it exists today came about sometime in the 1950's. Although the club
doesn't sport the tradition of a W8LT, W1XM/W1MX or W2SZ, it's been working
at developing a legacy of its own. The focal point of club activities
is operating both modes of the ARRL November Sweepstakes. The UT-Austin
club is always gunning for national recognition by earning a spot in the
MultiOperator Top Ten. Sometimes they make it, sometimes they don't.

Nonetheless, the W5EHM club counts among its alumni a motley collection
of Sweepstakes enthusiasts who have learned what a great club activity
an SS effort can be.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

1215. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-21 19:38:05 UTC
From: root@sbcs.sunysb.edu
Message-ID: <5658@sbcs.sunysb.edu>
Source record: 13267

In article <1606@east.East.Sun.COM> jimv@hienergy.East.Sun.COM (Jim Vienneau - CSS Program Manager) writes:
><<<< WARNING: Nocode opinion follows.... >>>>
>I had promised myself that I wouldn't add to the noise on the nocode issue,
>but I've got to make one point: I am against the nocode proposal, but not
>because I think the CW test is a great screen, but it's the only one that
>exists at present. We have a written test scheme in which all the answers
>are printed in a book. Our tests are not tests of technical knowledge, they
>are tests of memorization ability only (short term memory at that). When
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

I am curious about this statement, ie test is only that
of memorization. One data point, a guy I work with here, passed
his general first shot. He did not memorize the questions. Is
it the case that the various courses actually set out and train
people to understand the material or to just memorize? Or is
the material hard enough that the average guy cannot absorb it and
thus the courses evolve to the least common denominator?

>Jim Vienneau, Sun Microsystems Inc - Billerica, MA

Rick Spanbauer
wb2cfv
State U of NY/Stony Brook

1216. Wanted: Macintosh program to aid in the learning of morse code

Newsgroup: rec.ham-radio
Date: 1990-02-21 20:10:47 UTC
From: csvmark@jarthur.Claremont.EDU
Message-ID: <4536@jarthur.Claremont.EDU>
Source record: 13268
Cross-posted to: rec.ham-radio,comp.sys.mac

The Claremont College Amateur Radio Club is offering some entry level
classes. They are looking for a Macintosh program to train students
in morse code.

If anyone know of such a program please email me a note.
mark@hmcvax.claremont.edu
or
csvmark@jarthur.claremont.edu

Thank you.
mark

1217. Re: Hams per Capita, Various Countries

Newsgroup: rec.ham-radio
Date: 1990-02-21 20:16:25 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1695@aurora.AthabascaU.CA>
Source record: 13269

```
>People Ham /sq mi License Income Country
>-----------------------------------------------------------
> 992 165* 6* $13 K Canada

Why the blank under License? Is this to imply that we don't have
licenses? (Why did I pay $13 for that yellow piece of paper?)
Yes, we have a no-code license, but you know that ...

>* Much of the territory is unpopulated

Should be obvious from the numbers :-)
--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?
```

1218. Re: Hams per Capita

Newsgroup: rec.ham-radio
Date: 1990-02-21 20:34:13 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1696@aurora.AthabascaU.CA>
Source record: 13270

In article <9002182253.AA00329@cmr.ncsl.nist.gov> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
>Phil Karn has noted that I listed Canada as NOT having a no-code license, while
>, in fact, they do have the no-code Digital class. My ommision was intentional.
>There are SO few Digital tickets that one could say that Canada PRACTICALLY
>doesn't (yet) have a for-the-masses no-code ticket like the other countries
>mentioned.

Excuse me? Either it exists or it doesn't. Don't be such a bigot.

I just phoned the Dep't of Communications. They don't have a
breakdown by certificate type available, however I going to
contact the licensing branch in Ottawa and put in a request
that they scan the license database and give me exact numbers.

Of course, all of this is moot, since all the digital certificate
holders grandfather into "advanced" status when the new licensing
system takes effect this fall.

[This means that current digital holders will inherit full HF
privs - all modes - and will be able to operate CW (GASP!)
without having to take THE DREADED MORSE TEST! I think you're
going to see a LOT of people writing the digital exam over the
summer :-)]

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

1219. Re: Buying from Japan

Newsgroup: rec.ham-radio
Date: 1990-02-21 21:08:09 UTC
From: fyfe@bgsuvax.UUCP
Message-ID: <5459@bgsuvax.UUCP>
Source record: 13271

From article <3629@oolong.la.locus.com>, by eric@locus.com (Eric Peterson):
> In article <38695@apple.Apple.COM> pvh@Apple.COM (Pete Helme) writes:
>> ...
>>So my question is has anyone here ever purchased a transceiver from Japan and
>>succesfully modified it for American frequencies and been happy with that.
>>Or have you been sorry you didn't have a USA warranty etc. I have
>>contacts in Japan so getting the radio is no problem. I'm just wondering if
>>it's more hassle than the money savings is worth.

Just a comment on buying from Japan in general...

I was interested in buying a camera outfit and many suggested that mail-order
was the way to go. I got myself a copy of a photographic magazine and the
mail-order vendors listed in the back had prices that no one around here (OH)
could come close to. What I didn't realize at the onset was that those prices
were for Japanese goods. In other words, there was no U.S. warranty on it.
I was looking at Canon equipment. I found out that Canon has a subsidiary
called U.S. Canon that does better (at least more!) quality control and
maintains the warranty program. When comparing U.S. Canon prices (i.e. that
contained a U.S. warranty) I found that their prices were still better although
not anywhere as significantly better as Canon's. The warranty and cost of
quality control made the difference.

My personal opinion is: Warranties are like insurance; you don't need them...
until you need them. If you feel that you can live without the insurance
then ordering direct is the best way to go. I went with the U.S. warranty.

--bobb
fyfe@andy.bgsu.edu

1220. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-21 21:16:43 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1607@east.East.Sun.COM>
Source record: 13272

>people to understand the material or to just memorize? Or is
>the material hard enough that the average guy cannot absorb it and
>thus the courses evolve to the least common denominator?

> Rick Spanbauer
> wb2cfv
> State U of NY/Stony Brook

I don't think it's a matter of "cannot absorb" it, I think it's a matter of the fastest way to meet your goal. If your goal is to simply "pass the test", then the fatest way to accomplish that it to memorize the questions and the answers. I think the ARRL manuals are pretty well written such that if even non-technical folks took the time to read and study them in order, they could easily understand the material and pass a fair test on that material. As long as we continue to print the question pools and the answers, there will always be an easier way out. I've talked to several folks who have never read any part of the license manuals other than the question pools. I don't see how taking away the code requirement and not "fixing" the written tests will benefit amateur radio. Sheer numbers cannot be the answer to everything that is wrong with our hobby.

-jim
Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1221. Will someone post text of NPR 90-55\

Newsgroup: rec.ham-radio
Date: 1990-02-21 21:18:15 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002212118.AA12455@cmr.ncsl.nist.gov>
Source record: 13273

?

Will someone post the text of NPR 90-55. I haven't seen it on the net yet,
and weeks have passed since the announcement.
Bob W3OTC

1222. Re: New-car QRM - radio fights back!

Newsgroup: rec.ham-radio
Date: 1990-02-21 22:57:46 UTC
From: dave@compnect.UUCP
Message-ID: <473@compnect.UUCP>
Source record: 13274

In article <13.Feb.90.11:31:48.GMT.#1155@UK.AC.NWL.IA>, PJML@IBMA.NERC-WALLINGFORD.AC.UK ("Pete Lucas, NCS-TLC, Swindon U.K.") writes:
> New-car QRM is a reciprocal problem. I can stall the engine of my father's
> Volvo by keying up a 60-watt 2meter FM transmitter in my car parked next
> to his.

A few years back, the PA. State police bought a new fleet of cruisers (when electronic brains were first coming into vogue). There was quite a flurry when the first car 'out on the road' suddenly stopped running when the trooper keyed up his 100 watt Motorola trunk-heater (running around 150 mHz). Chrysler/Plymouth found out what RFI protection was all about REAL fast :-)

[------: Dave Ratcliffe :---------: UUCP: uunet!wa3wbu!ka3adu!compnect!dave :-]
: No Dave and Brian, I DON'T have : 2832 Croyden Rd. Harrisburg, Pa. 17104 :
: a ticket yet....! : Data: (717)657-4997 - (717)657-4992 :
[.................................:...]

1223. Satellite tracking question

Newsgroup: rec.ham-radio
Date: 1990-02-21 23:06:37 UTC
From: rwb@vi.ri.cmu.edu
Message-ID: <8108@pt.cs.cmu.edu>
Source record: 13275

What is the exact definition of the mean anomaly number used in scheduling operating modes on AO13? I know it is the mean anomaly in revolutions divided by 256. My question is, is this value truncated or is it rounded to get the published number? If mean-anomaly/256 is 0.6, is that considered MA 0 or MA 1?

Robert Berger, N3EMO
rwb@vi.ri.cmu.edu

1224. No Code/No Theory

Newsgroup: rec.ham-radio
Date: 1990-02-21 23:24:12 UTC
From: BERTSCH-S@osu-20.ircc.ohio-state.edu
Message-ID: <12568225420009@osu-20.ircc.ohio-state.edu>
Source record: 13303

I seems that there are a number of people who think the theory test for an amateur license is too hard. I must comment.

In March QST, concerning the number of violations noted by FCC during the Buovet DXpedition, FCC is quoted as saying:

"..... these violations appear to have resulted from misuse of increasingly complex amateur service equipment rather than any willful action....."

So, it would seem, we have among our ranks a number of LICENSED people who aren't even smart enough to be appliance operators.

Any comments? No code is fine with me, but as I understand it, the CB service was created for people who don't know or care about electronic theory, and just want to plug it in and blabber.

1225. Re^2: Hams per Capita

Newsgroup: rec.ham-radio
Date: 1990-02-21 23:42:26 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1697@aurora.AthabascaU.CA>
Source record: 13277

rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:

>Phil Karn has noted that I listed Canada as NOT having a no-code
>license, while , in fact, they do have the no-code Digital class. My
>ommision was intentional. There are SO few Digital tickets that one
>could say that Canada PRACTICALLY doesn't (yet) have a for-the-masses
>no-code ticket like the other countries mentioned.

Well, yes and no - we have a no-code class; I wouldn't say it was for the masses. You have to undestand Shannon & Nyquist and queuing theory & modulation schemes and Advanced-class electronics. It's not a CB license. There is the usual regs and operating procedures section - Q codes, & c. & c. as well. 150 multiple choice + 3 hour essay format exam. Not _entirely_ trivial :-).

As for HF privileges and the ever-so-precious CW :-) part, Digital Class ticket holders (i.e., myself) don't have priv's below 144 Mhz. You're safe :-). Although I see by ve6bbm's note that I'm to be grandfathered in to Advanced Class when they rejig the classes this fall, I'm not so sure that I'll be running out to buy/build an HF rig just right away. There's a _lot_ of stuff I want to do on 440 and up first.

73 de ve6pdq :-)

--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

1226. Re: Re^2: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-22 02:18:24 UTC
From: tad@ssc.UUCP
Message-ID: <499@ssc.UUCP>
Source record: 13278

Ross Allen talked about passing the Canadian exam for their verison of a no-code digital license. Folks in the USA are hoping that a tougher written exam with no test of Morse proficiency will result in a large number of new hams. Ross should tell us about how well that worked in Canada. I heard that VERY few people took the test.

Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

1227. Re: Repeater Controllers

Newsgroup: rec.ham-radio
Date: 1990-02-22 02:36:13 UTC
From: bowen@mira.cs.Buffalo.EDU
Message-ID: <18144@eerie.acsu.Buffalo.EDU>
Source record: 13306

In article <1331@khijol.UUCP> erc@khijol.UUCP (Ed Carp, aka Mr. Ed the talking horse...) writes:
>Seems like the ones not supporting the idea of FSF are the ones that have a
>vested interest in maintaining the status quo.

It also seems that many of the people that do support the idea of the FSF are those that haven't contributed. Compare the number of products offered by the FSF to the number of people that "support" them and you'll see strong evidence that this is true.

I've made and continue to make contributions to the FSF but I very much disagree with many of the ideals held by the FSF and RMS in particular. It's my opinion that they often impede the progress of free software. I very much prefer the lack of red tape involved in most ham related software. Phil's code is a wonderful example.

So why do I still contribute? Well, in all the cases thus far, I've decided that they could best distribute the code and that they have played a positive roll in the project. If the day comes that I find this to not be true either due to political change or the nature of the project, I will have no problem with not contributing. Contributing is certainly not a reflex. Religion can be a dangerous thing.

What's this got to do with ham radio? Nothing at all. Just a hot spot for me.

Devon

1228. ARRL Letter 14-Feb-90

Newsgroup: rec.ham-radio
Date: 1990-02-22 03:33:53 UTC
From: gws@n8emr.UUCP
Message-ID: <1437@n8emr.UUCP>
Source record: 13279

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================
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FCC PROPOSES TO ADD COMMUNICATOR
SIMPLIFY LICENSE STRUCTURE IN PR DOCKET 90-55

On February 8, the FCC decided to propose a codeless class of amateur operator license called Communicator. The Communicator Class would be incorporated into a licensing structure containing four ascending classes: Communicator, General, Advanced, and Amateur Extra. Current Novice and Technician Class licensees would be grandfathered indefinitely but no new licenses for those classes would be issued.

According to the FCC news release announcing this decision, the Communicator Class license would satisfy three major objectives. First, to offer an entry level license for all persons who find telegraphy a barrier to pursuing the purpose of the amateur service. Second, to design a codeless license that can easily be implemented into the current licensing process. Third, to avoid any negative effect upon current licensees, the volunteer examiners who administer amateur examinations, or the Commission's workload.

It appears that the FCC is proposing two versions of the Communicator Class. The first would not require knowledge of Morse code. The "codeless Communicator" would be permitted to operate on the 220 MHz and higher amateur bands. A Communicator Class licensee passing or receiving credit for a telegraphy examination would be authorized the privileges of the current Technician Class. Applicants for the new Communicator Class would be required to pass a 60 question written examination comprised of questions from the two pools currently used in the Novice and Technician license examinations as well as additional new questions.

The proposed transmitter power for the Communicator Class is 200 watts PEP. All emission types would be permitted. Call signs for Communicators would be issued from Group D.

Upon initial review, ARRL Executive Vice President David Sumner, K1ZZ, commented "The FCC proposal differs in one very major respect from the League's petition, RM-6995: the Commission proposes to stop issuing Novice licenses so that the one point of entry into Amateur Radio would be Communicator. This differs substantially in philosophy from what we have envisioned.

"While the League will not have an official position on the FCC proposal until one is adopted by the Executive Committee or the Board, it is fair to say that we have long placed great importance on the retention of the Novice license as a means of entry into Amateur Radio. It would not be overstating the past and present League position to say that retention of the Novice license is deemed absolutely essential." However, Sumner cautioned that amateurs should wait until they have an opportunity to study the Notice of Proposed Rulemaking before forming opinions on the Commission's proposal. The NPRM is to be released in about two weeks.

The Commission is requesting comments on all aspects of this proposal. There will be a comment period of six months, beginning on the date it is published in the Federal Register. This will be followed by a one month period for reply comments.

FUJI OSCAR 20 TAKES TO THE AIR AND THE AIRWAVES

JAS-1B (Fuji OSCAR 20) was successfully launched on February 7 at 0133 UTC from Tanegashima Space Center in Japan. In a congratulatory message to JARL President Shozo Hara, JA1AN, ARRL President Larry Price, W4RA, said "This second amateur satellite in the Fuji series is an important additional resource for Amateur Radio. It will be extremely useful for both day to day and disaster communications."

Like its predecessor, FO-12, JAS-1B is a space-borne digital store-and-forward packet BBS using mode JD. It also carries a Mode JA linear transponder for SSB communication.

The mailbox feature requires a PSK modem and a TNC-2 using AX.25 link level protocol at 1200 baud. There are two downlink telemetry beacons on JAS-1B. The first one is for Mode JA at 435.795 MHz. It sends CW or PSK with an output power of 100 mW. The second telemetry beacon is a Mode JD beacon and has a downlink frequency of 435.910 MHz. The Mode JD beacon sends PSK packets and has an output power of 1 Watt.

Additional technical information on Fuji OSCAR 20 can be found in the September 89 issue of QEX.

RFI CASE DISMISSED IN WASHINGTON SUPERIOR COURT

The RFI nuisance case of Luedke and Abigando v Hudson has been dismissed by the Superior Court of the state of Washington. The case is one of the few recent cases in which a nuisance complaint was dismissed by the court for lack of jurisdiction. The court stated that only the FCC has exclusive jurisdiction over cases involving RFI.

The case involved Dr. Wayne Hudson, KT7G, a resident of King County, Washington, and his two neighbors, Messrs. Luedke and Abigando. After an initial complaint of RFI by his neighbors, Hudson had his station inspected by the FCC and a private firm. His equipment was found to be in operating accordance with FCC rules. The RFI problems, however, continued and his neighbors took him to small claims court. The court ruled in Hudson's favor

when it was determined that his neighbors touch lamps were the actual cause of the RFI.

Not satisfied, Luedke and Abigando took their case to Washington State Superior Court. The Superior Court determined that "The Supremacy Clause of the United States Constitution bars the instant state law claims ... since RFI problems are within the exclusive jurisdiction of the FCC preempting any state laws to the contrary..." In addition, the court determined that the neighbors had not taken steps to solve their own RFI problems as requested by the FCC.

Hudson's neighbors also sought an injunction on the basis of aesthetics saying that his antennas were unsightly. The court responded by saying that aesthetic impact is not a ground for injunctive relief. It concluded by reaffirming that the court's jurisdiction is preempted by federal law and that the FCC has exclusive jurisdiction over RFI problems.

6 METER REPEATER SUBBAND EXPANDED

The FCC has expanded the 6 meter repeater subband from 52-54 MHz to 51-54 MHz effective April 9,1990, according to a Report and Order dated February 1. The FCC stated that this expansion will permit operation of additional repeaters to meet the increased demand.

Although supportive in its comments to the FCC, the ARRL agreed with commenters concerned about interference to stations operating in the Pacific DX window. Protection of these operations will be afforded through amendment of the voluntary band plans.

Section 97.205(b) is revised to read as follows: 97.205 Repeater station.

(b) * * * A repeater station may receive and transmit only on the 10 m and shorter wavelength frequency bands except the 28.0-29.5 MHz, 50.0-51.0 MHz, 144.0-144.5 MHz, 145.5-146.0 MHz, 220.0-220.5 MHz, 431.0-433.0 MHz and 435.0-438.0 MHz segments.

FCC SAYS "NO" TO FM 2 -- AGAIN

A year ago, a company called Radio New Jersey (RNJ) filed a petition with FCC seeking reallocation of the 50-54 MHz amateur band to a new FM broadcast service. Radio New Jersey, whose principal is Lawrence J. Tighe, Jr., K2JIA, is the licensee of a daytime only AM station in Hackettstown, NJ. Tighe's apparent motive in seeking a new broadcast band is to gain a full time outlet for his broadcast station.

The FCC Chief Engineer dismissed the RNJ petition less than six weeks after it was filed, without even assigning it an RM number, on the grounds that it had failed to consider the impact of the proposal on amateur radio communications, both domestically and internationally. RNJ petitioned for reconsideration, which was, which was denied. Finally, RNJ went to the full Commission to appeal the action of the Chief Engineer.

On January 18, the Commission affirmed the Chief Engineer's findings. An Order released January 25 says in part: "In particular, the petitioner has

not provided a satisfactory demonstration that amateur operations at 50-54 MHz could be accommodated elsewhere in the spectrum or that broadcast operations in this band would not cause interference to international amateur communications."

HF OPS -- WATCH THOSE VFO SPLITS

The FCC has issued over 240 notices of violation to amateur stations for improper operation during the recent 3Y5X Bouvet Island Dx-pedition. The notices were sent to US amateurs operating voice on frequencies reserved in this country for digital transmissions such as CW and RTTY. This is in violation of section 97.305(c) of the FCC rules which partitions various HF amateur bands.

FCC believes that most of the violations resulted from "misuse of increasingly complex amateur service equipment rather than any willful action" but reminds amateurs that: the station licensee is responsible for the proper operation of the station and will be held responsible for the transmission of an unauthorized emission under Section 97.103 of the Rules. Operation during the 3Y5X expedition is the subject of the March QST editorial.

ARRL Letter - February 14, 1990 - Volume 9, Number 3 - Page 3 of 3

HONORARY ARRL VICE PRESIDENT JOHN GRIGGS, W6KW, SK

John R. Griggs became a Silent Key on January 6, 1990. He was ARRL Southwestern Division Director for 18 years from 1949- 1954 and from 1967 to 1978. John was named as an ARRL Honorary Vice President in 1980 and served in that position until his death. A resident of Los Osos, California, he spend most of his life in Southern California.

First licensed in 1922 at the age of 15, John designed and build commercial radio transmitters. He also designed radio equipment for the Admiral Byrd expedition to Antarctica in 1940. During World War II, John served as a radar field engineer attached to the Pacific Fleet. In the following years, he designed avionics and communication equipment. John Griggs will certainly be missed by the amateur community. Contributions in his memory may be made to the ARRL Foundation.

THIRD PARTY AGREEMENT COUNTRIES LIST

Section 97.115 of FCC Rules ...authorizes an amateur station licensed by the FCC to transmit messages for a third party to any amateur station within the jurisdiction of a foreign government whose administration has made arrangements with the United States to allow amateur stations to be used for transmitting international communications on behalf of third parties.

Here are the countries that have made the necessary arrangements with the US to permit third-party messages (recently added countries are highlighted): Antigua and Barbuda, Argentina, Australia, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Federal Islamic Republic of Comoros, Costa

Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, The Gambia, Ghana, Grenada, Guatemala, Guyana, Haiti, Honduras, Israel, Jamaica, Jordan, Liberia, Mexico, Federated States of Micronesia, Nicaragua, Panama, Paraguay, Peru, St. Christopher and Nevis, St. Lucia, St. Vincent and the Grenadines, Sierra Leone, Swaziland, Trinidad and Tobago, United Kingdom (special event stations with call sign prefix GB followed by a number other than 3), Uruguay, and Venezuela.

United Nations stations 4U1ITU in Geneva, Switzerland and 4U1VIC in Vienna, Austria, have also made arrangements with the US to permit third-party communications.

No amateur station regulated by the FCC shall transmit messages for a third party to any stations within the jurisdiction of any foreign government not listed above. This prohibition does not apply to a message for any third party who is eligible to be the control operator of the station.

ATTENTION YOUNG ARTISTS

If you are between the ages of 8 and 18 and have an interest in electronics, we'd like to showcase your artistic talent and originality. The ARRL is sponsoring a national art contest with the theme "Youth in Amateur Radio." Winning entries will run in QST. Some entries will also be forwarded to the "Youth in the Electronic Age" worldwide contest sponsored by the International Telecommunication Union in Geneva, Switzerland.

For a copy of the rules, send an SASE to ARRL, Educational Activities Branch, 225 Main St, Newington, CT 06111. The deadline is April 15, 1990, so contact us right now!

CALL FOR PAPERS

Papers are invited for presentation at the ARRL 1990 Educational Workshop scheduled for Saturday, June 9, at the ARRL National Convention in Kansas City, Missouri. Topics include all aspects of Amateur Radio recruiting and instruction such as: one- on-one tutoring, motivational techniques, Public Relations ideas, and working with seniors, the disabled and youths. Prospective speakers please ask Educational Coordinator Rosalie White, WA1STO, at ARRL HQ for an author's kit. Camera ready papers are due at ARRL HQ by April 27, 1990.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1229. Gateway 16-Feb-90

Newsgroup: rec.ham-radio
Date: 1990-02-22 03:36:21 UTC
From: gws@n8emr.UUCP
Message-ID: <1438@n8emr.UUCP>
Source record: 13280

NOTE: This is the last gateway issue to be published.
Gateway and QEX will be combined, full details in this issue. -n8emr
==========
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
==========

GATEWAY: The ARRL Packet-Radio Newsletter - PART 1 OF 2
Volume 6 - Number 11 - February 16, 1990

Published by: The American Radio Relay League
225 Main Street, Newington, CT 06111

Stan Horzepa, - WA1LOU Editor

JAPANESE HAM SATELLITE LAUNCHED

Hot on the heels of the successful launch of six Amateur Radio satellites in late January, the JARL announced the successful launch of their new ham satellite, JAS-1b/Fuji-OSCAR-20 (FO-20), on February 7 from the Tanegashima Space Center. FO-20 will function as a PBBS using mode JD (145-MHz uplink, 435-MHz downlink). A one-watt telemetry beacon will transmit PSK packets on 435.910 MHz. To use the PBBS or to monitor telemetry, users will have to attach a 1200-baud PSK modem to a TNC 2.

HELP SOUGHT FINDING U0-15

Following the last reported reception of signals from U0-15 at around 05:00 UTC on January 23, nothing has been heard from the satellite despite continued attempts by the University of Surrey (UoS) engineering team to activate redundant on-board systems.

While UoS will continue to explore redundant paths and configurations available on the satellite, the time has come to investigate whether the spacecraft has suffered a major malfunction. It should be possible to resolve this question by listening for residual signals from the on-board local oscillators (to confirm the operation of the power systems) and any very low-level signals at the nominal downlink frequency (indicating a transmitter or antenna problem). If signals from either the local oscillators or the transmitter can be detected, then there are several tests that can be done to trace the nature and extent of the problem.

UoS would be most appreciative of any assistance in the above listening tests. The level of local oscillator signals present at the spacecraft antenna were measured before launch to be -60 dBm. Examination of the link associated with the above experiments indicates that large antennas and sensitive narrow- band receivers operating in the 132-136 MHz (local

oscillators) and 435.120 MHz (downlink transmitter) will be required to stand any chance of success. It is recommended that tests first confirm the detection of local oscillator signals from the operational U0-14 before attempting to listen for U0-15.

It is also very important that we narrow the window between the last reported reception of U0-15 at 05:00 UTC on January 23 and first AOS (or lack thereof) at UoS at 10:00 UTC the same morning. Was anyone else listening? Telemetry would be ideal, but even a report of the presence of a signal from UO-15 on 435.120 MHz would help enormously.

If anyone can help or suggest contacts who may be able to help, please contact Martin Sweeting, G3YJO, at UoSAT.

from AMSAT News Service

GATEWAY: The ARRL Packet-Radio Newsletter - PART 2 OF 2
Volume 6 - Number 11 - February 16, 1990

GATEWAY TO MERGE WITH QEX

To better serve our growing number of experimenters and packet- radio enthusiasts, Gateway, the ARRL Packet-Radio Newsletter will cease to be published on a biweekly schedule and will be merged into QEX, the ARRL's monthly "experimenters' exchange." Aside from receiving the latest packet-radio news, you will now receive timely articles about packet-radio experimentation and will be kept up-to-date on the latest technical advances in all aspects of Amateur Radio.

After five and a half years of biweekly publication, this is the last issue of Gateway, the newsletter. Gateway subscribers will receive the first expanded issue of QEX in March and monthly thereafter. Gateway subscriptions will be prorated on a two-for-one basis, ie, for every two issues of Gateway remaining on your subscription, you will receive one issue of QEX. Gateway subscribers who already subscribe to QEX will have their current QEX subscriptions extended on the two-for-one basis.

GOING... GOING... But Not Gone

It has been a ton of fun and hard work serving as editor of this newsletter for the past two and a half-years and I hope you have enjoyed the effort. I wish to thank all of you who have contributed to the newsletter in the past and hope that you will continue to contribute to Gateway in its QEX guise. I also wish to thank Lori "Maty" Weinberg of ARRL headquarters who has served as chief cook and bottle-washer of the newsletter ever since I came on board. Without Maty, you would not be reading this.

In conclusion, although my job of newsletter editor is ending, you aren't rid of me yet, as I will be conducting the Gateway section of QEX. So, see you in March QEX. - Stan Horzepa, WA1LOU

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are still welcome. You may submit material via the US mail to:

Gateway
Stan Horzepa, WA1LOU
75 Kreger Drive
Wolcott, CT 06716-2702

or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS.)

The deadline for each installment of Gateway is the 14th of the month preceding the issue date of QEX.

REPRODUCTION OF GATEWAY MATERIAL

Material may be excerpted from Gateway without prior permission, provided that the original contributor is credited and Gateway is identified as the source.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1230. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-22 06:00:42 UTC
From: karn@ka9q.bellcore.com
Message-ID: <20216@bellcore.bellcore.com>
Source record: 13281

In article <1606@east.East.Sun.COM> jimv@hienergy.East.Sun.COM (Jim Vienneau - CSS Program Manager) writes:
>
>I had promised myself that I wouldn't add to the noise on the nocode issue,
>but I've got to make one point: I am against the nocode proposal, but not
>because I think the CW test is a great screen, but it's the only one that
>exists at present. We have a written test scheme in which all the answers
>are printed in a book. Our tests are not tests of technical knowledge, they
>are tests of memorization ability only (short term memory at that).

What is learning CW, if not an exercise in rote memorization? At least
it's POSSIBLE to study for the technical parts of the written test and
gain insight into something useful.

Phil

1231. Re: What Happened to Woody?

Newsgroup: rec.ham-radio
Date: 1990-02-22 10:13:00 UTC
From: john@frog.UUCP
Message-ID: <12428@frog.UUCP>
Source record: 13284

In article <38634@apple.Apple.COM>, aaker@Apple.COM (Mark Aaker) writes:
> I haven't heard the Russian Woodpecker on the HF bands in a long
> time. Have they stoppped? Have they changed frequencies in order
> to skip over the amateur radio bands? Its usually a good indicator
> of the current propogation from USSR to me at any given time. Has
> anyone heard a reliable news report about this?

There was an article in the February Ham Radio Magazine about The Woodpeckers
(both theirs and ours). I don't recall, though, if the article discussed
their current mating habits... ;-)

--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

1232. Re: Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-02-22 12:40:46 UTC
From: jay@splut.conmicro.com
Message-ID: <YP#+N1+@splut.conmicro.com>
Source record: 13285

In article <20160@bellcore.bellcore.com> karn@ka9q.bellcore.com (Phil Karn) writes:
>But the real question is whether one would be able to contribute to the
>basis and purpose of the amateur service without some knowledge of
>electronic theory. I certainly don't want to dismiss the public-service
>aspects of amateur radio, but it's clear to me that amateur radio's real
>payoff to society is on the technical side. Not in the direct "spin-off"
>aspects (though they do exist) but rather in the opportunity that amateur
>radio gives people to learn about electronics and communications and to
>encourage them to apply their skills to a socially useful career.

You don't want to dismiss the public service aspects of amateur radio?
You just did.

Go back and look at the basis and purpose. Public service is prminently
mentioned. It's also the only way the general public will ever hear
about amateur radio doing something good for them.

Yes, we need the techies - but we need the non-techies who want to serve
the public just as much. This should not be/become a "nerds only"
service.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
{attctc,bellcore}!texbell!splut!jay +--
Free the DC-10!

1233. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-02-22 13:35:09 UTC
From: daveh@compnect.UUCP
Message-ID: <474@compnect.UUCP>
Source record: 13286

I called the PENNDOT folks over in Harrisburg and got the scoop for PA residents. There is a $20 one time fee to have the plates made. You have to already have regular plates when you order the ham ones. When your ham plates arrive you have to return the old plates. If you upgrade during the first year you are out of luck. An individual is only permited to order one ham tag per year. There is no provision for more than one car either.

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!ka3adu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

1234. Wanted: Macintosh program to aid in the learning of morse code

Newsgroup: rec.ham-radio
Date: 1990-02-22 14:39:23 UTC
From: cerys@BBN.COM
Message-ID: <9002230805.AA04906@ucbvax.Berkeley.EDU>
Source record: 13287

There are a number of Macintosh Ham applications (including 2 Morse code programs) available for FTP from Apple.Com in pub/ham-radio.

1235. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-22 14:39:53 UTC
From: taber@pstjtt.enet.dec.com
Message-ID: <910@ryn.esg.dec.com>
Source record: 13288

In article <1607@east.East.Sun.COM>, jimv@hienergy.East.Sun.COM (Jim Vienneau - CSS Program Manager) writes...
>I don't think it's a matter of "cannot absorb" it, I think it's a matter of
>the fastest way to meet your goal. If your goal is to simply "pass the test",
>then the fatest way to accomplish that it to memorize the questions and
>the answers.
>[...]
>As long as we continue to print the question pools and the answers, there
>will always be an easier way out.

Many (most?) of the questions on the exams are questions whose answers MUST be memorized. Band edges, operating practice and regulations cannot be derived. The number of scan lines in an SSTV image must be memorized. The data rates commonly used in FAX have to be memorized (these are questions in the exams.)

Perhaps the problem is not that memorization is possible, but that there are so many questions that REQUIRE memorization. I haven't done an analysis of it, but it's probably possible to ditch all the questions whose answers can/should be derived and still pass many of the exams.

Publishing the answers to the pool is not a problem... anyone who has memorized the answers to 400 questions for a 20 question exam has shown more commitment to amateur radio than people who have learned 20wpm code. Certainly it seems like "the hard way" to me to memorize a few hundred answers instead of a handful of equations (that's why I did it the easy way...learn the material.)

If there is any real reason why people should be memorizing the equations instead of the answers (we can always look the equations up if we need them, yes?) then probably the solution is not hiding the answers, but boosting the number of calculation questions and expanding the pool two or three times. Publishing the pool of questions and answers is a very common licensing technique and it helps keep the exam fair and open to public observation.

>>>==>PStJTT KC1TD
Patrick St. Joseph Teahan Taber

Mail address: Nahhhhh, you don't want to send me mail....

1236. No-code the European way.

Newsgroup: rec.ham-radio
Date: 1990-02-22 14:45:27 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <22.Feb.90.14
Source record: 13289

Just to point out that the British no-code license does actually allow the holders to transmit CW. This has been the case for some years.
I dont think anyone has mentioned this so far. Those people who wish to learn/use code should not be disbarred from doing so just because they hold a no-code license.
I dont bother to though. Like i dont bother to use semaphore.

///Pete

1237. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-22 15:04:54 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1608@east.East.Sun.COM>
Source record: 13290

>What is learning CW, if not an exercise in rote memorization? At least
>it's POSSIBLE to study for the technical parts of the written test and
>gain insight into something useful.

>Phil

Yep, your right (although I mildly disagree with the implication that code isn't useful). The point is it takes a reasonable amount of *time and effort*. Working at something makes you value and respect it as such. If you advocate "giving away" licenses (I'm not saying you do BTW), then why have any tests at all? In my opinion the tests exist to filter those who have no interest in the technical aspects of the hobby. My point is that the current ARRL test structure DOES NOT do this. As I said, CW is the *wrong* filter, but it does require you to be pretty dedicated to the hobby. It's pretty hard to pick up a CW book and with only a few hours of memorization pass the test. As I said; eliminating the code requirement without fixing the written tests is a foolish and shortsighted exercise to obtain sheer numbers IMHO.

Phil, I would like to hear what you think the purpose of the written exams is and if you feel the current structure meets that purpose.

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1238. Misc. DX QSL Information - Fall/Winter 1989/90

Newsgroup: rec.ham-radio
Date: 1990-02-22 15:47:42 UTC
From: reisert@tallis.enet.dec.com
Message-ID: <8573@shlump.nac.dec.com>
Source record: 13291

Thanks to Charlotte, KQ1F, Derek, AA5BT, Patty, N6BIS and Jim, K6ZH for
their help in filling in this list.

73, jim AD1C

3D2KH via K6KH
3D2VB via OH3GZ
4J5FV via RB5IJ
4M2BYT via YV2BYT
4S7EA Ernest Amarasinghe, 275 6 Colombo Rd.
Divulpitija, Boralesgamuwa, Sri Lanka
4U0ITU via KC7V
4U1UN via NA2K
4U1VIC via the OE BURO
5B4TI C. G. Mike Smedal, P O Box 7121, Nicosia, Cyprus
5H1TW via K3ZO
5H3TW via K3ZO
6Y5X via KN5X
7P8DP via W8JBI
8P9HT via K4BAI
9M2ZZ via N4RMF (1990 CB)
9M6HF via WE2K
9Q5DX via KQ3S
9V1YC James Brooks, Box 1265, Singapore 9117
9Y4H H. Harricharan, 6 Alexander Road, San Fernando, Trinidad
AH2BE/KH9 via KA6V
AP2JZB Bob, Box 8507, Karachi, Pakistan
CE0DFL Marco, Box 7, Easter Island, Chile.
CN8FC via WA4QMQ
CT3M via CT3EE
CT500C via CT1REP
CU3URA via NM5M
CW8B via N7RO
DX1A via DU1AU
EA8AB via EA5BS
EA8AGD via OH6DK
EA9EA via EA7LQ
FG5R via W7EJ
FM5WD via W3HNK
FS/KC1F via KC1F
H20A via 5B4SA
HG9R via HA9PP
HL9OB via N4GNR
HS0E via K9EL
HT3A via SM0KCR

J6DX via W8UMD, Treaty City AR Assn., Inc., J. Dunn
906 Harrison Ave, Greenville, OH 45331
J6LSC via N9AG
J79DX via AA5DX
J88/W9NSZ via W9NSZ
JD1YAA via JA1OGE
KC6IN Isao Nishimura, P.O. Box 296, Ponnape, ECI TT 96941
KC6XO via KQ1F
KH2D via KA3T
KH8/SM7PKK via SM7PKK
KN0E/KH3 via K9UIY
KX6OI via KX6BU
LX7A via DF3CB
LZ9A via LZ2KTS
NY6M/NH4 via home call
P29RE via KE0KR
P40GD via N2MM
PJ4U via K3IPK
PJ8T via K4PI
PY0FF via W9VA
PZ1DY Imro, Box 9131, Paramaribo, Surinam
R0C via UW0CW
RB8M via RB5MA
RL1P via UL7PAE
RQ7W via UQ1GWW
SM5OIG/YN via SM0KCR
SN3A via SP3GEM
SV9AKI George, PO Box 33, Souda 73200, Kreta Island, Greece
TA3D Yasar Gocet, Box 963, Izmir, Turkey
TA3F via DL5YCQ
TI1J via K1AR
TM5T via F bureau
TU4B via K6VNX
TZ6VV via N0BLD
V21CW via KA2DIV
V47K via WB2P
VK9LV via K1JB
VP9AD via W3HNK
VR6TC via W6HS
XW8CW French DX Foundation, Box 1384, Millbrook, NY 12545
XW8KPV via JH1AJT
XX9OO via K8CW
YASME PO Box 2025, Castro Valley, CA 94546
YJ0R via OH3GZ
ZB2X via OH2KI
ZD8Z via N6TJ, Jim Neiger, PO Box 4355, Orange, CA 92613
ZP0Y via LU8DPM
ZP6XDW Doug Woolley, P.O. Box 73, Caacupe, Paraguay.

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

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Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
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P.O. Box 1123
Littleton, MA 01460

1239. Need Kenwood TM2550 Rx. mods.

Newsgroup: rec.ham-radio
Date: 1990-02-22 16:18:53 UTC
From: Wally.Southwell@f12.n376.z1.FIDONET.ORG
Message-ID: <271.25E50AA3@uscacm.UUCP>
Source record: 13292

Does anyone have the mods for Kenwood TM2550 2m rig that will extend it's Rx coverage to Pub. service freqs.

I really don't care about the Tx frequencies, but will take that if you have it.

Thanks,
Wally

--
--
Wally Southwell == ...!usceast!uscacm!12!Wally.Southwell

1240. TI-99/4A on packet

Newsgroup: rec.ham-radio
Date: 1990-02-22 16:36:48 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9002221647.AA06133@ti.com>
Source record: 13293

I received five replies to my request. In summary, here is the information
I received:

(1) You need a RS232 card with a free serial port, a TNC, and some sort of
a terminal emulator program. A TE-I cartridge (300 baud) or a TE-II (1200
baud) will work. And, of course, the radio.

(2) There were some reservations about the 40-column display; and also about
the SSSD disk memory system not being adequate for some uses.

No one mentioned any custom hardware so I assume that none exists. I checked
the Triton catalog and they don't have any uniquely packet hardware.

Looks like the 99/4A will work, so I'm going to dig mine out of the attic and
Looks like the 99/4A will work, so I'm going to dig mine out of the attic and
try to get it going again.

Thanks again to all respondents.

73,
Dube Todd N5PDK

1241. Re: RFI in VCR, was RFI Problem

Newsgroup: rec.ham-radio
Date: 1990-02-22 16:46:59 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880123@hpfcdc.HP.COM>
Source record: 13294

I tried a low-pass filter on the transmitter, too. Most gear is clean enough that harmonics from the transmitter usually isn't a problem. What can happen is that the strong RF fields can cause lotsa things (like rain gutters, corroded TV antennas, etc) to re-radiate a clean fundamental plus harmonics. Recall that metal-oxide (like galena) acts as a diode, and that diodes are non-linear devices. 10 meters gets into my electronics more than 15/20/40/80. I've never had problems on 40 and 80.

My VCR was a piece of RFI-prone junk. To solve the problem, I installed a hi-pass filter on the coax and choked the snot out of the incoming 120 VAC power. Your garage door opener could be picking up RF from either the AC lines or directly. Again, choke the snot out of all low frequency (DC-60Hz) lines that may be acting as antennas until the problem goes away.

I made the mistake once of transmitting on 2m with 40 watts. I burned up the receiver for the garage door - cost me $30 to replace it. You might want to move that sloper leg elsewhere.

Perry Scott
KF0CA

1242. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-22 16:59:39 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500017@hpfcso.HP.COM>
Source record: 13295

Re: Memorization

This discussion about memorization vs. REALLY KNOWING is pretty difficult
to resolve.

Tests are imperfect ways to measure things. Would you feel much better
knowing that Pilot's Licenses (including airline pilots) include
multiple-choice, memorizable tests?
Yes, there is a skills test in addition but it doesn't cover ALL
the material an ATP is responsible for. (It is somewhat similar
to the previous requirement to demonstrate the ability to send and
receive code.)

I memorized in order to pass Advanced at age 14. When I got to
EE in college, I found that I'd remembered more than I thought because
I could work through lab exercises that others could not purely because
of my ham radio experience.

Memorization is sometimes a first step and sometimes it's the last step.
Multiple choice tests are cheaper, faster and more consistent than
essay exams (like the ham exams of the 1920s).

What is the alternative proposal?

Ron Miller NW0U/OF

1243. Re: Misc. DX QSL Information - Fall/Winter 1989/90

Newsgroup: rec.ham-radio
Date: 1990-02-22 17:16:19 UTC
From: davidn@tekigm2.MEN.TEK.COM
Message-ID: <8368@tekigm2.MEN.TEK.COM>
Source record: 13296

In article <8573@shlump.nac.dec.com>, reisert@tallis.enet.dec.com (Jim Reisert) writes:
> Thanks to Charlotte, KQ1F, Derek, AA5BT, Patty, N6BIS and Jim, K6ZH for
> their help in filling in this list.
>
> 73, jim AD1C

> ZD8Z via N6TJ, Jim Neiger, PO Box 4355, Orange, CA 92613

N6TJ was the op, but QSL to W6CF.

Thanks for the information,
David AB9O

1244. Need info on ICOM 701

Newsgroup: rec.ham-radio
Date: 1990-02-22 18:15:56 UTC
From: bobh@hpcuhb.HP.COM
Message-ID: <10510005@hpcuhb.HP.COM>
Source record: 13297

I need service information for the ICOM 701. ICOM claims that no service info exists, other than that written in Japanese :-(. I am particularily interested in data on troubleshooting the transmitter section (not functional at all in my rig) and peaking the receiver (very weak reception). Thanks in advance for any pointers.

I would also be interested in any information on the computer interface port.

Bob Headrick WA7OVU
bobh@hpda.HP.COM
(408) 926-6193
:

1245. ARRL International DX Competition

Newsgroup: rec.ham-radio
Date: 1990-02-22 18:31:28 UTC
From: trey@ut-emx.UUCP
Message-ID: <24913@ut-emx.UUCP>
Source record: 13298

The League announced today that ZS9 Walvis Bay will count as a
seperate multiplier for both modes of the 1990 ARRL DX contest.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

1246. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-22 19:38:44 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1614@east.East.Sun.COM>
Source record: 13299

>...answers, but boosting the number of calculation questions and expanding
>the pool two or three times. Publishing the pool of questions and
>answers is a very common licensing technique and it helps keep the exam
>fair and open to public observation.

>>>==>PStJTT KC1TD
Patrick St. Joseph Teahan Taber

Yes, I agree, the problem is both the content of the questions and the limited size of the question pool. When I say memorize, I mean they memorize the answer is "B" in many cases, not that the Novice voice band is 28.300 to 28.500! The ARRL takes the questions and answers in exact form and order. I think you'd be surprised how easy it is to memorize 200 answers without having a clue what they mean! (yes, using question pools is common and fair is done properly).

I *really* didn't mean to start this! I'll submit my views on the current proposal to the FCC and I urge others with an opinion to do the same.

YAP (Yet another point); a couple articles back someone stated that we should let "non-techies" in so they can do public service work. Excuse me, but isn't HAM radio about "techies", maybe I have the wrong hobby here....
I thought public service was an outgrowth of the technical side, not visa-versa!

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1247. Re: Wanted: Macintosh program to aid in the learning of morse code

Newsgroup: rec.ham-radio
Date: 1990-02-22 19:43:07 UTC
From: winter@Apple.COM
Message-ID: <38870@apple.Apple.COM>
Source record: 13300

In article <4536@jarthur.Claremont.EDU> csvmark@jarthur.Claremont.EDU (Mark R. Anderson) writes:
>The Claremont College Amateur Radio Club is offering some entry level
>classes. They are looking for a Macintosh program to train students
>in morse code.

Mark et al--

There are a couple of Morse Code programs (BinHexed and probably Stuffed) available via anonymous FTP from apple.com. They're in the ham-radio directory.

73,
Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1248. Re: ICOM R71A vs. Kenwood R-5000

Newsgroup: rec.ham-radio
Date: 1990-02-22 20:50:53 UTC
From: dana@lando.la.locus.com
Message-ID: <3850@oolong.la.locus.com>
Source record: 13301

In article <4266@helios.TAMU.EDU> n188av@tamunix.tamu.edu (Sriram Narayan) writes:
>
>
>I was looking at the specs of both the Kenwood R-5000 and
>ICOM R71A, and it appears that from this the ICOM is superior
>both in terms of sensitivity and selectivity (standard available
>filters) on all the bands. However, a few reviews I have seen
>indicate that the Kenwood is better overall. Based on these specs alone
>it would appear that the ICOM is better.
>
>Are there any "hidden" specs or intangibles, so to speak, that I am not
>aware of? Reliabilty? Audio quality? Mods and accessories? Inconvenient
>operation? Design trade-offs? Noise? etc ...
>Both receivers cost the same at EEB.
>
>Any comments on this? Please email if this is not of general interest.
>Thanks.

While I'm not familiar with the specific two receivers, it is worth
remembering that the specs don't tell the entire story. There are specs which
can be used to get a raw feel for things like intermodulation resistance
and overall receiver quality, but the bottom line is really quite simple.

There is a Honda automobile ad running here in LA which features a young
woman test driving a new Honda. She stomps on the gas and squeals "Oooh, she's
quick". The salesman starts to comment about having the most horsepower, etc.,
and the woman cuts him off, saying "Oh, I don't want to hear about horsepower,
as long as she works".

Receiver audio quality, even useful dynamic range and sensitivity to
strong signal blocking are not easily reflected in specs. Some sharp filter
designs actually can degrade dynamic range. You need to actually use
these receivers to gain a real feel for which one is better or speak
to someone impartial who has used both. For what it is worth, I've heard
ICOM receivers are in general superior to Kenwood, but I several Kenwood
radios and no ICOM gear ;-)

>
>--
>---
>Sriram Narayan 810446 Texas A&M University |
>INTERNET: narayan@tamunix.tamu.edu | Go Alain Prost!
>BITNET: narayan@TAMVXEE |

Dana H. Myers | Alain Prost? Go Eddie
Locus Computing Corp. | Lawson and Wayne Rainey!

1249. Re: SAREX-2 Testing Continues

Newsgroup: rec.ham-radio
Date: 1990-02-22 21:19:55 UTC
From: bjb@hubcap.clemson.edu
Message-ID: <8128@hubcap.clemson.edu>
Source record: 13302
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

From article <183@ka2qhd.UUCP>, by kd2bd@ka2qhd.UUCP (John Magliacane):
>
> This special packet radio station flying on STS-35 on May 9, 1990 will give
> each radio amateur who connects to WA4SIR a QSO number confirming their
> contact. When the connecting station sends their QSL card in with this
> contact number, they will receive back a beautiful QSL card commemorating this
> HAM IN SPACE shuttle flight.
>

It is a shame that this flight won't be during the normal school year
(for college, that is... at least, not here at Clemson). Anyway, has
there been any announcement of the frequency that will be used for the
SAREX packet station? Also, will any normal antenna system work (like
for the DOVE) or would a special one be needed (like a turnstile).

73 es TNX! de BJ, KM4RB

--
BJ Backitis (KM4RB) | BJB@CLEMSON.BITNET | "There are a great many
Info. Systems Development | BJB@HUBCAP.CLEMSON.EDU | people in this country
Clemson Univ. Division of | {...}!emory!hubcap!bjb | who, through no fault of
Comp. & Info. Technology | All usual disclaimers | own, are sane."

1250. Re: Need info on Tempo/VHF One 2m rig

Newsgroup: rec.ham-radio
Date: 1990-02-22 23:40:41 UTC
From: kenw@col.hp.com
Message-ID: <4380071@col.hp.com>
Source record: 13304

The "Tempo" line was marketed by Henry Radio a few years ago. They may still have documentation available.

1251. You think *we've* got QSL troubles!

Newsgroup: rec.ham-radio
Date: 1990-02-22 23:49:32 UTC
From: winter@Apple.COM
Message-ID: <38881@apple.Apple.COM>
Source record: 13305

Ham QSL managers demanding two dollars a card look like pikers next
to the situation mentioned in the messages below. Note, however, that
no one has confirmed that the letters actually originated at Radio
Mogadishu.

Patty
****

From: tijoma@uta.fi (Jorma M{ntyl{)
Newsgroups: rec.radio.shortwave
Subject: RADIO MOGADISHU QSL-POLICY
Date: 19 Feb 90 10:53:20 GMT

Hey folks,
would you like to PAY for QSLs? Some Finnish DXers have recently
received letters from Radio Mogadishu, Somalia, where this station
announces that if you want to get their QSL you must:
1. send them a tape;
2. pay $50 -- yes, fifty U.S. dollars! Furthermore, Radio Mogadishu
says that they will charge this money from your American Express.
No QSLs if these procedures are not followed!

Yeah... DXing is becoming an expensive hobby. Are there many who
have received this letter from Radio Mogadishu? Is this a exception
or a new tendency among radio stations in developing countries?

73 - Jorma Mantyla, Univ. of Tampere, Finland
tijoma@kielo.uta.fi

From: larry@kannel.lut.fi (Lauri Toropainen)

tijoma@uta.fi (Jorma M{ntyl{) writes:
>Yeah... DXing is becoming an expensive hobby. Are there many who
>have received this letter from Radio Mogadishu? Is this a exception
>or a new tendency among radio stations in developing countries?

I think that asking $50 for a QSL is no longer DX'ing. That's extortion.

I read from the latest edition of the DSWCI's Shortwave News that a
Swedish DX'er had received a letter from a person from Radio Mogadishu
asking for help in escaping from that country! Apparently the letter
also included a QSL verification.

73's de

Lauri Toropainen (larry@saruman.it.lut.fi) *** * * **********
Lappeenranta University of Technology * * ** The Only Thing the Power
Data Communications Lab, P.O. Box 20 * * ** Respects is Power

SF-53850 Lappeenranta, Finland *** * * **********

From: ralph@mtune.ATT.COM (Ralph Brandi)

In article <243@millbrook.fibercom.COM> lrj@fibercom.COM (Larry Johnson) writes:
>Perhaps Radio Mogadishu's intent is to price the hobby out of the range
>of everyone but us filthy first-world capitalists :-).

Or perhaps it isn't Radio Mogadishu at all, but rather someone else
who has managed to come into possession of some letters directed at
them. With the proliferation of US Green Stamps included in QSL
requests, it's not an unknown thing for mail to go astray. My
understanding is that HCJB, for instance, claims that 30% of its
mail never makes it to the station. It seems more likely to me that
some enterprising local is trying to make a little hard cash than
that the radio station is trying to extort radio listeners. This
sort of thing seems to come up every few years or so....
--
Ralph Brandi ralph@mtune.att.com att!mtune!ralph

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1252. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-23 00:56:00 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <3853@kd4nc.UUCP>
Source record: 13307

Jim Vienneau writes:
>answers in the manuals. I can only support a nocode proposal if it includes
>new written exams that are at least *somewhat* technically challenging.
>Maybe I'm paranoid, but when I listen to those guys on 27.405 to 28.000
>(the "freeband"), I wonder how hard it will be for them to memorize a few
>answers...

How hard is it to memorize a few answers? A few HUNDRED answers? After all you don't know WHICH test you will be given so you have to memorize the entire question pool. I would say that it's much easier to memorize a few dot-dash combinations than hundreds of answers to questions you don't understand. After all your "code" test now consists of answering ten multiple choice questions about a "typical" amateur contact you just copied. Write down the stupid dots and dashes and decipher enough of it to make a good guess at the right answers and you'll pass the stupid code. Of course you won't ever USE the code on the air so it doesn't matter. Seems to me that anyone who tunes the current hf activity and notes the many EXTRA class lids working out-of-band dx (heh heh) and wheezing into their over driven "linears" will realize that the sacred code acts as a potent filter to keep potentially good operators OFF the bands and lets in the trash.

73 Gary KE4ZV (taken before the, by God, FCC in the "old days")

1253. 'Ham' Origins? was (Re: Need old Hammarlund coils)

Newsgroup: rec.ham-radio
Date: 1990-02-23 03:27:08 UTC
From: jenglish@tardis.Tymnet.COM
Message-ID: <940@tardis.Tymnet.COM>
Source record: 13308

In article <90021702470478@masnet.uucp> dean.milner@canremote.uucp (DEAN MILNER) writes:

Subject: Re: Need old Hammarlund coils
----
^^^^ is this where the term
'Ham Radio' originated?
--
Jim English MD-IPC | JENGLISH@D31.TYMNET.COM or jenglish@tardis.tymnet.com
(214)637-7406 Dallas | UUCP: ...!{ames,pyramid}!oliveb!tymix!tardis!jenglish

1254. Suggestions on surplus equip wanted

Newsgroup: rec.ham-radio
Date: 1990-02-23 04:47:32 UTC
From: rrw@naucse.UUCP
Message-ID: <1895@naucse.UUCP>
Source record: 13309

We are trying to set up a couple of hams stations for student use at various locations. Being a government agency, we have a shot at equipment which has been surplused out by the feds (and state goverment as well).

However, since I don't keep up with the id numbers of surplus equipment, I'm somewhat at a loss when things like ARC-199U are listed (not a real number...).

Can anyone familiar with such things suggest good units to be looked for? Interest lies both in transmitter or transceiver units. Also in general coverage HF receivers, and also VHF/UHF units which might be useful for receiving things like weather satellite transmissions.

Please E-Mail me since we currently have a disk-space crisis and are not receiving rec.* groups (sigh....). I'll summarize and post back to the net if interesting info turns up.

Many Thanks & 73's

- Bob Wier Northern Arizona University
summer:Ouray, Colorado winter:Flagstaff, Arizona
USENET: ...arizona!naucse!rrw | BITNET: WIER@NAUVAX | WB5KXH

1255. Re: Help Change NJ's Scanner Law!

Newsgroup: rec.ham-radio
Date: 1990-02-23 05:11:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500425@ux1.cso.uiuc.edu>
Source record: 13310

We need an address and name for those of us who live outside NJ to write to.
We need an address and name for those of us who live outside NJ to write to.
We need an address and name for those of us who live outside NJ to write to.

This matter affects everyone who might even drive THROUGH NJ with a radio.
This matter affects everyone who might even drive THROUGH NJ with a radio.
This matter affects everyone who might even drive THROUGH NJ with a radio.

So, can someone get the appropriates names and addresses for us to write to?
So, can someone get the appropriates names and addresses for us to write to?
So, can someone get the appropriates names and addresses for us to write to?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1256. Re: CW - QRP?

Newsgroup: rec.ham-radio
Date: 1990-02-23 05:17:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90030913425455@masnet.uucp>
Source record: 13311

To: Sylvan.Katz@weyr.FIDONET.ORG

Hi Syl,
.
I have owned a TenTec Argonaut for about 15 years and am very pleased with it. I have had it camping, trailering, on business trips, to the cottage, to field day, contesting and general operating and never had a problem. It is compact light and versatile. The receiver is acceptable and you can work most stations even in crowded conditions on phone and even easier on CW. I have worked Easter Island on 20m SSB from a Halifax motel room using 2W PEP and a 57" whip. I also have a small MFJ tuner I use with it. I think it will tune the proverbial "wet string"<grin>.
.
As I said very dependable and easy to use. I would recommend some form of audio filter for crowded band conditions. It is easy to carry. I can pack a basic station (rig,pwr sply,tuner,key,mic,cables,log,and a portable antenna) into a gym bag (and have done so on occasion).
.
It is a good little rig and while costing more than the HW7/8/9 series, is worth it. I have also used the Kenwood low power versions of the TS120/130 and found it to be a super little radio too. Same features as the higher power model but 20 watts.
.
Hope it helps. Enjoy the UK, nice country.
.
73 Dean, VE1CBF

~ EZ-Reader 1.21 ~ p SysOp @ COLOSSUS Remote Access Data System
~ QNet 2.04: MUI Sydney, NS (902) 564-5022 CB Hub via NorthAmeriNet

1257. Re: Alternative proposal on No-Code

Newsgroup: rec.ham-radio
Date: 1990-02-23 06:37:44 UTC
From: tad@ssc.UUCP
Message-ID: <501@ssc.UUCP>
Source record: 13312

Chris sez:

>Look again, carefully, and you will seethatI just did, and
>I noticed that Phil's posting didn't contain a line identifying
>the person that_he_ was following up to. And _that_ person is
>the person thatmy posting was addressing, NOT Phil.
>
>BTW, ifyou look at my previouspostings on this threadyou will
>see that I concur with many of Phil's stated views on this subject.
>So Tad,read before youpost, eh? I don't think my posting was
>misleading regarding who it wasaddressing, butif it was, then
>I apologize to all concerned, especially Phil.100% unintentional.

Phil sez:

I understood your posting, Chris.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

Tad sez:

I don't care who Chris was addressing. I didn't think his devotion of
a whole paragraph to how anyone who didn't agree with his views on
no-code should shove a piece of coax up their ass and fire up their
transmitter was a good arguement. I mean, I support no-code, Chris
isn't a ham, but he uses abuse like this as an arguement to persuade
us to support his efforts to change the test so he doesn't have to put
up with studying for the parts he doesn't like! Why?

Tad Cook
tad@ssc.UUCP
KT7H @ N7HFZ.WA.USA.NA

1258. Fixing FCC NPRM 90-55

Newsgroup: rec.ham-radio
Date: 1990-02-23 10:41:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500424@ux1.cso.uiuc.edu>
Source record: 13313

The FCC's new license structure proposal, which involves more than just adding a new codeless license class as proposed by most petitions, has a number of deficiencies in it. I have put some time in analyzing possible changes of the proposal and have come up with a variation that has these advantages:

1. Uses only the four classes the FCC (apparently) wanted to have.
2. Incorporates TWO privilege levels for VHF-up.
3. All current privilege combinations may still be earned by future hams.
4. Grandfathering does not give away any HF privileges.
5. Retains a Novice entry level HF privilege set.
6. Preserves entire current HF privilege structure (not that I really want to, but it should be a separate issue).

The change I propose is to separate the Morse Code exam as an endorsement which will be required for HF privileges (in compliance with international requirements). The combination of the license class, and the level of the Morse Code endorsement will determine the HF privileges. Only the license class will determine the VHF privileges.

The chart below indicates what privileges you earn based on your license class and (if any) Morse Code endorsement. The letters have these meanings:

N = current Novice HF privileges L = limited VHF-up privileges
G = current General HF privileges F = full VHF-up privileges
A = current Advanced HF privileges
E = current Extra HF privileges

```
Morse Code endorsement level
----------------------------
License class None 5wpm 13wpm 20wpm
------------- ----- ----- ----- -----
Communicator L N+L __N+L_____N+L__ Lines added show
General F N+F |__G+F_____G+F__ which combinations
Advanced F N+F | A+F __A+F__ have the same HF
Extra F N+F | A+F | E+F privileges
```

Grandfathering will be as follows:

Novice becomes Communicator with 5wpm
Technician becomes General with 5wpm
General becomes General with 13wpm
Advanced becomes Advanced with 13wpm
Extra becomes Extra with 20wpm

In summary, to get any set of HF privileges, you must have the class and the endorsement that is required in the present system. It is only the names that have been changed, slightly. Other side effects of this system might be that

when you pass a the Advanced or Extra written exam only, holding no code or only a 5 wpm code endorsement, then you do not gain any new privileges though you do get a new class. Likewise, you probably will be able to keep your code endorsement forever even though you don't get any new privileges with it, such as a Communicator going up from 5 wpm to 13 wpm. The effect of all this is that the one year expiration of certificates indicating exam elements you have passed may be moot.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1259. info-hams

Newsgroup: rec.ham-radio
Date: 1990-02-23 10:44:00 UTC
From: hfair@PAXRV-NES.ARPA
Message-ID: <9002240803.AA12437@ucbvax.Berkeley.EDU>
Source record: 13314

Have not received any mail for past week. Have i been deleted?

1260. FCC Snippet

Newsgroup: rec.ham-radio
Date: 1990-02-23 14:51:50 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9002231451.AA06401@bunny.gte.com>
Source record: 13315

MOBILE COMMUNICATIONS SPECTRUM
SEEN AS CRUCIAL MATTER FOR WARC

STATUS: GTE filed comments advising the FCC that spectrum allocations for the new emerging enhanced wireless communications technologies are an urgent matter. Comments were filed in response to the Commission's Notice of Inquiry in Docket 89-554 to prepare for the 1992 World Administrative Radio Conference (WARC).

Other nations have been pushing their own agendas on these issues, with the United Kingdom taking the lead on CT-2 Telepoint Service and Personal Communications Networks. GTE set forth its technical assessment of these issues and urged the FCC to have the United States take a leadership role.

Some current spectrum users could ultimately be displaced as a result of actions taken at the WARC.

1261. Re: Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-02-23 15:04:23 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500423@ux1.cso.uiuc.edu>
Source record: 13316

> Yes, we need the techies - but we need the non-techies who want to serve
> the public just as much. This should not be/become a "nerds only"
> service.

Of all the people I know who are holding out for a no-code ham license,
MORE of them are of the "non-techie public service" type. This is why
I am insisting on TWO levels of codeless VHF license. One for the
non-techies who want to be doing just communication, and another for
those who have more technical interests.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1262. Source for NORD><LINK's OSK (OS-9/68K) port of KA9Q TCP/IP?

Newsgroup: rec.ham-radio
Date: 1990-02-23 15:05:21 UTC
From: kc2wz@ka2qhd.UUCP
Message-ID: <186@ka2qhd.UUCP>
Source record: 13317
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

I understand the German group NORD><LINK has an OSK (OS-9/68K) port of

KA9Q's TCP/IP code. Does anyone know of a source for the code?

I am also looking for a source for NORD><LINK's update of WA8DED's firmware

for the TNC-1. I believe it is called The Firmware.

Are either of these file requestable from somewhere?

I would appreciate e-mail replies as I don't get to check this newsgroup as

often as I would like.

AdvTHANKSance for the help. :-)

1263. IC-04 MODS NEEDED PLEASE!!

Newsgroup: rec.ham-radio
Date: 1990-02-23 15:07:42 UTC
From: marke@hpscdc.scd.hp.com
Message-ID: <5490092@hpscdc.scd.hp.com>
Source record: 13318

The subject of "mod's" for the IC-04AT have probably been brought up before here on the NET, but for some reason I have managed to miss them all. So, if some kind ol radio amateur could dig in to his or her files one more time, and post them for me, it would be muchly apprieciated. I am specifically looking for the mod's that pertain to out of band operation, and RX audio volume improvement.

Please post or e-mail, and thanks.

Mark Espinosa/WA6RGD

1264. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-23 15:11:38 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1618@east.East.Sun.COM>
Source record: 13319

>notes the many EXTRA class lids working out-of-band dx (heh heh) and
>wheezing into their over driven "linears" will realize that the sacred
>code acts as a potent filter to keep potentially good operators OFF
>the bands and lets in the trash.

>73 Gary KE4ZV (taken before the, by God, FCC in the "old days")

I agree! Remember I have never said that code is a good or proper lid
filter, and I've never said that bad operators can be seperated by their
licence classes, and I've never said I was against a nocode license.

What I have said is that HAM radio is a privilege. To gain access to this
privilege you have to prove your ability to perform as an amateur operator.
What I question is the mechanism for this evaluation. Currently, one must
learn morse code (useful?, I think so, necessary?, I think not) and pass
a written exam. The combined effort required (ie: dedication) is a certain
number of hours of effort, which the majority (for most folks) is the code
part. If you eliminate that, then you've eliminated the majority of the work.
This is where I take issue. If we're only going to rely on the written
tests to measure an individuals abilitys, then that test needs to be
comprehensive and require approximately the same effort as above.
This is NOT what the current propsal offers. It is not my intention to
keep good candidates out of the hobby, in fact just the opposite. I think
we have a high level of expertise and professionalism now and do not want
to see it severely diluted. If you think lack of use will make us loose
bands, wait and see what a bunch of poor operators with no technical
ability can do!

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1265. P. Howard's Proposed Licensing Structure

Newsgroup: rec.ham-radio
Date: 1990-02-23 15:19:29 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9002231519.AA01504@cmr.ncsl.nist.gov>
Source record: 13320

Phil Howard has just proposed a new ham licensing structure.
He claims that it contains ONLY FOUR license classes, but then provides for
FOUR levels of code proficiency within each class.

If I had to enter these classes into a data base, I would find that there are
SIXTEEN different combinations. To my mind, Phil has proposed a structure
with SIXTEEN CLASSES, NOT FOUR. I see no diference between endorsements and
additional classes. They both result in a record-keeping zoo.

You may note my recent proposal which resulted in REALLY only four classes,
which some of you might want to increase to five to allow a "low-tech
with CW" entry path.

My classes were:
Extra (as at present)
Basic (13 wpm CW, present General AND Advanced, with Advanced privileges)
Technician (Same theory as Communicator, but with 5 wpm code)
Communicator (No code, moderate theory)
to which you COULD add
Novice (5 wpm, simple theory, non-renewable)

I proposed that all Novice tickets expire in the year 2000,
and that the class be dropped - figuring that Communicator-class theory would
be simple enough to not present a problem to anyone over 10-12 years of age.
I'm not sure that one can make a strong case for NEEDING even younger hams.
My boss of many years got his ham ticket at the age of 8, back around 1930,
when the CW requirement was 10 wpm (I think), and the theory test was essay-
style .... but he is outstandingly smart, and was likely the youngest ham at
the time. BTW, there were no other technical people (or hams) in his family.

I DON'T THINK WE NEED AN EVEN MORE COMPLEX LICENSING STRUCTURE. MOST COUNTRIES
GET BY WITH FEWER CLASSES THAN THE US.

Bob, W3OTC
(My employer doesn't endorse these views.)

1266. V31BB ???

Newsgroup: rec.ham-radio
Date: 1990-02-23 15:36:00 UTC
From: Ed@ALDERAAN.SCRC.SYMBOLICS.COM
Message-ID: <19900223153643.8.ED@PEREGRINE.SCRC.Symbolics.COM>
Source record: 13321

Date: 21 Feb 90 14:22:33 GMT
From: zaphod.mps.ohio-state.edu!usc!snorkelwacker!spdcc!merk!alliant!linus!philabs!briar.philips.com!rfc@tut.cis.ohio-state.edu (Robert Casey)

In article <2815@umbc3.UMBC.EDU> battle@umbc3.UMBC.EDU (Rick) writes:
>I am sitting here listening to 28.305 usb and there is this
>guy, V31BB, conducting the MFJ JUNK NET.

I ran across this guy during the 23:00z hour last Sunday. He claims that the workmanship of his MFJ stuff is bad, and he appears to be doing a net. I only heard him, and not others, but the nature of propagation on 10M is like that.

Is MFJ stuff really that bad? Only thing of MFJ I have is a 24hr clock from Japan, and it's standard consumer grade electronics.

I have an MFJ antenna tuner which appears to be made of Radio Shack-quality parts (i.e., sub-consumer grade). The switches are very noisy and one of the tuning caps was destroyed by dripping solder. I have their dual 24hr clocks and their switches are flaky, making it hard to set the time. The clocks also drift much more than any of my various Casio timepieces.

I wouldn't buy anything from MFJ, and I don't buy anything from Rat Shack more complicated than batteries or speaker wire.

1267. WEBER Protocol spec

Newsgroup: rec.ham-radio
Date: 1990-02-23 15:44:06 UTC
From: mac@idacrd.UUCP
Message-ID: <624@idacrd.UUCP>
Source record: 13322
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

From: WEBER
To: amsat
Subj: correct protocol

I have been told there is an erroneous description of the picture protocol published on Compuserve. To avoid the possibility of people wasting their time with it, below is the correct, complete description.

The format of picture data for the camera color composite signal is as follows:

Callsign (for this transmission scheme) is PHOTO (for the camera). SSID is picture number (modulo 16). We are currently often overwriting a given picture number with different pictures perhaps twice a day. This is done when a picture is clearly black and there is no point in getting all of it.

The first two bytes of data portion of the UI frame (packet) contain the 10-bit X position of the first sample in that packet, the two most significant bits of the X position occupy the two least significant bits of the first byte, the eight least significant bits of X are in the next byte. Legal X values are from 0 to 644. Y values are in third byte and range from 0 to 241. If the two least significant bits of the first byte are both set (forming an X 768..1023), the data beginning with the second data byte is clear text information about the picture (which we call the "picture header") occupying 252 bytes. The six most significant bits of the first byte are reserved for future protocol definitions, only one of which is presently defined.

The data then consists of a sample for every third X value. This has little to do with RGB, but is relevant to color as the NTSC waveform is sampled at precisely 3 times the color burst frequency. A zero byte value indicates a simple compression sequence as follows: 00, the count of repeats, then the value repeated. Actual samples with a value of 0 (hor. sync) are changed to 1 to allow indicating a following compression sequence. When the X value is greater than 644, increment the Y value by two and subtract 645 from the X value. At the end of one of these compression passes, encoding returns to the top of the pic, moves one byte to the right and proceeds. This takes place three times to complete one half pic (every other line). Alternating half pics (even vs. odd) lines are transmitted every 101 minutes (every other visibility pass at these latitudes). There is not vertical sync transmitted. The picture begins at the end of the header.

The 645th byte of a reconstructed line is the count of zeroes which was in the original digitized sample between the 644th byte of that line and the beginning (the first non-zero) of the next line. If you are reconstructing the original waveform replace that count byte with that many zeroes.

I must again emphasize that this protocol is very temporary and can be expected to change with little advance notice. The compression scheme is poor and was selected only for its simplicity. It also will change. These changes will be handled with Weberware version updates. Also, please note that we have the ability to download individual R, G or B signals from the camera and their protocol may be different. Ditto for the 1.2 GHz experiment. For those, however, you can expect a bit more advance notice of variation.

As of today, only one picture has been arguably of the earth. We have been taking pictures (15) for only 8 (12 of our 15 on the first day) days now and it will require time to polish our procedures. We are concentrating on the equator now because pre-launch projections suggested potential problems at high latitudes. The first 12 pics were over the U.S. and none were of the planet. We have taken one pic at night (in the dark) to characterize performance. Two interesting tidbits. Shots that turn out to be of the sun don't move the impact sensor because, presumably, the iris is stopped down and has little distance to spring closed. Deep space photos increment the impact sensor considerably. The second tidbit has to do with the night photo. It has an average light level much lower than even the deep space photos taken during the day. Perhaps a little atmospheric glow around the spacecraft even at that altitude?

Thank you all for your interest.

73's,
Chris, WA3PSD, WEBERSAT project leader

P.S. Photo 1 is a pretty good shot of straight down over the ocean. A large cloud bank is visible against the blue water. It does NOT look like much in B&W. I can tell you from experience, VGA is required, the EGA displays suck. AMSAT will be distributing WEBERWARE, color black and white display stuff with a decompression routine.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

1268. Helical Resonator Challenge

Newsgroup: rec.ham-radio
Date: 1990-02-23 17:03:26 UTC
From: gregm@hpcvra.CV.HP.COM
Message-ID: <5710006@hpcvra.CV.HP.COM>
Source record: 13323

Helical Resonator Question......

I have a challenge for the masses on the net.....

Here's my situation. The local club is trying to put up an autopatch
on the local OSU 2M repeater, and we have run into a snag --- mainly "too much
RF" from other sources on the hill. There is all kinds of stuff up there
including a channel 7 TV signal, channel 25 and various sheriff repeaters,
etc......

Using a "hot" Hamtronics receiver on the hill and a 5 element beam as our
link "to the hill" (because of the cost of "out of the way phone lines"),
we are able to get a very solid signal to the hill. Using a handheld, the
signal is perfect. Unfortunately, the Hamtronics likes all the other signals
up their too. There is all kinds of intermod junk comming out of the 450
receiver and audio "junk" is passed on the the 2M repeater input.
(The 440 handheld can also hear this stuff with squelch open --Heathkit)
Now, we have found that with all the filtering (power lines, etc.) that 30db
of attenuation on the front end of the 450 receiver (outside the box) cleaned
up just about all the intermod (yes, you can still hear the 450 uplink).
I personally did not hear this demonstration, but the general feeling in the
group was that the helical resonator was the way to go. (My guess is we
are running out of link signal at 30DB, and it is starting to get noisy.)
We cannot/don't want to increase the 450 uplink signal at the transmitter.

Now, the challenge for those who dare... Does anyone have information where
I can get my hands on some articles to educate ourselves on these resonators.
They sound interesting. I have one article but feel that I am still in the dark
about the building technique. I think this would be the perfect opportunity
for another club project.

Any other ideas of what to try...???

Thanks in advance for your comments.

Greg May KB4OX (in 7 land)

1269. Cable & TV Channel Frequencies

Newsgroup: rec.ham-radio
Date: 1990-02-23 17:05:38 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9002261405.AA03817@ucbvax.Berkeley.EDU>
Source record: 13324

The following data was posted by someone (whose name has been lost, sad to say) to the "video" list a while back. Several people on the hams list have expressed interest in getting this info, and I had problems mailing to at least one of them, so here's a posted copy. Everybody keep a copy for future reference :-).

Will

FREQUENCY RANGE CH # CATV

SUB CHANNEL (18-48)
18 MHz - 24 MHz A T-9
30 MHz - 36 MHz C T-11
42 MHz - 48 MHz E T-13
48 MHz - 54 MHz 1, A-8

VHF LOW BAND
54 - 60 2 2
60 - 66 3 3
66 - 72 4 4 note the 4 MHz gap prior to CH 5
76 - 82 5 5, A-7 (78 - 84 MHz)
82 - 88 6 6, A-6 (84 - 90 MHz)

FM BAND (82 - 108)
90 - 96 95, A-5
102 - 108 97, A-3
114 - 120 99, A-1

MID BAND
120 - 126 14, A
126 - 132 15, B
....
162 - 168 21, H
168 - 174 22, I

VHF HIGH BAND
174 - 180 7 7 continuous channels of 6 MHz width
180 - 186 8 8
....
204 - 210 12 12
210 - 216 13 13

SUPER BAND
216 - 222 23, J
222 - 228 24, K

```
.......
282 - 288 34, U
288 - 294 35, V
294 - 300 36, W

HYPER BAND
300 - 306 37, W+1, AA
.......
432 - 438 59, W+23, WW
438 - 444 60, W+24, AAA, XX
444 - 450 61, W+25, BBB, YY
450 - 456 62, W+26, CCC, ZZ
456 - 462 63, W+27, DDD, AAA
462 - 468 64, W+28, EEE, BBB

UHF BAND
470 - 476 14 65, W+29 (468 - 474)
476 - 482 15 66, W+30 (474 - 480)
.......
638 - 644 42 93, W+57 (636 - 642)
644 - 650 43 94, W+58 (642 - 648)
650 - 656 44 100, W+59 (648 - 654)
656 - 662 45 101, W+60 (654 - 660)
.......
794 - 800 68 124, W+83 (792 - 798)
800 - 806 69 125, W+84 (798 - 804)

TRANSLATOR FREQUENCIES
806 - 890 70 - 83
***End***
```

1270. Uniden HR2600

Newsgroup: rec.ham-radio
Date: 1990-02-23 17:30:17 UTC
From: FRANK@TOPS20.RADC.AF.MIL
Message-ID: <12568685277.8.FRANK@TOPS20.RADC.AF.MIL>
Source record: 13325

I am familiar with the mod to extend the frequency coverage of the HR2510 but
I have not heard of a similar mod for the 2600. Does anyone know of such a mod?
If so, I would appreciate it if you could pass the info along. Also, I am
looking for a copy of the schematic for the 2510, can anyone help?

***Please, no flames on out of band modifications. I have no intention of
transmitting out of band and I am fully aware of the laws!!***

Thanks,
Joe - WD2F

1271. info-hams digest

Newsgroup: rec.ham-radio
Date: 1990-02-23 18:21:00 UTC
From: lambert@CCF3.NRL.NAVY.MIL
Message-ID: <9002240813.AA12857@ucbvax.Berkeley.EDU>
Source record: 13326

We have not received an info-hams digest here since September,
although the systems person tells me that we are still subscribers. Is
Info-Hams still in business?

1272. Here lies Ham Radio...

Newsgroup: rec.ham-radio
Date: 1990-02-23 18:41:53 UTC
From: herbster@b11.ingr.com
Message-ID: <7554@b11.ingr.com>
Source record: 13177

Seems to me that the "No-code" gang has no further need to whine.
O.K. you win. I "worked" for the Novice ticket at the age of 8
and passed on the third try. I could copy 12wpm, but the theory
was tough at that age. The only privs a novice had then was CW.
The "Incentive" was there 2 years later to upgrade to Advanced
and get voice privs. 20 years later, a friend of mine from Iran
managed to learn 5wpm and pass the Technician class in three weeks
even though English is not his primary language. I'm sorry folks,
I just can't help but feel that Morse Code is only a barrier to
getting into Amateur radio if you have "NO DICIPLINE". I have never
had anyone approach me wanting to get into radio that just could
not get the code. A six year old can do it (i did), non-technical
folks can do it (my friends have) so what is the problem here??

If you want to "experiment and pioneeer" the advance of radio
technology, I see nothing wrong with requiring a little history
lesson (how we got to packet) with regards to one of the most
commonly used transmission modes in the world. This "lower-the-
water" instead of raise the bridge attitude just smacks of lack
of dicipline. This lack of dicipline thing has bothered me for
some 10 years now. I don't think CW is a "lid-filter" because the
lids have gotten in. This constant berating of the "O.F.s" and
"Their code" sounds alot like the disaster on 14.325 as of late.

I guess I am just nostalgic, things used to be so genteel
and polite on the air. Over the last decade, I have kissed 15 and
20 meters away. Goodbye old friends, THEY have moved in. I find
myself spending more and more time these days using CW because you
can almost go back to a time of courtesy and dicipline there. It
is still hard to scream and rant in CW and the OFs that use the code
just seem to be less prone to lidness (notice i said less prone, not
imune). The WARC bands are another place of solice, where we OFs go
to chew the rag endlessly while one of those #$#%$ contests are
trashing the other bands.

While I conceed that the Communicator class was inevitable,
and there seems to be no REAL good argument against it, I just
can't explain the terrible forboding i feel. Its not as if things
will go BANG and get bad, they have been getting bad for many years
now. I just can't help but think that this attitude and lack of
dicipline will accelerate the degradation that has already begun.

Which band do we kiss off next??

de km4jn
(o.f. for 22 years).

1273. Re: (posting src) Update on WEBER picture format

Newsgroup: rec.ham-radio
Date: 1990-02-23 19:08:05 UTC
From: cb@cci632.UUCP
Message-ID: <34603@cci632.UUCP>
Source record: 13178

I have heard this discussions along the way before about posting
executables and source code. Maybe some of you are priveledged in
being allowed access to the sources and binary groups, However,
many companies squash them. According to one SA, users tend to
keep their own copy of the source/exe and then lots of copies
exist wasting system space etc.

I would hope that those rare occations that source/exe are shipped
along with this news group, or somehow a mailing list for it.
I have quite a job ahead of me to retrieve these files if their
posted elsewhere (execpt ibm.binaries). I had to make specail
arrangements for that. (Iwish I could ftp but...)

Anyone got any better ideas??
--

email: cb@cci632 or !rochester!kodak!n2hkd!curtis
Curtis Braun, N2HKD, Computronics, PO Box 1002 Fairport NY, 14450

1274. Need wattage and range information for us in portable emergency.

Newsgroup: rec.ham-radio
Date: 1990-02-23 19:22:21 UTC
From: kwmc@cbnewsj.ATT.COM
Message-ID: <3980@cbnewsj.ATT.COM>
Source record: 13179

I desire to use a pair of portable CB radios as an emergency communication system. The area in which they are to be used is rural and rather hilly and I need to have a reliable range of 2.5 to 3 miles between units.

Can anyone help me to know what kind of wattage I would need ?

Further details of the application and questions follow.

Three years ago my mother had a heart attack and was advised to "take nice long walks as part of her recovery and treatment. This winter, while out walking, she slipped and broke her arm some distance from the nearest house. While this was not life threatening it caused her some distress.

I am hoping to give her a light portable CB which she can use to summon help from home (my dad) and it should have a range of 2.5 to 3 miles (reliably).

Question is what wattage should the units be ?
Is there a formula for wattage to range conversion ?
Are US CB radios different from British ? (FM vs AM ?)
(There's certainly a difference in price.)

Thanks for any help you can give ... Ken mtdca!kwmc

1275. V31BB

Newsgroup: rec.ham-radio
Date: 1990-02-23 20:59:01 UTC
From: k3mc@APPLE.COM
Message-ID: <9002232059.AA12799@apple.com>
Source record: 13180

Yeah, I also heard this guy with his MFJ "Junk Net"

What bothers me is that my DX Callbook does not show any V31BB in it, although there are lots of other V31 stations, and that I *never* heard any other stations talking to him. Regardless of MFJ quality, is this guy a nut case, or what? Anybody got the scoop?

-Mike k3mc

1276. Re: RFI Problem

Newsgroup: rec.ham-radio
Date: 1990-02-23 23:40:45 UTC
From: kenw@col.hp.com
Message-ID: <4380072@col.hp.com>
Source record: 13181

There has been an ongoing discussion of consumer electronics-related rfi causes and cures back a few index pages. Look under the listings on 2/14/90 "NOISY NEIGHBOR". There are some good ideas to try.

Ken Wyatt WA6TTY
EMC Engineer, Hewlett-Packard Co.
Colorado Springs, CO

1277. Re: Helical Resonator Challenge

Newsgroup: rec.ham-radio
Date: 1990-02-24 01:07:16 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250124@hpnmdla.HP.COM>
Source record: 13182

Design info on helical resonators can be found in Reference Data for
Radio Engineers. (Howard W. Sams Co.)
In my old 5th edition(1972) it's in Chapter 22
Transmission Lines pp 22-28 to 22-30.

Al N1AL

1278. * SpaceNews 26Feb90 *

Newsgroup: rec.ham-radio
Date: 1990-02-24 02:04:15 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <187@ka2qhd.UUCP>
Source record: 13183
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0226

=========
SpaceNews
=========

MONDAY FEBRUARY 26, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on UseNet and Amateur Packet Radio. It is available for UNLIMITED distribution.

* SAREX-2 TESTING CONTINUES *
============================
Last week, the Shuttle Amateur Radio Experiment #2 (SAREX-2) packet radio station underwent extensive testing at the Marshall Space Flight Center in Huntsville, AL according AMSAT Area Coordinator Ed Stluka (W4QAU). This testing was being perfomed in conjuction with the training of STS-35 Payload Specialist Ron Parise (WA4SIR) in the use of the ASTRO-1 experiment which will be primary payload on that shuttle mission. The primary payload, ASTRO-1, will be used to conduct a number of astronomical experiments. During the several days of testing this week, radio amateurs in the Huntsville area were invited to connect to WA4SIR and to receive a QSO number.

This special packet radio station flying on STS-35 on May 9, 1990 will give each radio amateur who connects to WA4SIR a QSO number confirming their contact. When the connecting station sends their QSL card in with this contact number, they will receive back a beautiful QSL card commemorating this HAM IN SPACE shuttle flight. The SAREX-2 packet radio station consist of a Motorola 2M FM H/T with 5 watts ouput, a Heathkit HK-21 TNC-2, and a GRiD laptop computer that has a 40 MB hard disk drive to store the calls of all the stations connecting to WA4SIR during the nine day mission. The specially written software which will be running the SAREX-2 packet station is designed to allow for completely unattended operation and logging of the calls of all connecting stations. It will also prevent duplicate QSO numbers being sent! Although no digipeating will be allowed through SAREX-2, connecting to this packet station will be like any terrestrial packet contact. Just use your TNC along with your 2m tranceiver, and everything else is the same. After you have connected and received your QSL number from WA4SIR, on subsequent orbits you can watch for the SAREX-2 message beacons being sent periodically. The message beacons will contain information about the flight of STS-35 and other interesting items.

Look for more information about the SAREX-2 mission in AMSAT News Service (ANS) bulletins and on AMSAT HF/VHF nets in the next couple of months. For

more specific information about the ASTRO-1 payload, contact the SPACELINK BBS at (205) 895-0028.

[Story via AMSAT-NA News Service]

* MICROSAT OBJECT NUMBERS *
==========

The following are the corrected Object and Catalog numbers which apply to all MICROSAT/UoSAT element sets after orbit #260:

SATELLITE INT'L OBJECT CATALOG
NAME NUMBER NUMBER

UO-14 90-05B 20437
UO-15 90-05C 20438
AO-16 90-05D 20439
DO-17 90-05E 20440
WO-18 90-05F 20441
LU-19 90-05G 20442

* OSCAR-11 NEWS *
==========

Here's an actual computer status information message received from OSCAR-11:

UOSAT 2 COMPUTER STATUS INFORMATION

FAD1 Operating System v2.0b
Today's date is 24 /2 /90 (Saturday)
Universal Time is 1 :46 :27
Auto Mode is selected

SPIN PERIOD IS - 278

Z MAG firings = 0
+ SPIN firings = 33
- SPIN firings = 20
RAM Wash Pointer at D299
WOD commenced 24 /2 /90 at 0 :0 :10
with channels 10 ,11 ,19 ,29 ,
Last cmd was 109 TO 0 WITH DATA 0

Attitude control initiated, mode 1

Data collection in progress

Digitalker active

* FEEDBACK WELCOMED *
==========

Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z (Neptune, New Jersey)

MAIL : John A. Magliacane
Department of Electronics Technology
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738-1599
U.S.A.

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

1279. Whew!

Newsgroup: rec.ham-radio
Date: 1990-02-24 04:09:54 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Feb24.040954.2001@Neon.Stanford.EDU>
Source record: 13184

ESA, the European Space Agency, lost a 44-L booster yesterday, which was carrying two Japanese comsats to orbit. ESA has suspended use of the Four series until further notice.

Just glad we got the Microsats off before this happenned, let alone another Phase IIIa disaster...

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

1280. Ham PR (was Ham video, or something like that)

Newsgroup: rec.ham-radio
Date: 1990-02-24 08:14:39 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9002240814.AA12945@ucbvax.Berkeley.EDU>
Source record: 13185

I N T E R O F F I C E M E M O R A N D U M

Date: 23-Feb-1990 04:51pm HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL)

Subject: Ham PR (was Ham video, or something like that)

>Do I need a ham radio license?
>How do I go about getting one?
>What would such a license allow me to do/not do?
>Would the fact that I would be using this thing exclusively >few
> miles out at sea affect the requirement for a license?
>Are there similar requirements for broadcasting video in Mexican waters?
>And since I'm a novice on broadcasting, what type of video equipment
> would I need to accomplish this? (size, cost, power, etc.)
>
>Thanks in advance. And please e-mail, as like I said, I don't read this
>group. I'll post a summary if there is (e-mail) demand.
>--
>John H. Kim | (This space to be filled when I
>jokimarthur.Claremont.edu | think of something very clever
>uunet!muddcs!jarthur!jokim | to use as a disclaimer)

Well, here I go again. If we had *decent* public relations (i.e. advertising)),
then John wouldn't have had to ask at least questions 1-3. When are we
collectively going to realize that it's not whether or not we have a no-code
license that's going to "save ham radio" but rather public awareness of who we
are, what we do, and how important we are to the country! Hell, look at the
latest W5YI report. The FCC's newest commissioner, Sherrie Marshall, couldn't
even get the ARRL's name right. Maybe *that* will finally get the League to
spend some $$ on PR instead of the "Star Wars" W1AW (before you flame, yes, I
know it was financed with donations).

Jeff Miller, WD6CQV/KH6 | "Just because I'm a Californian,
USAF MARS: AFA8JM | it doesn't mean I'm not an
Chief, Engineering Workload Control | American!"
1843 EIG/EIP | -- Agnes DiPesto,
Wheeler AFB, HI 96854-6348 | "Moonlighting"
Commercial: (808) 656-1226 |
AUTOVON: (315) 456-1226 |

Opinions? Me? On government time? Ya gotta be kidding!

1281. Helical Resonator Challenge

Newsgroup: rec.ham-radio
Date: 1990-02-24 12:18:17 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9002261337.AA02092@ucbvax.Berkeley.EDU>
Source record: 13186

Regarding the front-end problems at OSU:
It sounds to me like you have problems both
with intermod and simple front-end overload
(padding 30 in front of the RX cleared up the problem
and you could still hear the TX).
Rather than helical resonator(s), which are a little
small at 450 MHz and thus hard to build by hand, I
would recommend a 1/4 wave cavity filter. You can
build one out of hardware store plumbing parts and
hobby brass tubing, plus a couple of connectors.
Nothing to it, and the cost should be about $2. It
ought to give you 30db out-of-band rejection.
- Mike Owen W9IP

1282. Heath HD4040 and ICOM IC-2AT

Newsgroup: rec.ham-radio
Date: 1990-02-24 18:48:42 UTC
From: jwhitson@wpi.wpi.edu
Message-ID: <9073@wpi.wpi.edu>
Source record: 13187
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Does anyone have any experience with this? The problem is
that in the way the PTT is on the ICOM 2AT, its not
compatible with the TNC's output.

My question is: who has done the correct interface as
reccommended by Heath (using 3:1 audio transformer),
and does the transformer have to be 3:1, or would an
ordinary 1:1 work? (I'd wind one, but I don't have
access to torodial cores.)

Thanks ....

--
---------- If at first you don't succeed, so much for skydiving ---------
John Whitson: Internet: jwhitson@wpi.wpi.edu Bitnet: jwhitson@wpi.bitnet
73's from KB2GNC/1 UUCP: uunet!wpi.wpi.edu!jwhitson
---------- Anything with this tag on it is purely my own opinion ---------

1283. New Numbers at WB3FFV Ham BBS!

Newsgroup: rec.ham-radio
Date: 1990-02-24 23:55:46 UTC
From: howardl@wb3ffv.ampr.org
Message-ID: <2736@wb3ffv.ampr.org>
Source record: 13188

Hello All,

I have just moved the wb3ffv ham bbs to a new location, so see the attached
information for the new dialup information...

+--+
HOW TO ACCESS THE WB3FFV AMATEUR RADIO TELEPHONE BBS !!!

I have placed a BBS system on-line that is mainly oriented towards the
Amateur Community (but there is other stuff on-line). As of now I have not
attempted to promote this system any place except in the amateur channels
(PACKET, USENET, & word of mouth), and will continue under this policy, as
I hope to keep it oriented toward amateur radio. The various software for
UP/DOWNload is available via telephone dialup and Packet TCP/IP, and through
user support I hope to keep the latest and greatest ham software on-line.
Below is the information that is needed in order to access the BBS via
Telephone -or- TCP/IP, please pass it around to as many ham's as possible.

System Name: WB3FFV
User Login: bbs
Number: (301)-625-0817 -- 1200 & 2400 (Non-MNP)
Number: (301)-625-9482 -- 1200 & 2400 (MNP5), 4800 & 9600 V.32 (V.42/MNP5)
Number: (301)-625-9663 -- 1200 & 2400 (MNP5), 9600 & 19200 (PEP)
Data Settings: 8 Bits, NO Parity, 1 Stop Bit
Times: 24hrs/365days (except for routine maintenance)
Software: XBBS (UNIX/Xenix Multiuser BBS)
IP Address: 44.60.0.1 {wb3ffv.ampr.org} [for FTP access on 145.550 mhz ONLY]
Misc. Info: Machine is an 80386 computer running UNIX V.3.2 and features 700
Meg of on-line storage. Most transfer protocols are available!!

I attempt to keep the latest and greatest HAM software on-line, and encourage
all to upload anything new that they come up with, as it is of benefit to all.
Here is a sample of a couple pieces of software that is available for DOWNLOAD:

KA9Q TCP/IP Software for the PC (Latest OFFICIAL release + TEST Versions)
KA9Q TCP/IP for the Atari-ST, MAC, & Amiga
KA9Q TCP/IP for UNIX based systems
KA9Q TCP/IP (The NOS release)
WA7MBL BBS for the PC (Versions 3.31, 4.31 & 5.12)
W0RLI BBS for the PC (Versions 6.xx, 7.xx, 8.xx, 9.xx, 10.xx)
MSYS BBS for the PC running KISS TNC's (Version 1.07)
Various BBS utilities and enhancements
Several MORSE CODE Tutors
TheNet software by NORD><LINK (Version 1.01)
Modifications for many HAM Rigs and Scanners
Digital Signal Processing software (DSP)

DX and contesting programs
ARRL Newsletters & Gateway
W5YI Electronic Edition

There is much more available on the BBS, and I don't want to waste a lot of PACKET BBS space trying to list it all, so if you are interested give it a call and see for yourself !!!

If you are interested in using UUCP to connect to the BBS, this can also be done as I support Anon-uucp. The login to the system is 'uucpanon', and there is NO password. The listing of avalible archives are stored in a file called 'FILES', and it is located in the /usr/spool/uucppublic. To retrieve the files listing just use the following command:

uucp wb3ffv!~/FILES /usr/spool/uucppublic

This will move a copy of my files listing into your uucppublic directory. If you have any questions or problems, feel free to contact me at one of the numbers/adresses below. Good Luck...

1284. vk2

Newsgroup: rec.ham-radio
Date: 1990-02-25 02:04:06 UTC
From: gws@n8emr.UUCP
Message-ID: <1439@n8emr.UUCP>
Source record: 13189

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 (1200/2400/19.2 telebit,8N1) |
============================================================

SB ALL @ ALLUSA $RTDX2302
RTTY DX Notes, 1of3, 2/23/90

RTTY DX Notes For Weekending 23rd February 1990
Part 1 of 3.
BID: $RTDX2302

During the week a packet station was seen on 14064 KHz, while another
has taken up residence on 14083 KHz. 21077 KHz has also received a
visit, but i believe that was to tell the W1AW code practice to "Get Off
My Frequency". One wonders what communications has been reduced to?

Our thanks this week go to I5FLN, JA1BLV, JG1NBD, OD5NG, TG9VT, UT5RP,
VK2EG, W1DA, and W6/G0AZT. Thanks chaps for your interest and help.

Bandpass:

Friday 16:
BV4VB 14084 at 0845Z FEC
CT3FF 14090 at 1101Z
KL7JAF/C6A 14071 at 2045Z QSL/Note
ZD8BOB 21086 at 2200Z

Saturday 17:
PZ1BS 14095 at 0135Z
TU2BB 14091 at 0652Z
4K2OT 14090 at 0840Z QSL
ES7FU 21086 at 1146Z
TA3B 21088 at 1148Z
UO5OK 21091 at 1151Z QSL/Note
UI8FM 21098 at 1206Z QSL
UG7GWH 21083 at 1412Z QSL
LY2BOK 21088 at 1445Z QSL
EA6MS 14085 at 1613Z
C56/6W6JX 28084 at 1650Z QSL
JX9CAA 14083 at 1735Z QSL
EA9JV 14084 at 1834Z

Sunday 18:
PJ2MI 28092 at 0015Z
TU2BB 14093 at 0105Z
VP8BFH 14095 at 0320Z
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ZS6PI 14090 at 0455Z
UO5OK 14090 at 0535Z
TI2US 14085 at 0540Z Note
C56/6W6JX 14090 at 0626Z
4K2OT 21090 at 0705Z
RA9AO 21086 at 0740Z
SV5ADM 28092 at 0845Z QSL
9H1EL 28082 at 0906Z QSL
BY1QH 21090 at 0908Z
5Z4TA 21080 at 0929Z
ES7FU 21086 at 0936Z
V85GA 14074 at 0940Z ARQ
VE8RCS 14089 at 1930Z Z2

Continued in part 2.
/EX
SB ALL @ ALLUSA $RTDX2402
RTTY DX Notes, 2of3, 2/23/90

RTTY DX Notes For Weekending 23rd February 1990
Part 2 of 3.
BID: $RTDX2402

Monday 19:
PJ2JP 14097 at 0035Z
UZ9CWW 14092 at 0050Z
D44BC 14087 at 0317Z
AH9AC 14093 at 0420Z
VK0JR 14079 at 0912Z QSL/ARQ
FK8BK 14074 at 0920Z ARQ
5V7DP 28090 at 1545Z
CU3CB 21094 at 1545Z
UG7GWH 14091 at 1735Z
HK0/N3JT 28085 at 1900Z
J28TY 14092 at 1936Z

Tuesday 20:
H44SH 21083 at 1019Z
PJ2WOL 21087 at 1729Z
GU0/KD7TT 14085 at 1740Z QSL
TZ6VV 21091 at 1840Z
UC1AWW 14084 at 1820Z
HK0/N3JT 14088 at 2328Z

Wednesday 21:
FR5ZD 14074 at 0430Z FEC
UY9YE 14086 at 0800Z
YB6NOD 14084 at 1455Z
UZ3UWA 14084 at 1540Z
JX9CAA 14083 at 1510Z
A41JR 14078 at 1546Z
SV5ADM 14088 at 2155Z

Thursday 22:
9K2EC 14074 at 0005Z ARQ
VP8BFH 14093 at 0015Z
RL8PYL 14087 at 0315Z
ZC4RF 14081 at 0614Z
RH0W/UA4LM 14094 at 0815Z
BV4VB 14089 at 0950Z

QSL Information:

KL7JAF/C6A QSL to Box 10079, Fairbanks, AK 99710.

4K2OT has a QSL manager of UB5KW.

UI8FM will QSL via Box 10, Andizhan, 710000, Uzbek, USSR.

UG7GWH to Box 111, Alushta 334270. USSR.

C56/6W6JX says to QSL to Box 200, Kaolac, Senegal.

JX9CAA to LA5NM or 8013 Jan Mayen, Norway.

SV5ADM cards to Box 464, GR-85100, Rhodes, Greece.

9H1EL via LA2OT.

VK0JR (Macquarie Island) to VK9NS.

GU0/KD7TT via Rue De Douzaine, St Peter Port, Guernsey, U.K.

Continued in part 3.
/EX
SB ALL @ ALLUSA $RTDX2502
RTTY DX Notes, 3of3, 2/23/90

RTTY DX Notes For Weekending 23rd February 1990
Part 3 of 3.
BID: $RTDX2502

Having problems with QSL for UO5OK? Try sending them via UT5RP. Dima can get the cards for you.

Notes of Interest:

KL7JAF/C6A will be in the Bahamas until the end of the month.

JH1LBR will sign T32LB from March 22nd until 27th.

IS0XV (Spratley) is still planned for 15th March through 30th March. If you wish to send donations we will advise you shortly. In case of cancellations all donations will be refunded.

OH2BH with some YV operators will be active from Aves Island (YV0) for one week about mid March. Martti will be going to Jarvis Island and Conway Reef later in the year.
JA3AUQ will be in 8Q7 (Maldives) from 27th February until 4th March.

RW3DX informs us that he will be going to Vietnam (3W) around the 13th of March, with UA3DK and UA3DZ. The calls will be 3W3DX, 3W3DK and 3W3DZ. QSL RW3DX to Box 145, Dubna, 141980 USSR, and UA3DK and UA3DZ via Box 45 Dubna 141980 USSR.

It is reported that all Russian amateurs who hold first category of radio station license will be permitted to use packet, SSTV and RTTY from March 1st without having to obtain prior permission as has been the case up until now.

EA9JV reports that the Western Saraha (SO) DXpedition is still on, and should appear around the first week of March with the callsigns of SO1EA, SO2EA, SO4EA and maybe SO1LYNX. QSL to The Lynx DX Club. EA9JV also says that he is trying for 7X for a one week stint after the Western Saraha operation. More later.

GL DE DX1 (VK2SG).

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/PEP) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1285. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-02-25 05:40:35 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9002261339.AA02311@ucbvax.Berkeley.EDU>
Source record: 13190

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #651 -
Alouette 1
1 00424U 62B-A 1 90 49.50739522 .00000176 00000-0 20256-3 0 2608
2 00424 80.4611 43.0727 0022273 216.2518 143.7103 13.67294553366476
ATS 1
1 02608U 66110 A 90 51.86237162 -.00000204 00000-0 99999-4 0 1099
2 02608 13.4436 14.6802 0005843 255.4378 104.5483 1.00389060 1388
ATS 3
1 03029U 67111 A 90 50.93793706 -.00000075 00000-0 99999-4 0 2937
2 03029 13.0578 22.1730 0032036 199.6822 160.3072 1.00272408 81626
Cosmos 398
1 04966U 71 16 A 90 50.98395242 .00025172 16803-4 15495-3 0 5785
2 04966 51.5381 168.5227 2366861 289.7650 46.4367 10.85690858578853
Starlette
1 07646U 75010 A 90 50.72287824 -.00000054 00000-0 53998-5 0 125
2 07646 49.8251 261.9714 0206474 163.2409 197.5440 13.82130281759530
LAGEOS
1 08820U 76039 A 90 49.41237959 .00000003 00000-0 00000 0 0 55
2 08820 109.8635 314.4459 0044679 263.5566 96.0061 6.38664448 66356
GOES 2
1 10061U 77048 A 90 46.00000000 -.00000258 00000-0 99999-4 0 3633
2 10061 7.7624 65.4409 0000805 193.4731 191.6728 1.00264670 7811
GPS-0001
1 10684U 78020 A 90 49.26722362 .00000008 00000-0 99999-4 0 3270
2 10684 63.6543 93.2278 0116277 199.2899 160.3272 2.00557131 73465
GPS-0002
1 10893U 78 47 A 90 50.23356658 -.00000026 00000-0 00000 0 0 987
2 10893 64.4379 334.0603 0162021 25.7076 335.1238 2.00549132 86302
GOES 3
1 10953U 78062 A 90 47.14404981 .00000086 00000-0 99999-4 0 8163
2 10953 6.6425 67.9654 0006417 253.8525 106.2050 1.00280854 3384
SeaSat 1
1 10967U 78064 A 90 49.02606463 .00000472 00000-0 20749-3 0 2358
2 10967 108.0197 74.3019 0002501 239.1761 120.9161 14.35417458609357
GPS-0003
1 11054U 78093 A 90 45.04811199 -.00000025 00000-0 00000 0 0 1640
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2 11054 63.9829 330.5682 0056165 117.6506 242.9586 2.00565837 83212
Nimbus 7
1 11080U 78098 A 90 46.23034806 .00000060 00000-0 70472-4 0 6321
2 11080 99.2026 313.8734 0009779 51.5494 308.6557 13.83395456571171
GPS-0004
1 11141U 78112 A 90 50.62866880 .00000008 00000-0 00000 0 0 2692
2 11141 63.6819 93.0923 0059436 316.8517 42.7533 2.00563227 82020
NOAA 6
1 11416U 79 57 A 90 49.10834964 .00000623 00000-0 27425-3 0 9712
2 11416 98.5208 44.3455 0012777 108.8469 251.4077 14.26480011552951
GPS-0005
1 11690U 80 11 A 90 50.26876934 .00000010 00000-0 00000 0 0 9064
2 11690 64.1330 95.0999 0144366 198.4554 160.9414 2.00555588 87870
GPS-0006
1 11783U 80 32 A 90 49.08682440 -.00000025 00000-0 00000 0 0 423
2 11783 63.7583 330.0205 0146556 60.4186 301.0606 2.00573439 71938
GOES 4
1 11964U 80 74 A 90 46.73288440 -.00000050 00000-0 00000 0 0 1341
2 11964 6.1256 70.6580 0030373 107.7644 252.7270 0.99231736 4441
GOES 5
1 12472U 81049 A 90 48.99247081 -.00000242 00000-0 99999-4 0 8244
2 12472 3.1761 77.2953 0001376 222.5361 137.7015 1.00258875 31056
DE 1
1 12624U 81 70 A 90 47.82306354 .00000007 00000-0 -80514-4 0 3288
2 12624 89.0965 148.9947 6226668 322.3147 7.2508 3.51027566257892
SME
1 12887U 81100 A 90 50.62730641 .00028929 00000-0 68162-3 0 4912
2 12887 97.6538 91.6245 0003425 86.2426 273.9217 15.41886017463101
Meteor 2-08
1 13113U 82 25 A 90 42.50192992 .00000146 00000-0 12100-3 0 6915
2 13113 82.5368 228.5151 0016361 108.2363 252.0567 13.84131568398341
Salyut 7
1 13138U 82 33 A 90 50.77851650 .00060794 00000-0 90186-3 0 573
2 13138 51.6049 174.6052 0000193 257.2862 102.8397 15.54631318446532
Cosmos 1383
1 13301U 82 66 A 90 41.91927579 .00000125 00000-0 13626-3 0 5358
2 13301 82.9275 33.3088 0028059 145.6506 214.6469 13.67798968380411
LandSat 4
1 13367U 82 72 A 90 50.43085336 -.00000107 00000-0 -18640-4 0 2362
2 13367 98.1800 115.1907 0003560 122.1733 237.9817 14.57123697404151
Meteor 2-09
1 13718U 82116 A 90 48.40526717 .00000272 00000-0 13720-3 0 8571
2 13718 81.2412 41.6137 0057111 22.3608 338.0031 14.13447204370196
IRAS
1 13777U 83 4 A 90 47.53486250 .00000015 00000-0 22703-4 0 7175
2 13777 99.0302 246.1513 0011758 3.3342 356.7889 13.98732050 30073
Cosmos 1447
1 13916U 83 21 A 90 49.57206005 .00000095 00000-0 94414-4 0 6752
2 13916 82.9469 99.7629 0039752 108.9157 251.6320 13.74009536346380
TDRS 1
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1 13969U 83 26 B 90 48.99406120 -.00000208 00000-0 00000 0 0 9281
2 13969 4.1854 66.8163 0006157 254.7035 105.4132 1.00268072 91885
GOES 6
1 14050U 83 41 A 90 50.18192614 .00000111 00000-0 00000 0 0 737
2 14050 1.9419 79.6549 0000973 241.2116 119.0889 1.00288864 9082
OSCAR 10
1 14129U 83 58 B 90 49.80793411 .00000000 00000-0 00000 0 0 4563
2 14129 25.9253 218.0969 5995939 119.7301 312.5438 2.05881409 22299
GPS-0008
1 14189U 83 72 A 90 49.67954397 .00000008 00000-0 99999-4 0 7079
2 14189 63.3020 91.6085 0142290 217.4355 141.6354 2.00560503 48381
Meteor 2-10
1 14452U 83109 A 90 49.46215039 .00000419 00000-0 17384-3 0 8189
2 14452 81.1623 46.6676 0095811 106.4279 254.7466 14.22586129327553
LandSat 5
1 14780U 84 21 A 90 50.25169564 -.00000621 00000-0 -13286-3 0 509
2 14780 98.1344 112.2983 0002416 170.3768 189.7478 14.57138227317546
UoSat 2
1 14781U 84 21 B 90 48.23455094 .00001437 00000-0 27754-3 0 6146
2 14781 97.9657 104.6500 0011868 270.7010 89.2792 14.64885067318405
GPS-0009
1 15039U 84 59 A 90 50.73671743 .00000007 00000-0 00000 0 0 8126
2 15039 63.0501 90.7833 0017893 235.5134 124.3886 2.00562441 41681
Cosmos 1574
1 15055U 84 62 A 90 48.72148484 .00000116 00000-0 11329-3 0 8250
2 15055 82.9596 150.3703 0026544 298.3296 61.5184 13.73325691283677
Meteor 2-11
1 15099U 84 72 A 90 49.73876473 .00000151 00000-0 12683-3 0 9969
2 15099 82.5317 170.2710 0011979 268.7096 91.2691 13.83787985284219
GPS-0010
1 15271U 84 97 A 90 50.13357525 -.00000026 00000-0 00000 0 0 7502
2 15271 63.2775 329.6171 0105526 324.9700 34.3698 2.00572167 38780
Cosmos 1602
1 15331U 84105 A 90 46.19825826 .00002246 00000-0 31207-3 0 1713
2 15331 82.5379 113.9127 0024352 15.7534 344.4349 14.77302725290071
NOAA 9
1 15427U 84123 A 90 46.50090442 .00000303 00000-0 18528-3 0 4819
2 15427 99.1635 43.5375 0015178 354.4157 5.6823 14.12433938266806
Meteor 2-12
1 15516U 85 13 A 90 48.57766576 .00000271 00000-0 23300-3 0 1561
2 15516 82.5360 109.5781 0017584 142.9281 217.3098 13.84281332255004
Cosmos 1686
1 16095U 85 86 A 90 50.71420610 .00085971 00000-0 12688-2 0 5019
2 16095 51.6046 174.9280 0000430 9.6365 350.3189 15.54622638247624
GPS-0011
1 16129U 85 93 A 90 49.79765429 .00000008 00000-0 00000 0 0 4144
2 16129 63.8151 91.6717 0121346 150.4122 210.3524 2.00560309 31981
Meteor 3-1
1 16191U 85100 A 90 48.53696332 .00000043 00000-0 99999-4 0 8940
2 16191 82.5439 62.2770 0021297 50.2786 310.0210 13.16895091207812
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Meteor 2-13
1 16408U 85119 A 90 48.94458337 .00000177 00000-0 14893-3 0 5705
2 16408 82.5321 24.1159 0016201 337.8310 22.2136 13.84293209209557
Mir
1 16609U 86 17 A 90 51.19242889 .00073077 00000-0 94720-3 0 4154
2 16609 51.6165 199.5967 0017968 186.0425 173.9541 15.58009056229834
SPOT 1
1 16613U 86 19 A 90 49.69902641 -.00000002 00000-0 81106-5 0 7688
2 16613 98.7127 125.8676 0001457 144.2367 215.8840 14.20019482 47114
Meteor 2-14
1 16735U 86 39 A 90 48.96180480 .00000086 00000-0 71788-4 0 3550
2 16735 82.5332 51.0584 0015998 46.0421 314.2055 13.84046144188450
Cosmos 1766
1 16881U 86 55 A 90 50.69401799 .00002061 00000-0 28893-3 0 8662
2 16881 82.5252 168.9234 0022633 17.0177 343.1795 14.76921695191803
EGP
1 16908U 86 61 A 90 39.33458006 -.00000015 00000-0 20168-3 0 1680
2 16908 50.0103 292.1270 0010555 226.9308 133.0642 12.44384985158814
FO-12
1 16909U 86 61 B 90 23.89068611 -.00000025 00000-0 99999-4 0 1785
2 16909 50.0168 339.9003 0011453 184.7940 175.2781 12.44403507156880
NOAA 10
1 16969U 86 73 A 90 50.05362234 .00000457 00000-0 21774-3 0 3415
2 16969 98.6144 80.5857 0012545 254.7412 105.2379 14.23458098177804
Meteor 2-15
1 17290U 87 1 A 90 48.20138092 .00000254 00000-0 21994-3 0 3332
2 17290 82.4705 317.2395 0012346 303.6621 56.3361 13.83857857157501
MOS-1
1 17527U 87 18 A 90 49.64425687 .00000590 00000-0 46504-3 0 4092
2 17527 99.1199 123.6668 0001076 90.0032 270.1284 13.94855680152733
GOES 7
1 17561U 87 22 A 90 42.90528454 -.00000044 00000-0 99999-4 0 4152
2 17561 0.0542 231.1025 0003401 270.3515 218.5433 1.00271011 4168
Kvant-1
1 17845U 87 30 A 90 50.80756608 .00051193 00000-0 66808-3 0 22
2 17845 51.6217 201.5245 0017594 182.5636 177.3845 15.57986836165820
DMSP B5D2-3
1 18123U 87 53 A 90 50.23500452 .00000383 00000-0 22185-3 0 4825
2 18123 98.8203 242.4029 0014796 2.4477 357.6766 14.13867421137739
RS-10/11
1 18129U 87 54 A 90 49.95895744 .00000409 00000-0 43844-3 0 415
2 18129 82.9234 55.8728 0013442 87.4289 272.8445 13.72060837133239
Meteor 2-16
1 18312U 87 68 A 90 49.00820383 .00000218 00000-0 18868-3 0 3720
2 18312 82.5515 24.7448 0010475 227.5488 132.4781 13.83599916126509
Meteor 2-17
1 18820U 88 5 A 90 48.72052619 .00000162 00000-0 13485-3 0 2012
2 18820 82.5429 85.4362 0015792 304.8082 55.1585 13.84294040103657
DMSP B5D2-4
1 18822U 88 6 A 90 50.22124689 .00000433 00000-0 21578-3 0 3980
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2 18822 98.6648 291.5932 0005670 252.5358 107.5198 14.21267872106067
AO-13
1 19216U 88 51 B 90 41.42885779 -.00000159 00000-0 99999-4 0 733
2 19216 57.0308 169.3778 6891138 220.8787 59.0778 2.09703020 12748
OKEAN 1
1 19274U 88 56 A 90 50.90764815 .00001795 00000-0 25427-3 0 6525
2 19274 82.5153 267.3485 0022927 142.1539 218.1345 14.76379622 87614
Meteor 3-2
1 19336U 88 64 A 90 50.35014802 .00000391 00000-0 99999-3 0 3743
2 19336 82.5152 0.7635 0016067 251.4135 108.5220 13.16879183 75444
NOAA 11
1 19531U 88 89 A 90 47.23939277 .00000387 00000-0 23411-3 0 1987
2 19531 98.9694 355.5157 0011087 264.9765 95.0160 14.11446144 71901
TDRS 2
1 19548U 88 91 B 90 47.07025094 .00000130 00000-0 99999-4 0 747
2 19548 0.0232 126.0249 0002137 189.4132 44.5369 1.00269566 4236
Cosmos 2001
1 19796U 89 11 A 90 50.05365820 -.00001020 00000-0 99999-3 0 3620
2 19796 63.0148 108.0683 7143483 319.7849 5.0946 2.00595865 7431
GPS BII-01
1 19802U 89 13 A 90 35.34513610 .00000016 00000-0 99999-4 0 684
2 19802 55.0712 202.6476 0060751 157.6649 202.5881 2.00560950 7084
Akebono
1 19822U 89 16 A 90 50.53909117 .00029038 00000-0 18521-2 0 4463
2 19822 75.1306 295.9509 4212593 296.3505 26.7735 7.05145308 25102
Meteor 2-18
1 19851U 89 18 A 90 48.08266076 .00000189 00000-0 16080-3 0 1512
2 19851 82.5210 324.1541 0014841 348.1753 11.9104 13.83933378 48953
TDRS 3
1 19883U 89 21 B 90 45.71262869 -.00000235 00000-0 99999-4 0 540
2 19883 0.0420 275.5431 0004258 356.2517 88.1551 1.00272821 2667
GPS BII-02
1 20061U 89 44 A 90 51.48309270 -.00000031 00000-0 00000 0 0 504
2 20061 54.7073 20.5658 0082028 172.4480 187.6808 2.00563796 5156
Nadezhda
1 20103U 89 50 A 90 48.85460296 .00000079 00000-0 77837-4 0 789
2 20103 82.9596 12.9559 0038771 12.9697 347.2448 13.73560741 31337
GPS BII-03
1 20185U 89 64 A 90 52.44987690 .00000016 00000-0 99999-4 0 410
2 20185 54.9339 202.8419 0026790 142.1692 217.9865 2.00563434 3745
Soyuz TM-8
1 20218U 89 71 A 90 49.78131967 .00016618 00000-0 22296-3 0 1653
2 20218 51.6150 206.6764 0018210 178.1172 182.1942 15.57896318 25820
Activnyi
1 20261U 89 80 A 90 53.78262757 .00001530 00000-0 48407-3 0 2995
2 20261 82.6019 301.1784 1258944 236.9196 110.5075 12.43250986 18370
Activnyi RB
1 20262U 89 80 C 90 46.06162671 .00000647 00000-0 20139-3 0 1374
2 20262 82.6003 306.0857 1260784 254.4323 91.4363 12.42963906 17414
Magion 2
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1 20281U 89 80 B 90 53.77110694 .00001887 00000-0 59449-3 0 3116
2 20281 82.5996 301.1527 1259058 236.9063 110.4974 12.43414696 18377
GPS BII-04
1 20302U 89 85 A 90 24.26182608 -.00000030 00000-0 99999-4 0 405
2 20302 54.7308 322.9201 0039138 309.5421 50.1182 2.00572809 1868
Meteor 3-3
1 20305U 89 86 A 90 48.99344204 .00000035 00000-0 79880-4 0 521
2 20305 82.5545 302.0754 0015034 268.6985 91.2418 13.15850265 15275
COBE
1 20322U 89 89 A 90 53.57195001 .00004624 00000-0 30907-2 0 525
2 20322 99.0255 65.0376 0007029 330.4779 29.6034 14.01305595 13437
Kvant-2
1 20335U 89 93 A 90 52.73178126 .00084370 00000-0 10823-2 0 1207
2 20335 51.6203 191.8732 0018413 190.1412 170.0377 15.58213156 13723
GPS BII-05
1 20361U 89 97 A 90 46.49108412 .00000016 00000-0 99999-4 0 147
2 20361 54.9563 145.1519 0064539 44.0979 316.4336 2.00576495 1287
Progress M2
1 20373U 89 99 A 90 39.96519137 .00040609 00000-0 54269-3 0 643
2 20373 51.6179 255.8868 0019612 143.3281 216.8138 15.57412172 6997
Cosmos 2053
1 20389U 89100 A 90 37.69776942 -.00009522 00000-0 -52566-3 0 841
2 20389 73.5350 12.9155 0009246 142.4199 217.7513 15.13845107 6312
1989 100B
1 20390U 89100 B 90 37.89506855 .00003174 00000-0 17917-3 0 452
2 20390 73.5364 12.4933 0008510 140.5643 219.6170 15.13676726 6346
Cosmos 2054
1 20391U 89101 A 90 36.43219190 -.00000113 00000-0 99999-4 0 683
2 20391 1.4298 273.9944 0013700 184.1560 176.3791 1.00219912 420
1989 101D
1 20394U 89101 D 90 28.80723554 -.00000044 00000-0 99999-4 0 179
2 20394 1.4580 273.7841 0010326 45.7172 314.6587 0.98249334 330
Skynet 4A
1 20401U 90 34.46985689 0.00000105 0 342
2 20401 3.3785 303.9369 0021714 52.1684 308.2156 1.00597179 216
JCSAT
1 20402U 90 1 B 90 37.19418073 -.00000138 00000-0 99999-4 0 218
2 20402 0.2478 260.8796 0002589 13.7330 85.3249 1.00270543 340
1990 001D
1 20404U 90 38.32261194 0.00002626 17207-2 0 331
2 20404 21.5429 270.3906 7209065 196.3238 114.5390 2.34605795 883
1990 001F
1 20406U 90 38.86337825 0.00007184 19135-2 0 300
2 20406 26.7137 254.6073 5866581 226.3657 66.9195 4.22382468 1597
LEASAT 5
1 20410U 90 44.00498078 0.00000071 10000-3 0 239
2 20410 3.3547 323.2542 0123328 185.1682 174.8531 1.00284836 283
1990 002C
1 20411U 90 46.13646292 0.00006624 15573-2 0 373
2 20411 27.1943 95.8363 5238158 60.6639 341.5665 5.20564091 1847
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Cosmos 2056
1 20432U 90 48.61316750 0.00000331 13772-3 0 216
2 20432 74.0360 264.2249 0024233 282.9758 76.8658 14.29717088 4288
1990 004B
1 20433U 90 51.16735862 0.00000442 17528-3 0 238
2 20433 74.0347 259.4384 0036366 290.2242 69.5000 14.31252170 4661
SPOT 2
1 20436U 90 5 A 90 52.69361018 .00000552 00000-0 27739-3 0 465
2 20436 98.7181 128.7943 0000877 94.4633 265.6624 14.20028468 4354
UO-15
1 20437U 90 5 B 90 51.20925581 .00000136 00000-0 62595-4 0 191
2 20437 98.7074 127.6262 0011863 133.4472 226.7691 14.28489200 4164
AO-16
1 20438U 90 5 C 90 52.26456850 .00000223 00000-0 10547-3 0 182
2 20438 98.7128 128.6765 0010460 127.9180 232.2949 14.28268284 4312
UO-14
1 20439U 90 5 D 90 51.27752383 .00000336 00000-0 14993-3 0 200
2 20439 98.7160 127.7169 0011872 133.0620 227.1560 14.28579197 4176
DO-17
1 20440U 90 5 E 90 52.25739911 .00000417 00000-0 18177-3 0 111
2 20440 98.7153 128.6947 0011993 130.0555 230.1712 14.28613842 4317
WO-18
1 20441U 90 5 F 90 53.23543324 .00000543 00000-0 23195-3 0 129
2 20441 98.7114 129.6772 0012817 128.9972 231.2353 14.28729505 4459
LO-19
1 20442U 90 5 G 90 51.20312279 .00000349 00000-0 15461-3 0 163
2 20442 98.7143 127.6484 0012798 133.6862 226.5403 14.28793437 4165
Ariane RB
1 20443U 90 47.11760523 0.00000341 14765-3 0 239
2 20443 98.6136 123.3651 0012081 122.4540 237.7812 14.30158961 3572
1990 006A
1 20444U 90 51.45081371 0.00000318 11947-2 0 321
2 20444 62.8085 110.8756 7373982 288.1832 9.4361 2.00663984 588
1990 006B
1 20445U 90 52.10581244 0.05530393 41231-4 13387-2 0 567
2 20445 62.8035 4.8083 0071469 124.1586 236.6420 16.21856451 4565
1990 006C
1 20446U 90 47.39633712 0.00000368 74758-3 0 283
2 20446 62.8305 111.3944 7323218 288.1118 9.7051 2.06386089 509
1990 006D
1 20447U 90 46.18458433 0.17566679 43231-4 28811-3 0 596
2 20447 62.8070 26.9687 0044137 116.7309 243.8196 16.42602277 3638
1990 005C
1 20450U 90 49.67030172 0.00181920 -19189-5 16565-2 0 439
2 20450 37.6783 240.9912 6005396 220.7886 73.8632 4.14286423 1022
GPS BII-06
1 20452U 90 8 A 90 49.69577892 -.00000001 00000-0 99999-4 0 188
2 20452 54.6448 260.8045 0035459 56.6684 303.7177 2.00568365 465
1990 008B
1 20453U 90 50.59057152 0.00005710 69074-3 0 264
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2 20453 35.6431 123.9630 0591705 329.0175 27.6846 14.04532218 3619
Cosmos 2057
1 20457U 90 52.23151565 0.01043038 39648-4 28766-3 0 718
2 20457 62.8198 227.7542 0142862 83.0718 278.5553 16.06866312 4269
Cosmos 2058
1 20465U 90 52.05250576 0.00002655 40114-3 0 264
2 20465 82.5082 306.3255 0022850 201.4816 158.5500 14.73794878 3181
1990 010B
1 20466U 90 45.26021098 0.00000642 95831-4 0 143
2 20466 82.5079 312.6008 0021810 228.6569 131.2765 14.74031997 2171
PRC-26
1 20473U 90 51.31116488 -.00000264 10000-3 0 215
2 20473 0.1349 287.4751 0000705 25.9820 46.5249 1.00278941 166
1990 011B
1 20474U 90 47.47771697 0.00000300 10000-3 0 71
2 20474 30.6531 302.4229 7266392 186.0195 153.9799 2.29817620 240
1990 012A
1 20476U 90 52.24738053 0.00317911 15957-4 90940-3 0 479
2 20476 65.8335 332.0991 1337803 142.1518 228.3012 13.14891934 1906
1990 012B
1 20477U 90 52.19431037 0.00658183 16489-4 12983-2 0 498
2 20477 65.8503 331.9687 1314106 141.4242 228.8578 13.23544490 1905
MOS-1B
1 20478U 90 13 A 90 53.75691501 -.00001487 00000-0 -10943-2 0 380
2 20478 99.0783 124.4428 0001392 105.8840 254.2514 13.94896401 2184
1990 013B
1 20479U 90 48.40043158 0.00000082 23413-3 0 163
2 20479 99.0572 117.4505 0540638 319.8437 36.3860 12.83148122 1380
FO-20
1 20480U 90 13 C 90 51.05171303 .00000043 00000-0 14720-3 0 133
2 20480 99.0564 119.6010 0540924 313.8798 41.8821 12.83113740 1724
1990 013D
1 20491U 90 51.16431799 0.00000521 10330-2 0 123
2 20491 99.0588 120.0628 0470220 305.4732 50.3354 13.02725720 1162
Soyuz TM-9
1 20494U 90 14 A 90 52.86006247 .00035097 00000-0 45724-3 0 273
2 20494 51.6142 191.2237 0017892 188.7671 171.4805 15.58199610 1664
1990 015A
1 20496U 90 50.04132131 0.00006565 42405-3 0 103
2 20496 43.0970 250.9595 0013257 333.3163 26.7001 15.08712173 664
1990 015B
1 20497U 90 50.88617680 0.00014260 44733-3 0 122
2 20497 43.1065 245.8919 0014535 298.5537 61.3864 15.32798445 813
1990 015C
1 20498U 90 50.73915292 0.00039655 10077-2 0 80
2 20498 41.6388 246.8988 0042308 171.3489 188.8084 15.37978470 794
Raduga 25
1 20499U 90 51.12592207 0.00000040 10000-3 0 119
2 20499 1.5485 275.6428 0034526 92.7558 267.0972 0.99714031 51
1990 016D
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1 20502U 90 16 D 90 50.10153986 -.00000083 00000-0 99999-4 0 40
2 20502 1.4816 272.8952 0037508 64.5245 293.9664 1.00015093 69
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

1286. ACC's RC-850 repeater controller, bugs, mods, and support

Newsgroup: rec.ham-radio
Date: 1990-02-25 06:36:35 UTC
From: mikey@pnet01.cts.com
Message-ID: <1650@crash.cts.com>
Source record: 13191

I am sysop on a 220 Mhz repeater in San Diego County. We have had the Advanced Computer Control's RC-850 repeater controller online since 1987. I'm
looking for anyone with experience with the same controller. I have found numerous bugs with the firmware and would like to discuss mutual problems.

We started with firmware version 3.41 and upgraded to 3.42 as soon as it was released. The revision was nice in many respects but somewhat clunky in
others. We are runnings the 850 with the voice option, no DVR, UF functions in latched, 3 remote bases, control receiver, home-brew autopatch at the site
and 1 remote auto-patch using firmware support of REMOTE PHONE 1.
Overall, we have been very pleased with system even with some of it's short-commings. I have talked to ACC by phone a few times about the clunker bugs,
but they were'nt to concerned by them and, I doubt, that they even logged them for fixes in later releases.

I would now be interested in a MS-DOS based controller with voice support. Anybody want to comment on this aspect of computer-controlled Ham repeaters.

Thanks, 73's

...Mike

____
| | President, Muth Valley Flood Control Dist
| Mike Shirley, WB6WUI |
| PO Box 460 | UUCP: {nosc, ucsd)!crash!pnet01!mikey
| Lakeside, CA 92040-0460 | INET: mikey@pnet01.cts.com
|_____________________________|

SLIC as snot, but the communication path is better...

1287. Fujitsu-Ten 16 ch UHF commercial Transceiver mod help

Newsgroup: rec.ham-radio
Date: 1990-02-25 07:56:08 UTC
From: mikey@pnet01.cts.com
Message-ID: <1657@crash.cts.com>
Source record: 13192

From pnet03!mikey Sat Feb 24 20:11:48 1990
Date: Sat, 24 Feb 90 18:04:39 PST
From: mikey@pnet03.cts.com (Mike Shirley__Wb6wui)
To: pnet01!mikey
Subject: msg

I have a Fujitsu Ten 450-470 commercial tranceiver (model # FTM40-3092H). This is a 16 channel scanning synthesized mobile radio.
I'm looking for a way to be able to program the radio down into the ham band. It currently on 453 Mhz. I have the programming prom for the radio and, of
course, it will not allow entry of freqs below 450. I called Fujitsu and you can guess what their response was after they figured out that I had a
programming prom. So here I am. This is a nice radio and I only have limited use of it in the commercial segment. If anyone knows any way to get around
the programming restriction, I'd appreciate any responses.

==========

Mike Shirley, WB6WUI
PO Box 460
Lakeside, CA 92040-0460

UUCP: {hplabs!hp-sdd ucsd nosc}!crash!pnet01!mikey
ARPA: crash!pnet01!mikey@nosc.mil
INET: mikey@pnet01.cts.com

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_____________________________
| | President, Muth Valley Flood Control Dist
| Mike Shirley, WB6WUI |
| PO Box 460 | UUCP: {nosc, ucsd)!crash!pnet01!mikey
| Lakeside, CA 92040-0460 | INET: mikey@pnet01.cts.com
|_____________________________|
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SLIC as snot, but the communication path is better...

1288. Re: Ham PR (was Ham video, or something like that)

Newsgroup: rec.ham-radio
Date: 1990-02-25 12:03:08 UTC
From: jay@splut.conmicro.com
Message-ID: <1_.+
Source record: 13193

In article <9002240814.AA12945@ucbvax.Berkeley.EDU> 1843eie@HICKAM-EMH.AF.MIL ("1843 EIG/EIE") writes:
>When are we
>collectively going to realize that it's not whether or not we have a no-code
>license that's going to "save ham radio" but rather public awareness of who we
>are, what we do, and how important we are to the country!

Not until the no-coders have their way, have successfully joined up with the FCC in jamming no-code down our throats, and the bands are overrun with the "freebanders" instead of the technical whizzes they comtinuously hold out as the no-code ideal - in short, after it kills ham radio - will that dawn on them. Unfortunately, it'll be too late.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
{attctc,bellcore}!texbell!splut!jay +--
Free the DC-10!

1289. INFO-HAMS STATISTICS ???

Newsgroup: rec.ham-radio
Date: 1990-02-25 13:12:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9002261404.AA03742@ucbvax.Berkeley.EDU>
Source record: 13194

Does anyone know of statistics concerning users of INFO.HAMS ???

It would be interesting to know the following info. :

1. How many are on the mailing list.
2. Breakdown by state/country
3. Breakdown by institution (University, Government, Military, Industry)
4. How many links to local BBS's

etc...

73's to all,
4X1DA @4Z4SV
RICHARD HAREL

1290. Re: P. Howard's Proposed Licensing Stru

Newsgroup: rec.ham-radio
Date: 1990-02-25 13:51:54 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500426@ux1.cso.uiuc.edu>
Source record: 13195

> Phil Howard has just proposed a new ham licensing structure.
> He claims that it contains ONLY FOUR license classes, but then provides for
> FOUR levels of code proficiency within each class.

I am using the FCC's concepts. They have 4 classes and at least 5 "class
combinations". I am only extending the concept they started.

> If I had to enter these classes into a data base, I would find that there are
> SIXTEEN different combinations. To my mind, Phil has proposed a structure
> with SIXTEEN CLASSES, NOT FOUR. I see no diference between endorsements and
> additional classes. They both result in a record-keeping zoo.

Yes, this is correct. The FCC is going to have some sort of zoo on their
hands no matter what is done UNLESS they abandon incentive licensing now.

> You may note my recent proposal which resulted in REALLY only four classes,
> which some of you might want to increase to five to allow a "low-tech
> with CW" entry path.
>
> My classes were:
> Extra (as at present)
> Basic (13 wpm CW, present General AND Advanced, with Advanced privileges)
> Technician (Same theory as Communicator, but with 5 wpm code)
> Communicator (No code, moderate theory)
> to which you COULD add
> Novice (5 wpm, simple theory, non-renewable)
>
> I proposed that all Novice tickets expire in the year 2000,
> and that the class be dropped - figuring that Communicator-class theory would
> be simple enough to not present a problem to anyone over 10-12 years of age.
> I'm not sure that one can make a strong case for NEEDING even younger hams.
> My boss of many years got his ham ticket at the age of 8, back around 1930,
> when the CW requirement was 10 wpm (I think), and the theory test was essay-
> style .... but he is outstandingly smart, and was likely the youngest ham at
> the time. BTW, there were no other technical people (or hams) in his family.
>
> I DON'T THINK WE NEED AN EVEN MORE COMPLEX LICENSING STRUCTURE. MOST COUNTRIES
> GET BY WITH FEWER CLASSES THAN THE US.

True. And we don't need much more than 2 levels. However as long as we have
incentive licensing, and those who now have "turf" they will surely want to
protect, we have a big hairy ball of wax on HF.

However, we do need to have a VHF-up class that has ALL privileges above
30 Mhz. I mean ALL as in NO EXCEPTIONS. There is NO REASON that CW should
be required for access to 6 meters or 2 meters, nor for a maximum of 1500

watts, nor for repeater/beacon/auxiliary control op privileges, when some other VHF-up privileges don't require it. All the stated reasons for a no-code license apply to ALL privileges above 30 Mhz.

What I tried to come up with was a way to get that in there.

Bob's suggestion is a good one; don't get me wrong. It is worth writing your comments to the FCC (re: 90-55) and suggesting. I put forth yet another such proposal. You should suggest any or all that you feel are worth suggesting.

I would be satisfied with the only VHF-only class having ALL privileges above 30 Mhz, but I MUST INSIST that the exam for it be NON-trivial. It should have no less than 250 questions from a pool of 2500. However such a license class is more appropriate for the techno-nerds who use 1500 watts, work EME, and are repeater ops, than for "public service" and other kinds of people. The latter group can live with 200 watts and no repeater op privs. They should get access to 2 meters, though. THIS IS WHY ULTIMATELY WE DO NEED TWO CLASSES OF NOCODE LICENSE (though 2 is the maximum needed).

LET TECHNICIAN BE A NOCODE LICENSE CLASS, TOO !!

That leaves 4 more classes in the FCC database. I invite other ideas on how to arrange and structure the classes. If we limit ourselves to just THREE levels of HF privileges, then we can cross combine the possibilities (2x3) and have 6. However, General and up should have all VHF privs anyway, so the numbers are less, still. Try working it out for yourself. BE SURE TO LEAVE NOTHING OUT, or else suggest that it be abandoned (and why) if you do.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1291. Re: Helical Resonator Challenge

Newsgroup: rec.ham-radio
Date: 1990-02-25 18:48:06 UTC
From: michael@fe2o3.UUCP
Message-ID: <319@fe2o3.UUCP>
Source record: 13196

In article <5710006@hpcvra.CV.HP.COM> gregm@hpcvra.CV.HP.COM (Greg May) writes:
>
> Helical Resonator Question......
>
>
>Now, the challenge for those who dare... Does anyone have information where
>I can get my hands on some articles to educate ourselves on these resonators.
>They sound interesting. I have one article but feel that I am still in the dark
>about the building technique. I think this would be the perfect opportunity
>for another club project.
>
>Any other ideas of what to try...???
>
Artech House Books. (1-800-225-9977) publish:
"Filters with Helical and Folded Helical Resonators" by Peter Vizmuller.
(0-89006-244-7) C9244 $54.00

You may be able to get this from your local library (If its good).

Digi-key sell some helical resonators by toko at 70cms. They are designed
for small receivers and so have a reasonably hign insersion loss (5db for
the three stage ones!). If you want low loss you just have to make them
big (and silver plated). This doesn't sound like a problem in your application.
I would sugest you borrow a network analyser to line it up.

Also check out the RSGB VHF UHF Manual by G.R. Jessop G6JP. A really
excellent book and has a couple of pages on helical resonator design.

---
email to
UUCP: uunet!mimsy!{arinc,fe2o3}!vk2bea!michael

_ _ _ _
Amateur | VK2BEA (Australia) '))) / //
Radio | G4NYV (United Kingdom) / / / o _. /_ __. _ //
Stations| NV3Z (United States) / ' (_<_(__/ /_(_/|_</_</_

Michael Katzmann
Broadcast Sports Technology.
2135 Espey Ct. #4
Crofton Md. 21114 USA

Ph: +1 301 721 5151

>Thanks in advance for your comments.
>
>Greg May KB4OX (in 7 land)

1292. of Headsets and Handhelds

Newsgroup: rec.ham-radio
Date: 1990-02-25 20:29:00 UTC
From: IZZYH79@OAC.UCLA.EDU
Message-ID: <9002261406.AA03856@ucbvax.Berkeley.EDU>
Source record: 13197

Hi y'all! Has anyone had any experience hooking up a David Clark headset to an Icom ham handheld? Apparently, Icom makes a special interface in two different versions, but being an adventurous type, well, ok, cheap actually, I'd like to save myself the $50 for the lower priced of the two and try and make one. The headset is the DC 10-20, which uses a dynamic mic, so the mic needs some kind of bias voltage at the minimum, if not an entire pre-amp section. That's about all I've been able to figure out. Thanx!
73,
Arun
WC6V

1293. Re: Scanners

Newsgroup: rec.ham-radio
Date: 1990-02-25 21:36:00 UTC
From: jack.lupic@canremote.uucp
Message-ID: <90030913425538@masnet.uucp>
Source record: 13198

: Message entered 1990 02 25 13:32 :

Would you or anyone else here know of any mods for extended frequency
coverage on Bearcat 300 scanner?Thanks much.

Regards!

VE3FAE,Scarborough,Ont.,CANADA

~ DeLuxe 1.11 #1435 jack.lupic@canremote.uucp

1294. small QRP HF transceivers

Newsgroup: rec.ham-radio
Date: 1990-02-25 22:59:00 UTC
From: IZZYH79@OAC.UCLA.EDU
Message-ID: <9002261406.AA03880@ucbvax.Berkeley.EDU>
Source record: 13199

A few years ago when I was in Germany, I visited a ham (with whom
I have since lost contact) over there. Of his equipment, some
equipment which stood out to me were a couple of QRP handheld
HF transceivers for CW which were made by some Japanese company
which I have never heard of before (and can't remember the name,
either!).
Anyway, there are apparently several models for different
bands, from 40 meters through 10 meters, each monoband.
I plan on doing a several week hike in the Sierras this
coming summer and I am looking into the possibilities for
ham equipment to take along. My VHF/UHF handie wouldn't
work in valleys (most of the trip!) and my Heathkit HW-8
is a little big and heavy to be carrying around for weeks.
So... does anyone have any info on this kind of HF QRP
rig? Mfgrs, availability, price, etc??
Thanx & 73!
Arun WC6V

1295. Digital Licence

Newsgroup: rec.ham-radio
Date: 1990-02-25 23:33:41 UTC
From: Ken.Crowston@weyr.FIDONET.ORG
Message-ID: <566.25E87296@weyr.FIDONET.ORG>
Source record: 13200

[NOTE: Message modified, 25 Feb 90 17:34:38]
> Digital licence holders - grandfathered to ADVANCE

Not to my knowledge from both talks with a radio inspector and the last offical update on the new licencing.

Digital Licence holders will be deemed to hold the new basic amateur certificate and the advance technical certification. They will only be able to opperate above 30 mhz. using all modes etc.. The¿y must pass the 5 wpm or 12 wpm test to operate below 30 mhz. (HF).

73's De VE5KEN - Ken

--
Ken Crowston - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Ken.Crowston
Internet: Ken.Crowston@weyr.FIDONET.ORG
Standard Disclaimers Apply...

1296. Re: Uniden HR2600

Newsgroup: rec.ham-radio
Date: 1990-02-26 00:03:30 UTC
From: tad@ssc.UUCP
Message-ID: <510@ssc.UUCP>
Source record: 13201

WD2F asked about extending coverage on the Uniden HR2510 and 2600.
That only worked on the early model 2510 that did not have the
potted processor chip. All it took were a couple of pull up
resistors. The later 2510s and the 2600 are set up so that
they cannot be put on CB.

Tad Cook
tad@ssc.UUCP
KT7H

1297. Listing of Macintosh ham software

Newsgroup: rec.ham-radio
Date: 1990-02-26 00:48:30 UTC
From: winter@Apple.COM
Message-ID: <38958@apple.Apple.COM>
Source record: 13202
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I've put together the following listing in response to requests here
on the net for information on amateur radio programs for the Macintosh.

This is a one-time posting on my part. If someone would like to
volunteer to keep this information updated, I'd be happy to send him
or her the background materials I have. It would be even better if that
person was also on packet radio; when I had a packet system up and
running, I noticed frequent Macintosh questions there, too. (If anyone
wants to post this listing on packet, go ahead. But I'll leave it to
you to take out the prices, divide it into smaller chunks, etc.)

Please note that I am not endorsing or recommending any of these programs.
In fact, I've only seen a few of them. The information in this list was
gleaned mostly from flyers supplied by the software vendors, or in some
cases from reviews or listings in QST or AMSAT Journal. Please check
with the vendors for the latest product details, pricing, etc.

And--this should be obvious--this listing has absolutely no endorsement
by Apple Computer, Inc.

Having said all that....enjoy!

73,
Patty

****
Macintosh Amateur Radio Software
List compiled by N6BIS, 2/25/90

PACKET RADIO

NET/Mac (KA9Q TCP/IP)
Supports AX.25 and NET/ROM as well as TCP/IP functions. Requires
a TNC with KISS mode.
Doug Thom, N6OYU, 1405 Graywood Drive, San Jose, CA 95129.
Send formatted 800K Macintosh disk with stamped, self-addressed
return disk mailer. Also available via anonymous FTP from apple.com
(/pub/ham-radio); on the Digikron Systems BBS at (408) 253-1309;
and on the WB3FFV BBS at (301) 625-0817, 625-9482, and 625-9663.
The program is copyright, but free for noncommercial use.

MacRatt with FAX
Terminal program for use with AEA's PK-232 multimode controller.
Supports packet, CW, RTTY, AMTOR, and facsimile. Includes
computer-to-TNC cable.
Advanced Electronic Applications (AEA), PO Box C-2160,

Lynnwood, WA 98036. $59.95

MORSE CODE PRACTICE

N6MZV Morse Trainer
RT Martin, N6MZV, 10382 Orange Avenue, Cupertino, CA 95014.
Also available via anonymous FTP from apple.com (/pub/ham-radio).
$25.00

Morse Tutor
Jack Brindle WA4FIB, Brincomm Technology, 3155 Resin Street,
Marietta, GA 30066. Send formatted 800K Macintosh disk with
stamped, self-addressed return disk mailer. The program is copyright,
but free for noncommercial use.

MacMorse
David A. Kall, 700 Marine Parkway #314, New Port Richey, Florida
34652. $29.95

Zihua Morse
Zihua, P.O. Box 51601, Pacific Grove, CA 93950. $39.95 without
speech synthesis; $65 with speech synthesis.

RTTY

MacTTY
Summit Concepts, Suite 102-190, 1840 41st Ave., Capitola, CA 95010.
$39.95

LOGGING

LOGic
Personal Database Applications, 2634 Meadow Bend Court, Duluth,
GA 30136. $75.00

FDLog!
System One Control, 3900 85th Ave N, Suite 200, Brooklyn Park, MN
55443. $29.95

SATELLITE TRACKING

QuikMac
AMSAT, PO Box 27, Washington, DC 20044. $40 for AMSAT
members; $50 for non-members. Requires Microsoft BASIC.

Satellite Orbit Prediction Program
Macintosh conversion of W3IWI program.
Earl Skelton, N3ES, 6311 29th Place NW, Washington, DC 20015.
Send formatted 800K Macintosh disk with stamped, self-addressed
return disk mailer; or send SASE for source listing. Requires
Microsoft BASIC.

MacSat
BEK Developers, 1732 74th Circle NE, St. Petersburg, FL 33702.
$10.00

Satellite Helper
MacTrak Software, PO Box 1590, Port Orchard, WA 98366. $59.95

Satellite Pro
MacTrak Software, PO Box 1590, Port Orchard, WA 98366. $99.95

PROPAGATION, GRAY LINE, DX HEADINGS

DX Window
Creates on screen an azimuthal equidistant projection (great circle) world map centered on your QTH, with day/night terminator.
Engineering Systems, Inc., PO Box 939, Vienna, VA 22183. $39.95

Skycom 1.1
Enter solar flux and get propagation predictions to desired areas of the world.
Engineering Systems, Inc., PO Box 939, Vienna, VA 22183. $39.95
($59.95 with Skycom 1.5)

Skycom 1.5
Provides sunlight status at both ends of the path; MUF, F0F2, and FOT frequencies; S/N ratio of the link, and other information.
Engineering Systems, Inc., PO Box 939, Vienna, VA 22183. $39.95
($59.95 with Skycom 1.1)

DX Helper
MacTrak Software, PO Box 1590, Port Orchard, WA 98336. $34.95

Sun Clock
Desk accessory. Displays a map of the world with day and night areas.
MLT Software, PO Box 98041, 6325 SW Capitol Highway,
Portland, OR 97201. $17.00

RADIO CONTROL

ICOM IC-735 Control
KE6FG Software, 9763 Pali Ave., Tujunga, CA 91042. $49.95

TEST PREPARATION

Ham Stacks
HyperCard stacks containing all of the questions in the current question pool for each license class.
Diana Syriac N1GZS, 49A Meadow Pond Drive, Leominster, MA 01453. Send two formatted 800K Macintosh disks with stamped, self-addressed return disk mailer. Also available via anonymous FTP from apple.com (/pub/ham-radio).

COLLECTIONS AND MISCELLANY

"Project Mac"
Contest logging, antenna design, satellite tracking, clip art, etc.
Microsoft BASIC required for many (but not all) of the programs.
Stan Horzepa WA1LOU, 75 Kreger Drive, Wolcott, CT 06716.
Send three formatted 800K Macintosh disks with stamped, self-

addressed return disk mailer.

Amateur Radio #1
Contains satellite tracking, Morse code practice, Ohm's law calculator,
and pad design programs.
Kinetic Designs, PO Box 1646, Orange Park, FL 32067. $4.00

Red Ryder 9.4
Terminal emulation program, suitable for packet radio.
Kinetic Designs, PO Box 1646, Orange Park, FL 32067. $4.00

MacScience BBS
Various ham-related applications, including antenna design,
propagation, WEFAX, packet, and Morse code. (408) 866-4933.

Digikron Systems BBS
Various ham-related applications, including logging, propagation,
Morse code, and packet. (408) 253-1309.

WB3FFV BBS
Various ham-related software, including packet, contesting, and Morse
code applications. (301) 625-0817, 625-9482, and 625-9663.

MacNet
Public-domain programs (currently on nine disks) contributed by
Macintosh packet users. Includes test preparation, contest logging,
propagation prediction, satellite tracking, and amateur television.
John D. Seney, KB1HE, 144 Pepperidge Dr., Manchester, NH
03103. Send formatted 800K Macintosh disks with stamped, self-
addressed return disk mailer. Contributions of public-domain
programs encouraged.

--end--
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1298. Listing of Apple II ham software

Newsgroup: rec.ham-radio
Date: 1990-02-26 00:49:23 UTC
From: winter@Apple.COM
Message-ID: <38959@apple.Apple.COM>
Source record: 13203
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I've put together the following listing in response to requests here
on the net for information on amateur radio programs for the Apple II.

As I mentioned in my companion posting about Macintosh software, this
is a one-time posting unless someone else picks up the ball.

Please note that I am not endorsing or recommending any of these programs.
The information in this list was obtained mostly from flyers supplied by
the software vendors, or in some cases from reviews in QST. Please check
with the vendors for the latest product details, pricing, etc.

And--this should be obvious--this listing has absolutely no endorsement
by Apple Computer, Inc.

73,
Patty

****
Apple II Amateur Radio Software
List compiled by N6BIS, 2/25/90

PACKET RADIO

PACHAM
Uses a two-microchip interface instead of a TNC.
DaJu Development Company, 39 Long Ridge Road, Carlisle, MA
01741. $49.95

MORSE CODE PRACTICE

Morse+Plus Morse Code Tutor
EPO Software, 7805 NE 147th Avenue, Vancouver, WA 98682.
$15.95

MORSE CODE & RTTY OPERATION

HAM
Sends and receives both Morse code and RTTY.
DaJu Development Company, 39 Long Ridge Road, Carlisle, MA
01741. $49.95

Code Machine
COTEC, 13462 Hammons Ave., Saratoga, CA 95070. $29.95 (discount
if bought in conjunction with another COTEC program)

RTTY Machine
COTEC, 13462 Hammons Ave., Saratoga, CA 95070. $29.95 (discount

if bought in conjunction with another COTEC program)

SATELLITE TRACKING

Apple QuikTrak
AMSAT, PO Box 27, Washington, DC 20044. $25 for AMSAT
members; $35 for non-members

ANTENNA DESIGN

Antenna Design & Dimensions
EPO Software, 7805 NE 147th Avenue, Vancouver, WA 98682.
$9.95

Antenna Trap Designing
Larry East W1HUE, 119-7 Buckland St., Plantsville, CT 06479.
Send formatted disk with stamped, self-addressed return disk
mailer.

LOGGING

Electrolog II
EPO Software, 7805 NE 147th Avenue, Vancouver, WA 98682.
$18.95

Contest Log & Dupe Sheet
EPO Software, 7805 NE 147th Avenue, Vancouver, WA 98682.
$13.95

--end--
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1299. Re: Packet radio license without code r

Newsgroup: rec.ham-radio
Date: 1990-02-26 01:22:07 UTC
From: rusty@cadnetix.COM
Message-ID: <11515@cadnetix.COM>
Source record: 13204

In article <52163@bbn.COM> chartnes@vax.bbn.com (Clark Hartness) writes:
>
> ...
>ps. Code is a barrier only to the Handicapped and those who think they are!!!
>
>My opinion is mine and no one elses.

Thank you very much for the non-flammatory remarks about my code ability :-)

'nuff said? I certainly hope so! :-)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1300. Re: Helical Resonator Challenge

Newsgroup: rec.ham-radio
Date: 1990-02-26 01:32:02 UTC
From: brian@hpmtlx.HP.COM
Message-ID: <1850007@hpmtlx.HP.COM>
Source record: 13205

Contact Doug Baskins at HP Fort Collins. He just installed one
on the Loveland repeater.

Brian Wood
MTS, Hewlett Packard
Loveland, CO

1301. Re: ACC's RC-850 repeater controller, bugs, mods, and support

Newsgroup: rec.ham-radio
Date: 1990-02-26 03:56:47 UTC
From: alan@km4ba.UUCP
Message-ID: <121@km4ba.UUCP>
Source record: 13206

Sorry to have to tell you, but welcome to the world of ACC! Most firmware revs. seem to introduce more bugs than they fix, and ACC is not very helpful. The first answer is denial, second is that your site is the only one experiencing the bug. When pressed, they give the "don't have the resources" to fix it right away answer, and when they finally fix it, the cycle restarts.

Personally, I think their code has been patched & mutated until it is unstable, and unmaintainable.

The least expensive S-COM has technical features & sw capability that only the RC-850 (top of the line has), and packaging on the 85 is poor, to say the least. Things like minimal audio adjustments on the 85, which results in what we call "ACC syndrome". (15kc deviation on the voice ID when Adjusted for normal 5kc repeater audio. The fix is to tack an extra pot onto the pc board.)

We won't even talk about the DVR, and allthough the ICOM 900 remote base feature is nice, it still has severe quirks that can cause it to lock up.

I am sure this will bring out the ACC defenders, who love the features, but I have had my fill. (85,850,dvr,IC-900 remote)

To answer your question, a local ham Dan wb4pyl developed a nice PC based controller/autopatch/DVR that has been used in atlanta for 12-18 months. I don't know the status of his sw/hw regarding purchase, but you may want to drop him a line. (..!gatech!kd4nc!wb4pyl)

I am sold on S-COM for most purposes, but am also interested in PC based controllers.

73 & good luck with ACC.
Alan Barrow km4ba

..!gatech!kd4nc!km4ba!alan
..!hplabs!hp-col!hpuagaa!km4ba!alan

1302. Re: College ARC's

Newsgroup: rec.ham-radio
Date: 1990-02-26 04:02:52 UTC
From: sek9424@cec1.wustl.edu
Message-ID: <1990Feb26.040252.10692@cec1.wustl.edu>
Source record: 13207

Well, here we go again. All of the folks from the university radio clubs come out of the woodwork. We all seem to agree that it is difficult to keep such an organization going. Apathy and a general lack of time and funds are all great contributors. I know; we have the same problems here. Earlier this year/semester there was quite a bit of talk on the net about a nation-wide organization of university clubs that had existed at one time. In the past there had also been a net of sorts on 20 and 40 meters. As far as I know that all fell apart over the summer. (Summers sure have a way of disturbing the continuity of club activities....) Perhaps getting on the air with a net once again can be at least a bit of an incentive to keep things going in the university community. I think there have been at least 4 separate responses to the original post. I know there are at least 10 or more schools with clubs that I have seen on the net. I had discussed this a bit with KA9WGN (Phil - I hope I got the call right....) and we discussed the possibility of a 10m net to allow participation by the Novice/Tech persons as well. I propose that we attempt to convene a net this comming Saturday, 3/3 on 28.425+- at 1800Z. I realize it may be rough on 10, but lets give it a try. If anyone has any better time/freq suggestions, I would like to hear from you. We can always try some other bands in the near future. I will volunteer to try and call the net from Wash U club station W0QEV. Any university clubs, individuals, or interested parties are welcome. Please be persistent in calling and we will try to pick everyone up via relays if need be. If this works out, we can try it each Saturday.

73 and see you on the air...
Scott

(Phil - can this be relayed to HAM-UNIV?)
--
Scott Keller (KA0WCH) - Permanent Undergrad - Dept. of Computer Science
Wa$hington Univer$ity - St. Louis, Mo. USA
Internet: sek9424@cec2.wustl.edu UUCP:ihnp4!wucec2!sek9424 (I think...)
The opinions represented here are mine and mine alone, not Wa$h. U's.

1303. Re: INFO-HAMS Digest V90 #180

Newsgroup: rec.ham-radio
Date: 1990-02-26 04:16:33 UTC
From: sek9424@cec1.wustl.edu
Message-ID: <1990Feb26.041633.11082@cec1.wustl.edu>
Source record: 13208

I have often been frustrated while trying to explain to the less intelligent/inexperienced why ham != CB or why my handie-twinkie and an HF rig are both part of the hobby. However, the funniest such occasion in recent memory occurred when a woman I once dated got into my car and asked me about my handheld lying on the seat. I proceeded to give her a cursory explanation of the hobby and why I had the radio.

She then said, "Oh, so who has the other one?"

Scott

--
Scott Keller (KA0WCH) - Permanent Undergrad - Dept. of Computer Science
Wa$hington Univer$ity - St. Louis, Mo. USA
Internet: sek9424@cec2.wustl.edu UUCP:ihnp4!wucec2!sek9424 (I think...)
The opinions represented here are mine and mine alone, not Wa$h. U's.

1304. Re^4: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-26 05:38:46 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1718@aurora.AthabascaU.CA>
Source record: 13209

tad@ssc.UUCP (Tad Cook) writes:
>Ross Allen talked about passing the Canadian exam for their verison of a
>no-code digital license. Folks in the USA are hoping that a tougher
>written exam with no test of Morse proficiency will result in a large
>number of new hams. Ross should tell us about how well that worked in
>Canada. I heard that VERY few people took the test.

First, on a point of privilege : g/Allen/s//Alexander/p
Thank you.

Well, as a matter of fact the Digital Amateur class has not proven to be particularly popular. That's too bad. Perhaps it wasn't given enough "airtime" :-) (that is, enough publicity), or perhaps it's because it never reached critical mass. After all, our amateur population is spread out over a much larger area than the American ham community - and the Digital class is restricted to 2 meters and up. This means there's not many other stations within shouting distance.

As an example, this weekend I drove down to Lake Louise from well north of Edmonton (and back the next day - 675 km each way). There's a repeater in Athabasca, 3 in Edmonton, two in Red Deer, and one in Rocky Mountain House. I heard 4 other hams during the whole trip, and worked one (for about 2 minutes). That's on 2 meter voice. Didn't hear a single packet during the whole 14 hours, and I was all over the band. Not much encouragement, is it?

Some of the repeaters were trunked together, too; I was listening to 1000's of sq. km. worth of country, and never a peep. And I know I was getting out; the id's/squelch tails on those repeaters were about all I did hear. Sigh. Maybe the old boys don't want to chat with ve6pdq? (I'm not serious.)

And as far as getting a large number of new hams, I don't know what it would take. Dynamite the commercial TV stations, maybe ?? ;-).
--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

1305. Re: Scanners

Newsgroup: rec.ham-radio
Date: 1990-02-26 05:40:00 UTC
From: jack.lupic@canremote.uucp
Message-ID: <90030913425582@masnet.uucp>
Source record: 13210

: Message entered 1990 02 25 13:32 :

Would you or anyone else here know of any mods for extended frequency coverage on Bearcat 300 scanner?Thanks much.

Regards!

VE3FAE,Scarborough,Ont.,CANADA

~ DeLuxe 1.11 #1435 jack.lupic@canremote.uucp
~ QNet 2.03: NANet z Canada Remote Systems z Toronto z ON

1306. G.E. tanks from Los Angeles County...any around?

Newsgroup: rec.ham-radio
Date: 1990-02-26 06:48:16 UTC
From: gutierre@nsipo.arc.nasa.gov
Message-ID: <43699@ames.arc.nasa.gov>
Source record: 13211

Hello there.

I just recently started reading this group lately to see what the
noise level is up to.

Anyway, just a simple question. About a year ago, Los Angeles County
abondened their old 39meg assignments and jumped up to 470ish or so mHz.
In that wake, they should have left behind a few hundred (if not a
thousand) or so GE 'low-band' radios (the Mocom 70-like variety, for those
of you who can remember those old Motorola tanks). Does anybody know
what L.A. County did with all those radios. Usually, they're auctioned
off unless another agency needs those type of radios. They also
had a bunch of MX-300 series HT's for their (again) old 490mhz
assignments, though those might have been retuned down to 470, or
given to LAPD, since they used the same series on their HT's, though
LAPD HT's are 'turkey callers' (Auto ID'ers), and LASO's were not.

These GE monsters should be good for 6m, and they were 6-channel
models, so that should be plenty for the fairly empty vastness
of 6m..... [That should be good for a flame or two].

Hmmmm??? Anybody know?

Robert Gutierrez
NASA Science Internet Network Operations
Moffett Feild, California.

1307. small QRP HF transceivers

Newsgroup: rec.ham-radio
Date: 1990-02-26 08:05:57 UTC
From: faunt@cisco.com
Message-ID: <9002270808.AA13231@ucbvax.Berkeley.EDU>
Source record: 13212

Check out Radiokit. They have several. A friend bought one, and said it was going together slowly, due to problems. They have a couple of 20 meter rigs, and a 15 meter, CW only, I think.

There's also an ad in CQ, page 49 in March, from Digitrex, showing a 8x2x6" multiband CW/SSB rig. If you get more information on this, I'd be interested in hearing about it. I called them once, and they said it was a super-het receiver.

1308. Re: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-26 12:15:09 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500427@ux1.cso.uiuc.edu>
Source record: 13213

As I understand it, the Canadian Digital class was restricted to packet only, i.e. no voice privileges to support coordinating and setting up packet operations, or just getting in contact with the rest of the ham population.

A lot of the 2 meter voice operation here is actually people talking about packet, and helping one another get set up and finding out what TNC settings they had wrong, etc.

I know I would not have had a Digital class license were I to be a Canadian citizen.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1309. Re: Need wattage and range information for us in portable emergency.

Newsgroup: rec.ham-radio
Date: 1990-02-26 13:48:06 UTC
From: ptb@mbunix.mitre.org
Message-ID: <9002261348.AA05327@mbunix.mitre.org>
Source record: 13214

I have heard a number of about 1 watt per mile over fairly straight terrain for somewhat reliable communications, but have the following observations:

If the terrain is NOT ideal (i.e., hills block RF wonderfully), you will have to up the power (sometimes considerably).

Why fool around? In an emergency, I would think that the driving force would be reliability rather than cost.

You will probably want to look for which channel is not heavily used, since the less interference will extend the perceived range. (Your signal will have less to contend with.)

The maximum power level for CBs is extremely limited. I beleive the limit is still around 5 watts.

Based on this, I recommend that you go for a system of the full limit on allowed power (5 watts if you can), and then TEST THE SYSTEM by walking around (or having her walk around) and talk back to the base operator.

If that does not work, you may want to try a few things:

Get your base antenna (I hope you use as high a power station as allowed at the base too!) as high up as you can - definitely above the house roof.

If this still does not provide adequate coverage, you will have to go to another whole system: either cellular phone or have two people go for their ham license and use a ham repeater (hams can use higher power than CB operators).

The alternative of course is to warn her that the CB communication system only can be heard from such-and-such a distance.

Where there is a will, there is a way....

Disclaimer: My employer and its sponsors dont even know I am writing this mailgram, so it certainly does not necessarily reflect their position.

English: Peter T. Baldwin
Arpa: ptb@mbunix.mitre.org
Phone: (617) 271-7647 (days)
Snail Mail: Mitre Corp, MS K306, Burlington Rd, Bedford, Ma. 01730
Voice: Peter!

1310. (none)

Newsgroup: rec.ham-radio
Date: 1990-02-26 14:15:55 UTC
From: MATT@ibma.nerc-wallingford.ac.UK
Message-ID: <26.Feb.90.14
Source record: 13215

Subject: Vietnam Radios

I've just finished reading a couple of books on the Vietnam war ('Chickenhawk' and 'The 13th Valley'). In them they mention two radios used, one was the PRC-25, and the other was the PRC-70 (apparently this had some sort of scrambler built in). Does anyone have any more info on these; size, power, frequencies, etc.

Matt Brunton,
NERC Computer Services, Swindon, England.

1311. Re: Uniden HR2600

Newsgroup: rec.ham-radio
Date: 1990-02-26 14:37:33 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1621@east.East.Sun.COM>
Source record: 13216

>I am familiar with the mod to extend the frequency coverage of the HR2510 but
>I have not heard of a similar mod for the 2600. Does anyone know of a mod?
>If so, I would appreciate it if you could pass the info along. Also, I am
>looking for a copy of the schematic for the 2510, can anyone help?

Due to the problems with the chicken banders modifying these rigs for
CB/"freeband" use, the FCC made Uniden epoxy all PLL/VCO areas of the boards
to prevent tampering. They also decreed that all future designs (2600?) be
tamper proof as well. A copy of the service manual is available from Uniden
for $20.00, but again, all current units will be epoxied.

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1312. Re: V31BB ???

Newsgroup: rec.ham-radio
Date: 1990-02-26 15:09:17 UTC
From: km3t@jjmhome.UUCP
Message-ID: <5511@jjmhome.UUCP>
Source record: 13217

In article <19900223153643.8.ED@PEREGRINE.SCRC.Symbolics.COM>,
Ed@ALDERAAN.SCRC.SYMBOLICS.COM (Ed Schwalenberg) writes:
> In article <2815@umbc3.UMBC.EDU> battle@umbc3.UMBC.EDU (Rick) writes:
> >I am sitting here listening to 28.305 usb and there is this
> >guy, V31BB, conducting the MFJ JUNK NET.
>
> I ran across this guy during the 23:00z hour last Sunday. He claims that> the workmanship
of his MFJ stuff is bad, and he appears to be doing a net> I only heard him, and not
others, but the nature of propagation on 10M is> like that.
> Is MFJ stuff really that bad? Only thing of MFJ I have is a 24hr clock
> from Japan, and it's standard consumer grade electronics.
>
> I have an MFJ antenna tuner which appears to be made of Radio Shack-quality
> parts (i.e., sub-consumer grade). The switches are very noisy and one
> of the tuning caps was destroyed by dripping solder. I have their dual
> 24hr clocks and their switches are flaky, making it hard to set the time.
> The clocks also drift much more than any of my various Casio timepieces.
>
> I wouldn't buy anything from MFJ, and I don't buy anything from Rat Shack
> more complicated than batteries or speaker wire.

I used one of the MFJ clocks and didn't find any problems whatsoever with it.
I have also used the MFJ Noise Bridge and got excellent readings (as compared
to a professional unit) with it. Likewise, I had an MFJ-1274 (TNC2 clone)
and it worked flawlessly for three years, at which time I sold it to upgrade
to a Kantronics KAM.

I have a hard time understanding why people are so harsh on a company whose
workmanship may not be the best, but is certainly acceptable for Amateur Radio
work. Hams seem to have this extremely cynical attitude towards outfits
like MFJ and Radio Shack ("Rat Shack"). These outfits don't claim great
mean time between failures or anything of the sort. They are just trying to
provide products to electronic hobbyists at reasonable costs. And for what
I usually need, they suit me just fine.

Remember, you *usually* get what you pay for.
--
| Internet: pascoe%edcd@gte.com
Dave Pascoe | km3t%jjmhome@m2c.m2c.org
KM3T/1 | UUCP: {harvard}!m2c!jjmhome!km3t
| Packet Radio: km3t @ k1ugm.ma.usa.na

1313. Re: Helical Resonator Challenge

Newsgroup: rec.ham-radio
Date: 1990-02-26 15:59:02 UTC
From: john@anasaz.UUCP
Message-ID: <1332@anasaz.UUCP>
Source record: 13218

In article <5710006@hpcvra.CV.HP.COM> gregm@hpcvra.CV.HP.COM (Greg May) writes:
]
] Helical Resonator Question......
]
]I have a challenge for the masses on the net.....
]
]Here's my situation. The local club is trying to put up an autopatch
]on the local OSU 2M repeater, and we have run into a snag --- mainly "too much
]RF" from other sources on the hill. There is all kinds of stuff up there
]including a channel 7 TV signal, channel 25 and various sheriff repeaters,
]etc......
]
]Using a "hot" Hamtronics receiver on the hill and a 5 element beam as our
]link "to the hill" (because of the cost of "out of the way phone lines"),
]we are able to get a very solid signal to the hill. Using a handheld, the
]signal is perfect. Unfortunately, the Hamtronics likes all the other signals
]up their too. There is all kinds of intermod junk comming out of the 450
]receiver and audio "junk" is passed on the the 2M repeater input.
](The 440 handheld can also hear this stuff with squelch open --Heathkit)
]Now, we have found that with all the filtering (power lines, etc.) that 30db
]of attenuation on the front end of the 450 receiver (outside the box) cleaned
]up just about all the intermod (yes, you can still hear the 450 uplink).
]I personally did not hear this demonstration, but the general feeling in the
]group was that the helical resonator was the way to go. (My guess is we
]are running out of link signal at 30DB, and it is starting to get noisy.)
]We cannot/don't want to increase the 450 uplink signal at the transmitter.
]
]Now, the challenge for those who dare... Does anyone have information where
]I can get my hands on some articles to educate ourselves on these resonators.
]They sound interesting. I have one article but feel that I am still in the dark
]about the building technique. I think this would be the perfect opportunity
]for another club project.

Your problem is not unusual. The art of getting repeaters to work
in a high RF environment is not trivial. Let me suggest the following:

(1) If the intermod is being generated in your receiver, you have
three possibilities: (1) Get a better receiver, such as a commercial
radio (we use Micor's); (2) Put selectivity in front of your receiver
(more on that later); (3) Use PL tones on your receiver so that it won't
unsquelch on intermod.

(2) If the intermod is being generated in your transmitter, you have
one choice: FIX IT! Any transmitter generating intermod at a
significant level does not belong on a crowded site. There are

many commercial operators who oppose ham repeaters on commercial sites because hams often put up piles of junk that generate intermod. There are two techniques that come to mind for fixing intermod generating transmitters: (1) selectivity between the transmitter and the antenna; (2) use of a circulator so that signals cannot enter the transmitter and be mixed.

(3) If the intermod is being generated elsewhere, you need to find it and then fix it. Intermod is generated by any nonlinear device. We had one bad case that consisted of a guy cable rubbing against a struct. It was fixed by bonding it to the struct. We have another on a tall building in Phoenix (valley center) that comes from a section of the concrete parapet that was replaced with concrete built over a stretched metal frame, and the intermod comes from the rusting metal. We have been unable to fix this one!

Helical resonators, cavities, crystal filters: all narrow band devices. The standard for repeater sites is to use resonant cavities. These can be purchased (not cheaply), and have adjustable insertion loss and frequency. You can get pass or notch cavities. You should have a pass cavity on your transmitter (to be a good neighbor - it keeps the broadband noise from the transmitter from getting too far away from your frequency). A pass cavity (or more - in one case we used 5) on your receiver is a good idea, and will greatly help if the intermod problem is from within your receiver.

You can also use attenuation on your receiver. A third order intermod product will go down 3 dB for every 1 dB of attenuation that you put in front of your receiver. Of course, you don't want to use much attenuation on a repeater receiver.

I can give you more details by email if you want.

Let me re-iterate: If you are operating a ham repeater on a busy site and you don't have a circulator and a pass cavity on your transmitter, you are not being a good neighbor. If you try it at almost any site in Arizona, you will be shut down by the site owner (usually USFS or BLM) when they discover it. It is not "good amateur practice" to leave out these items on a shared site.
--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

1314. Re^2: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-26 16:31:42 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1722@aurora.AthabascaU.CA>
Source record: 13219

phil@ux1.cso.uiuc.edu writes:

>As I understand it, the Canadian Digital class was restricted to packet only,
>i.e. no voice privileges to support coordinating and setting up packet
>operations, or just getting in contact with the rest of the ham population.

This is fortunately incorrect. Canadian Digital Amateur privs include
[AFP][0-59].* (in other words, all known modes) from 2 meters up. Below
2 meters, on the other hand, we have no privs whatsoever.

--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

1315. Re: Need wattage and range information for us in portable emergency.

Newsgroup: rec.ham-radio
Date: 1990-02-26 17:19:06 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250125@hpnmdla.HP.COM>
Source record: 13220

I'd get the highest (legal) power HT you can find. Since it will only be used if an emergency arrises, you don't need to worry about battery run-down time.

Al N1AL

1316. helical resonators

Newsgroup: rec.ham-radio
Date: 1990-02-26 17:42:25 UTC
From: avip@iilcad.intel.COM
Message-ID: <9002261742.AA09209@iilcad>
Source record: 13221

Regarding the last postings about helical resonators:

I remember a very nice article in the May '81 Annual Antenna Issue of "Ham Radio" about homebrewing cavity resonators. (There was an interesting suggestion how to make a "quick and dirty" cavity resonator for 2m. using an empty coffee can, a couple of coax connectors and other pieces of junk...).

The article may be usefull and include extra references.

Hope this will help.

(I'm recalling the year and month of the magazine from the doldrums of my memory... It used to work fine, but you know... Anyway, I'll double check the info later on at home, and publish an errata if the info is incorrect.)

Shalom and 73,

Avi Plotnik 4X6LP <avip%iilcad@sc.intel.com>

1317. Public Apology to Peter Kemp, KZ1Z

Newsgroup: rec.ham-radio
Date: 1990-02-26 18:05:39 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9002261813.AA19981@ti.com>
Source record: 13222

A couple of weeks ago I posted a list of equipment manufacturers addresses and phone numbers. The intention was to disseminate the information, and to encourage anyone with further information to submit additions and corrections. There has been a little discussion about the availability of the information.

Some part of the material I listed, some of which had been compiled on a local system by one of the local club members, was taken from another source which should have credited Peter W. Kemp, KZ1Z, for compilation.

Please consider this a public apology to Mr. Kemp for not having properly credited him for his contribution. If you have downloaded a copy of the list, will you please add his name as a major contributor. If you have distributed the list to another board, will you please also copy this apology to that board.

I did not intend to slight Mr. Kemp for his due credit, but I was not at all diligent in tracing the source of the information. For that I apologize to him and to the Amateur Radio community.

Apparently the INFOHAMS posting appeared on CompuServe, either in the form of INFOHAMS DIGEST or otherwise. (I have not been on CompuServe for a while, so I do not know what form it took there.)

Please direct all questions or comments about items 11 through 22 on the list to:

Peter W. Kemp, KZ1Z
Technology Education Department
Bethel Middle School
1 School Street
Bethel Connecticut 06801
(203) 794-8670

Regards,
Bob West WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

1318. QRP rigs....

Newsgroup: rec.ham-radio
Date: 1990-02-26 18:31:08 UTC
From: Michael_Edelman%Wayne-MTS@um.cc.umich.edu
Message-ID: <204965@Wayne-MTS>
Source record: 13223

To the original poster who mentioned hand-held QRP sideband rigs: I don't know what Japanese company makes them, but AEA sells two VXO'd SSB/CW HTs for 10 meters and 6 meters. I had the 10M unit, and I'm sorta sorry I sold it. My first QSO outside the store was a W6 in San DIego. Pretty good for 2 watts two years ago.

Doug Faunt mentioned Digitrex. I've had their 9-band QRP rig on order since last October. Digitrex's ham business is a sideline to their instrumentation business, so things don't happen too fast there. The 9-band rig is a successor to their earlier monobanders, with selectable CW/DSB, digital readout, direct conversion recieve and 0-15W input. For the price (175 kit/ 250 assem.) it looks pretty good, if and when it comes out.

They've had a few problems they've been correcting based on feedback from the beta-test units in the field. There was a 31-meter image problem, and now there's a redesign of the final network going on. If everything is corrected and no other problems show up, I should have mine in about a month, I hope. I'll post a review if and when.

BTW, they make a couple of other nice products. One is a pocket sized freq counter for $60 (about .75"x1.5"x2") and a similarly sized one-channel rock bound FM 2M transmitter, intended to be used with scanner as an ultra simple 2M system. Might be interesting as the heart of an ultra-tiny packet system, too.
--mike ke8yy
michael_edelman%Wayne-MTS@um.cc.umich.edu
medelma@waynest1

1319. Re: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-26 18:51:58 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1723@aurora.AthabascaU.CA>
Source record: 13224

In article <30500427@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>As I understand it, the Canadian Digital class was restricted to packet only,
>i.e. no voice privileges to support coordinating and setting up packet
>operations, or just getting in contact with the rest of the ham population.

You understand WRONG!

A Digital certificate holder has all modes (including A1) on 2m
and up. They also get to do nifty things like P[0-9] that I, as
an Advanced certificate holder, can NOT do.
--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

1320. Re: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-26 19:44:28 UTC
From: wilson@ccop1.ocpt.ccur.com
Message-ID: <287@ccop1.ocpt.ccur.com>
Source record: 13225

Definitions-

Work - Activities involving expenditure of energy and time for which we receive material compensation.

Hobbies- Activities involving expenditure of energy and time for which we provide material compensation.

Gary, WB2BOO

1321. Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-02-26 21:36:39 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2619@wyse.wyse.com>
Source record: 13226

Hello Folks,
What is the best way to measure harmonics of radio gear? The ARRL handbook (1987 version), says that the best way is an attenuator in series with the COAX line from the Radio to the Spectrum Analyzer or by using a Dirctional Coupler.

Frankly I would be happy to measure in any way, but I do not own a attenuator that will take 100 Watts (let alone 1000 Watts) or a directional coupler.

Is there other ways that will yeild accurate results? I have thought about using a piece of wire wraped around the COAX, but this method is not accurate since the wire can go resonant at some frequencies (or can go more resonant), and yeild results that indicate the harmonic content is more than the fundamental.

I know that BIRD makes a high-power directional coupler, who knows what this costs. I was thinking of building a RF coupler that has been shown in the ARRL handbook that is used for SWR/Wattmeters....

What do you folks think? Any good sources for cheap test equipment like this?

DE KJ6NN
Phil
Thanks in advance!

1322. Re: RTTY and/or Packet with a TS-440s

Newsgroup: rec.ham-radio
Date: 1990-02-26 21:57:03 UTC
From: pfluegerm@valley.UUCP
Message-ID: <48e1aedd.15840@valley.UUCP>
Source record: 13127

In article <1470@raybed2.UUCP>, ewb@raybed2.UUCP (EUGENE BALINSKI) writes:
> Is there anyone out there who is presently using a Kenwood TS-440s and
> any of the newer TNC/TU's like a KAM or PK-232 ? I'm considering various
> hookup schemes and was wondering how you are doing it. Are you going in
> the AFSK ports on the back or are you using ACC-2 ? Are you muting the mike
> on the back connector etc. Any help would be appreciated. I hope to be

I have my TS-440 hooked to my PK-232 via ACC2. Yes, I use the mike mute
lead also. Drive the 440 PTT line AND mike mute lines with the PK-232
PTT output thru 2 switching diodes. Everything else is a direct connect.

Only 1 thing - the 440 wants a little higher audio level than the PK232
puts out, so the 440's mic gain (which works normally when feeding ACC2) needs
to be turned up to about 50% for proper levels (note - for voice operation,
my mike gain is set at about 25%).

Be careful soldering the 13 pin DIN connector - the plastic melts at low
temps and the pins move around.

--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

1323. I want three miles range, and I need it cheap.

Newsgroup: rec.ham-radio
Date: 1990-02-26 22:28:00 UTC
From: GOTT@wishep.physics.wisc.edu
Message-ID: <20022616280309@wishep.physics.wisc.edu>
Source record: 13128

Greetings.
I am not a ham radio operator but it was recommended by a friend who is
one that I post a note here to try and get some info.
The situation is that I want to get a few (2-5) approx. three watt transcivers
with two or three channels for use at summer camp, as such they need to be
portable (where portable is defined as under 5 lbs.).
The problem with walkie-talkies is the ones I have found (at Radio Shack)
are too expensive. What I would like to know is...
1. Who sells walkie talkies cheaper than Radio Shack ($50 for 3 watt, 3
channel rig)
1. Is there some clearinghouse of "used but working" equipment I could get?
2. Is there some clearinghouse of not-working-but-fixable equipment?
3. Is there some book/magazine/manual that would tell me how to build such
things?
4. Are CB's a reasonable option?

I do not read this board so please e-mail your responses to...
Bitnet : GOTT@WISHEP
or
Internet : GOTT@WISHEP.PHYSICS.WISC.EDU

Thanks in advance.

George K. Ott

1324. HR2510 10meter rig mod

Newsgroup: rec.ham-radio
Date: 1990-02-26 23:23:20 UTC
From: rfc@briar.philips.com
Message-ID: <82874@philabs.Philips.Com>
Source record: 13129

copied from packet
From: kd6th@kd6th.nj.usa (reqfil)
Message-ID: <19567@KD6TH>

INFORMATION ON THE HR2510 10 METER RADIO

1: THE HR2510 USES A DRIVER AND FINAL IN CONJUCTION TO GIVING YOU FULL
25 WATTS ON SSB.

2: THE DRIVER IN THE HR2510 IS COMPLETELY INTERCHANGEABLE
WITH THE FINALS FOUND IN MOST RADIOS LIKE COBRA(2000GTL) AND THE
UNIDEN (710E) AND IT CAN HANDLE UP TO 20 WATTS OF POWER.
THE DRIVER IN THE HR2510 IS (2SC2166).

3: THE FINAL IN THE HR2510 IS A (MRF477) IT CAN HANDLE ABOUT 50 WATTS
OF POWER. THIS IS A FURTHER INDICATION THAT THE RADIO WAS BUILT FOR
POWER.

4: THE HR2510 HAS (AN612) BALANCE MODULATOR WHICH IS THE SAME FOUND IN
A COBRA (148GTL) CB RADIO.

5: THE HR2510 USES A (10 MHZ I.F.) LIKE THE COBRA (146GTL) CB RADIO.
AS A RESULT, THE RECEIVE IS VERY SIMILAR TO THE 146GTL CB RADIO.

6: THE HR2510 INSTEAD OF USING COILS, LIKE THE JACKSON RADIOS.
thE HR2510 UTILIZES A WIDE - BAND TOROIDAL TRANSFORMER AT
OUTPUTS TO ELIMINATE TUNING AND GET THE WIDE BANDWIDTHS NEEDED TO
OPERATE THE (26 MHZ TO 30 MHZ).

EXPANDED FREQUENCY COVERAGE FOR THE UNIDEN HR2510

THIS RADIO COVERS A FULL 26-30 MHZ WITH A SIMPLE 10-MINUTE CIRCUIT CHANGE.
NO FURTHER REALIGNMENT IS EVEN NEEDED, SINCE IT USES BROADBAND TUNING AND
WAS DESIGNED TO COVER ALL THIS RANGE IN THE FIRST PLACE.

PRODCEDURE:

1: LOCATE PINS 34 AND 35 OF THE MAIN UP CHIP IC315. (CALLED "UC1201A",
UC117", ETC.) THIS IS THE LARGEST CHIP ON THE SYNTHESIZER BOARD, PB121BB.

2: THESE PINS ARE GROUNDED ON THE HR2510 , BUT ARE TIED HIGH (5.0 VDC)
ON THE EUROPEAN MODELS LIKE THE PRESIDENT LIINCOLN. ALL THATS REQUIRED IS
TO BREAK THE GROUNDING PC TRACE AND TIE THEM INSTEAD TO A +5.0 VDC SOURCE
THROUGH A PULLUP RESISTOR.

3: ON THE SOLDER SIDE OF THE SYNTHESIZER PCB, YOULL NOTICE THAT PIN 34 AND
35 ARE SOLDERED TOGETHER AND ARE CONNECTED TO THE MAIN GROUND FOIL. USING

A RAZOR BLADE OR EXACTO KNIFE, CUT THE FOIL AT A NARROW SPOT TO BREAK THIS CONNECTION.

4: NOW NOTICE THAT THE LEFT-MOST PIN OF PULLUP RESISTOR PACK RR301 IS UNUSED AND GOES TO AN ISOLATED ISLAND FOIL PAD.(HOW COINCIDENTAL!) JUST TACK A SMALL JUMBER WIRE BETWEEN THIS PIN OF RR301 AND THE PAD OF IC315 PINS 34 AND 35, AND YOU'LL BE IN BUSINESS!

OK !

YOU NOW HAVE A RADIO USEFUL NOT ONLY FOR 10 METER HAM OPERATION, BUT ALSO FOR LISTENING* TO THE KIND OF ROAD INFORMATION AND EMERGENCIES FOR WHICH CB HAS PROVEN ITSELF REPEATEDLY. THE INDICATED COVERAGE ON THE FRONT PANEL WILL BE:

*don't transmit, this isn't a type accepted radio!

BAND A = 28.000 TO 28.490 MHZ
BAND E = 26.000 TO 26.490 MHZ
BAND B = 28.500 TO 28.990 MHZ
BAND F = 26.500 TO 26.490 MHZ
BAND C = 29.000 TO 29.490 MHZ
BAND G = 26.965 TO 27.405 MHZ
BAND D = 29.500 TO 29.990 MHZ
BAND H = 27.000 TO 27.490 MHZ
BAND I = 27.500 TO 27.990 MHZ

BAND "G" IS THE STANDARD CB BAND STARTS UP AT CH.9, 27.065 MHZ.

(Note: I haven't tried this, proceed at your own risk. And.....
DO NOT transmit outside of the Ham band!
(you don't want to loose your license!)

Use the above to listen only, or for use with a transverter.
Or use with a dummy load, to generate test signals for checking
receivers. WA2ISE)
cmd:

1325. Re: Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-02-26 23:39:55 UTC
From: kjh@pollux.usc.edu
Message-ID: <23091@usc.edu>
Source record: 13130

In article <2619@wyse.wyse.com> pgraham@wyse.wyse.com (PC-NFS Philip Graham x1124 #) writes:
>What is the best way to measure harmonics of radio gear?

A cheap way to detect the presence of harmonics, (if they are really strong!), is to use a low pass filter with a simple power meter. If you see significant change in power with the insertion/removal of the low-pass filter, then you probably have significant harmonic content in your signal. I have used this technique a lot at 10 GHz, where spectrum analyzers are expensive and hard to come by.

Ken Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

1326. Flames 0 Tact 1

Newsgroup: rec.ham-radio
Date: 1990-02-26 23:47:17 UTC
From: jsb@hpfinote.HP.COM
Message-ID: <16170013@hpfinote.HP.COM>
Source record: 13131

What is it about this forum that has people flaming each other before they even engage their brains??? It gives the non-ham readers a great perspective of us.

A case in point... In a recent basenote someone ask for information about an amplifier he had bought, and was about to use it on 11 meters. That had napalm coming out of every orifice on the net. Did anyone think that he was not aware of what he was doing?

I wrote him a friendly note relating what the limits were for 11 meters and what could happen if he were to use it, and get caught. I also said that this might be just the thing to get him interested in Amateur Radio.

He wrote back and was wanting all the information he could get on us Hams. His interest in radio had aways been strong, but he never made the contact with the Amateur community. He was very greatfull for the comments and said he was going to pursue his ticket.

I reminded him that not all hams that use this forum are A**holes and have the napalm storage option on their discs.

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J Volunteer Examiner

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

1327. Re: Nocode

Newsgroup: rec.ham-radio
Date: 1990-02-27 00:28:12 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880124@hpfcdc.HP.COM>
Source record: 13132

Re: lid filters

Maybe we need a more direct approach. Give each US ham three demerit votes. When a lid is encountered, the ham sends a demerit vote to the FCC. If a lid receives more than three demerits per year from different hams, the lid loses their license for a while. Yes, it could be abused, but the abusers would lose their licenses, too.

Re: memorization

I memorized my way to a BSEE. The multiple-guess tests are no different than what goes on in colleges across the country. The only difference is that hams memorize Ohms Law, while engineering students derive it from Maxwell's equations.

It would be better if the VECs could mix up the a/b/c/d order, though. Fill-in-the-blank would be the next step.

As I understand it, we (US hams) have quite a bit of leeway from the FCC. If we want to change the question pool, or the format of the test, I think the opinion of the ARRL and US hams would carry some weight.

Perry Scott
KC0CA

1328. Re: MFJ quality

Newsgroup: rec.ham-radio
Date: 1990-02-27 00:42:42 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880125@hpfcdc.HP.COM>
Source record: 13133

I have the 949C tuner. Now that I've built an amplifier capable of 300W (the 949C's limit), I find that I burn out switch contacts if I use full rated power on it.

I guess I'll have to find rig up a pair of 6-position ceramic (aka REAL) RF switches. I am a little disappointed, but not entirely surprised.

Perry Scott
KF0CA

1329. Re: small QRP HF transceivers

Newsgroup: rec.ham-radio
Date: 1990-02-27 00:45:31 UTC
From: bks@ucbarpa.Berkeley.EDU
Message-ID: <34531@ucbvax.BERKELEY.EDU>
Source record: 13134

In article <9002261406.AA03880@ucbvax.Berkeley.EDU> IZZYH79@OAC.UCLA.EDU (Arun Jain) writes:
> ...Anyway, there are apparently several models for different
>bands, from 40 meters through 10 meters, each monoband.
>I plan on doing a several week hike in the Sierras this
>coming summer and I am looking into the possibilities for
>ham equipment to take along...

kantronics makes some monoband hf equipment, but from the picture it looked closer to mobile-sized rather than ht-sized. also, i recall they delivered a bit more than qrp power, perhaps 25W. i saw them in the ege (now haro) catalog.

also, aea makes a 10m, large-ht-sized qrp radios which include a built-on antenna. i'm not sure what other bands (if any) are available.

brian

1330. Re: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-27 01:43:34 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500428@ux1.cso.uiuc.edu>
Source record: 13135

> >As I understand it, the Canadian Digital class was restricted to packet only
> >i.e. no voice privileges to support coordinating and setting up packet
> >operations, or just getting in contact with the rest of the ham population.
>
> This is fortunately incorrect. Canadian Digital Amateur privs include
> [AFP][0-59].* (in other words, all known modes) from 2 meters up. Below
> 2 meters, on the other hand, we have no privs whatsoever.

Ah... so unless there are some other unusual or unacceptable restrictions,
then this license class does suffer from lack of publicity. Of course
being "south of the border" I would not know much about it (as my above
ignorance shows) but had THAT existed when I was in high school here, I
would have been a ham 14 years earlier than I did.

It might be curious to see who can bring in the most hams in the US when
the nocode license becomes a reality.

So a "Digital" ham in Canada can go buy a 2 meter HT and call up any other
ham over the local 2 meter repeater?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1331. How does one build LOG AMPS (>60dB dynamic range)

Newsgroup: rec.ham-radio
Date: 1990-02-27 01:47:04 UTC
From: GMoretti@massey.ac.nz
Message-ID: <596@massey.ac.nz>
Source record: 13136
Cross-posted to: rec.ham-radio,sci.electronics

I've build a spectrum analyser (0-100MHz) that has a 10.7MHz IF (from HAM-RADIO years ago) and it works quite well but I'm not happy with the log-amp/detector.

The detector at 10.7MHz is cascade of amplifier stages each with the same gain (10dB) and a diode halfwave detector from each stage. The outputs of the detector are summed. Unfortunately it needs a lot preset pots to get it working correctly and its linearity is not as high as I'd like.

Also I'd like to try making a direct conversion spectrum analyser - it would need to be DC coupled. The log detector would then run at a much lower frequency. I've tried using S-meter output of a CA3089 and its logarithmic but doesn't have the required dynamic range (> 60dB).

How does one make real log amps that don't need lots of preset adjustment?

Ideas ??

Giovanni

--

GIOVANNI MORETTI, Consultant	EMail: G.Moretti@massey.ac.nz
Computer Centre, Massey University	Ph 64 63 69099 x8398, FAX 64 63 505607
Palmerston North, New Zealand	QUITTERS NEVER WIN, WINNERS NEVER QUIT

1332. Thoughts on 90-55, Grandfathering, etc.

Newsgroup: rec.ham-radio
Date: 1990-02-27 03:28:31 UTC
From: MN007334@VM1.NoDak.EDU
Message-ID: <9002270830.AA14664@ucbvax.Berkeley.EDU>
Source record: 13137

As the discussion of the merits/foibles of the no-code proposal rage on, I've seen numerous discussions of how existing Novices and Techs should be grandfathered into the *new* licensing structure. Well, I think the FCC will be inclined to grant little beyond exam credit for elements passed (i.e. you will get credit for those exam elements already passed, but no additional privleges). They will also be inclined to preserve the existing privleges even though the license classes in question may disappear.

So, if you are inclined to believe that Techs will be grandfathered to general, DON'T HOLD YOUR BREATH!!! If the past is any indication, it ain't going to happen. Look at what happened to Techs after *Novice Enhancement*: The *old* Techs got NO extra priv's outside of what was given to the Novice class, but they are given credit for passing elements 3A and 3B.

If ever the FCC had an excuse to grandfather the old Techs to general, this was it, in that the ONLY difference between an old Tech and a General was the code requirement. It's been a popular myth that someday the FCC would grandfather Techs to General. This myth has been around longer than I have been a ham (13 yrs), and still presists. But, the FCC never did, and I have serious doubts that they will!

As far as I'm concerned, there should be only two license classes:

1. All privleges (bands, modes, power, etc) 50 MHz and above.

2. All privleges, All bands.

The second license would only require obtaining a CW endorsement (to satsify ITU regs) to the ticket granted above (1). The theory tests would be IDENTICAL (!!!). This would get us back to a very simple licensing structure, much easier to administer than the current (and some proposed) scheme.

Of course, this will, in all probability, never come about. Incentive licensing has done more to stratify the amateur population in the US than anything I can think of. If a simplified licensing structure such as what I have illustrated above were ever to come up for consideration, the objections raised by those factions (and they know who they are) determined to protect their turf, so to speak, would doom it to defeat in short order. Incentive licensing was a BAD idea in 1964, and it's still a bad idea today.

Regardless of what happens to the existing classes, the success or failure of the no-code license depends on a couple of factors. First, they must be integrated into the VHF mainstream. This means access to 2 meters (at least, 6 would be super along with 2). Face it, the vast majority of operation at VHF is conducted on 2 meter FM (I don't want to start a flame war or to denegrate the users of any other VHF band or mode, but have you ever tried to work 2m SSB away from populated areas when the band's not open?)

Second, for the benefit of all concerned, we NEED to clean up our collective act in regard to operating practices. We all could be a little more courteous and considerate of others when operating. Most of the problems on 20 meter phone could be cured with a healthy does of courtesy and common sense. If/when no-code becomes a reality, we are going to have to set a good example for the new ops to avoid chaos (we're already setting a good example for the newcommers, right???).

Todd Enders WD0BCI ARPA: mn007334@vm1.nodak.edu
Computer Center UUCP: ...!ihnp4!vm1.nodak.edu!mn007334
Minot State University BITNET: mn007334@ndsuvm1
Minot, ND 58701

1333. FCC PR Docket 90-55 Read First

Newsgroup: rec.ham-radio
Date: 1990-02-27 04:02:12 UTC
From: wb2hbz@ka2qhd.UUCP
Message-ID: <190@ka2qhd.UUCP>
Source record: 13138

Following is the complete text of the FCC Codeless Proposal, known as PR Docket No. 90-55. Although Iave attempted to proofread the document, I may not have caught all of my typos, especially since it was a fairly long document to type and I did it in one sitting. The typos that were in the iginal FCC document have been left intact.

I have dividedt into four parts due to its length.

If you don't want it, now's the time to hit the "N" key but for those who do, here goes...

73,

Jim Dockery, WB2HBZ
ARRL Section Emergency Coordinator
Northern New Jersey Section

The opinions expressed above are mine. They do not represent the views of the American Radio Relay League, its directors or any other elected official of the league.

1334. FCC PR Docket 90-55 Part 1/4

Newsgroup: rec.ham-radio
Date: 1990-02-27 04:08:48 UTC
From: wb2hbz@ka2qhd.UUCP
Message-ID: <191@ka2qhd.UUCP>
Source record: 13139

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FCC Docket Number 90-55 Page 1

Before the
Federal Communications Commission
Washington, D.C. 20554

PR Docket No. 90-55

In the Matter of
Amendment of Part 97 of the RM-6984 RM-6985
Commission's Rules Concerning RM-6986 RM-6987
the Establishment of a Codeless RM-6988 RM-6989
Class of Amateur Operator License RM-6990 RM-6991
RM-6992 RM-6993
RM-6994 RM-6995

NOTICE OF PROPOSED RULE MAKING

Adopted: February 8, 1990; Released: February 16, 1990

By the Commission:

I. INTRODUCTION

1. In this Notice of Proposed Rule Making (Notice), we propose to establish a new class of amateur operator license that would not require the applicant to prove that he or she can send and receive manual Morse code telegraphy messages. This proceeding was initiated by twelve petitions for rule making filed on matters generally relating to amateur operator license class structure, requirements and privileges.(1)

II. BACKGROUND

2. The amateur service exists for the purpose of self-training, intercommunication and technical investigations carried out by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.(2) Article 32 of the international Radio Regulations requires, among other things, that each person seeking a license to operate the apparatus of an amateur station prove that he or she has the ability to send correctly by hand to receive correctly by ear text in Morse code signals. Although this requirement may be waived for an operator of an amateur station transmitting only on frequencies above 30 MHz(3), each of the five classes of operator

licenses issued by the Commission(4) requires the applicant to pass an examination in the international Morse code.(5)

3. Over the years, the Commission has received requests from persons who want to pursue the purposes of the amateur service, but who argue that Morse code telegraphy is an unnecessary barrier to obtaining a license. Historically, however, the amateur community has strongly supported a telegraphy skill requirement for every class of amateur operator license. In a 1974 rule making proceeding(6), and again in a 1983 rule making proceeding(7), amateur licensees showed nearly unanimous opposition to proposals for a no-code license.

4. In the 1974 rule making proceeding, we proposed an overall restructuring of the classes of amateur operator license. Included in those proposals was the establishment of a codeless class of license. Although it resulted in several improvements to the license structure, the proceeding was terminated without action on the codeless license class.(8) It was during the pendency of this proceeding that the computer-aided license application processing system currently in use was developed. The capability for processing a sixth class of license, therefore, was incorporated into the design for the system. In the 1983 rule making proceeding, the Commission again sought ways to provide a class of codeless license. One proposal was the deletion of the slow speed telegraphy examination requirement for the Technician Class license.(9) The alternative proposal was a new operator license class patterned after a Canadian codeless class of amateur license, and having very difficult written examination requirements. The proceeding was also strongly opposed by the amateur community and was terminated without action.(10) The above-listed petitions initiating this proceeding, however, indicate that the sentiment in the amateur community now appears to favor a codeless license class. The ARRL, for example, states that it now supports a codeless license as being "beneficial to the future, short and long term, of the Amateur Service."(11) The issue of a codeless class of amateur operator license, therefore, should be considered in light of current circumstances in the amateur service.

III. DISCUSSION

5. A significant segment of the amateur community has a new view of the role of telegraphy in the future of the service. David Stall states that "numerous recent surveys have demonstrated that the concept of a no-code license is rapidly attracting a wide base of support within the amateur community."(12) The ARRL states that its recent studies show:

Encouraged by changes in the FCC rules, packet radio and other digital modes have become extremely popular and have led to amateur radio becoming increasingly attractive to computer-literate individuals who pssess the ability to contribute significantly to the service, but who fail to perceive the relevance of the manual Morse code. Many amateurs welcome the idea of providing a gateway to these individuals. The possibility now exists to dispassionately evaluate a codeless amateur license on its own merits. It is this factor that accounts for what the League perceives as a significant shift in attitudes among amateurs toward a codeless amateur license.(13)

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6. The SCATG states that the time is right for a codeless class of license:

Morse code operations were once the only way to make radio communications possible. It is now just a facet of an entire spectrum of possible methods of radio communications. It is no longer in keeping with the basis and purpose of the Amateur Radio service and to stress one facet of radio communications over all others. Knowledge of code doesn't eliminate rules violations or uncourteous operations.(14)

7. Burt Fisher, a teacher of electronics at a regional high school, states "the public need would best be served if there were a door into amateur radio that had a limited code requirement. Once in the door, these youngsters would be tempted to the rest of the world (and technology) of amateur radio. The public would be served as the base of potential scientists and technicians would be enhanced..." He believes that a written examination could be used to ascertain that an entry level license applicant has knowledge of telegraphy.(15) Michael Trahos believes that it is essential to have a codeless beginner license so that the amateur service will not stagnate or experience a decrease in the number of licensees. He believes that if a codeless license is not established, the number of licensed amateur operators will decrease, with a consequent increasing re-allocation of amateur service spectrum by the Commission to the land mobile services.(16)

8. John McCord believes a codeless classs of license would "attract many young minds to the hobby of amateur radio..."(17) Dennis and Linda Welch find the issue of a codeless class of license contentious and defended mostly by the older amateurs and championed by the very population needed for expansion.(18) Bill Welsh, who has a personal preference for code operation, foresees "that its years as a realistic amateur radio licensing requirement are coming to an end."(19) James E. Taylor states that telegraphy is no longer necessary and that the number of amateur operators must be drastically increased in order to

"continue to justify our existence."(20) Clement Bourgeois, however, disagrees. He states that a knowledge of telegraphy by every amateur operator is essential. He does believe, however, that the high speed telegraphy examination(21) should be reduced to 15 words-per-minute or less.(22) Larry Ballentine suggests that telegraphy examinations only require the examinee to recognize telegraphy characters, rather than to send and receive text at specific rates of speed.(23)

9. Operator License Structure. The petitions espouse various views on the structure of the license ladder. The general consensus, however, is that a codeless class of license should be the beginning step on the ladder. The ARRL believes that there is nothing antiquated or irrelevant about the Morse code, or its use in the Amateur Radio Service, but that this is a "matter that some individuals must learn for themselves, in order

to appreciate that relevance."(24) Most of the petitions favor a structure that avoids any negative effect upon any current licensee. One approach would add a sixth class of operator license modeled after the Novice Class, without the telegraphy requirement. He believes that a codeless license should provide "a no-code entry into amateur radio without disrupting the existing classes, privileges, or incentives."(25) Burt Fisher also favors the sixth class approach,(26) as does ARRL, with the codeless class positioned in the license structure so that there is an upward path "to the present Technician license by way of a five words per minute More code examination..."(27)

10. Another approach taken in the petitions is to preserve the current five class structure by conversion of the Novice Class to a codeless class. John McCord, for example, recommends elimination of the telegraphy requirement for the Novice license.(28) In addition to conversion of the Novice Class, Dennis and Linda Welch also suggest a merger of the Technician and General Classes.(29) The SCATG recommends that the Novice Class be gradually replaced by a non-renewable codeless class that would "minimally disrupt the existing license structure to avoid disenfranchising current licensees. ...[t]he new license should avoid isolating the newcomer from the mainstream of amateur radio operators and operations while maintaining the incentive to upgrade and providing attractive privileges for the newcomer...."(30)

11. Other petitions suggest major revisions to the license class structure. James Taylor states that prospective amateur operators "are put off by the present complex, layered structure of our hobby..." He suggests one all-purpose operator class.(31) Alan Horowitz suggests "a no-code ham license, similar to Canada's license structure."(32) Michael Trahos, however, states

that "[t]he Canadian no-code experience has clearly shown that creation of a no-code license class with examination requirements greater than that of the lowest available code license class fails to promote interest in, or insignificantly increases, the number of licensed amateur radio operators."(33) He suggests, instead, two new codeless classes.(34) Bill Welsh believes that emission mode privileges should be earned "by passing written and on-the-air operating tests that are directly related to the desired additional emission/mode privilege being sought."(35) He suggests that all frequency segments no offered as incentives be eliminated.(36)

12. Operator privileges. The petitions generally concur that, as a minimum, a station control operator holding a codeless class of license be authorized all emission privileges on the 1.25 meter (m) and shorter wavelength bands. For the longer wavelength bands, however, there are several views, starting with James Taylor's recommendation that all possible privileges be authorized to the codeless class.(37) Michael Trahos and SCATG recommend including the 6 m and 2 m bands.(38) Burt Fisher recommends authorizing the 52-54 MHz segment in the 6 m band. He also recommends include the 2 m band, but excluding emission F3E

on that band.(39) The ARRL recommends excluding operation on both the 6 m and 2 m bands.(40) Dennis and Linda Welch,(41) David Stall,(42) and John McCord make recommendations similar to those of the ARRL. John McCord, however, suggests including digital type emission privileges on the 6 m and 2 m bands.(43)

13. The petitions recommend that the eligibility for the codeless class of license, like all amateur operator licenses, require the passing of a written examination. The ARRL states that the written examination should reflect the privileges to be earned and require a greater commitment than does the present Technician class written examination. It believes that the lessons learned from codeless license programs in other countries necessitate a significant written examination. The ARRL recommends, therefore, that a written examination for the codeless license be administered under the Volunteer Examiner Coordinator (VEC) system. The ARRL also recommends a 60 question written examination consisting of the current 55 question written examination for the Technician Class Operator license, augmented by five additional questions related to the specific privileges afforded the codeless licensees. Two of the new questions would be concerned with the application and use of telegraphy and the remainder would be concerned with digital communication techniques.(44) The SCATG states that the written examination should consist of 50 questions.(45)

14. The petitions also suggest names for a new codeless class of license. The SCATG suggests "Apprentice."(46) Burt Fisher suggests "Novice-V."(47) Michael Trahos suggests "Novice-Plus" and "Technician-Plus."(48) David Stall suggests "Limited."(49) The ARRL states that its suggested name "Communicator," although "not exactly reflective of the type of license envisioned in the proposal... is, however, the most descriptive among those alternatives considered."(50)

IV. PROPOSAL

15. We believe that the petitions have merit. Further, like the petitioners, we believe that this is a propitious time to propose the establishment of a codeless license, given the advances in electronic communications in the past few years. We propose, therefore, to establish a codeless class of amateur operator license, the Communicator Class. With respect to this proposed operator class, we have established three objectives. Our first objective is to offer an entry level license opportunity to all persons who find the telegraphy requirement a barrier to pursuing the purposes of the amateur service. Our view is best expressed by the statement of the ARRL that "the goal of the codeless amateur license is to bring such licensees in to the 'mainstreem' of the Amateur Radio Service, and to encourage them to upgrade their license class."(51) Our second objective is to propose a type of license that can be implemented quickly if a decision is made to proceed. Our third objective is to avoid any negative effect upon current licensees, upon the work of the volunteer examiners, or upon the Commission's

1335. FCC PR Docket 90-55 Part 2/4

Newsgroup: rec.ham-radio
Date: 1990-02-27 04:11:55 UTC
From: wb2hbz@ka2qhd.UUCP
Message-ID: <192@ka2qhd.UUCP>
Source record: 13140

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workload and resources. To preclude any impact on our resources, it is imperative that our existing computer-aided application processing system be utilized "as is."(52) The proposed rule amendments are contained in the attached Appendix.

16. In proposed Sections 97.501 and 97.503(b)(1), we would require that the applicant for a Communicator Class license pass a 60 question written examination, as requested by ARRL. In sum, there would be an expanded entry level examination and corresponding question pool. We concur with ARRL that the written examination for the Communicator Class License should correspond to the privileges for that class of license.(53) The new question pool would be comprised of questions from the two pools currently used in the Novice and Technician license examinations, and new questions as requested by ARRL.(54) By incorporating existing questions, over 91 percent of the question pool for a Communicator Class license would already be available and would help facilitate a smooth transition.(55)

17. Operator license structure. In proposed Section 97.9, we would incorporate the Communicator Class in a simplified license structure containing four ascending steps: Communicator, General, Advanced, and Amateur Extra Classes. Current Technician and Novice Class operator licenses would be grandfathered indefinitely. There would be no new licenses issued for those license classes, but existing licenses could be modified or renewed. This approach would meet the objectives we established in paragraph 15. Dennis and Linda Welch, John McCord and SCATG suggested preserving the five-step ladder by eliminating the telegraphy examination requirement from the Novice class license. This approach deserves careful consideration by the amateur community because of its simplicity. We did not propose this approach because of its disadvantage of lowering the license qualification standards for the Novice operator class. As such, it may be unacceptable to the hundreds of thousands of amateur operators, included the 85,000 current Novice Class licensees, who qualified for the Novice licence by passing a telegraphy examination. The Novice Class has operating privileges below 30 MHz, necessitating the need for a knowledge of telegraphy as described in paragraph 2.

18. For future licensees, the Communicator Class license would be the first step in the license structure instead of the Novice Class. Our premise is that most newcomers to the service, given the choice, would elect to qualify for the Communicator Class license rather than the Novice Class license. There would, therefore, no longer be a need for the Novice Class license, We particularly invite instructors, volunteer examiners (VEs), and VECs to submit comments on the validity of this premise, including factual information on the time and effort that would be required for persons to prepare tor the proposed 60 question Communicator Class written examination as compared to the time and effort currently required for the Novice Class 30 question written examination and telegraphy examination.

19. Because the written examination for the Communicator Class license would be more comprehensive than that of the Technician Class license, the Communicator Class would also serve in the stead of the Technician Class for future licensees. Each step in the proposed four step structure provides recognition that the holder has significantly advanced his or her skill in both the communication and technical phases of the radio art.(56) This structure could be rapidly implemented. The present license application processing system and license application form would continue to be used.(57)

20. Operator Privileges. The proposed control operator privileges of the Communicator Class would generally be those suggested by the ARRL. The privileges would include all authorized emission types. The proposed transmitter power standard would be 200 watts peak envelope power. The licensee's station would be eligible for a Group D call sign.(58) Stations with Communicator Class control operators would not be permitted to transmit on the 2 m and 6 m bands. In view of ARRL's desire to bring the codeless class into the mainstream of the amateur service,(59) however, we particularly invite comment on the effect of excluding Communicator Class licensees from these two popular bands.

21. The ARRL stated that one premise for its petition was that an accommodation should be made for codeless class licensees to upgrade their license class. It cited countries that have codeless licenses where the written examination tests the examinee's technical qualifications. The ARRL stated that amateur service societies in countries such as Australia, the Federal Republic of Germany, and Belgium report ongoing telegraphy activities among the codeless class licensees working to upgrade the license class.(60) While the proposed Communicator Class privileges include telegraphy on the 1.25 meter and shorter wavelength bands, we recognize that telegraphy operation is more closely assiciated with the HF bands. The

opportunity for newcomers to the amateur service actually to send and receive messages in the Morse code on small segments of the HF 80, 40, 15, and 10 meter bands is provided to the Novice and Technician Classes so that those operators can gain an appreciation of telegraphy tand acquire the proficiency needed to pass the telegraphy examination for the General Class operator license. We specifically request comments, therefore, concerning the desirability of including the opportunity for Communicator Class licensees also to experience on-the-air telegraphy operation on the HF bands. In view of our obligation under the provisions of the international Radio Regulations,(61) if it is desired, only domestic communications on the HF bands would be authorized.

22. Under proposed Section 97.301(g), a Communicator Class licensee who passes, or otherwise receives credit for a telegraphy examination, would be authorized the additional privileges of the Technician Class.(62) To avoid a license processing burden, however, the documentation of the passing of,

or credit for, a telegraphy examination would be evidenced by the Certificate of Successful Completion of Examination (CSCE) issued by the administering VEs,(63) rather than by the issuance of a Technician Operator license. Theindicator used by the Communicator Class for identification purposes would be AC.(64) Under propsed Section 97.505(a)(1), VEs would be authorized to grant examination credit, evidenced by a CSCE, to a Communicator Class examinee for the slow speed telegraphy examination when the examinee holds a Novice Operator license.(65) That combination, Communicator Class license and CSCE, would permit the Communicator Class licensee the same rights and privileges of the Technician Class operator. The VECs would provide listings, in paper or magnetic for, of the Communicator Class licensees who have been issued the CSCE.

23. Volunteer examiners. The instant proposal contains substantive changes in the amateur operator license examination procedure and the issuance of amateur operator licenses and CSCEs. All operator license examinations would be administered under the VEC system.(66) The additional task of administering the Communicator Class would be offset by the elimination of other tasks, included the discontinuance of the two-examiner system for the Novice Class license.(67) The coorination and oversight by the VECs provide more credible results than does the two examiner system. In the latter, examination administration errors are more common and cheating is a greater problem than in the VEC system. The task of administering new Technician Operator Class licenses would also be discontinued.(68) The Novice and Technician written examinations would no longer be

prepared and adminsisted as separate examinations. The VEs and VECs, moreover, coulb e reimbursed for out-of-pocket costs incurred in connection with all examinations.(69)

V. CONCLUSION

24. We believe that this proposal would achieve the objectives set forth in paragraph 15 above. We seek comments, therefore, on the proposed revisions to Part 97 to establish a Communicator Class Operator license for the amateur service, as set forth in the attached Appendix.

VI. PROCEDURAL MATTERS

25. For purposes of this non-restricted notice and comment rule making proceeding, members of the public are advised that ex parte presentations are permitted except during the Sunshine Agenda period. Se generally 47 C.F.R. & 1.1206(a). The Sunshine Agenda period is the period of time which commences with the release of a public notice that a matter has been placed on the Sunshine Agenda and terminates when the Commission (1) releases the text of a decision or order in the matter; (2) issues a public notice stating that the matter has been deleted from the Sunshine Agenda; or (3) issues a public notice stating that the matter has been returned to the staff for further consideration, whichever occurs first. 47 C.F.R. & 1.202(f). During the Sunshine agenda period, no presentation, ex parte or otherwise, are permitted unless specifically requested by commission or staff for the clarification or adduction of evidence or the resolution of issues in the proceeding. 47 C.F.R. & 1.1203.

26. In general, an ex parte presentation is any presentation directed to the merits or outcome of the proceeding made to decision-making personnel which (1) if writte, is not served on the parties to the proceeding, or (2), if oral, is made without advance notice to the parties to the proceeding and without opportunity for them to be present. 47 C.F.R. & 1.1202(b). Any person who makes or submits a written ex parte presentation shall provide on the same day it submitted two copies of same under separate cover to the Commission's Secretary for inclusion in the public record. The presentation (as well as any transmittal letter) must clearly indicate on its face the docket number of the particular proceeding to which it relates and the fact that two copies of it have been submitted to the Secretary, and must be labeled or captioned as an ex parte presentation. 47 C.F.R. & 1.1206

27. Any person who is making an oral ex parte presentation and presents data or arguments no already reflected in that person's written comments, memoranda, or other previous filings

in that proceeding shall provide on the day of the oral presentation an original and one copy of a written memorandum to the Secretary (with a copy to the Commissioner or staff member involved) which summarizes the data and arguments. The memorandum (as well as any transmittal letter) must clearly indicate on its face the docket number of the particular proceeding and the fact that an original and one copy of it have been submitted to the Secretary, and must be labeled or captioned as an ex parte presentation. 47 C.F.R. & 1.1206.

28. Authority for issuance of this Notice is contained in Sections 4(i) and 303(l) and (r) of the Communications Act of 1934, as amended. 47 U.S.C. && 154(i) and 303(l) and (r). Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. && 1.415 and 1.419, intested parties may file comments on or before August 6, 1990,

1336. Re: How does one build LOG AMPS (>60dB dynamic range)

Newsgroup: rec.ham-radio
Date: 1990-02-27 04:29:42 UTC
From: whit@milton.acs.washington.edu
Message-ID: <2154@milton.acs.washington.edu>
Source record: 13141
Cross-posted to: rec.ham-radio,sci.electronics

In article <596@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti) writes:
>I've build a spectrum analyser (0-100MHz) that has a 10.7MHz IF (from
>HAM-RADIO years ago) and it works quite well but I'm not happy with the
>log-amp/detector.

Most log amps use the relationship that the base-emitter voltage
of a transistor is proportional to the logarithm of the emitter current
(sometimes approximated as the collector current). A good low-noise transistor
will follow this "ideal diode" curve for about eight orders of magnitude
in the collector current (power ratio 160 dB). Routine use of this
effect is complicated by the temperature dependence of the equation,
Ie= Is * exp(q* Vbe/(k * T))
and a good logarithm amplifier either needs a second (matched) transistor
at the same temperature to set the operating point, or a thermostat.
The National Semiconductor Linear Applications databook has one
thermostat-style solution, in AN-264. The thermostat they use employs
three transistors, with one transistor doing the logarithm conversion,
a second measuring the temperature, and a third acting as the heater.
The thermostat approach does NOT require matched transistors.
The second approach, with matched transistors is slightly
less accurate (mainly because of mismatched emitter resistances at
elevated currents), but works at lower total power dissipation. I think
the National databook has one of these, also; AN-29, Figure 23.
I would suggest using the cookbook circuits, since at the lowest
current ranges these are not terribly easy to frequency-compensate (i.e.
the op amps will likely oscillate), and these circuits have
already been debugged.
The second part of your problem is the precise rectification of
the IF-frequency signal; all I can think of is a good hot-carrier
diode, and keeping 60 dB of accuracy there is not going to be easy.
Good luck.
Your local National Semiconductor distributor (or the
representatives in Australia: telephone (03) 729-6333) can
supply the application notes I quoted above.

I am known for my brilliance, John Whitmore
by those who do not know me well.

1337. FCC PR Docket 90-55 Part 3/4

Newsgroup: rec.ham-radio
Date: 1990-02-27 05:24:32 UTC
From: wb2hbz@ka2qhd.UUCP
Message-ID: <193@ka2qhd.UUCP>
Source record: 13142

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and reply comments on or before September 7, 1990. All relevant and timely comments will be considered by the the Commission before final action is taken in this proceeding. To file formally in this proceeding, participants must file an original and four copies of all comments and reply comments. If participants want each Commissioner to receive copies of their comments, an original and nine copies must be filed. Comments and reply comments must state the proceeding to which they relate (PR Docket Number). They should be sent to the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Dockets Reference Room (Room 239) of the Federal Communications Commission, 1919 M Street N.W., Washington, D.C. 20554.

29. In accordance with Section 605 of the Regulatory Flexibility Act of 1980, 5 U.S.C. & 605, the Commission certifies that these rules would not, if proulgated, have a significant economic impact on a substantial number of small entities, because these entities may not use an amateur station to transmit any communication the purpose of which is facilitate the business or commercial affairs of any party. See 47 C.F.R. & 97.113(a). Moreover, the proposed rules would not require the use of or significantly enhance the sale of any additional amateur station apparatus.

30. The proposal contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980, 44 U.S.C. & 3501 et seq., and found to increase the information collection burden which the Commission imposes on the public. This proposed increase in the information collection burden is subject to approval by the Office of Management nd Budget as prescribed by the Act.

31. A copy of the Notice will be forwarded to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX

Part 97 of Chapter I of Title 47 of the Code of Federal Regulation is proposed to be amended as follows:

1. The authority citation for Part 97 continues to read as follows:

Authority citation: 48 Stat. 1066, 1082, as amended; 47 U.S.C. & 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. && 301-609, unless otherwise noted.

2. Section 97.9 is revised to read as follows:

& 97.9 Operator License

(a) The classes of operator licenses are Communicator, General, Advanced, and Amateur Extra. There are also two grandfathered classes of operator licenses, Novice and Technician. An operator license authorizes the holder to be the control operator of a station with the privileges of operator class specified on the license. The license document or a photocopy thereof must be in the personal possession of the licensee at all times when the person is the control operator of a station.

(b) A person holding a Communicator Class operator license and who holds a CSCE indicating that the person passed element 1(A), 1(B), or 1(C) is authorized to exercise the rights and privileges of the Technician Class for the duration of the license and renewal thereof.

(c) A person holding a Novice, Technician, Communicator, General, or Advanced Class operator license who has properly filed with the FCC an application for a higher operator class that has not yet been acted upon, and who holds a CSCE indicating that the person passed the necessary examinations within the previous 365 days is authorized to exercise the rights and privileges of the higher operator class.

3. Section 97.17(a) is revised to read as follows:

& 97.17 Application for new license.

(a) Any qualified person is eligible to apply for an amateur service license. No new Novice or Technician Class operator licenses will be issued.

* * * * *

4. Section & 97.119(e) is revised to read as follows:

& 97.119 Station Identification.

* * * * *

(e) When the control operator is using privileges on the basis of holding a CSCE, an indicator must be included after the call sign as follows:

(1) AC for Communicator Class Operator;
(2) AG for General Class Operator;
(3) AA for Advanced Class Operator;
(4) AE for Amateur Extra Class operator.

* * * * *

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5. Section 97.301(a) is revised and a new paragraph (g) is added to read as follows:

& 97.301 Authorized Frequency Bands.

* * * * *

(a) For a station having a control operator holding a Technician, Communicator, General, Advanced or Amateur Extra Class operator license:

Wave- length band	ITU Region 1 See & 97.303 Paragraph:	ITU Region 2	ITU Region 3	Sharing requirements
VHF	MHz	MHz	MHz	
1.25 m	---	222-225	---	(a).(b).(e)
UHF	MHz	MHz	MHz	
70 cm	430-440	420-450	420-450	(a).(b).(f)
33 cm	---	902-928	---	(a).(b).(g)
23 cm	1240-1300	1240-1300	1240-1300	(j)
13 cm	2300-2310	2300-2310	2300-2310	(a).(b).(j)
-do-	2390-2450	2390-2450	2390-2450	(a).(b).(j)
SHF	GHz	GHz	GHz	
9 cm	---	3.3-3.5	3.3-3.5	(a).(b).(k).(l)
5 cm	5.650-5.850	5.650-5.925	5.650-5.850	(a).(b).(m)
3 cm	10.00-10.50	10.00-10.50	10.00-10.50	(b).(c).(i).(n)
1.2 cm	24.00-24.25	24.00-24.25	24.00-24.25	(a).(b).(i).(o)
EHF	GHz	GHz	GHz	
6 mm	47.0-47.2	47.0-47.2	47.0-47.2	
4 mm	75.5-81.0	75.5-81.0	75.5-81.0	(b).(c).(h)
2.5 mm	119.98-120.02	119.98-120.02	119.98-120.02	(k).(p)
2 mm	142-149	142-149	142-149	(b).(c).(h).(k)
1 mm	241-250	241-250	241-250	(b).(c).(h).(q)
---	above 300	above 300	above 300	(k)

* * * * *

(g) For a station having a control operator holding a Technician, General, Advanced or Amateur Extra Class operator license:

Wave- length band	ITU Region 1 See & 97.303 Paragraph:	ITU Region 2	ITU Region 3	Sharing requirements
VHF	MHz	MHz	MHz	
6 m	---	50-54	50-54	(a)
2 m	144-146	144-148	144-148	(a)

6. Section 97.501 revised to read as follows:

& 97.501 Qualifying for an amateur operator license.

An applicant must successfully pass an examination for the issuance of a new amateur operator license and for each change in the operator class. Each applicant for the class of operator license specified below must pass, or otherwise receive examination credit for, the following examination elements.

(a) Amateur Extra Class operator: Element 1(C), and elements 3(A), 3(B), 4(A), and 4(B);

(b) Advanced Class operator: Element 1(B) or 1(C), and elements 3(A), 3(B), and 4(A);

(c) General Class operator: Element 1(B) or 1(C), and elements 3(A), and 3(B);

(d) Communicator Class operator: Element 3(A).

7. Paragraphs (b) and (c) of Section 97.503 are revised to read as follows:

& 97.503 Element Standards.

* * * * *

(b) A written examination must be such as to prove that the examinee possesses the operational and technical qualifications required to perform properly the duties of an amateur service licensee. Each written examination must be comprised of a question set as follows:

(1) Element 3(A): 60 questions concerning the privileges of a Communicator Class operator license. The minimum passing score is 45 questions answered correctly.

(2) Element 3(B): 25 questions concerning the additional privileges of a General Class operator license. The minimum passing score is 19 questions answered correctly.

(3) Element 4(A): 50 questions concerning the additional privileges of an Advanced Class operator license. The minimum passing score is 37 questions answered correctly.

(4) Element 4(B): 40 questions concerning the additional privileges of an Amateur Extra Class operator license. The minimum passing score is 30 questions answered correctly.

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(c) The topicls and number of questions required in each question set are listed below for the appropriate examination element:

Topics	Element: 3 (A)	3 (B)	4 (A)	4 (B)
(1) FCC rules for the amateur radio services	15	4	6	8
(2) Amateur Station operating procedures	7	3	1	4
(3) Radio wave propagation characteristics of amateur service frequency bands	4	3	2	2
(4) Amateur radio practices	11	5	4	4
(5) Electrical principles as applied to amateur station equipment	6	2	10	6
(6) Amateur Station equipment circuit components	4	1	6	4
(7) Practical circuits employed in amateur station equipment	3	1	10	4
(8) Signals and emissions transmitted by amateur stations	4	2	6	4
(9) Amateur station antennas and feed lines	6	4	5	4

8. Section 97.505(a) is revised to read as follows:

& 97.505 Element credit.

(a) The administering VEs must give credit as specified below to an examinee holding any of the following documents:

(1) An unexpired (or within the renewal grace period) FCC-issued Novice Class operator license: Element 1(A) and the 30 written questions in Element 3(A) based upon the material from the written examination passed for the Novice Class operator license.

(2) An unexpired (or within the renewal grace period) FCC-issued Communicator Class operator license: Element 3(A).

(3) An unexpired (or within the renewal grace period) FCC-issued Technician Class operator license: Element 3(A).

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(4) An unexpired (or within the renewal grace period) FCC-issued Technician Class operator license issued before March 21, 1987: Elements 3(A) and 3(B).

(5) An unexpired (or within the renewal grace period) FCC-issued General Class operator license: Elements 1(B), 3(A), and 3(B).

(6) An unexpired (or within the renewal grace period) FCC-issued Advanced Class operator license: Elements 3(A), 3(B), and 4(A).

(7) A CSCE: Each element the CSCE indicates the exmanee passed within the previous 365 days.

(8) An unexpired (or within the renewal grace period) FCC-issued commercial radiotelegraph operator license or permit: Element 1(C).

* * * * *

9. Section 97.507 is revised to read as follows:

& 97.507 Preparing an Examination.

(a) Each telegraphy message and each written question set administered to an examinee must be prepared by a VE holding an FCC-issued Amateur Extra Class operator license. A telegraphy message or written question set, however, may also be prepared for the following elements by a VE holding an FCC-issued operator license of the Class indicated:

(1) Element 3(B): Advanced Class operator.

(2) Elements 1(A) and 3(A): Advanced or General Class operator.

(b) Each question set administered to an examinee must utilize questions taken from the applicable question pool.

(c) Each telegraphy message and each written question set administered to an examinee for a Communicator, General,

Advanced or Amateur Extra Class operator license must be prepared, or obtained from a supplier, by administering VEs according to instructions from the coordinating VEC.

(d) A telegraphy examination must consist of a message sent in the international Morse code at no less than the prescribed speed for a minimum of 5 minutes. The message must contain each required telegraphy character at least once. No message known to the examinee my be administered in a telegraphy examination. Each 5 letters of the alphabet must be counted as 1 word. Each numeral, punchuation mark and prosign must be counted as 2 letters of the alphabet.

1338. Re: How does one build LOG AMPS (>60dB dynamic range)

Newsgroup: rec.ham-radio
Date: 1990-02-27 05:26:03 UTC
From: johnw@watnext.waterloo.edu
Message-ID: <13547@watcgl.waterloo.edu>
Source record: 13143
Cross-posted to: rec.ham-radio,sci.electronics

A fellow from New Zeland wanted to know how to go about assembling a log amp. Probabley the easiest way is to get an Intersil ICL8048. I needs two resistors, a small 180pf cap and +/- 15 V and you're in business. It has 120 dB dynamic range for current input and 60 dB for voltage input.

The voltage is just turned into current. The voltage precision is then limited by the offsets of its internal op-amps. You can build wider range circuits discretely with either chopper stabilized and /or low Ib op amps but the jump in cost and time from this chip in performance is about 5x money and 30x time.

For you information: log amps and anti-log amps exploit the relationship that for a bipolar transistor Veb varies as the log of Ic. The chip packages it all very nicely for you. Analog Devices also has several entries in this field, but they are hybrids vs Intersil monolithics which translates to higher cost.

I've used the chip, it's cute.

John Wieczorek

Disclaimer: The views and information contained herein are vicious lies, and are in fact taken from the drunken musing of my three, beer swilling, chain saw wielding but otherwise successfully house trained pet Blue Yukon mongooses.

1339. FCC PR Docket 90-55 Part 4/4

Newsgroup: rec.ham-radio
Date: 1990-02-27 05:27:42 UTC
From: wb2hbz@ka2qhd.UUCP
Message-ID: <194@ka2qhd.UUCP>
Source record: 13144

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10. In Section 97.511, the heading and the text are revised to read as follows:

& 97.511 Operator license examination.

(a) Each session where an examination is administered must be coordinated by a VEC. Each administering VE must be accredited by the coordinating VEC.

(b) Each examination for a Communicator Class operator license must be administered by 3 administering VEs, each of whom must hold an FCC-issued Amateur Extra or Advanced Class operator license.

(c) Each examination for a General, Advanced or Amateur Extra Class operator license must be administered by 3 administering VEs, each of whom must hold an FCC-issued Amateur Extra Class operator license.

(d) The administering VEs must make a public announcement before administering an examination. The number of candidates at any exmination may be limited.

(e) The administering VEs must issue a CSCE to an examinee who scores a passing grade on an examination element.

(f) Within 10 days of the administration of a successful examination, the administering VEs must submit the application to the coordinating VEC.

11. Section 97.513 is removed.

12. In Section 97.519, new paragraph (d) is added to read as follows:

& 97.519 Coordinating examination sessions.

* * * * *

(d) Each coordinating VEC must compile lists of Communicator Class operator licenses who have been issued a CSCE for Element 1(A), 1(B), or 1(C) during each calendar month. The VEC must forward a copy of the list to the Private Radio Bureau, FCC, Washington, DC 20554, by the 10th day following

the end of the month.

13. Section 97.527 is amended by revising paragraph (a), removing paragraph (c) and redesignating paragraphs (d) (e) (f) and (g) as (c) (d) (e) and (f) to read as follows:

& 97.527 Reimbursement for expenses.

(a) VEs and VECs my be reimbursed by examinees for out-of-pocket expenses incurred in preparing, processing, administering, or coordinating an examination.

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* * * * *

FOOTNOTES

(1) The petitions were received from the American Radio Relay League, Inc. (ARRL) (RM-6995), Larry Ballentine (RM-6991), Clement Bourgeois, Jr. (RM-6988), Burt Fisher (RM-6989), Alan Horowitz (RM-6984), John M. McCord (RM-6993), the Space Coast Amateur Technical Group (SCATG) (RM-6986), David K. Stall (RM-6994), James E. Taylor (RM-6985), Michael C. Trahos (RM-6990), Dennis and Linda Welch (RM-2987), and Bill Welsh (RM-6992). Subsequent to the Public Notice listing of the foregoing petitions, two additional petitions addressing the same matter were received from Larry Garens and Philip Howard. These petitions are included in the record of this notice and comment proceeding and will be given full consideration prior to a final determination in this matter.

(2) See No. 53 of the International Telecommunication Union Radio Regulations (geneva, 1979) (hereafter Radio Regulations). See also 47 U.S.C. & 153(q).

(3) See No. 2735 of the Radio Regulations.

(4) The license classes are, in ascending steps, Novice, Technician, General, Advanced and Amateur Extra.

(5) The examinations cover three levels of telegraphy skill. They are 5, 13, and 20 words-per-minute. The examinee must also pass certain written examination elements, depending upon the operator license class sought. See Sections 97.501 and 97.503 of the Commission's Rules, 47 C.F.R. && 97.501 and 97.503.

(6) Notice of Proposed Rule Making, Docket No. 20282, 39 Fed. Reg. 44042 (1974).

(7) Notice of Proposed Rule Makeing, PR Docket No. 83-28, 48 Fed. Reg. 4855 (1983).

(8) Third Report and Order, Docket No. 20282, 44 Fed. Reg. 16461 (1979).

(9) The qualification requirements for a Technician Class Operator license are passing the five words-per-minute telegraphy examination, the 30 question written examination for a Novice Class Operator license, and the 25 question written examination for a Technician Class Operator license.

(10) Report and Order, PR Docket No. 83-28, 49 Fed. Reg. 1097 (1984).

(11) RM-6995 at 21.
(12) RM-6994 at 3.

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(13) RM-6995 at 12 and 13, N. 11.
(14) RM-6996 at 3.
(15) RM-6989 at 1 and 2.
(16) RM-6990 at 5.
(17) RM-6993 at 2.
(18) RM-6987 at 1.
(19) RM-6992 at 1.
(20) RM-6985 at 1.

(21) The highest speed telegraphy requirement is 20 words-per-minute for the Amateur Extra Class operator license.

(22) RM-6988 at 2 and 3.
(23) RM-6991 at 1.
(24) RM-6995 at 15.
(25) RM-6994 at 1.
(26) RM-6985 at 1.
(27) RM-6995 at 18.
(28) RM-6993 at 1.
(29) RM-6987 at 2.
(30) RM-6986 at 1.
(31) RM-6985 at 1 and 2.
(32) RM-6984 at 1.
(33) RM-6990 at 4.
(34) RM-6990 at 20.
(35) RM-6992 at 2 and 3.
(36) RM-6992 at 3.
(37) RM-6985 at 2.
(38) RM-6990 at 21, and RM-6986 at 2.
(39) RM-6989 at 1.
(40) RM-6995 at 20.
(41) RM-6987 at 2.
(42) RM-6994 at 1.
(43) RM-6993 at 1.
(44) RM-6995 at 17 and 18.
(45) RM-6986 at 2.
(46) RM-6986 at 1.
(47) RM-6989 at 1.
(48) RM-6990 at 20.

(49) RM-6994 at 1.
(50) RM-6995 at 17.
(51) RM-6995 at 19.
(52) The sixth license class designation is "Communicator."
(53) A written examination must be designed to demonstrate that the examinee has the operational and technical qualifications required to perform properly the duties of an amateur service licensee in accordance with the privileges authorized by the class of operator license sought. See 47 U.S.C. & 303(1)(1) and 47 C.F.R. & 97.503(b).

(54) Section 97.523, 47 C.F.R. & 97.523, requireds all VECs to cooperate in maintaining one question pool for each written examination element. Each pool must contain at least 10 times the number of questions required for a single examination.

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(55) The current Technician Class question pool consists of 250 questions. There are currently 300 questions in the Novice Class question pool. An additional 50 question would be added, giving the proposed Communicator Class question pool a total of 600 questions.

(56) See Section 97.1(c), 47 C.F.R. & 97.1(c).

(57) Until a revised FCC Form 610 becomes available, the administering VEs would write in certain information on the current form in the case of an application for a Communicator Operator license. We would furnish information to the VECs for temporary use of the current form, if we decide to proceed with the Communicator Class license.

(58) The computer-aided application processing system selects a new call sign from four basic groupings for assignment to an amateur station. Each call sign is sequentially selected from an alphabetized region-group list that corresponds to the licensee's class of operator license and mailing address.

(59) RM-6995 at 19.
(60) RM-6995 at 14.

(61) See Radio Regulations, Nos. 2735 and 2736.

(62) The additional privileges include RTTY and data emissions and phone emissions J3E and R3E in a segment of the 10 meter band, and all authorized emissions in the 2 and 6 meter bands. See && 97.301 and 97.303.

(63) A Certificate of Successful Completion of Examination is now issued by VEs. See Section 97.511(e), 47 C.F.R. & 97.511(e).

(64) Section 97.119(e) requires that an indicator must be included after the call sign whenever the control operator is

using privileges based on hold a CSCE. The indicator AC is proposed for the Communicator Class.

(65) Currently, Section 97.505(a)(2), 47 C.F.R. & 97.505(a)(2), requires VEs to give credit to an examinee holding a certificate of successful examination (CSCE) indicating the examination was passed within the previous 365 days. Currently, Section 97.9(b), 47 C.F.R. 97.9(b), authorizes a licensee holding a CSCE indicating that he or she has completed the necessary examinations within the privious 365 days to exercise the rights and privileges of the higher operator class. The time limitation that would apply to the use of a CSCE in conjunction with the Communicator Class license authorizing the rights and privileges of the Technician Class would be the duration of the license term and renewal thereof.

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(66) Eighteen organizations function as VECs. They accredit VEs, coordinate examination sessions, maintain the question pools, provide instructions to VEs, review and forward completed license application forms to the Commission for processing. Some 50,000 examinations are administered annually under the VEC system.

(67) Some 18,000 to 20,000 persons qualify for a Novice Operator Class license annually. The examinations are administered by two General, Advanced, or Amateur Extra Operator Class licensees selected by the examinee.

(68) Some 10,000 to 15,000 persons qualify for the Technician Operator Class license annually.

(69) Currently, VEs and VEC may only be reimbursed by examinees for expenses incurred in preparing, processing, administering or coordinating an examination for a Technician, General, Advanced, or Amateur Extra Class Operator license. See 47 U.S.C. & 154(f)(4)(J) and 47 C.F.R. & 97.527.

1340. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-02-27 14:04:05 UTC
From: rkd@cci632.UUCP
Message-ID: <34689@cci632.UUCP>
Source record: 13145

Randall J. Davis writes:
BTW: I thought the mod was to *add* a resister, not cut one out....

Bob Parnass responded:
Wrong.

Ok, now I'm confused (easily so I guess). I just received one of these (BC200XLT) via Grove. It makes my PRO34 look and feel very wimpy - how much are PRO34's worth on the used market? Grove included instructions that ADD a 2-10k resistor from pin 8 of one of the K1013 ICs down to a resistor adjacent to IC UC-1147. The mod seems to work, though I don't have enough working experience with the radio to know if I've lost some other operation.

Are there two way to make this mod? If so, what's the "better" way? Hacking out a resistor may cause slightly less power drain (but harder to undo)? I've just started a _Monitoring Times_ subscription, can anyone recommend a back issue article to read related to this?
--

Ray Downes, CCI, (716) 482-5000 rutgers!rochester!cci632!rkd

1341. Re: Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-02-27 14:29:33 UTC
From: rfc@briar.philips.com
Message-ID: <82959@philabs.Philips.Com>
Source record: 13146

>In article <2619@wyse.wyse.com> pgraham@wyse.wyse.com (PC-NFS Philip Graham x1124 #) writes:
>>What is the best way to measure harmonics of radio gear?
>
I've done the following to sense if I have a significant problem with harmonics in 2 meter rigs: I found that cable-ready TV sets' channel 35 tunes around 292 Mhz, which is the 2nd harmonic of 146 Mhz. Connect the TV to an outside antenna, or rabbit ears (disconnect the catv). Key up the rig under test. See if you see any signal on the TV (you should see something, a clean rig will still produce a few uVolts which the TV will pick-up.) Compare the first rig with another one (like a commercial made HT). If you get similar signal strengths, you're *probably* OK. If you produce a big whopping signal with the rig under test, you know what that means!
Anyone know who lives around 292Mhz?

73 de WA2ISE

1342. HAM stuff forsale

Newsgroup: rec.ham-radio
Date: 1990-02-27 15:33:19 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1627@east.East.Sun.COM>
Source record: 13147

Posted for a friend:

Kenwood 599T/R twins

-Covers 80-10m
-AM/SSB/CW
-All solid state except finals
-Well over 100 Watts
-Matching speaker
-Excellent condition
-Original boxes/packing, shipping negotiable

$450.00/BO

ICOM IC-04AT

-440 Mhz HT
-5 watts high power
-LCD readout
-10 memories
-Has extented xmt/rcv mod installed
-Runs off 12v direct

$225.00/BO

Call Ed (KA1SRD) at 508-345-6664 (days/eves). Equipment is available
to licensed amateurs only.
Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1343. Sorry, misposting (HAM stuff for sale)

Newsgroup: rec.ham-radio
Date: 1990-02-27 16:15:37 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1629@east.East.Sun.COM>
Source record: 13148

Before the internet folks flame for sending a "for sale" ad to this group:
* It was an accident *, I meant to add the ".swap"! So, it's not available
to folks on the internet!

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

1344. Re: Canadian digital to advanced

Newsgroup: rec.ham-radio
Date: 1990-02-27 17:05:26 UTC
From: hardie@herald.usask.ca
Message-ID: <1990Feb27.170526.1479@dvinci.usask.ca>
Source record: 13149

WRONG, WRONG, WRONG!!!!
Those who have only the digital license will NOT be grandfathered into
the Advanced license. They will only get VHF and above.
Those who currently hold the Amateur license (theory, regs and 10wpm) will
be grandfathered into the Advanced license.
Pete
VE5VA

1345. Re: How does one build LOG AMPS (>60dB dynamic range)

Newsgroup: rec.ham-radio
Date: 1990-02-27 17:07:15 UTC
From: michael@fe2o3.UUCP
Message-ID: <321@fe2o3.UUCP>
Source record: 13150
Cross-posted to: rec.ham-radio,sci.electronics

In article <596@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti) writes:
>I've build a spectrum analyser (0-100MHz) that has a 10.7MHz IF (from
>HAM-RADIO years ago) and it works quite well but I'm not happy with the
>log-amp/detector.
>
>
>How does one make real log amps that don't need lots of preset adjustment?
>
>Ideas ??
>
>Giovanni
>
Try Plessey. I can't find my data book but I'm sure they make some with
at least 80dB dynamic range.

1346. Re: How does one build LOG AMPS (>60dB dynamic range)

Newsgroup: rec.ham-radio
Date: 1990-02-27 17:11:00 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250126@hpnmdla.HP.COM>
Source record: 13151

Another inexpensive source for a useful logger is the Motorola
MC3356 and MC13055 FSK receiver ICs. These are really complete receivers
including i-f amplification, log output, squelch and data recovery
circuits but are in the $2 rice range. The log output seems to be pretty
straight over a 60-70 dB range and the chip works pretty well at inputs
up to 50 MHz or so. The MC3356 also has an oscillator (may be crystal
controlled or tuned) and mixer built into it too so that the device
makes pretty good material for a very-poor-man's spectrum analyzer.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@nmd.hpcom

1347. Re: Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-02-27 17:58:27 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720060@hplsla.HP.COM>
Source record: 13152

>pgraham@wyse.wyse.com (PC-NFS Philip Graham x1124 #) sez:

>Hello Folks,
>What is the best way to measure harmonics of radio gear?
>
>Frankly I would be happy to measure in any way, but I do not own a
>attenuator that will take 100 Watts (let alone 1000 Watts) or a
>directional coupler.

But wait! Surely you have a dummy load! You're not going to test
this equipment on the air are you? (Unless you're looking for external
intermod, or such). A dummy load is the most expensive part of a
"power attenuator". You don't need a precise amount of attenuation,
since you're not measuring absolute power, but rather the relative power
of the harmonics to the fundamental.

Here's a circuit you might try adding to your dummy load:

```
R2
Atten in from xmtr >-------/\/\/\------< Atten out, to spectrum analyzer.
| |
| |
\ \
/R1 / R3
\ \
/ /
| |
GND GND
```

R1: existing 50 ohm dummy load.
R2: 2400 ohm, 2W carbon comp (or other non-inductive resistor
i.e. not wirewound)
R3: 50 ohm 1/4 watt resistor

This circuit should give about 40dB of attenuation and handle 100 W.
Keep all leads very short. Keep input and output as separate as possible.
If possible, put a sheet metal shield between R1 and R3, with a hole for R2.
I have something like this inside the little minibox on top of my
Heath Cantenna, which replaces the diode detector circuit Heath supplies.

Happy testing!

Charlie Panek, KX7L

1348. Re: small QRP HF transceivers

Newsgroup: rec.ham-radio
Date: 1990-02-27 18:27:02 UTC
From: stan@hprpcd.HP.COM
Message-ID: <10500003@hprpcd.HP.COM>
Source record: 13153

AEA makes a 10 meter and 6 meter HT that is xtal controlled. I think the frequency can be pushed about 50 KHz with a tuning knob on the top and there is provision for 2 crystals. I vaguely rember the price at $300. AEA called it the DX-HANDY. Either 73 or QST reviewed it last summer. Reviewer had a QSO from Calif. while standing in his back yard (in New York State) with the whip antenna supplied with the rig.

I hope this helps,

Stan

~~~~~~
~ Stan Witherspoon ~ Disclaimer ~
~ Systems Technology Division ~~~~~~~~~~~~~~~~~~~~~~~~
~ Hewlett Packard Company ~ These are my ~
~ 8020 Foothills Blvd. ~ personal opinions ~
~ Roseville Ca. 95678 ~ and do not represent ~
~ Phone: (916) 785-5071 ~ the views of anyone ~
~ RF: N6SCE ~ or anything else ~
~ Email: ucbvax!hplabs!hprpcd!stan ~
~~~~~~

1349. Radio Memory Failure

Newsgroup: rec.ham-radio
Date: 1990-02-27 18:29:56 UTC
From: ewb@raybed2.ray.com
Message-ID: <1471@raybed2.ray.com>
Source record: 13154
Cross-posted to: rec.ham-radio,rec.radio.shortwave

This is done as a public service announcement:

A few days ago we had a line of thunderstorms roll through New Hampshire. As I usually do during this type of weather I unplugged the PRO-2004 from the wall and the antenna. Well I went to use it yesterday after about 4 days un-plugged and guess what ?? That's right. All of the memories had been wiped clean ! Now I have to go through and re-program 270 or so channels and 10 scan bank channels :-(I stoped and thought for a minute and I could not remember ever replacing the memory back up battery.

So the moral of the story is this: CHECK YOUR MEMORY BACK-UP BATTERIES

73
Gene WA1UXA

1350. Dissident China radio station to be set up.

Newsgroup: rec.ham-radio
Date: 1990-02-27 19:07:43 UTC
From: rfc@briar.philips.com
Message-ID: <82977@philabs.Philips.Com>
Source record: 13155
Cross-posted to: rec.ham-radio,rec.radio.shortwave

the below was copied from: soc.culture.china:
>From: kwchan@hkucs.UUCP (Chan Ki Wa)
Source : South China Morning Post
Date : 24th Feb., 90

Dissident group to broadcast from ship

A radio station calling itself the "Voice of Democracy in China" will begin broadcasting from April 20 from a ship in international waters off China, the Federation for Democracy in China said yesterday.

Wu'erkaixi, a leader of the pro-democracy student movement who now lives in the United States, will head a team of young radio amateurs who plan to give a
^^^^^^^^^^^^^^
round-the-clock service that will reach all of Chinese territory.

The radio will broadcast on medium-wave from a 1,140 tonne ship formerly used by Britain for geo-physical research. It will be officially baptised the Goddess of Democracy when it is launched from the French port of La Rochelle on March 9.

The ship is being named after the version of the Statue of Liberty which students erected in Beijing's Tiananmen Square beofore the tanks moved in last June.

The launch will be broadcast by satellite. International recording artists are cutting a disc for the occassion and a world wide, 24-hour concert is planned to mark the first anniversary of the massacre in Tiananmen Square on June 4, the FDC said.

The FDC and the magazine Actuel sponsored the operation "Fax peace in China" four months ago, whereby the democratic movement telefaxed documents to machines capable of receiving them in China. Beijing reacted furiously to the initiative.

Some 15 European magazines are sponsoring the Goddess of Democracy.

The FDC was founded near Paris last November by dissidents from Beijing in exile in France, the United States and elsewhere.

Agence France Presse

Found this on the scc newsgroup. I don't suppose that the above "radio amateurs" are hams? Anyway, something for SWLs to DX.
73 de WA2ISE

1351. Re: Uniden HR2600

Newsgroup: rec.ham-radio
Date: 1990-02-27 20:04:47 UTC
From: rodman@mfci.UUCP
Message-ID: <1247@m3.mfci.UUCP>
Source record: 13156

In article <1621@east.East.Sun.COM> jimv@hienergy.East.Sun.COM (Jim Vienneau - CSS Program Manager) writes:

>to prevent tampering. They also decreed that all future designs (2600?) be
>tamper proof as well. A copy of the service manual is available from Uniden
>for $20.00, but again, all current units will be epoxied.
>
>

According to a freind, the "epoxy" is more a rubbery compond that can
be picked away and the mod done.

I'm not endorsing the mod, or claiming to have done it, I'm just pointing
out that the words "tamper-proof" should really be "tamper-resistant"....

Paul K. Rodman / KA1ZA / rodman@multiflow.com
Multiflow Computer, Inc. Tel. 203 488 6090 x 236
Branford, Ct. 06405

1352. FCC Petitions

Newsgroup: rec.ham-radio
Date: 1990-02-27 22:21:50 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9002272221.AA27028@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 13157

How can I find out the status of a FCC Petition, specifically, RM 2493? What, if any, is the advantage to responding to a petition with an original and 5 copies? Thanks,

-- Doug

1353. Kenwood TH-75A HT

Newsgroup: rec.ham-radio
Date: 1990-02-27 22:29:14 UTC
From: pvh@Apple.COM
Message-ID: <39044@apple.Apple.COM>
Source record: 13158

Anyone have one of these Kenwood units and care to make any comments (good, bad or otherwise) about it?

Oh yeah while I'm already blabbering... is it true that the ICOM 24-AT CANNOT receive VHF & UHF simultaneously?

Thanks.

Pete
KC6ISO

1354. Re: Here lies Ham Radio...

Newsgroup: rec.ham-radio
Date: 1990-02-27 22:30:44 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880126@hpfcdc.HP.COM>
Source record: 13159

> I'm sorry folks,
> I just can't help but feel that Morse Code is only a barrier to
> getting into Amateur radio if you have "NO DICIPLINE". I have never
> had anyone approach me wanting to get into radio that just could
> not get the code. A six year old can do it (i did), non-technical
> folks can do it (my friends have) so what is the problem here??

Some people are dyslexic and mentally cannot learn the code. I have two friends that barely made 5 wpm. One of them is now contributing to the hobby in a big way - he used to be a microwave engineer at Hewlett-Packard back when >1 GHz was leading edge. Both of these guys would have joined while in high school, had the CW requirement been eased.

> This "lower-the-
> water" instead of raise the bridge attitude just smacks of lack
> of dicipline.

I agree. Learning 5 wpm is just a matter of time and patience for most people. The difficulty is determining when someone has tried hard enough, then having the wisdom to "let them in" in spite of their not attaining 5 wpm. I'd rather give the VECs a little leeway here, rather than lowering the water level.

> de km4jn
> (o.f. for 22 years).

Perry Scott
KF0CA
(o.f. for 2 years) ar sk

1355. Re: Need wattage and range information for us in portable emergency.

Newsgroup: rec.ham-radio
Date: 1990-02-27 22:46:48 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880127@hpfcdc.HP.COM>
Source record: 13160

>Three years ago my mother had a heart attack and was advised to "take nice
>long walks as part of her recovery and treatment. This winter, while out
>walking, she slipped and broke her arm some distance from the nearest house.
>While this was not life threatening it caused her some distress.

This is an emergency situation. For emergency communications, use any
frequency and any amount of power you wish.

There are several commercially-available "medical alert" products out -
maybe a local hospital can help you there. The most reliable short haul
communications is VHF, but doesn't work well around hills. You need
line-of-sight to make it reliable. Portable cellular telephone is
a possibility, if the tranciever is small enough.

Emergency use of an amateur 2 meter repeater is a possibility - you
might want to contact a local amateur repeater group to see if it would
suit your needs. I know that I wouldn't mind having the repeater used
by an elderly lady with a broken arm. There are several commercially
available walkie-talkies that can be easily carried, and the smallest
batteries would last long enough.

Citizen Band walkie talkies would be ok about half the time. We're at
the maximum of the sunspot cycle now, so I fear your mom's 5 watts would
be drowned out by some clown in Louisiana running 2 kilowatts.

Perry Scott
KF0CA

1356. Morse code requirements

Newsgroup: rec.ham-radio
Date: 1990-02-27 23:32:43 UTC
From: dana@lando.la.locus.com.la.locus.com
Message-ID: <4308@oolong.la.locus.com>
Source record: 13161

I currently hold an Advanced class license. Back when I lived in a house where I could erect a reasonable antenna, over 2/3 of all my contacts were on HF using CW. I've only ever worked CW on frequencies above 54 Mhz once :-).

Morse code has been a buddy. I don't use it at all now, but I'd hate to see it go. It seems that politcal conditions will conspire to retain CW as a prerequisite to legal HF operation for some time (maybe the next WARC will toss it out?). For illegal operation, CW does nothing. Any lid can dial 7255 on his TS-140S and jam WESCARS regardless of whether CW exists or not. It isn't the requirement of CW which has kept HF less prone to jamming than 2m, it is the relative cost and practicality of the equipment.

CW has been a like a secret handshake for hams. You don't need any computer gear to use it (unlike any of the other popular digital modes) and you can learn it easily. Every Field Day I've ever been to has had someone come driving in honking their horn "CQ FD DE W6CX" or something. At one time, CW was the appropriate requirement for entry into the amateur ranks.

But, the state of the art has really moved on, and we've got all sorts of new things to play with. CW has little to do with any of them. By easing the CW requirement and increasing the technical (theory) requirement, we could enjoy a new growth in the ham community which would benefit us all. Maybe then the secret handshake will be jargon like "Bell 202" and "HDLC" and "AX.25" and even phrases like "pseudo-noise transmitter". For folks who don't know or care about these things, it'll be like AM vs. SSB was, followed by AM vs FM. CW will continue to be one of the best high noise path modes, SSB will still be extremely popular, and the new modes will just be icing on the cake.

Dana H. Myers
WA6ZGB
lcc!dana@seas.ucla.edu

1357. Re: Re^2: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-02-28 03:08:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500429@ux1.cso.uiuc.edu>
Source record: 13162

Why is it that the Canadian license was called "digital" when it in fact was really a "nocode" license?

How much effort was made by already licensed hams to get new hams to join the hobby?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1358. Dissident radio near China to start up

Newsgroup: rec.ham-radio
Date: 1990-02-28 03:11:01 UTC
From: rfc@briar.philips.com
Message-ID: <82989@philabs.Philips.Com>
Source record: 13163
Cross-posted to: rec.ham-radio,rec.radio.shortwave

News about a new radio station to start up offshore from China, by a group of "radio amateurs". Hams?? (probably not, but...) :-)
copied from soc.culture.china:
>From: kwchan@hkucs.UUCP (Chan Ki Wa)
Subject: China & HK News
Source : South China Morning Post
Date : 24th Feb., 90

Dissident group to broadcast from ship

A radio station calling itself the "Voice of Democracy in China" will begin broadcasting from April 20 from a ship in international waters off China, the Federation for Democracy in China said yesterday.

Wu'erkaixi, a leader of the pro-democracy student movement who now lives in the United States, will head a team of young radio amateurs who plan to give a
^^^^^^^^^^^^^^
round-the-clock service that will reach all of Chinese territory.

The radio will broadcast on medium-wave from a 1,140 tonne ship formerly used by Britain for geo-physical research. It will be officially baptised the Goddess of Democracy when it is launched from the French port of La Rochelle on March 9.

The ship is being named after the version of the Statue of Liberty which students erected in Beijing's Tiananmen Square beofore the tanks moved in last June.

The launch will be broadcast by satellite. International recording artists are cutting a disc for the occassion and a world wide, 24-hour concert is planned to mark the first anniversary of the massacre in Tiananmen Square on June 4, the FDC said.

The FDC and the magazine Actuel sponsored the operation "Fax peace in China" four months ago, whereby the democratic movement telefaxed documents to machines capable of receiving them in China. Beijing reacted furiously to the initiative.

Some 15 European magazines are sponsoring the Goddess of Democracy.

The FDC was founded near Paris last November by dissidents from Beijing in exile in France, the United States and elsewhere.

Agence France Presse

Found this on the scc newsgroup. I don't suppose that the above "radio amateurs" are hams? Anyway, something for SWLs to DX.
73 de WA2ISE
p.s. This is 2nd attempt at posting this, 1st apparently didn't make it.

1359. Memorizaion vs recognition on written test

Newsgroup: rec.ham-radio
Date: 1990-02-28 03:53:00 UTC
From: COFER@UTKVX3.BITNET
Message-ID: <9002280813.AA14697@ucbvax.Berkeley.EDU>
Source record: 13164

> Tests are imperfect ways to measure things. Would you feel much better
> knowing that Pilot's Licenses (including airline pilots) include
> multiple-choice, memorizable tests?

However, to put this in perspective, there is a difference between this situation and the written ham exam. Before you can take the Pilot's License written exam, you must have the approval of a Certified Flight Instructor. Such approval is not likely to be forthcoming until after extensive ground school training; with your Instructor satisfied you are knowledgeable and ready.

If we are going to rely solely on written knowledge testing for obtaining a ham license, and IF we want that test to be a valid measure of knowledge, than improvements in the tests need to be made. Some have noted that one can easily memorize the current answers to the tests. The problem is worst than that. Memorization is not required. The tests only require recognition. For example, do you want someone to pass a current written ham test with an hour of study? Try this: Get a copy of the current test question and answer pool, and type up all the answers on a separate piece of paper. Give that sheet of paper to someone with the instructions to read over the list, and if they recognize any of the answers on the test, then mark them as correct. I suspect they will pass without further study because of the poor psychometric qualities of the test. For example, few if any of the correct answers serve as distracters (i.e. where the correct answers are also incorrect answers to other questions).

---------------------- -.........-----.-
John L. Cofer N 4 M H A
COFER@UTKVX.BITNET -.....---.....-

All disclaimers apply

1360. Atlantis heard during launch

Newsgroup: rec.ham-radio
Date: 1990-02-28 08:12:53 UTC
From: karn@ka9q.bellcore.com
Message-ID: <20405@bellcore.bellcore.com>
Source record: 13165
Cross-posted to: rec.ham-radio,sci.space.shuttle

I heard UHF air-to-ground communications during this morning's launch of Atlantis on its "secret" shuttle mission. I heard a total of four very brief transmissions, all on a frequency of 259.7 MHz (the "secondary" UHF comm frequency listed in the press kits). The first transmission heard here in northern NJ was at about 2:59:30 AM EST, and the last was at 3:01:14. The last message clearly said "APU shutdown on time"; this seems right given that the launch had occurred about 10 minutes earlier.

Among other things, my ability to hear the shuttle at this location confirms the high inclination orbit.

Phil

1361. Telephone answering machines; need info on msg forwarding feature

Newsgroup: rec.ham-radio
Date: 1990-02-28 08:36:03 UTC
From: mikey@pnet01.cts.com
Message-ID: <1690@crash.cts.com>
Source record: 13166

Anyone know about the "Message Transfer" or "Message Forwarding" feature now being touted in the upper-end answering machines?

I'm looking for a machine that will automaticly call my Bravo pager and send some pre-programed digits so that I know that a msg has been left on my machine. Specificly, will they send the extra digits after some delay after dialing the pager phone number, will they send the pound sign as the pager terminator, will they dial and alternate phone number, etc, etc, etc.

Being basicly a cheapo type individual, I am trying to save the $15 change that the pager company charges for voice mail/paging. I have a Code-a-Phone 2555 now. An antique I know, but has excellent audio quality and smooth remote control. Don't really want to give it up, but the monthly savings will soon pay for the handy, dandy, late model do-dads that are out in the high-end market.

E-mail fine but, if it will flow, let's do it here... ...Mike

==========
Mike Shirley, WB6WUI
PO Box 460
Lakeside, CA 92040-0460

UUCP: {hplabs!hp-sdd ucsd nosc}!crash!pnet01!mikey
ARPA: crash!pnet01!mikey@nosc.mil
INET: mikey@pnet01.cts.com
==========

1362. Don't junk that old Bearcat BC-300 (repost)

Newsgroup: rec.ham-radio
Date: 1990-02-28 13:35:45 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <13295@cbnewse.ATT.COM>
Source record: 13167
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I have been receiving inquiries from people who own or are considering the purchase of an older Bearcat BC-300 scanner, so reposting this article seems like the right thing to do.

x
DON'T JUNK THAT OLD BEARCAT BC-300

by Bob Parnass, AJ9S

Although the Bearcat BC-300 scanner is no longer available, it occupies a fond place in my collection. I exercise little self control when I see a used BC-300 for sale cheap, and have adopted two broken units. They make fine radios after repair.

The BC-300 was the forerunner of today's 760XLT. It was a 50 channel feature laden scanner, introduced around 1979, back when Bearcat was part of Electra. Retail sales of the BC-300 continued until 1987, when it was discontinued by Uniden.

Although Electra offered the pricey BC-350 as a step above the BC-300, firmware bugs and a batch of bad power transformers doomed the 350, and the 300 remained the jewel of Bearcat line.

It's easy to see why the BC-300 model was offered for several years. It boasted premium features like a clock, a carrier operated solid state relay for tape recorder activation, a transmission counter, and a Service Search of 11 ROM banks of preprogrammed channels. For memory, the BC-300 used EAROM (electronically alterable read only memory), so backup batteries were not necessary. The Dog House, a radio shop in Fairfax, Virginia, at one time offered the DH 1000, a 1,000 channel adapter for the BC-300! Unfortunately for federal band listeners, the BC-300 lacked coverage of the 138-144 and 406-420 MHz bands.

While outwardly impressive, internal construction was typical of Electra hand wiring in that era -- a bit messy. BC-300 schematics show at least 100 components changed between earliest and later units. The scanner went through many circuit design changes, but rather than changing the printed circuit board, new components were tack soldered on

the foil side in different positions.

Electra stamped all of its scanners with a manufacturing date code on the rear of the cabinet. The code is comprised of a single character (C = Cumberland, Indiana, P = Puerto Rico), followed by four digits denoting year and week the radio was built. For example, "P2284" denotes the radio was made in the Puerto Rico factory during the 22nd week of 1984.

Switching power supply failure was common in early units due to insufficient capacitance. Electra responded by increasing the value of capacitor C98 from 22 ufd/16 v to 47 ufd/25 v, but I recommend 47 ufd/35 v. If your display is getting abnormally dim, C98 is probably the culprit, as it was in five Bearcat scanners I fixed.

Squelch preset potentiometer R81, mounted on the radio circuit board, was misadjusted in new units, requiring readjustment after the components aged.

In one radio, I replaced Q9, a small signal PNP transistor. Its failure caused the BC-300 to become deaf on all but the UHF band. Failure of squelch gate transistor Q15 caused the squelch to remain open at all times.

Cold solder joints, especially on the wires and ribbon cable connecting the radio board to the logic board, have been responsible for other failures.

I have seen serious IC failures in three BC-300s built around 1984. These include CPU chip IC201, memory chip IC202, and IC203, not in stock at your your local Radio ShackO.

The BC-300 circuitry, especially on the radio board, is very similar to the circuitry in the the BC-220, BC-20/20, BC210XL, and BC-350, so some of the previous remarks may be applicable to these models as well.

I can neither furnish schematics nor repair your radio. If you come across a broken BC-300, obtain a schematic from Uniden and spend some time troubleshooting. If you give up, your BC-300 can be fixed by Electronic Repair Centers in Franklin Park, Illinois, (312)455-5105. I'm told they do good work. The BC-300 is a classic scanner and worthy of your efforts.
--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

1363. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-02-28 14:19:00 UTC
From: ramcte01@ULKYVX.BITNET
Message-ID: <45ramcte01@ULKYVX.bitnet>
Source record: 13168

In article <34689@cci632.UUCP> rkd@cci632.UUCP (Ray Downes) writes:
>
>Randall J. Davis writes:
> BTW: I thought the mod was to *add* a resister, not cut one out....
>
>Bob Parnass responded:
> Wrong.
>
>Ok, now I'm confused (easily so I guess). I just received one of these
>(BC200XLT) via Grove. It makes my PRO34 look and feel very wimpy - how
>much are PRO34's worth on the used market? Grove included instructions
>that ADD a 2-10k resistor from pin 8 of one of the K1013 ICs down to a
>resistor adjacent to IC UC-1147. The mod seems to work, though I don't
>have enough working experience with the radio to know if I've lost some
>other operation.
>
>Are there two way to make this mod? If so, what's the "better" way?
>Hacking out a resistor may cause slightly less power drain (but harder
>to undo)? I've just started a _Monitoring Times_ subscription, can
>anyone recommend a back issue article to read related to this?
>--
>
>Ray Downes, CCI, (716) 482-5000 rutgers!rochester!cci632!rkd

Looking at the schematic for the Bearcat 200XLT, Pin 8 is a switched Vcc line which supplies the K1013 chips. They are using it supply Vcc for a pullup line which drags the SKIP(NOT) pin of the high. The resistor which others say needs to be cut pulls the SKIP(NOT) line to ground (or low enough to look like a logic 0).

Other information in the schematic describes the SKIP(NOT) line as "with pull-up MOS". This suggests to me that the line has an internal pullup resistor, so that removing the 10K pulldown should be sufficient. But I'm not an engineer, so Grove may have its reasons. The added current drain from a 10K resistor is insignificant.

Rick McTeague, System Programmer
Electrical Engineering Department, Speed Scientific School
University of Louisville, Louisville, KY 40292
(502) 588-7020

RAMCTE01@ULKYVX (Bitnet)
RAMCTE01%ULKYVX.BITNET@CUNYVM.CUNY.EDU (Internet)
{akgua,allegra,cbosgd}!psuvax1!ulkyvx.bitnet!ramcte01 (uucp)

Disclaimer: I'm a stand-up comedian; if anyone takes me seriously, I'm doing something wrong!

1364. Re: Need wattage and range information for us in portable emergency.

Newsgroup: rec.ham-radio
Date: 1990-02-28 15:26:25 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490010@hprmokg.HP.COM>
Source record: 13169

I don't know if you both have to be portable or not. If one doesn't have to be, it would be better to get an outside antenna 20 or 30 feet above the roof and connect the walkie talkie to it.

Brute force power is no substitute for a good antenna.

1365. Re: Need wattage and range information for us in portable emergency.

Newsgroup: rec.ham-radio
Date: 1990-02-28 15:30:51 UTC
From: bobw@col.hp.com
Message-ID: <4380073@col.hp.com>
Source record: 13170

>I desire to use a pair of portable CB radios as an emergency communication
>system. The area in which they are to be used is rural and rather hilly and
>I need to have a reliable range of 2.5 to 3 miles between units.
>
>Can anyone help me to know what kind of wattage I would need ?
>
[stuff deleted]
>Question is what wattage should the units be ?
>Is there a formula for wattage to range conversion ?
>Are US CB radios different from British ? (FM vs AM ?)
> (There's certainly a difference in price.)
>
I would buy the maximum legal power (which is 5 watts, I believe).
The CB frequencies can have huge amounts of QRM, either local or
via skywave. In fact, I wonder if a portable radio would be a reliable
link over 2.5 miles, considering the potential interference.

Bob Witte, KB0CY

1366. Re: RTTY and/or Packet with a TS-440s

Newsgroup: rec.ham-radio
Date: 1990-02-28 16:10:24 UTC
From: brian@ucsd.Edu
Message-ID: <12040@ucsd.Edu>
Source record: 13171

pfluegerm@valley.UUCP (Mike Pflueger) writes:
>...
>Be careful soldering the 13 pin DIN connector - the plastic melts at low
>temps and the pins move around.

If you stick the pins into a wet sponge whilst you're soldering on the
other end this is much less likely to happen.
- Brian

1367. Re: MFJ quality

Newsgroup: rec.ham-radio
Date: 1990-02-28 17:57:54 UTC
From: tech@cs.AthabascaU.CA
Message-ID: <1726@aurora.AthabascaU.CA>
Source record: 13172

From article <7880125@hpfcdc.HP.COM>, by perry@hpfcdc.HP.COM (Perry Scott):
> I have the 949C tuner. Now that I've built an amplifier capable of 300W
> (the 949C's limit), I find that I burn out switch contacts if I use full
> rated power on it.
>

Just to make this into a product review :) Are you adjusting these switches
while the rig is transmitting or are the switches failing just by being in
in the circuit?

********* 73
********** Richard Loken VE6BSV
. ****
.. **** Athabasca University
.... **** Athabasca, Alberta Canada
..........**** tech@cs.AthabascaU.CA {alberta|decwrl}!atha!tech

1368. Need RX MOD for IC-04AT

Newsgroup: rec.ham-radio
Date: 1990-02-28 21:59:37 UTC
From: marke@hpscdc.scd.hp.com
Message-ID: <5490093@hpscdc.scd.hp.com>
Source record: 13173

The subject of "mod's" for the IC-04AT have probably been brought up before here on the NET, but for some reason I have managed to miss them all. So, if some kind ol radio amateur could dig in to his or her files one more time, and post them for me, it would be muchly apprieciated. I am specifically looking for the mod's that pertain to out of band operation, and RX audio volume improvement.

Please post or e-mail, and thanks.

Mark Espinosa/WA6RGD

1369. Re: Flames 0 Tact 1

Newsgroup: rec.ham-radio
Date: 1990-02-28 22:18:16 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880128@hpfcdc.HP.COM>
Source record: 13174

We actually exchanged some mail. He really wasn't aware of the law, and it gave me a chance to put in a plug for a Tech license and 10 meters. He's pretty busy right now, but hopefully he'll get a chance to convert some old $5 CBs to 10 meters. I hope all you Ernies out there do what you can when a CBer comes around looking for the Bigger and Better Deal.

Honey works better than vinegar.

Perry

1370. Re: Buying from Japan

Newsgroup: rec.ham-radio
Date: 1990-02-28 22:37:30 UTC
From: john@anasaz.UUCP
Message-ID: <1354@anasaz.UUCP>
Source record: 13175
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <488@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
]Pete Helme asked about saving money by buying ham gear in Japan.

My brother lives in Tokyo. He buys as much as he can, of electronics
and most everything else, in the US because it is cheaper to buy
it here and ship it there than to buy it there. His salary is
paid in Yen.

On the other hand, back in the early eighties I had him buy me
a TS-430 in Aki Habara (sp?) at a good price (~$600). I saw
IC-2's there for $140, but they could only be converted to US
bands with about $60.00 worth of crystals.
--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

1371. Re: FCC PR Docket 90-55 Part 3/4

Newsgroup: rec.ham-radio
Date: 1990-02-28 22:58:52 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250128@hpnmdla.HP.COM>
Source record: 13176

/ hpnmdla:rec.ham-radio / wb2hbz@ka2qhd.UUCP (Jim Dockery Kinnelon NJ) / 9:24 pm Feb 26, 1990 /

cut here

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and reply comments on or before September 7, 1990. All relevant and timely comments will be considered by the the Commission before final action is taken in this proceeding. To file formally in this proceeding, participants must file an original and four copies of all comments and reply comments. If participants want each Commissioner to receive copies of their comments, an original and nine copies must be filed. Comments and reply comments must state the proceeding to which they relate (PR Docket Number). They should be sent to the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Dockets Reference Room (Room 239) of the Federal Communications Commission, 1919 M Street N.W., Washington, D.C. 20554.

29. In accordance with Section 605 of the Regulatory Flexibility Act of 1980, 5 U.S.C. & 605, the Commission certifies that these rules would not, if proulgated, have a significant economic impact on a substantial number of small entities, because these entities may not use an amateur station to transmit any communication the purpose of which is facilitate the business or commercial affairs of any party. See 47 C.F.R. & 97.113(a). Moreover, the proposed rules would not require the use of or significantly enhance the sale of any additional amateur station apparatus.

30. The proposal contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980, 44 U.S.C. & 3501 et seq., and found to increase the information collection burden which the Commission imposes on the public. This proposed increase in the information collection burden is subject to approval by the Office of Management nd Budget as prescribed by the Act.

31. A copy of the Notice will be forwarded to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

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APPENDIX

Part 97 of Chapter I of Title 47 of the Code of Federal Regulation is proposed to be amended as follows:

1. The authority citation for Part 97 continues to read as follows:

Authority citation: 48 Stat. 1066, 1082, as amended; 47 U.S.C. & 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. && 301-609, unless otherwise noted.

2. Section 97.9 is revised to read as follows:

& 97.9 Operator License

(a) The classes of operator licenses are Communicator, General, Advanced, and Amateur Extra. There are also two grandfathered classes of operator licenses, Novice and Technician. An operator license authorizes the holder to be the control operator of a station with the privileges of operator class specified on the license. The license document or a photocopy thereof must be in the personal possession of the licensee at all times when the person is the control operator of a station.

(b) A person holding a Communicator Class operator license and who holds a CSCE indicating that the person passed element 1(A), 1(B), or 1(C) is authorized to exercise the rights and privileges of the Technician Class for the duration of the license and renewal thereof.

(c) A person holding a Novice, Technician, Communicator, General, or Advanced Class operator license who has properly filed with the FCC an application for a higher operator class that has not yet been acted upon, and who holds a CSCE indicating that the person passed the necessary examinations within the previous 365 days is authorized to exercise the rights and privileges of the higher operator class.

3. Section 97.17(a) is revised to read as follows:

& 97.17 Application for new license.

(a) Any qualified person is eligible to apply for an amateur service license. No new Novice or Technician Class operator licenses will be issued.

* * * * *

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4. Section & 97.119(e) is revised to read as follows:

& 97.119 Station Identification.

* * * * *

(e) When the control operator is using privileges on the basis of holding a CSCE, an indicator must be included after the call sign as follows:

(1) AC for Communicator Class Operator;
(2) AG for General Class Operator;
(3) AA for Advanced Class Operator;
(4) AE for Amateur Extra Class operator.

* * * * *

5. Section 97.301(a) is revised and a new paragraph (g) is added to read as follows:

& 97.301 Authorized Frequency Bands.

* * * * *

(a) For a station having a control operator holding a Technician, Communicator, General, Advanced or Amateur Extra Class operator license:

Wave- length band	ITU Region 1 See Paragraph:	ITU Region 2	ITU Region 3	Sharing requirements & 97.303
VHF	MHz	MHz	MHz	
1.25 m	---	222-225	---	(a).(b).(e)
UHF	MHz	MHz	MHz	
70 cm	430-440	420-450	420-450	(a).(b).(f)
33 cm	---	902-928	---	(a).(b).(g)
23 cm	1240-1300	1240-1300	1240-1300	(j)
13 cm	2300-2310	2300-2310	2300-2310	(a).(b).(j)
-do-	2390-2450	2390-2450	2390-2450	(a).(b).(j)
SHF	GHz	GHz	GHz	
9 cm	---	3.3-3.5	3.3-3.5	(a).(b).(k).(l)
5 cm	5.650-5.850	5.650-5.925	5.650-5.850	(a).(b).(m)
3 cm	10.00-10.50	10.00-10.50	10.00-10.50	(b).(c).(i).(n)
1.2 cm	24.00-24.25	24.00-24.25	24.00-24.25	(a).(b).(i).(o)
EHF	GHz	GHz	GHz	
6 mm	47.0-47.2	47.0-47.2	47.0-47.2	
4 mm	75.5-81.0	75.5-81.0	75.5-81.0	(b).(c).(h)
2.5 mm	119.98-120.02	119.98-120.02	119.98-120.02	(k).(p)
2 mm	142-149	142-149	142-149	(b).(c).(h).(k)

1 mm 241-250 241-250 241-250 (b).(c).(h).(q)
--- above 300 above 300 above 300 (k)

* * * * *

(g) For a station having a control operator holding a Technician, General, Advanced or Amateur Extra Class operator license:

Wave- ITU ITU ITU Sharing
length Region 1 Region 2 Region 3 requirements
band See & 97.303
Paragraph:

VHF MHz MHz MHz
6 m --- 50-54 50-54 (a)
2 m 144-146 144-148 144-148 (a)

6. Section 97.501 revised to read as follows:

& 97.501 Qualifying for an amateur operator license.

An applicant must successfully pass an examination for the issuance of a new amateur operator license and for each change in the operator class. Each applicant for the class of operator license specified below must pass, or otherwise receive examination credit for, the following examination elements.

(a) Amateur Extra Class operator: Element 1(C), and elements 3(A), 3(B), 4(A), and 4(B);

(b) Advanced Class operator: Element 1(B) or 1(C), and elements 3(A), 3(B), and 4(A);

(c) General Class operator: Element 1(B) or 1(C), and elements 3(A), and 3(B);

(d) Communicator Class operator: Element 3(A).

7. Paragraphs (b) and (c) of Section 97.503 are revised to read as follows:

& 97.503 Element Standards.

* * * * *

(b) A written examination must be such as to prove that the examinee possesses the operational and technical qualifications required to perform properly the duties of an amateur service licensee. Each written examination must be comprised of a question set as follows:

(1) Element 3(A): 60 questions concerning the privileges of a Communicator Class operator license. The minimum passing score is 45 questions answered correctly.

(2) Element 3(B): 25 questions concerning the additional privileges of a General Class operator license. The minimum passing score is 19 questions answered correctly.

(3) Element 4(A): 50 questions concerning the additional privileges of an Advanced Class operator license. The minimum passing score is 37 questions answered correctly.

(4) Element 4(B): 40 questions concerning the additional privileges of an Amateur Extra Class operator license. The minimum passing score is 30 questions answered correctly.

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(c) The topicls and number of questions required in each question set are listed below for the appropriate examination element:

Topics	Element:		
3	3	4	4
(A)	(B)	(A)	(B)
(1) FCC rules for the amateur radio services	15	4	6	8
(2) Amateur Station operating procedures	7	3	1	4
(3) Radio wave propagation characteristics of amateur service frequency bands	4	3	2	2
(4) Amateur radio practices	11	5	4	4
(5) Electrical principles as applied to amateur station equipment	6	2	10	6
(6) Amateur Station equipment circuit components	4	1	6	4
(7) Practical circuits employed in amateur station equipment	3	1	10	4
(8) Signals and emissions transmitted by amateur stations	4	2	6	4
(9) Amateur station antennas and feed lines	6	4	5	4

8. Section 97.505(a) is revised to read as follows:

& 97.505 Element credit.

(a) The administering VEs must give credit as specified below to an examinee holding any of the following documents:

(1) An unexpired (or within the renewal grace period) FCC-issued Novice Class operator license: Element 1(A) and the 30 written questions in Element 3(A) based upon the material from the written examination passed for the Novice Class operator license.

(2) An unexpired (or within the renewal grace period) FCC-issued Communicator Class operator license: Element 3(A).

(3) An unexpired (or within the renewal grace period) FCC-issued Technician Class operator license: Element 3(A).

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(4) An unexpired (or within the renewal grace period) FCC-issued Technician Class operator license issued before March 21, 1987: Elements 3(A) and 3(B).

(5) An unexpired (or within the renewal grace period) FCC-issued General Class operator license: Elements 1(B), 3(A), and 3(B).

(6) An unexpired (or within the renewal grace period) FCC-issued Advanced Class operator license: Elements 3(A), 3(B), and 4(A).

(7) A CSCE: Each element the CSCE indicates the exmanee passed within the previous 365 days.

(8) An unexpired (or within the renewal grace period) FCC-issued commercial radiotelegraph operator license or permit: Element 1(C).

* * * * *

9. Section 97.507 is revised to read as follows:

& 97.507 Preparing an Examination.

(a) Each telegraphy message and each written question set administered to an examinee must be prepared by a VE holding an FCC-issued Amateur Extra Class operator license. A telegraphy message or written question set, however, may also be prepared for the following elements by a VE holding an FCC-issued operator license of the Class indicated:

(1) Element 3(B): Advanced Class operator.

(2) Elements 1(A) and 3(A): Advanced or General Class operator.

(b) Each question set administered to an examinee must utilize questions taken from the applicable question pool.

(c) Each telegraphy message and each written question set administered to an examinee for a Communicator, General, Advanced or Amateur Extra Class operator license must be prepared, or obtained from a supplier, by administering VEs according to instructions from the coordinating VEC.

(d) A telegraphy examination must consist of a message sent in the international Morse code at no less than the prescribed speed for a minimum of 5 minutes. The message must contain each required telegraphy character at least once. No message known to the examinee my be administered in a telegraphy examination. Each 5 letters of the alphabet must be counted as 1 word. Each numeral, punchuation mark and prosign must be counted as 2 letters of the alphabet.

1372. Who lives near 30 MHz?

Newsgroup: rec.ham-radio
Date: 1990-03-01 00:54:17 UTC
From: fnddr@acad3.fai.alaska.edu
Message-ID: <1990Mar1.020823.26931@hayes.fai.alaska.edu>
Source record: 13077

We've had a chronic problem with our riometer (gadget which monitors cosmic background noise near 30 MHz) picking up signals instead of noise when the skip is good. I've monitored the frequencies off and on, and sometimes I can hear some very faint broadcast stations in the 29-30 MHz range. They are generally too faint to hear what is said, but sometimes one is strong enough to identify the language as a slavic variety. Perhaps a Soviet home service? If anyone has any loggings between, say, 29.8-30.2 MHz, I'd be very interested in hearing about it.
Thanks,
Don Rice, KL7JIQ

Don Rice Internet: fnddr@acad3.fai.alaska.edu
Geophysical Institute E-mail: fnddr@alaska.bitnet
University of Alaska Phone: (907) 474-7569
Fairbanks, AK 99775 Loran: 64.86N 212.16E

1373. Re: Toroid Cores

Newsgroup: rec.ham-radio
Date: 1990-03-01 00:55:00 UTC
From: barkeyp@silver.ucs.indiana.edu
Message-ID: <12600092@silver>
Source record: 13078

Another good source is:

Radiokit
PO Box 973
Pelham, NH 03076
(718) 437-2722

Pat
WA8YVR

1374. Shortwave Radio from DAK

Newsgroup: rec.ham-radio
Date: 1990-03-01 03:32:57 UTC
From: ronc@unix.cis.pitt.edu
Message-ID: <22622@unix.cis.pitt.edu>
Source record: 13079
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I received a catalog from a mail order firm in Cagona Park in California
called DAK. They are selling a Digital PLL Tuning Shortwave radio having

AM -(530-1630)KHz
SW - (3200-21750)KHz
FM - 87.5-108 MHz

It also has 20 preset memory, clock/alarm/timer. Ext. Antenna jack,
Illuminated LCD display.....All for US$50.00. The price seems too
good to be true. Does anyone have any information on this product
or the company ? There number is 1-800-325-0800.

Any information on this would be appreciated.

Thanks,
Ranjan

1375. Canadian Amateur Class Nomenclature

Newsgroup: rec.ham-radio
Date: 1990-03-01 05:11:04 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1728@aurora.AthabascaU.CA>
Source record: 13080

In article <30500429@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> Why is it that the Canadian license was called "digital"
> when it in fact was really a "nocode" license?

It was called digital because there's a big essay format component on the exam that is 100% concerned with digital issues (queueing theory, information theory, packet and networking ideas, modulation & encoding, & c.) How come you're so concerned to make sure everyone calls it a "no code" ticket? It doesn't have anything about disco dancing either - shouldn't it be a "no-disco" ticket?

What I mean here is that you seem to be more preoccupied with what the class is _not_ than with what it _is_. Classification by negatives is not, IMHO, a very useful activity. You wrote a CW exam, which is honourable, and you can run packet if you like, which I find strange.

I wrote a packet exam, a regs-and-operations exam, and an electronics exam. A general writes the same regs-and-operations, a less rigourous electronics exam, and a CW exam. I think the setup in either case is good in that it wants to see demonstrable proficiency in the mode(s) that the ham wants to run.

Do you see me going around calling generals "no-packet" and making out that they're some lower form of life? Why are you so eager to point out my (admitted - CW is a useful mode and an art) shortcomings? Jealous, maybe?

> How much effort was made by already licensed hams to get new hams to join
> the hobby?

The already-licensed hams _I_ knew encouraged me to go for Digital.
--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

1376. Re: FCC Petitions

Newsgroup: rec.ham-radio
Date: 1990-03-01 06:36:20 UTC
From: mikey@pnet01.cts.com
Message-ID: <1700@crash.cts.com>
Source record: 13081

By including the copies, you are including in the official commenter file and you will get responses to comments from the petioner. Sorry, no solid info on status

==========
Mike Shirley, WB6WUI
PO Box 460
Lakeside, CA 92040-0460

UUCP: {hplabs!hp-sdd ucsd nosc}!crash!pnet01!mikey
ARPA: crash!pnet01!mikey@nosc.mil
INET: mikey@pnet01.cts.com
==========

1377. Re: Radio Memory Failure

Newsgroup: rec.ham-radio
Date: 1990-03-01 07:52:22 UTC
From: crisp@mips.COM
Message-ID: <36557@mips.mips.COM>
Source record: 13082

In article <1471@raybed2.ray.com> ewb@raybed2.ray.com (EUGENE BALINSKI) writes:
>This is done as a public service announcement:
>
>A few days ago we had a line of thunderstorms roll through New Hampshire. As
>I usually do during this type of weather I unplugged the PRO-2004 from the
>wall and the antenna. Well I went to use it yesterday after about 4 days
>un-plugged and guess what ?? That's right. All of the memories had been wiped
>clean ! Now I have to go through and re-program 270 or so channels and 10
>scan bank channels :-(I stoped and thought for a minute and I could not
>remember ever replacing the memory back up battery.
>
>So the moral of the story is this: CHECK YOUR MEMORY BACK-UP BATTERIES
>
> 73
> Gene WA1UXA

Gee if the PRO2004 only allowed you to down load / upload the memories via
a serial port......

--
Making the world safe for technocracy.

1378. Transistor identification.

Newsgroup: rec.ham-radio
Date: 1990-03-01 09:45:37 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <01.Mar.90.09
Source record: 13083

I need help identifying a couple of transistors. They are marked 'GM0290A',
have a Texas Instruments logo, and 4 connecting leads. They are in the
front-end of a VHF radio - they look like RF amplifiers to me.
No part-numbers like these appear in my TI catalog.
What are they? PNP, NPN, Silicon, Germanium? In view of the age of the
equipment (early 1960's) i would guess Germanium PNP but i want to be sure...

///Pete

1379. Re: Here lies Ham Radio...

Newsgroup: rec.ham-radio
Date: 1990-03-01 10:39:59 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500430@ux1.cso.uiuc.edu>
Source record: 13084

> I'm sorry folks,
> I just can't help but feel that Morse Code is only a barrier to
> getting into Amateur radio if you have "NO DICIPLINE". I have never
^^^^^^^^^^^^^^
> had anyone approach me wanting to get into radio that just could
> not get the code. A six year old can do it (i did), non-technical
> folks can do it (my friends have) so what is the problem here??
> This "lower-the-water" instead of raise the bridge attitude just
> smacks of lack of dicipline.
^^^^^^^^^

How about a SPELLING test?

If you had any discipline at all you would learn to spell better.

> I'm sorry folks,
> I just can't help but feel that Morse Code is only a barrier to
> getting into Amateur radio if you have "NO DICIPLINE". I have never
^^^^^^^^^^^^
> had anyone approach me wanting to get into radio that just could
^^^^^^^^^^^^^^^^^^^^^^
> not get the code. A six year old can do it (i did), non-technical
> folks can do it (my friends have) so what is the problem here??
> This "lower-the-water" instead of raise the bridge attitude just
> smacks of lack of dicipline.

And if you had, it would not have changed your attitude, but rather you
would have just given them all the standard lectures on discipline.

I have my own kind of discipline. It works like this: if it's something
I know I won't want to do or finish, I won't start it in the first place.
I guess I broke discipline when I took the Novice code test.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1380. Re: Devil in CW

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:04 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13719.25ED2D25@stjhmc.fidonet.org>
Source record: 13085

> From: lyndon@cs.AthabascaU.CA (Lyndon Nerenberg)
>
> sorgatz@ttidcb.tti.com (Erik Sorgatz - Avatar) writes:
>
> > Oh yes there is! The very idea that someone "needs" 20 WPM skills in CW
> to
> >be granted an EXTRA is old-age thinking.
>
> And considering that hardly anyone builds their own gear any more,
> I think the very idea that someone "needs" the electronic skills to
> pass the technical portion of the exam to be granted an EXTRA is
> old-age thinking.

I hate to say it, but that's probably true. The original idea behind testing at all was to make sure you didn't cause harm by interfering with other services. Additional testing for higher grades was instituted because improperly adjusted 'phone' transmitters could cause havoc. Later the FCC decided that was obsolete thinking. Later, the ARRL that came up with the quaint notion that a 'classless' society was 'unamerican' and persuaded the FCC to reinstitute "incentive licensing'.

Today, with modern radios, the only testing truly necessary from the administrative point of view is on rules and regulations and perhaps some operating procedures. Anything else is more for social rather than technical reasons. The remaining question is which social benefits you consider important for best results and to achieve them. Obviously, the present junk on many ham bands shows the present system isn't working as intended.
73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1381. Re: Broadcasting Video from RC Plane

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:13 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13720.25ED2D27@stjhmc.fidonet.org>
Source record: 13086

> From: music@hpfcmgw.HP.COM (John Wells)
>
> / hpfcmgw:rec.ham-radio / jokim@jarthur.Claremont.EDU (John H. Kim) /
> 12:28 pm Feb 19, 1990 /
>
> Recently, on TV, I saw someone using a radio controled (RC) airplane
> with a video camera mounted on it. ..... I came up with what
> I think is a rather innovative use for this (well if you must know, as
> a spotter plane for deep sea fishing-- .... etc...

NTSC video for spotting fish? I doubt that's the best solution to the problem anyway.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1382. 'Ham' Origins? was (Re: Need old Hammarlund coils)

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:18 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13721.25ED2D28@stjhmc.fidonet.org>
Source record: 13087

> From: jenglish@tardis.Tymnet.COM (Jim English)
>
> In article <90021702470478@masnet.uucp> dean.milner@canremote.uucp (DEAN
> MILNER) writes:
>
> Subject: Re: Need old Hammarlund coils
> ----
> ^^^^ is this where the term
> 'Ham Radio' originated?

No. Noone knows for certain where the term originated, but it does pre-date the Hammarlund Co.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1383. Re: Canadian digital to advanced upgrade

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:26 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13722.25ED2D2A@stjhmc.fidonet.org>
Source record: 13088

> From: lyndon@cs.AthabascaU.CA (Lyndon Nerenberg)
>
> On Sep't 1, 1990, the Canadian Amateur licenses will be restructured.
> There will be a "new" license with four levels. They are:
>
> BASIC 250 watts on amateur frequencies 30 MHz
> and up using commercial transmitting
> equipment only. (No code requirement)
>
> BASIC+5WPM As above, plus all modes on 1.8-2.0 and
> 3.5-4.0 Mhz.
>
> BASIC+12WPM As above plus all modes on all remaining
> Amateur bands.
>
> ADVANCED As above, plus use of homebrew transmitting
> equipment, maximum legal power, and the
> right to own (?) and operate repeaters and
> remote base stations.

Neat! We should do it just like that here, too.

73 de Jim Grubs, W8GRT

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Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1384. NPRM 90-55, Part 1 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:36 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13723.25ED2D2C@stjhmc.fidonet.org>
Source record: 13089

"Robert Carpenter, you asked for it..."

PR Docket No. 90-55

In the Matter of

Amendment of Part 97 of the RM-6984 RM-6985
Commission's Rules Concerning RM-6986 RM-6987
the Establishment of a Codeless RM-6088 RM-6989
Class of Amateur Operator License. RM-6990 RM-6991
RM-6992 RM-6993
RM-6994 RM-6995

NOTICE OF PROPOSED RULE MAKING

Adopted: February 8,1990; Released: February 16, 1990

By the Commission:

I. INTRODUCTION
1. In this Notice of Proposed Rule Making (Notice), we propose to establish a new class of amateur operator license that would not require the applicant to prove that he or she can send and receive manual Morse code telegraphy messages. This proceeding was initiated by twelve petitions for rule making filed on matters generally relating to the amateur operator license class structure, requirements, and privileges./1

II. BACKGROUND
2. The amateur service exists for the purpose of self-training, intercommunication and technical investigations carried out by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest./2 Article 32 of the international Radio Regulations requires, among other things, that each person seeking a license to operate the apparatus of an amateur station prove that he or she has the ability to send correctly by hand and to receive correctly by ear text in Morse code signals. Although this requirement may be waived for an operator of an amateur station transmitting only on frequencies above 30 MHz/3, each of the five classes of operator licenses issued by the Commission/4 requires the applicant to pass an examination in the international Morse code./5
3. Over the years the Commission has received requests from persons who want to pursue the purposes of the

amateur service, but who argue that Morse code telegraphy is an unnecessary barrier to obtaining a license. Historically, however, the amateur community has strongly supported a telegraphy skill requirement for every class of amateur operator license. In a 1974 rule making proceeding,/6 and again in a 1983 rule making proceeding,/7 amateur licensees showed nearly unanimous opposition to proposals for a no-code license.

4. In the 1974 rule making proceeding, we proposed an overall restructuring of the classes of amateur operator license. Included in those proposals was the establishment of a codeless class of license. Although it resulted in several improvements to the license structure, the proceeding was terminated without action on the codeless license class./8 It was during the pendency of this proceeding that the computer-aided license application processing system currently in use was developed. The capability for processing a sixth class of license, therefore, was incorporated into the design for the system. In the 1983 rule making proceeding, the Commission again sought ways to provide a class of codeless license. One proposal was the deletion of the slow speed telegraphy examination requirement for the Technician Class license./9 The alternative proposal was a new operator license class patterned after a Canadian codeless class of amateur license, and having very difficult written examination requirements. This proceeding was also strongly opposed by the amateur community and was terminated without action./10 The above-listed petitions initiating this proceeding, however, indicate that the sentiment in the amateur community now appears to favor a code less license class. The ARRL, for example, states that it now supports a codeless license as being "beneficial to the future, short and long term of the Amateur Service"/11 The issue of a codeless class of amateur operator license, therefore, should be considered in light of current circumstances in the amateur service.

III. DISCUSSION

5. A significant segment of the amateur community has a new view of the role of telegraphy in the future of the service. David Stall states that "numerous recent surveys have demonstrated that the concept of a no-code license is rapidly attracting a wide base of support within the amateur community."/12 The ARRL states that its recent studies show:

> Encouraged by changes in the FCC rules, packet radio and other digital modes have become extremely popular and have led to amateur radio becoming increasingly attractive to computer-literate individuals who possess the ability to contribute

significantly to the service, but who fail to perceive the relevance of manual Morse code. Many amateurs welcome the idea of providing a gateway to these individuals. The possibility now exists to dispassionately evaluate a codeless amateur license on its own merits. It is this factor that accounts for what the League perceives as a significant shift in attitudes among amateurs toward a codeless amateur license./13

6. The SCATG states that the time is right for a codeless class of license:

Morse code operations were once the only way to make radio communications possible. It is now just a facet of an entire spectrum of possible methods of radio communications. It is no longer in keeping with the basis and purpose of the Amateur Radio service to stress one facet of radio communications over all others. Knowledge of code doesn't eliminate rules violations or uncourteous operations./14

7. Burt Fisher, a teacher of electronics at a regional high school, states "the public need would best be served

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1385. NPRM 90-55, Part 2 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:42 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13724.25ED2D2E@stjhmc.fidonet.org>
Source record: 13090

if there were a door into amateur radio that had a limited code requirement. Once in the door, these youngsters would be tempted to the rest of the world (and technology) of amateur radio. The public would be served as the base of potential scientists and technicians would be enhanced...." He believes that a written examination could be used to ascertain that an entry level license applicant has knowledge of telegraphy./15 Michael Trahos believes that it is essential to have a codeless beginner license so that the amateur service will not stagnate or experience a decrease in the number of licensees. He believes that if a codeless license is not established, the number of licensed amateur operators will decrease, with a consequent increasing re-allocation of amateur service spectrum by the Commission to the land mobile services./16

8. John McCord believes a codeless class of license would "attract many young minds to the hobby of amateur radio...."/17 Dennis and Linda Welch find the issue of a codeless class of license contentious and defended mostly by the older amateurs and championed by the very population needed for expansion./18 Bill Welsh, who has a personal preference for code operation, foresees "that its years as a realistic amateur radio licensing requirement are coming to an end."/19 James E. Taylor states that telegraphy is no longer necessary and that the number of amateur operators must be drastically increased in order to "continue to justify our existence."/20 Clement Bourgeois, however, disagrees. He states that a knowledge of telegraphy by every amateur operator is essential. He does believe, however, that the high speed telegraphy examination/21 should be reduced to 15 words-per-minute or less. Larry Ballentine suggests that telegraphy examinations only require the examinee to recognize telegraphy characters, rather than to send and receive text at specific rates of speed./23

9. Operator license structure. The petitions espouse various views on the structure of the license ladder. The general consensus, however, is that a codeless class of license should be the beginning step on the ladder. The ARRL believes that there is nothing antiquated or irrelevant about the Morse code, or its use in the Amateur Radio Service, but that this is a "matter that some individuals must learn for themselves, in order to appreciate that relevance."/24 Most of the petitions favor a struc-

ture that avoids any negative effect upon any current licensee. One approach would add a sixth class of operator license. David Stall recommends this approach, with the sixth class modeled after the Novice Class, without the telegraphy requirement. He believes that a codeless license should provide "a no-code entry into amateur radio without disrupting the existing classes, privileges, or incentives."/25 Burt Fisher also favors the sixth class approach,/26 as does ARRL, with the codeless class positioned in the license structure so that there is an upward path "to the present Technician license by way of a five words per minute Morse code examination...."/27

10. Another approach taken in the petitions is to preserve the current five class structure by conversion of the Novice Class to a codeless class. John McCord, for example, recommends elimination of the telegraphy requirement for the Novice license./28 In addition to conversion of the Novice Class, Dennis and Linda Welch also suggest a merger of the Technician and General Classes./29 The SCATG recommends that the Novice Class be gradually replaced by a non-renewable codeless class that would "minimally disrupt the existing license structure to avoid disenfranchising current licensees. ... [t]he new license should avoid isolating the newcomer from the mainstream of amateur radio operators and operations while maintaining the incentive to upgrade and providing attractive privileges for the newcomer...."/30

11. Other petitions suggest major revisions to the license class structure. James Taylor states that prospective amateur operators "are put off by the present complex, layered structure of our hobby...." He suggests one all-purpose operator class./31 Alan Horowitz suggests "a no-code ham license, similar to Canada's license structure."/32 Michael Trahos, however, states that "[t]he Canadian no-code experience has clearly shown that creation of a no-code license class with examination requirements greater than that of the lowest available code license class fails to promote interest in, or insignificantly increases, the number of licensed amateur radio operators."/33 He suggests, instead, two new codeless classes./34 Bill Welsh believes that emission mode privileges should be earned "by passing written and on-the-air operating tests that are directly related to the desired additional emission/mode privilege being sought."/35 He suggests that all frequency segments now offered as incentives be eliminated./36

12. Operator privileges. The petitions generally concur that, as a minimum, a station control operator holding a codeless class of license be authorized all emission privileges on the 1.25 meter (m) and shorter wavelength bands. For the longer wavelength bands, however, there

are several views, starting with James Taylor's recommendation that all possible privileges be authorized to the codeless class./37 Michael Trahos and SCATG recommend including the 6 m and 2 m bands./38 Burt Fisher recommends authorizing the 52-54 MHz segment in the 6 m band. He also recommends including the 2 m band, but excluding emission F3E on that band./39 The ARRL recommends excluding operation on both the 6 m and 2 m bands./40 Dennis and Linda Welch,/41 David Stall,/42 and John McCord make recommendations similar to those of the ARRL. John McCord, however, suggests including digital type emission privileges on the 6 m and 2 m bands./43

13. The petitions recommend that the eligibility for the codeless class of license, like all amateur operator licenses, require the passing of a written examination. The ARRL states that the written examination should reflect the privileges to be earned and require a greater commitment than does the present Technician class written examination. It believes that the lessons learned from codeless license programs in other countries necessitate a significant written examination. The ARRL recommends, therefore, that a written examination for the codeless license be administered under the Volunteer Examiner Coordinator (VEC) system. The ARRL also recommends a 60 question written examination consisting of the current 55 question

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1386. NPRM 90-55, Part 3 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:45 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13725.25ED2D30@stjhmc.fidonet.org>
Source record: 13091

written examination for the Technician Class Operator license, augmented by five additional questions related to the specific privileges afforded the codeless licensees. Two of the new questions would be concerned with the application and use of telegraphy and the remainder would be concerned with digital communication techniques./44 The SCATG states that the written examination should consist of 50 questions./45

14. The petitions also suggest names for a new codeless class of license. The SCATG suggests "Apprentice."/46 Burt Fisher suggests "Novice-V."/47 Michael Trahos suggests "Novice-Plus" and "Technician-Plus."/48 David Stall suggests "Limited."/49 The ARRL states that its suggested name "Communicator," although "not exactly reflective of the type of license envisioned in the proposal... is, however, the most descriptive among those alternatives considered."/50

IV. PROPOSAL

15. We believe that the petitions have merit. Further, like the petitioners, we believe that this is a propitious time to propose the establishment of a codeless license, given the advances in electronic communications in the past few years. We propose, therefore, to establish a codeless class of amateur operator license, the Communicator Class. With respect to this proposed operator class, we have established three objectives. Our first objective is to offer an entry level license opportunity to all persons who find the telegraphy requirement a barrier to pursuing the purposes of the amateur service. Our view is best expressed by the statement of the ARRL that "the goal of the codeless amateur license is to bring such licensees into the 'mainstream' of the Amateur Radio Service, and to encourage them to upgrade their license class."/51 Our second objective is to propose a type of license that can be implemented quickly if a decision is made to proceed. Our third objective is to avoid any negative effect upon current licensees, upon the work of the volunteer examiners, or upon the Commission's workload or resources. To preclude any impact on our resources, it is imperative that our existing computer-aided application processing system be utilized "as is."/52 The proposed rule amendments are contained in the attached Appendix.

16. In proposed Sections 97.501 and 97.503(b)1), we

would require that the applicant for a Communicator Class license pass a 60 question written examination, as requested by ARRL. In sum, there would be an expanded entry level examination and corresponding question pool. We concur with ARRL that the written examination for the Communicator Class license should correspond to the privileges for that class of license./53 The new question pool would be comprised of the questions from the two pools currently used in the Novice and Technician license examinations, and new questions as requested by ARRL./54 By incorporating existing questions, over 91 percent of the question pool for a Communicator Class license would already be available and would help facilitate a smooth transition./55

17. Operator license structure. In proposed Section 97.9. we would incorporate the Communicator Class in a simplified license structure containing four ascending steps: Communicator, General, Advanced, and Amateur Extra Classes, Current Technician and Novice Class operator licenses would be grandfathered indefinitely. There would be no new licenses issued for those license classes, but existing licenses could be modified or renewed. This approach would meet the objectives we established in paragraph 15. Dennis and Linda Welch, John McCord, and SCATG suggested preserving the five-step ladder by eliminating the telegraphy examination requirement from the Novice class license. This approach deserves careful consideration by the amateur community because of its simplicity. We did not propose this approach because of its disadvantage of lowering the license qualification standards for the Novice operator class. As such, it may be unacceptable to the hundreds of thousands of amateur operators, including the 85.000 current Novice Class licensees, who qualified for the Novice license by passing a telegraphy examination. The Novice Class has operating privileges below 30 MHz, necessitating the need for a knowledge of telegraphy as described in paragraph 2.

18. For future licensees, the Communicator Class license would be the first step in the license structure instead of the Novice Class. Our premise is that most newcomers to the service, given the choice, would elect to qualify for the Communicator Class license rather than the Novice Class license. There would, therefore, no longer be a need for the Novice Class license. We particularly invite instructors, volunteer examiners (VEs). and VECs to submit comments on the validity of this premise, including factual information on the time and effort that would be required for persons to prepare for the proposed 60 question Communicator Class written examination as compared to the time and effort currently required for

the Novice Class 30 question written examination and telegraphy examination.

19. Because the written examination for the Communicator Class license would be more comprehensive than that of the Technician Class license, the Communicator Class would also serve in the stead of the Technician Class for future licensees. Each step in the proposed four step structure provides recognition that the holder has significantly advanced his or her skills in both the communication and technical phases of the radio art./56 This structure could be rapidly implemented. The present license application processing system and license application form would continue to be used./57

20. Operator privileges. The proposed control operator privileges of the Communicator Class would generally be those suggested by the ARRL. The privileges would include all authorized emission types. The proposed transmitter power standard would be 200 watts peak envelope power. The licensee's station would be eligible for a Group D call sign./58 Stations with Communicator Class control operators would not be permitted to transmit on the 2 m and 6 m bands. In view of ARRL's desire to bring the codeless class into the mainstream of the amateur service,/59 however, we particularly invite comment on the effect of excluding Communicator Class licensees from these two popular bands.

21. The ARRL stated that one premise for its petition

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Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1387. NPRM 90-55, Part 4 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:49 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13726.25ED2D32@stjhmc.fidonet.org>
Source record: 13092

was that an accommodation should be made for codeless class licensees to upgrade their license class. It cited countries that have codeless licenses where the written examination tests the examinee's technical qualifications. The ARRL stated that amateur service societies in countries such as Australia, the Federal Republic of Germany, and Belgium report ongoing telegraphy activities among the codeless class licensees working to upgrade the license class./60 While the proposed Communicator Class privileges include telegraphy on the 1.25 meter and shorter wavelength bands, we recognize that telegraphy operation is more closely associated with the HF bands. The opportunity for newcomers to the amateur service actually to send and receive messages in the Morse code on small segments of the HF 80, 40, 15, and 10 meter bands is provided to the Novice and Technician Classes so that those operators can gain an appreciation of telegraphy and acquire the proficiency needed to pass the telegraphy examination for the General Class operator license. We specifically request comments, therefore, concerning the desirability of including the opportunity for Communicator Class licensees also to experience on-the-air telegraphy operation on the HF bands. In view of our obligation under the provisions of the international Radio Regulations,/61 if it is desired, only domestic communications on the HF bands would be authorized.

22. Under proposed Section 97.301(g), a Communicator Class licensee who passes, or otherwise receives credit for a telegraphy examination, would be authorized the additional privileges of the Technician Class./62 To avoid a license processing burden, however, the documentation of the passing of, or credit for, a telegraphy examination would be evidenced by the Certificate of Successful Completion of Examination (CSCE) issued by the administering VEs,/63 rather than by the issuance of a Technician Operator license. The indicator used by the Communicator Class for identification purposes would be AC./64 Under proposed Section 97.505(a)(1), VEs would be authorized to grant examination credit, evidenced by a CSCE, to a Communicator Class examinee for the slow speed telegraphy examination when the examinee holds a Novice Operator license./65 That combination, Communicator Class license and CSCE, would permit the Communicator Class licensee the same rights and privileges of

the Technician Class operator. The VECs would provide listings, in paper or magnetic form, of the Communicator Class licensees who have been issued the CSCE.

23. Volunteer examiners. The instant proposal contains substantive changes in the amateur operator license examination procedure and the issuance of amateur operator licenses and CSCEs. All operator license examinations would be administered under the VEC system./66 The additional task of administering the Communicator Class license would be offset by the elimination of other tasks, including the discontinuance of the two examiner system for the Novice Class license./67 The coordination and oversight by the VECs provide more credible results than does the two examiner system. In the latter, examination administration errors are more common and cheating is a greater problem than in the VEC system. The task of administering new Technician Operator Class licenses would also be discontinued./68 The Novice and Technician written examinations would no longer be prepared and administered as separate examinations. The VEs and VECs, moreover, could be reimbursed for out-of-pocket costs incurred in connection with all examinations./69

V. CONCLUSION

24. We believe that this proposal would achieve the objectives set forth in paragraph 15 above. We seek comments, therefore, on the proposed revisions to Part 97 to establish a Communicator Class Operator license for the amateur service, as set forth in the attached Appendix.

VI. PROCEDURAL MATTERS

25. For purposes of this non-restricted notice and comment rule making proceeding, members of the public are advised that ex parte presentations are permitted except during the Sunshine Agenda period. See generally 47 C.F.R. 1.1206(a). The Sunshine Agenda period is the period of time which commences with the release of a public notice that a matter has been placed on the Sunshine Agenda and terminates when the Commission (1) releases the text of a decision or order in the matter; (2) issues a public notice stating that the matter has been deleted from the Sunshine Agenda; or (3) issues a public notice stating that the matter has been returned to the staff for further consideration, whichever occurs first. 47 C.F.R. 1.202(f). During the Sunshine Agenda period, no presentations, ex parte or otherwise, are permitted unless specifically requested by Commission or staff for the clarification or adduction of evidence or the resolution of issues in the proceeding. 47 C.F.R. 1.1203.

26. In general, an ex parte presentation is any presenta-

tion directed to the merits or outcome of the proceeding made to decision-making personnel which (1) if written, is not served on the parties to the proceeding, or (2), if oral, is made without advance notice to the parties to the proceeding and without opportunity for them to be present. 47 C.F.R. 1.1202(b). Any person who makes or submits a written ex parte presentation shall provide on the same day it is submitted two copies of same under separate cover to the Commission's Secretary for inclusion in the public record. The presentation (as well as any transmittal letter) must clearly indicate on its face the docket number of the particular proceeding to which it relates and the fact that two copies of it have been submitted to the Secretary, and must be labeled or captioned as an ex parte presentation. 47 C.F.R. 1.1206.
27. Any person who is making an oral ex parte presentation and presents data or arguments not already reflected in that person's written comments, memoranda, or other previous filings in that proceeding shall provide on the day of the oral presentation an original and one copy of a written memorandum to the Secretary (with a copy to the Commissioner or staff member involved) which summarizes the data and arguments. The memorandum (as well as any transmittal letter) must clearly indicate on its face the docket number of the particular proceeding

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1388. NPRM 90-55, Part 5 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:52 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13727.25ED2D35@stjhmc.fidonet.org>
Source record: 13093

and the fact that an original and one copy of it have been submitted to the Secretary, and must be labeled or captioned as an ex parte presentation. 47 C.F.R. 1.1206.

28. Authority for issuance of this Notice is contained in Sections 4(i) and 303(l) and (r) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i) and 303(l) and (r). Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. 1.415 and 1.419, interested parties may file comments on or before August 6, 1990, and reply comments on or before September 7, 1990. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. To file formally in this proceeding, participants must file an original and four copies of all comments and reply comments. If participants want each Commissioner to receive a personal copy of their comments, an original and nine copies must be filed. Comments and reply comments must state the proceeding to which they relate (PR Docket Number). They should be sent to the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Dockets Reference Room (Room 239) of the Federal Communications Commission, 1919 M Street N.W., Washington, D.C. 20554.

29. In accordance with Section 605 of the Regulatory Flexibility Act of 1980. 5 U.S.C. 605, the Commission certifies that these rules would not, if promulgated, have a significant economic impact on a substantial number of small entities, because these entities may not use an amateur station to transmit any communication the purpose of which is to facilitate the business or commercial affairs of any party. See 47 C.F.R. 97.113(a). Moreover, the proposed rules would not require the use of or significantly enhance the sale of any additional amateur station apparatus.

30. The proposal contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980. 44 U.S.C. 3501 et seq., and found to increase the information collection burden which the Commission imposes on the public. This proposed increase in the information collection burden is subject to approval by the Office of Management and Budget as prescribed by the Act.

31. A copy of this Notice will be forwarded to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX

Part 97 of Chapter I of Title 47 of the Code of Federal Regulation is proposed to be amended as follows:

1. The authority citation for Part 97 continues to read as follows:

Authority citation: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 301-609, unless otherwise noted.

2. Section 97.9 is revised to read as follows:

97.9 Operator license.

(a) The classes of operator licenses are Communicator, General, Advanced, and Amateur Extra. There are also two grandfathered classes of operator licenses, Novice and Technician. An operator license authorizes the holder to be the control operator of a station with the privileges of the operator class specified on the license. The license document or a photocopy thereof must be in the personal possession of the licensee at all times when the person is the control operator of a station.
(b) A person holding a Communicator Class operator license and who holds a CSCE indicating that the person passed element 1(A), 1(B), or 1(C) is authorized to exercise the rights and privileges of the Technician Class for the duration of the license term and renewal thereof.
(c) A person holding a Novice, Technician, Communicator, General, or Advanced Class operator license who has properly filed with the FCC an application for a higher operator class that has not yet been acted upon, and who holds a CSCF indicating that the person passed the necessary examinations within the previous 365 days is authorized to exercise the rights and privileges of the higher operator class.

3. Section 97.17(a) is revised to read as follows:

97.17 Application for new license.

(a) Any qualified person is eligible to apply for an amateur service license. No new Novice or Technician Class operator licenses will be issued.

4. Section 97.119(e) is revised to read as follows:

97.119 Station identification.

(e) When the control operator is using privileges on the basis of holding a CSCE, an indicator must be included after the call sign as follows:

(1) AC for Communicator Class operator;
(2) AG for General Class operator;
(3) AA for Advanced Class operator; or
(4) AE for Amateur Extra Class operator.

5. Section 97.301(a) is revised and a new paragraph (g) is added to read as follows:

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1389. NPRM 90-55, Part 6 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:58:56 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13728.25ED2D37@stjhmc.fidonet.org>
Source record: 13094

97.301 Authorized frequency bands.

(a) For a station having a control operator holding a Technician, Communicator, General, Advanced or Amateur Extra Class operator license:

Wave- length band	ITU Region I	lTU Region 2	ITU Region 3	Sharing require- ments See 97.303, Paragraph:
VHF	MHz	MHz	MHz	
1.25m	---	222-225	---	(a),(b),(e)
UHF	MHz	MHz	MHz	
70 cm	430-440	420-450	420-450	(a),(b),(f)
33 cm	---	902-928	---	(a),(b),(g)
23 cm	1240-1300	1240-1300	1240-1300	(j)
13 cm	2300-2310	2300-2310	2300-2310	(a),(b),(j)
do	2390-2450	2390-2450	2390-2450	(a),(b),(j)
SHF	GHz	GHz	GHz	
9 cm	---	3.3-3.5	3.3-3.5	(a),(b),(k),(l)
5 cm	5.650-5.850	5.650-5.925	5.650-5.850	(a),(b),(m)
3 cm	10.00-10.50	10.00-10.50	10.00-10.50	(b),(c),(i),(n)
1.2 cm	24.00-24.25	24.00-24.25	24.00-24.25	(a),(b),(i),(o)
EHF	GHz	GHz	GHz	
6 mm	47.0-47.2	47.0-47.2	47.0-47.2	
4 mm	75.5-81.0	75.5-81.0	75.5-81.0	(b).(c),(h)
2.5 mm	119.98- 120.02	119.98- 120.02	119.98- 120.02	(k),(p)
2 mm	142-149	142-149	142-149	(b),(c),(h), (k)
1 mm	241-250	241-250	241-250	(b),(c),(h), (q)

* * * * *

(g) For a station having a control operator holding a Technician, General, Advanced or Amateur Extra Class operator license:

Wave- length band	ITU Region 1	ITU Region 2	lTU Region 3	Sharing require- ments

See 97.303,
Paragraph:

VHF MHz MHz MHz
6 m --- 50-54 50-54 (a)
2 m 144-146 144-148 144-148 (a)

6. Section 97.501 is revised to read as follows:

97.501 Qualifying for an amateur operator license.

An applicant must successfully pass an examination for the issuance of a new amateur operator license and for each change in operator class. Each applicant for the class of operator license specified below must pass, or otherwise receive examination credit for, the following examination elements.

(a) Amateur Extra Class operator: Element 1(C), and elements 3(A), 3(B), 4(A), and 4(B);
(b) Advanced Class operator: Element 1(B) or 1(C), and elements 3(A), 3(B), and 4(A);
(c) General Class operator: Element 1(B) or 1(C), and elements 3(A), and 3(B);
(d) Communicator Class operator: Element 3(A).

7. Paragraphs (b) and (c) of Section 97.503 are revised to read as follows:

97.503 Element standards.

(b) A written examination must be such as to prove that the examinee possesses the operational and technical qualifications required to perform properly the duties of an amateur service licensee. Each written examination must be comprised of a question set as follows:
(1) Element 3(A): 60 questions concerning the privileges of a Communicator Class operator license. The minimum passing score is 45 questions answered correctly.
(2) Element 3(B): 25 questions concerning the additional privileges of a General Class operator license. The minimum passing score is 19 questions answered correctly.
(3) Element 4(A): 50 questions concerning the additional privileges of an Advanced Class operator license. The minimum passing score is 37 questions answered correctly.
(4) Element 4(B): 40 questions concerning the additional privileges of an Amateur Extra Class operator license. The minimum passing score is 30 questions answered correctly.
(c) The topics and number of questions required in

each question set are listed below for the appropriate
examination element:

Topics Element:
3 3 4 4
(A) (B) (A) (B)

(1) FCC rules for the
amateur radio services 15 4 6 8
(2) Amateur station operating
procedures 7 3 1 4
(3) Radio wave propagation characteristics of
amateur service frequency bands 4 3 2 2
(4) Amateur radio
practices 11 5 4 4
(5) Electrical principles as applied
to amateur station equipment 6 2 10 6
(6) Amateur station equipment circuit

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Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1390. NPRM 90-55, Part 7 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:59:00 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13729.25ED2D39@stjhmc.fidonet.org>
Source record: 13095

components 4 1 6 4
(7) Practical circuits employed in
amateur station equipment 3 1 10 4
(8) Signals and emissions transmitted
by amateur stations 4 2 6 4
(9) Amateur station antennas and
feed lines 6 4 5 4
8. Section 97.505(a) is revised to read as follows:

97.505 Element credit.

(a) The administering VEs must give credit as specified
below to an examinee holding any of the following docu-
ments:
(1) An unexpired (or within the renewal grace period)
FCC-issued Novice Class operator license: Element 1(A)
and the 30 written questions in Element 3(A) based upon
the material from the written examination passed for the
Novice Class operator license.
(2) An unexpired (or within the renewal grace period)
FCC-issued Communicator Class operator license: Ele-
ment 3(A).
(3) An unexpired (or within the renewal grace period)
FCC-issued Technician Class operator license: Element
3(A).
(4) An unexpired (or within the renewal grace period)
FCC-issued Technician Class operator license issued be-
fore March 21, 1987: Elements 3(A) and 3(B).
(5) An unexpired (or within the renewal grace period)
FCC-issued General Class operator license: Elements
1(B), 3(A), and 3(B).
(6) An unexpired (or within the renewal grace period)
FCC-issued Advanced Class operator license: Elements
3(A), 3(B), and 4(A).
(7) A CSCE: Each element the CSCE indicates the
examinee passed within the previous 365 days.
(8) An unexpired (or expired less than 5 years) FCC-
issued commercial radiotelegraph operator license or per-
mit: Element 1(C).

9. Section 97.507 is revised to read as follows:

97.507 Preparing an examination.

(a) Each telegraphy message and each written question
set administered to an examinee must be prepared by a

VE holding an FCC-issued Amateur Extra Class operator license. A telegraphy message or written question set, however, may also be prepared for the following elements by a VE holding an FCC-issued operator license of the Class indicated:

(1) Element 3(B): Advanced Class operator.
(2) Elements 1(A) and 3(A): Advanced or General Class operator.

(b) Each question set administered to an examinee must utilize questions taken from the applicable question pool.
(c) Each telegraphy message and each written question set administered to an examinee for a Communicator, General, Advanced or Amateur Extra Class operator license must be prepared, or obtained from a supplier, by the administering VEs according to instructions from the coordinating VEC.
(d) A telegraphy examination must consist of a message sent in the international Morse code at no less than the prescribed speed for a minimum of 5 minutes. The message must contain each required telegraphy character at least once. No message known to the examinee may be administered in a telegraphy examination. Each 5 letters of the alphabet must be counted as 1 word. Each numeral, punctuation mark and prosign must be counted as 2 letters of the alphabet.

10. In Section 97.511, the heading and the text are revised to read as follows:

97.511 Operator license examination.

(a) Each session where an examination is administered must be coordinated by a VEC. Each administering VE must be accredited by' the coordinating VEC.
(b) Each examination for a Communicator Class operator license must be administered by 3 administering VEs. each of whom must hold an FCC-issued Amateur Extra or Advanced Class operator license.
(c) Each examination for a General, Advanced or Amateur Extra Class operator license must be administered by 3 administering VEs, each of whom must hold an FCC-issued Amateur Extra Class operator license.
(d) The administering VEs must make a public announcement before administering an examination. The number of candidates at any examination may be limited.
(e) The administering VEs must issue a CSCE to an examinee who scores a passing grade on an examination element.
(f) Within 10 days of the administration of a successful examination, the administering VEs must submit the ap-

plication to the coordinating VEC.

11. Section 97.513 is removed.
12. In Section 97.519, new paragraph (d) is added to read as follows:

97.519 Coordinating examination sessions.

(d) Each coordinating VEC must compile lists of Communicator Class operator licensees who have been issued a CSCE for Element 1(A), 1(B), or 1(C) during each calendar month. The VEC must forward a copy of the list to the Private Radio Bureau, FCC, Washington. DC 20554, by the 10th day following the end of the month.

13. Section 97.527 is amended by revising paragraph (a), removing paragraph (c) and redesignating paragraphs (d) (e) (f) and (g) as (c) (d) (e) and (f) to read as follows:

97.527 Reimbursement for expenses.

(a) VEs and VECs may be reimbursed by examinees for

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Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1391. NPRM 90-55, Part 8 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:59:03 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13730.25ED2D3B@stjhmc.fidonet.org>
Source record: 13096

out-of-pocket expenses incurred in preparing, processing, administering, or coordinating an examination.

FOOTNOTES

/1 The petitions were received from the American Radio Relay League, Inc. (ARRL) (RM-6995), Larry Ballentine (RM-6991), Clement Bourgeois, Jr. (RM-6988), Burt Fisher (RM-6989), Alan Horowitz (RM-6984), John M. McCord (RM-6993), the Space Coast Amateur Technical Group (SCATG) (RM-6986), David K. Stall (RM-6994), James E. Taylor (RM-6985), Michael C. Trahos (RM-6990), Dennis and Linda Welch (RM-2987), and Bill Welsh (RM-6992). Subsequent to the Public Notice listing of the foregoing petitions, two additional petitions addressing the same matter were received from Larry Garens and Philip Howard. These petitions are included in the record of this notice and comment proceeding and will be given full consideration prior to a final determination in this matter.

/2 See No. 53 of the International Telecommunication Union Radio Regulations (Geneva, 1979) (hereafter Radio Regulations). See also 47 U.S.C. 153(q).

/3 See No. 2735 of the Radio Regulations.

/4 The license classes are, in ascending steps, Novice, Technician, General, Advanced and Amateur Extra.

/5 The examinations cover three levels of telegraphy skill. They are 5, 13, and 20 words-per-minute. The examinee must also pass certain written examination elements, depending upon the operator license class sought. See Sections 97.501 and 97.503 of the Commission's Rules, 47 C.F.R. 97.501 and 97.503.

/6 Notice of Proposed Rule Making, Docket No. 20282, 39 Fed. Reg. 44042 (1974).

/7 Notice of Proposed Rule Making, PR Docket No, 83-28, 48 Fed. Reg. 4855 (1983).

/8 Third Report and Order, Docket No. 20282, 34 Fed. Reg. 16461 (1979).

/9 The qualification requirements for a Technician Class Operator license are passing the five words-per-minute telegraphy examination, the 30 question written examination for a Novice Class Operator license, and the 25 question written examination for a Technician Class Operator license.

/10 Report and Order, PR Docket No. 83-28, 49 Fed. Reg. 1097 (1984).

/11 RM-6995 at 21.

/12 RM-6994 at 3.

/13 RM-6995 at 12 and 13, N. 11.

/14 RM-6986 at 3.
/15 RM-6989 at 1 and 2.
/16 RM-6990 at 5.
/17 RM-6993 at 2.
/18 RM-6987 at 1.
/19 RM-6992 at 1.
/20 RM-6985 at 1.
/21 The highest speed telegraphy requirement is 20 words-
per-minute for the Amateur Extra Class operator license.
/22 RM-6988 at 2 and 3.
/23 RM-6991 at 1.
/24 RM-6995 at 15.
/25 RM-6994 at 1.
/26 RM-6989 at 1.
/27 RM-6995 at 18.
/28 RM-6993 at 1.
/29 RM-6987 at 2.
/30 RM-6986 at 1,
/31 RM-6985 at 1 and 2.
/32 RM-6984 at 1.
/33 RM-6990 at 4.
/34 RM-6990 at 20.
/35 RM-6992 at 2 and 3.
/36 RM-6992 at 3.
/37 RM-6985 at 2.
/38 RM-6990 at 21, and RM-6986 at 2.
/39 RM-6989 at 1.
/40 RM-6995 at 20.
/41 RM-6987 at 2.
/42 RM-6994 at 1.
/43 RM-6993 at 1.
/44 RM-6995 at 17 and 18.
/45 RM-6986 at 2.
/46 RM-6986 at 1.
/47 RM-6989 at 1.
/48 RM-6990 at 20.
/49 RM-6994 at 1.
/50 RM-6995 at 17.
/51 RM-6995 at 19.
/52 The sixth license class designation is "Communicator."
/53 A written examination must be designed to demonstrate
that the examinee has the operational and technical qualifica-
tions required to perform properly the duties of an amateur
service licensee in accordance with the privileges authorized by
the class of operator license sought. See 47 U.S.C. 303(l)(1)
and 47 C.F.R. 97.503(b).
/54 Section 97.523, 47 C.F.R. 97.523, requires all VECs to
cooperate in maintaining one question pool for each written
examination element. Each pool must contain at least 10 times
the number of questions required for a single examination.

/55 The current Technician Class question pool consists of 250 questions. There are currently 300 questions in the Novice Class question pool. An additional 50 questions would be added, giving the proposed Communicator Class question pool a total of 600 questions.
/56 See Section 97.1(c). 47 C.F.R. 97.1(c).
/57 Until a revised FCC FORM 610 becomes available, the administering VEs would write in certain information on the current form in the case of an application for a Communicator Operator license. We would furnish information to the VECs for temporary use of the current form, if we decide to proceed with the Communicator Class license.
/58 The computer-aided application processing system selects a new call sign from four basic groupings for assignment to an amateur station. Each call sign is sequentially selected from an alphabetized regional-group list that corresponds to the licensee's class of operator license and mailing address.
/59 RM-6995 at 19.
/60 RM-6995 at 14.
/61 See Radio Regulations, Nos. 2735, and 2736.
/62 The additional privileges include RTTY and data emissions and phone emissions J3E and R3E in a segment of the 10 meter band, and all authorized emissions in the 2 and 6 meter bands, See 97.301 and 97.303.
/63 A Certificate of Successful Completion of Examination is now issued by VEs. See Section 97.511(e), 47 C.F.R. 97.511(e).

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Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1392. NPRM 90-55, Part 9 of 9

Newsgroup: rec.ham-radio
Date: 1990-03-01 13:59:07 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13731.25ED2D3D@stjhmc.fidonet.org>
Source record: 13097

/64 Section 97.119(e) requires that an indicator must be included after the call sign whenever the control operator is using privileges based on holding a CSCE. The indicator AC is proposed for the Communicator Class.
/65 Currently, Section 97.505(a)(2), 47 C.F.R. 97.505(a)(2), requires VEs to give credit to an examinee holding a certificate of successful examination (CSCE) indicating the examination was passed within the previous 365 days. Currently, Section 97.9(b), 47 C.F.R. 97.9(b). authorizes a licensee holding a CSCE indicating that he or she completed the necessary examinations within the previous 365 days to exercise the rights and privileges of the higher operator class. The time limitation that would apply to the use of a CSCE in conjunction with the Communicator Class license authorizing the rights and privileges of the Technician Class would be the duration of the license term and renewal thereof.
/66 Eighteen organizations function as VECs. They accredit VEs, coordinate examination sessions, maintain the question pools, provide instructions to VEs, review and forward completed license application forms to the Commission for processing. Some 50,000 examinations are administered annually under the VEC system.
/67 Some 18,000 to 20,000 persons qualify for a Novice Operator Class license annually. The examinations are administered by two General, Advanced, or Amateur Extra Operator Class licensees selected by the examinee.
/68 Some 10,000 to 15,000 persons qualify for the Technician Operator Class license annually.
/69 Currently, VEs and VEC may only be reimbursed by examinees for expenses incurred in preparing, processing. administering or coordinating an examination for a Technician, General, Advanced, or Amateur Extra Class Operator license. See 47 U.S.C. 154(f)(4)(J) and 47 C.F.R. 97.527.

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Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1393. V31BB: Another bad experience

Newsgroup: rec.ham-radio
Date: 1990-03-01 14:13:38 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9003021656.AA29819@ucbvax.Berkeley.EDU>
Source record: 13098

I called him one day to pick up V31 as a prefix and asked him to repeat his call when he answered since he was kinda weak to me. He refused, said no contact and launched into a big spiel about running "a tight ship" there.

The incident really made me angry. So angry that I sold my TS-820S a few days later. You all can have HF! I have never seen so many rude and crude operators anywhere except on CB. Sorry, fellas, I call 'em as I see 'em.

Forget 10 meters, it's already doomed.

Just my opinion.

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

1394. Re: Atlantis heard during launch

Newsgroup: rec.ham-radio
Date: 1990-03-01 17:07:38 UTC
From: mike@ames.arc.nasa.gov
Message-ID: <43993@ames.arc.nasa.gov>
Source record: 13099
Cross-posted to: rec.ham-radio,sci.space.shuttle
Body handling: HTML body converted to readable text

In article <20405@bellcore.bellcore.com> karn@ka9q.bellcore.com (Phil Karn) writes:
<
Phil

On the Westar 4 I intercepted a CBS TV feed (which I don't think
was carried on the network) of the liftoff. They received the a/g
directly and mixed it with the launch commentary. There were also a
few prelaunch exchanges heard dealing with the weather.

mike

*** mike smithwick ***

"E Pluribus Unix!"
[disclaimer : nope, I don't work for NASA, I take full blame for my ideas]

1395. Re: Shortwave Radio from DAK

Newsgroup: rec.ham-radio
Date: 1990-03-01 18:16:55 UTC
From: kenb@hp-ptp.HP.COM
Message-ID: <2700009@hp-ptp.HP.COM>
Source record: 13100

>/ hp-ptp:rec.ham-radio / ronc@unix.cis.pitt.edu (Ranjan Chatterjee) / 7:32 pm Feb 28, 1990 /
>I received a catalog from a mail order firm in Cagona Park in California
>called DAK. They are selling a Digital PLL Tuning Shortwave radio having
>
> AM -(530-1630)KHz
> SW - (3200-21750)KHz
> FM - 87.5-108 MHz
>
>It also has 20 preset memory, clock/alarm/timer. Ext. Antenna jack,
>Illuminated LCD display.....All for US$50.00. The price seems too
>good to be true. Does anyone have any information on this product
>or the company ? There number is 1-800-325-0800.
>
>Any information on this would be appreciated.
>
>Thanks,
>Ranjan

Ranjan,
I've ordered tons of stuff through the years and only got burned once, and
then they gave me a prompt refund. I'd go for it...

Ken Buscho

Ken Buscho, KC6AKD
Office Automation Coordinator Unit Leader
Hewlett Packard California Explorer Search & Rescue
1266 Kifer Road 354 Parrott Drive
Sunnyvale, CA 94086 San Mateo, CA 94402
(408)746-5065 (415)343-4122

Internet: kenb@hp-ptp.ptp.HP.COM
uucp: hplabs!hp-ptp!kenb

"Support search and rescue, get lost"

1396. TI GM0290A Transistor

Newsgroup: rec.ham-radio
Date: 1990-03-01 18:24:16 UTC
From: hignite_ra%ncsd.dnet@GTE.COM
Message-ID: <9003011824.AA28963@bunny.gte.com>
Source record: 13101

My cross refences manual has an ECG/NTE 160 transistor as the equivalent. It is in fact a Germanium PNP RF-IF amp. When I was located in London I use to call RS and they would cross the ECG/NTE part to what ever they had in stock (and sometimes the had the ECG/Philips actual part). Hope this helps.

73, Rod KB3MK (ex-G5EEN)

1397. Re: small QRP HF transceivers

Newsgroup: rec.ham-radio
Date: 1990-03-01 19:13:14 UTC
From: dougb@hpnmdla.HP.COM
Message-ID: <1250129@hpnmdla.HP.COM>
Source record: 13102

If you are into building, the RadioKit 20M compact CW transceiver went together rather easily for me. It is based on the article in the May 1987 issue of Ham Radio magazine. The kit includes the cabinet, PC boards, and all of the components and associated hardware. The only part that is not provided is the main VFO dial which RadioKit does not provide, and they inform you of that in their catalog. Since there is not a easy source for this dial (as RadioKit must have also discovered), I made my own.

One main PC board and a smaller PA board are the bulk of the electrical work; you do need to punch out your own front and rear panels. This is not a "Heathkit" in terms of documentation. RadioKit does provide a reprint of the magazine article.

Once together, I did have trouble getting the adjustments correct until I borrowed a spectrum analyzer! I highly recommend obtaining one for the oscillator adjustments, and especially when checking for spurious outputs. The receiver is based on 1496 mixers and 1350 IF amp and is a superhet with a 9 MHz IF. Although I haven't made any measurements on sensitivity, it seems to be quite good.

I am not associated with RadioKit -- I just had a lot of fun building this kit!

73, Doug WW6D

1398. V31BB ???

Newsgroup: rec.ham-radio
Date: 1990-03-01 19:54:00 UTC
From: csblasinski@brocku.ca
Message-ID: <418*csblasinski@BrockU.ca>
Source record: 13103

I've worked V31BB a number of times on 10 meter FM and UUSB and he's
always given me a good report. I've tryed to QSL him direct but still
no response. I listened to part of the MFJ Junk-Net he was running and from I gather he's
pissed off at his Ameritron Linear amplifier which I assume is
made by MFJ.

73....Ed
VE3 ITH

1399. Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-01 19:57:23 UTC
From: charlie@oakhill.UUCP
Message-ID: <3034@radio.oakhill.UUCP>
Source record: 13104
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I have noticed (for some time now) a sweeping carrier
passing through the HF bands. It appears both in the
amateur HF bands and other HF frequencies as well.
It sounds just like someone spotting their VFO
as they spin the VFO dail up or down the band.
At first I assumed this was someone with bad
operating practices but after I noticed it on the
non-ham portions of the HF band I figured it was
some military station with annoying operating
practices.

I now belive that none of the above explanations
apply. I think this sweeping carrier is some sort
of HF propogation sounder. It probably is finding
the MUF and collecting data relating to HF
propogation vs. frequency vs. time. If this is
true how can the FCC license such an obnoixous
thing?

Anybody have any explanations?
Thanks in advance,
C. Thompson WB4HVD

1400. Searching for RCA 4065

Newsgroup: rec.ham-radio
Date: 1990-03-01 20:37:42 UTC
From: km3t@jjmhome.UUCP
Message-ID: <5539@jjmhome.UUCP>
Source record: 13105
Cross-posted to: rec.ham-radio,rec.ham-radio.swap,sci.electronics

Does anyone have any leads on an RCA 4065 tube? Please e-mail any replies
if possible.

--
| Internet: pascoe%edcd@gte.com
Dave Pascoe | km3t%jjmhome@m2c.m2c.org
KM3T/1 | UUCP: {harvard}!m2c!jjmhome!km3t
| Packet Radio: km3t @ k1ugm.ma.usa.na

1401. High Voltage RF source/amp

Newsgroup: rec.ham-radio
Date: 1990-03-01 21:24:05 UTC
From: surshkmr@phoenix.Princeton.EDU
Message-ID: <14165@phoenix.Princeton.EDU>
Source record: 13106

This does not have any direct connection to Ham-

As part of my research, I need a high voltage (>300 volts peak to peak) RF (1-50 MHz) source to drive a reactive load that varies with time. The total current that I need for the experiment (and therefore the wattage) is quite small (<1W), but I need an ideal voltage source (the output voltage must remain constant during the experiment ; when the impedance of the load changes).

I was told that an RF transmitter is the only way to go. Are there any commercially available equipment that may do the job?

I have an RF signal generator which produces 30 volts peak to peak into a 50 ohm load . Could I get/build an amp that could produce 300 volts peak to peak from this?

Any suggestions will be greatly appreciated.

Please E-Mail all responses to me , I dont read this newsgroup regularly.

Thanks in Advance!

Suresh

<surshkmr@Phoenix.Princeton.EDU>

<surshkmr@PUCC>

1402. everex

Newsgroup: rec.ham-radio
Date: 1990-03-01 22:08:58 UTC
From: kjh@pollux.usc.edu
Message-ID: <23188@usc.edu>
Source record: 13107
Cross-posted to:
comp.binaries.ibm.pc.d,comp.sys.ibm.pc,comp.sys.tandy,comp.sys.amiga.hardware,comp.sys.zenith,rec.ham-radio

I advise you not to buy Everex products.

I just recently got a Seagate ST-4096 hard disk which was repackaged by Everex. The documentation which came with the disk was incorrect. The software which came with the disk has serious bugs.

Following the documentation written by Everex exactly, I was unable to get the drive to work. After calling the vendor, and talking to their technical support people, I learned that the Everex documentation is wrong. They give faulty information on how to configure the jumpers on disk drives. (The correct information will follow later.) After following the instructions from the vendor tech support people, the disk worked. According to the vendor, Everex admits that their documentation is incorrect, but they won't fix it.
Note: The "drive select" jumpers should be set as follows:
If you have a cable with a twist in it, the DS jumpers on BOTH disks should be set to the second addressable drive. For hard disks, this is drive 2 because addressing starts with DS1; for floppy drives, this is drive 1 because addressing starts with DS0. The drive on the end of the cable with the twist will be the first of the two drives (eg. A:) and the other drive will be the second of the two drives (eg. B:).
If you have a cable without a twist in it, and a single disk drive, the DS jumper should be set to the first addressable drive. For hard disks, this is DS1; for floppy drives this is DS0.

Using the software provided by Everex led to other working systems in my computer becoming non-functional. After calling the vendor, and talking to their technical support people, I learned that Everex admits that their software does not work. The vendor agreed to ship me a copy of Seagate's software. I haven't received it yet, but I expect it to work just fine.
Note: The specific problem I had was: when using the everex device driver "evdisk.sys", my 720k B: drive would not function correctly. You could put in a disk, do a "dir" command, switch disks, do another "dir" command, and see the directory of the first disk. You could "cd" to directories on the first disk which did not exist on the second disk which is actually in the drive. The only (hokey) way out of this problem was to force a drive read fault, to get the "Abort, Retry, or Ignore?" message. This is definitely a bug, and not a feature.
(If the evdisk.sys device driver is not used, then 50M of the 80M disk is wasted under any version of DOS previous to 4.0.)

Rule 1 Don't buy Everex products.

Rule 2 Specify to vendors that you won't accept Everex products.

Rule 3 If you buy something, and it turns out to be an Everex product, see rule 1 and rule 2. Return it.

Ken Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

1403. Re: Flames 0 Tact 1

Newsgroup: rec.ham-radio
Date: 1990-03-01 23:54:18 UTC
From: johnh@hpubvwa.HP.COM
Message-ID: <2880006@hpubvwa.HP.COM>
Source record: 13108

I am glad someone had presence of mind!!!!

John KD7UW --- hays@apollo.hp.com

1404. Radio Shlock DX-440

Newsgroup: rec.ham-radio
Date: 1990-03-02 00:18:01 UTC
From: "4.8": <>;
Message-ID: <9003020018.AA07731@mmlai.LOCAL>
Source record: 13109

Maybe this belongs in rec.radio.sw, but since my site doesn't subscribe, I'm posting here. Please forgive me.

I bought the Radio Shlock DX-440 about 1 year ago and I've been pretty pleased with it up until last weekend. After listening to a clear SW station, I hit scan and it never found another station. FM still works fine and the scan function still searches properly, but no AM/SW stations are being detected, even when programmed directly. This includes SSB and CW stations with BFO in or out. So basically I'm down to an FM receiver of which I already have too many.

I've written to the Shlock to get schematics for the DX-440, but in the mean-time, has anyone else out there experienced this same problem with this radio? Is there a quick fix someone might suggest? Does the radio contain CMOS or any other ESD sensitive parts? FYI, I am an EE and I can handle a soldering iron, so if anyone can point me to the AM detection stage in this thing, I'm willing to give it a shot. The warranty was only 90 days and I didn't opt for the extended version. Could it be something as simple as a single IC chip in a socket? . . . Naah, not if Murphy has anything to say about it!

While I'm at it: the cheapos at RS conveniently plugged the tape out hole on this model to bring the cost <$200. (*&%#@!?ARGH*(#@!) The solder pads are on the board (I've seen them). So what type of jack can be put here to finish RS's job, and where can I buy it? Anyone out there with the Sangean model, etc.? The radios are all the same except for the jack. If I just knew if it was an RCA phono jack and I could find a source for the part . . .

Any help would be greatly appreciated, for whatever my eternal gratitude is worth. E-mail or post (sometimes my e-mail bounces). And, BTW, I recently joined the ranks of amateur extra class. YAY!

--... ...-- ...

Bill Ferrell
ferrell@mmlai.uucp (or stuff like that)
N3HIV (I'm keeping the call, for now)

Disclaimer? Isn't that something like a software pirate? :-)

1405. NORAD to AMSAT Quick Track ?

Newsgroup: rec.ham-radio
Date: 1990-03-02 05:46:31 UTC
From: mike@boom.UUCP
Message-ID: <7.352645a231@boom.UUCP>
Source record: 13110
Cross-posted to: sci.space,rec.ham-radio

Does anyone have a way to convert the NASA/NORAD Prediction Bulletins directly to the N4HY's AMSAT Quick Track KEPC.DAT file? It get's old putting all those numbers by hand.......

-=+
Mike Peyton USENET: ...!uunet!epiwrl!boom!mike
4209 Tulare Dr. INTERNET: mike@wrl.epi.com
Wheaton, MD 20906 MCIMail: M Peyton or 324-8388
w 703-749-7381 h 301-933-2273
-=+

1406. Re: Need wattage and range information for us in portable emergency.

Newsgroup: rec.ham-radio
Date: 1990-03-02 07:18:43 UTC
From: markz@ssc.UUCP
Message-ID: <518@ssc.UUCP>
Source record: 13111

In article <3980@cbnewsj.ATT.COM>, kwmc@cbnewsj.ATT.COM (ken.cochran) writes:
> Three years ago my mother had a heart attack and was advised to "take nice
> long walks as part of her recovery and treatment. This winter, while out
> walking, she slipped and broke her arm some distance from the nearest house.
> While this was not life threatening it caused her some distress.
>
> I am hoping to give her a light portable CB which she can use to summon help
> from home (my dad) and it should have a range of 2.5 to 3 miles (reliably).

In the February 1990 "Monitoring Times", there is an annoucement of a new
service granted by the FCC, Personal Emergency Locator Transmitter Service
(PELTS). It is to use 3 Watt radios in the 220 Mhz band with voice and
homing capablity. The intended use for emergencys for hikers, skiers,
and mountain climbers in wilderness areas. The article was short on details,
so it is unclear whether the equipment will be allowed outside wilderness
areas, and if the frequencys are shared.

One reason for the speed that this was created, was that aircraft ELT
tranmitters were being (ab)used for this application.

markz@ssc.uucp

1407. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-03-02 07:48:10 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003021655.AA29791@ucbvax.Berkeley.EDU>
Source record: 13112

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 36
1 20512U 90 19 A 90 59.44767390 .00292862 43524-4 97414-4 0 27
2 20512 61.9935 179.0635 0006854 282.7305 76.9739 16.25535875 15
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

1408. Re: How does one build LOG AMPS (>60dB dynamic range)

Newsgroup: rec.ham-radio
Date: 1990-03-02 08:39:39 UTC
From: news@sun.Eng.Sun.COM
Message-ID: <132426@sun.Eng.Sun.COM>
Source record: 13113
Cross-posted to: rec.ham-radio,sci.electronics

Reply-To: poynton@sun.com (Charles A. Poynton)
Followup-To:
Organization: Sun Microsystems, Inc., Mountain View, Calif., U.S.A.
From: poynton@vector.Sun.COM (Charles A. Poynton)
Path: vector!poynton

Giovanni Moretti <GMoretti@massey.ac.nz> asks about a log amplifier over 60 dB at 10.7 MHz for a spectrum analyser.

John Whitmore <whit@milton.acs.washington.edu> suggests the classic National Semi appnotes that exploit the logarithmic I/V relationship in a diode. John Wieczorek <johnw@watnext.waterloo.edu> suggests an ICL8048; this part uses the same approach. Both of these approaches are appropriate if the logarithm of a low frequency signal, perhaps up to 10 kHz, is required. However the problem in a spectrum analyser is to get such a wide dynamic range through the IF amplifiers unscathed; IF amplifiers are just not capable of 60 dB, so the log operation must be performed at IF frequencies, not after detection.

As Michael Katzmann <michael@fe2o3.UUCP> suggests, Plessey is the place to look. They have a series of parts starting (SL521, 523, 1521, 1522, 1523) that are specifically designed as logarithmic IF amplifiers (for radar, in fact). In October 1980 these were documented in Radar and Radio Communications IC Handbook, but they're not in the March 1987 Radio Telecoms IC Handbook and I don't have the latest books.

Plessey (NZ) Ltd., Auckland 8, Tel. 8364189.

C.

Charles A. Poynton Sun Microsystems Inc.
vox 415-336-7846 2550 Garcia Avenue, MS 21-10
fax 415-969-9131 Mountain View, CA 94043
<poynton@sun.com> U.S.A.

"The most probable consequence of high tech jingoism is that it will keep the best of future technology out." -- The Economist, July 1, 1989, p. 19.

1409. Standard C520 hand held

Newsgroup: rec.ham-radio
Date: 1990-03-02 08:56:05 UTC
From: pvh@Apple.COM
Message-ID: <39130@apple.Apple.COM>
Source record: 13114

I recently saw an ad for this dual band hand held in Japanese CQ and it looks very interesting. I know that Heath Company imports other Standard hand helds and I was curious if anyone knows if they plan to import this one as well.

Thanks,

Pete
KC6ISO

1410. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-02 12:50:21 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <13323@cbnewse.ATT.COM>
Source record: 13115
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <3034@radio.oakhill.UUCP>, charlie@oakhill.UUCP (Charlie Thompson) writes:
> I have noticed (for some time now) a sweeping carrier
> passing through the HF bands... Anybody have any explanations?

STRANGE HF SIGNALS MAY BE PROPAGATION SOUNDERS

by Bob Parnass, AJ9S

Many scanner and shortwave listeners are curious by nature, and want to know the identity of stations they hear. Pirate broadcast stations have a cult following, as do "spy numbers" and military transmissions.

But, some signals seem to defy explanation. They are neither voice nor data. What are those clicks, tweets, and bursts one hears on the shortwave bands? Perhaps you stumbled upon signals from over the horizon radar, or even an RF induction heating oven. There is another source of these puzzling signals -- your receiver may have intercepted a sounder system used for propagational studies.

A recently released U. S. Navy report gives us a peek at several such radio sweeper systems: HF Maximum Usable Frequency (MUF) Model Uncertainty Assessment, Technical report 1184, by T. N. Roy and D. B. Sailors. June 1987. Naval Ocean Systems Center, San Diego, CA.

Basically, a sounder system consists of a transmitter that emits signals sequentially on several frequencies, and a distant receiver which is programmed to follow the transmitter frequency and measure the signal strength at each channel.

Navy Tactical Sounder System

The Navy has used a system of several shore-based AN/FPT-11 (XN-1) sounder transmitters and shipboard and land based AN/UPR-2 receivers to determine propagation conditions. Known as the Navy Tactical Sounder System (NTSS), the FPT-11 transmits a double, biphase pulse sequence every minute on each of 80 frequencies between 2 and 32 MHz. The 80 frequencies are spaced in 100 kHz increments between 2 and 4 MHz, 200 kHz increments between 4 and 8 MHz, 400 kHz increments between 8 and 16 MHz, and 800 kHz increments between 16 and 32 MHz.

Both receivers and transmitters are synchronized to WWV so the receivers can follow the transmitter frequency sequence.

Granger Model 900 Sounder

The Stanford Research Institute has used a different system to study propagation. Their equipment consists of Granger Associates Model 900 sounders, which cover the 4 to 64 MHz range in four bands of 40 linearly spaced channels each. The Granger sounders are high power, and transmit 30 kW peak pulses of 0.1 ms or 1.0 ms. The scan sequence takes 29 seconds to complete, and is repeated every 20 minutes.

A search of FCC records shows SRI may also be using linear sweepers. SRI was granted license KA2XNH as an experimental contract station to fullfull U.S. Navy contract N00014-83-C-0267. This license permits a 50 watt SRI transmitter to sweep the 2-32 MHz band in 1 Hz increments not more than 3 times per hour at a sweep rate of not less than 5 minutes sweep for the entire band.

Other Systems

Another sounder system consists of a device called a C-3 iosonde, which transmits 0.1 ms pulses and is swept linearly between 2 and 25 MHz.

The BR Communications HF Chirpsounder System takes 5 minutes to sweep between 2 and 30 MHz, and the sweep is repeated every 15 minutes.

Sights and Sounds

It's tough to follow frequency agile signals using only shortwave receiver. Connecting a panoramic display (pana-daptor) makes it easier to identify sounders. One can actu-ally see the sweeper signals moving up the band.

--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

1411. Re: Havana Moon's On-Line Service

Newsgroup: rec.ham-radio
Date: 1990-03-02 14:12:38 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13779.25EE8107@stjhmc.fidonet.org>
Source record: 13116

> From: lyndon@cs.AthabascaU.CA (Lyndon Nerenberg)
> > "Los Numeros" On-Line is the perfect blend of two of the
> > world's most excitingnd fastest growing electronics hobbies -
> > Shortwave Listening and Personal Comping.
>
> Geez - I haven't been comping for a long time :-)

Me, neither, but I've been ficheing a couple times.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1412. Military Radio Info -- PRC-25 & PRC-70

Newsgroup: rec.ham-radio
Date: 1990-03-02 15:09:00 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003030803.AA24567@ucbvax.Berkeley.EDU>
Source record: 13117

Some days back, there was a posting from a military radio collector, I believe in Europe, who wanted info on the Vietnam-era military radios PRC-25 and PRC-70. I got out my 1981 Jane's Military Communications and herewith the enclosed info. (By the way, I recommend anyone interested in military surplus electronics see if they can get ahold of copies of this publication. It is insanely overpriced when new, like all the Jane's books, at $150 or something idiotic like that. However, remaindered copies show up in mail-order book catalogs now and then. I have bought a couple issues of the Military Communications books for $15 [and I think I saw one being closed out for $10 *after* I paid $15 :-(] from Publishers Central Bureau. The Infantry Weapons back issues tend to go for about $50, and other series are somewhere in-between. "Jane's Shipping Containers" is always very cheap, but I have never figured out who would ever want one! :-) I don't know if there is a European version of PCB; maybe each language-area has their own remaindered-book mail-order house? Any UK readers know of good English-language remaindered- and used-book dealers who would do mail-order with the US at reasonable rates? For the US readers who do not already get 4 catalogs from PCB in the mail each month, here's their address: Publishers Central Bureau, One Champion Ave., Avenel, NJ 07131.)

Here's the radio data:

AN/PRC-25 VHF/FM MANPACK TRANSCEIVER

Platoon and company level communications gear. Developed '59-'60; produced from '61 on. No longer in production as of the 1980 date of this publication. Also came in vehicle-mounted and vehicle/portable versions.

2 bands: 30-52.95 MHz and 53-75.95 MHz

920 channels, 50 kHz separation

2 Whip antennae -- 36" and 129" long (could also be hooked to a ground-plane)

Transmitter power 1 - 1.5 Watts; Weight = 24 lbs. (Wow! You really get a lot of output for lugging around this beast! :-)
Powered by 12.5V battery (type unspecified).
Dimensions: 11" high, 4" wide, 11" long (I would interchange some of these based on the picture. What they call "wide" I would call either "high" or "deep", depending how you sit the thing.)

AN/PRC-70

Developed Aug '64, in production from '71 through the date of the book ('80).

2 - 76 MHz in USB, AM, CW, & FSK
30 - 76 MHz in FM

Transmitter power: SSB = 30W PEP; FM, FSK, CW = 30W; AM = "7.5W Carrier"
(whatever that means)
Weight 20 lb 8 oz (*less* battery case) [No power-requirement info given]

Dimensions: 4" high, 13" wide, 12" long

End of info

Looking thru this brings back memories of trying to DX with an
AN/GRC-106 HF receiver part of the Tx/Rx combo at Nha Trang in '72.
Lousy receiver, as I recall, but maybe it was the antenna... That radio
has individual knobs for tuning each digit and bandscanning was really
tedious! About a three-handed job... For my own radio, I had this
wretched Allied multi-band job and couldn't get much more than the DW
southeast-Asian relay and a few other regional stations. Boy, I wish I
could slip back in time and give me the Sonys I have now then!

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

1413. Re: everex

Newsgroup: rec.ham-radio
Date: 1990-03-02 15:20:05 UTC
From: darcy@druid.uucp
Message-ID: <1990Mar2.152005.27912@druid.uucp>
Source record: 13118
Cross-posted to:
comp.binaries.ibm.pc.d,comp.sys.ibm.pc,comp.sys.tandy,comp.sys.amiga.hardware,comp.sys.zenith,rec.ham-radio

In article <23188@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>
> I advise you not to buy Everex products.
>
And I advise you not to take the advice of someone who doesn't know which
group to post to.

Yes I know he did follow-up to comp.sys.ibm.pc but that only means that
those who read one of the above groups but not c.s.i.p will only see the
posting of one person without seeing balancing viewpoints from others. If
you are in that category then you should either completely ignore Kenneth's
rantings or else subscribe to c.s.i.p. to read the whole story.

BTW: I have been dealing with Everex for years without having the problems
that Kenneth seems to be having. But then I know how to connect a hard drive.
Maybe Kenneth should stick to buying complete systems.

Follow-ups to comp.sys.ibm.pc

--
D'Arcy J.M. Cain (darcy@druid) | Thank goodness we don't get all
D'Arcy Cain Consulting | the government we pay for.
West Hill, Ontario, Canada |
(416) 281-6094 |

1414. Kantronics Monobanders

Newsgroup: rec.ham-radio
Date: 1990-03-02 16:17:18 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <206193@Wayne-MTS>
Source record: 13119

Brian Shiratsuki mentioned the Kantronics monobanders. As an ex-owner of one, let me make a few comments...

When I saw these they looked like an excellent deal. I tried one out- a 10M model- at a local store and was impressed with the quality and performance. However...

Some months later I bought one from a dealer at a swap at a good price; he had 10 and 15M units for about $220. The unit doesn't come with a noise blanker as standard (!), so I called Kantronics to see if I could order one. Surprise. Kantronics no longer selss these. They sold out their entire lot to various dealers at a close-out price. They have no parts, no manuals and no service info. The outfit they recommended I talk to about service says *they* don't have manuals either. A call back to Kantronics recommended I get get touch with the manufacturer, Tokyo High Power....in Tokyo.

A nice box, but with very poor support. Kantronics is to be lauded for trying to sell it, but roundly castigated for dumping support so quickly. I don't think I'll be doing business with them again soon. I swapped my unit to a friend (with full warnings). He's reasonably happy with it.

--mike ke8yy
michael_edelman%Wayne-MTS@um.cc.umich.edu
medelma@waynest1

1415. FAX tuning questions

Newsgroup: rec.ham-radio
Date: 1990-03-02 17:54:06 UTC
From: greg@cica.cica.indiana.edu
Message-ID: <524@cica.cica.indiana.edu>
Source record: 13120

I'm just getting into shortwave radio an have a question or two...

I'm trying to tune various HF weather FAX stations with varying
degrees of luck. I'm a pilot and the ability to receive up-to-date
weather charts via radio FAX is what got me into SW in the first place.
I have a Yaesu FRG-8800 receiver, going into a Kantronics KAM TNC to a
'puter for storage/display. I've been able to pick up the Norfolk
station on 8.080MHZ and make pictures.

However, I wanted to hook up a 'scope to get the tuning for the KAM spot-on.
Everything I've read says that, using the WEFAX FSK format, I should see
1500HZ for a mark and 2300HZ for a space signal. In between pictures
the transmitter supposedly sends a space signal continuously. If I tune
to 8.078.3MHZ on the FRG-8800 and then adjust the fine tuning for 2300HZ
during the time the transmitter should be sending out a constant space
signal the Kantronics shows a mark signal! Moreover, using said calibration
produces no recognizable picture. If I instead adjust so that the receiver
is putting out 1500HZ during the space transmission, the Kantronics indicates
a space signal is being received (which is what it is supposed to indicate
at 2300HZ) and the ensuing picture is normal.

Is there something I'm missing? Note that I am looking right at the audio
output of the receiver, not the Kantronic's output. Am I actually seeing the
RF carrier and mistaking it for the modem signals? I'm tuning 800HZ below
the published frequencies, USB, btw.

Also, any good public-domain IBM-PC FAX programs?

--
Gregory R. Travis Indiana University, Bloomington IN 47405
greg@cica.cica.indiana.edu Center for Innovative Computer Applications

1416. club mtg ideas

Newsgroup: rec.ham-radio
Date: 1990-03-02 20:59:09 UTC
From: abm@mbunix.mitre.org
Message-ID: <99979@linus.UUCP>
Source record: 13121

I asked for suggestions for topics/speakers for a ham club at work.
Here are the suggestions so far - any others out there?
e-mail direct and I'll summarize

tnks 73 Alex wd2t

*** from Phil Howard KA9WGN <phil@ux1.cso.uiuc.edu>
1. RFI: how to prevent it
2. RFI: how to cure it
3. SAFETY in the ham shack and on the tower
4. Rare DX certificates
5. What is EME all about
6. Signal processing developments
7. Soldering workshop
8. Are you grounded
9. MORE SAFETY in the ham shack and on the tower
10. The joy of fox hunting

*** from Steve Wilson KA6S
xait!think!ames!versatc!wyse!wyse.com!stevew

One program that we(the local Amateur Auxiliary) are putting on for
anyone that is interested is a combo program where we talk about
the Amateur Auxiliary(OO's) and also talk about DF techniques.
The DFing part seems to be a real popular topic. The meetings
seem to run a bit long because there are usually so many questions.

Try contacting your local OO Co-ordinator(get his name from your
ARRL Section Manager) and maybe he can help you find a speaker.

1417. ISDN for linking packet and repeaters

Newsgroup: rec.ham-radio
Date: 1990-03-02 21:11:04 UTC
From: greg@thoreau.nsc.com
Message-ID: <37@thoreau.nsc.com>
Source record: 13122
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In my area, there are a couple of linked voice repeater systems and several packet networks. The repeaters are linked on VHF and UHF with conventional FM tx/rx. The audio quality is OK if there is only one hop between the originating and receiving repeaters, but gets very poor if the repeaters are at opposite ends of the state.

On packet, the situation is not much better, now using 1200bps dedicated uhf backbone and/or vhf frequencies which are shared with the node users. To communicate with another station a few nodes away, it may take minutes for each packet to reach its destinition.

ISDN (Integrated Services Digital Network), is a new network protocol which aims to handle both voice and data (including X.25). Hardware (and probably software) are or will be available to facilitate an ISDN. It seems to me that ISDN running over a few microwave links would solve both of our linked repeater and packet problems. This is something the Amateur community should be on the leading edge of.

Does anyone know of any Amateur experiments planned or underway involving ISDN? Please reply to me - any replies, I'll summarize to the net.

--
Greg Dean, K1ME
(207) 775-8596
greg@thoreau.nsc.com

1418. Satellite Audio Receive Station Equip. Needs?

Newsgroup: rec.ham-radio
Date: 1990-03-02 21:57:45 UTC
From: klopfens@bgsu-stu.UUCP
Message-ID: <5496@bgsu-stu.UUCP>
Source record: 13123

Can any of you engineering types give me some idea of how much
a satellite receive station (dish and electronics) costs for
a radio broadcast station? We are interested in getting one
for our FM broadcast station.

Thanks for your help.

Bruce

--
Dr. Bruce C. Klopfenstein | klopfens@andy.bgsu.edu
Radio-TV-Film Department | klopfenstein@bgsuopie.bitnet
Bowling Green $tate University | klopfens@bgsuvax.UUCP
Bowling Green, OH 43403 | (419) 372-2138; 352-4818
| fax (419) 372-2300

1419. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-03-03 01:53:36 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003030903.AA27931@ucbvax.Berkeley.EDU>
Source record: 13124

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 36
1 20512U 90 19 A 90 60.79907196 .00287007 49022-4 25599-3 0 70
2 20512 61.9920 173.5205 0002824 129.5693 149.1093 16.12511850 235
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

1420. * SpaceNews 26Feb90 *

Newsgroup: rec.ham-radio
Date: 1990-03-03 03:22:12 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <196@ka2qhd.UUCP>
Source record: 13125
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0226

=========
SpaceNews
=========

MONDAY FEBRUARY 26, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on UseNet and Amateur Packet Radio. It is available for UNLIMITED distribution.

* SAREX-2 TESTING CONTINUES *
============================
Last week, the Shuttle Amateur Radio Experiment #2 (SAREX-2) packet radio station underwent extensive testing at the Marshall Space Flight Center in Huntsville, AL according AMSAT Area Coordinator Ed Stluka (W4QAU). This testing was being perfomed in conjuction with the training of STS-35 Payload Specialist Ron Parise (WA4SIR) in the use of the ASTRO-1 experiment which will be primary payload on that shuttle mission. The primary payload, ASTRO-1, will be used to conduct a number of astronomical experiments. During the several days of testing this week, radio amateurs in the Huntsville area were invited to connect to WA4SIR and to receive a QSO number.

This special packet radio station flying on STS-35 on May 9, 1990 will give each radio amateur who connects to WA4SIR a QSO number confirming their contact. When the connecting station sends their QSL card in with this contact number, they will receive back a beautiful QSL card commemorating this HAM IN SPACE shuttle flight. The SAREX-2 packet radio station consist of a Motorola 2M FM H/T with 5 watts ouput, a Heathkit HK-21 TNC-2, and a GRiD laptop computer that has a 40 MB hard disk drive to store the calls of all the stations connecting to WA4SIR during the nine day mission. The specially written software which will be running the SAREX-2 packet station is designed to allow for completely unattended operation and logging of the calls of all connecting stations. It will also prevent duplicate QSO numbers being sent! Although no digipeating will be allowed through SAREX-2, connecting to this packet station will be like any terrestrial packet contact. Just use your TNC along with your 2m tranceiver, and everything else is the same. After you have connected and received your QSL number from WA4SIR, on subsequent orbits you can watch for the SAREX-2 message beacons being sent periodically. The message beacons will contain information about the flight of STS-35 and other interesting items.

Look for more information about the SAREX-2 mission in AMSAT News Service (ANS) bulletins and on AMSAT HF/VHF nets in the next couple of months. For

more specific information about the ASTRO-1 payload, contact the SPACELINK BBS at (205) 895-0028.

[Story via AMSAT-NA News Service]

* MICROSAT OBJECT NUMBERS *
==========
The following are the corrected Object and Catalog numbers which apply to all MICROSAT/UoSAT element sets after orbit #260:

SATELLITE INT'L OBJECT CATALOG
NAME NUMBER NUMBER

UO-14 90-05B 20437
UO-15 90-05C 20438
AO-16 90-05D 20439
DO-17 90-05E 20440
WO-18 90-05F 20441
LU-19 90-05G 20442

* OSCAR-11 NEWS *
==========
Here's an actual computer status information message received from OSCAR-11:

UOSAT 2 COMPUTER STATUS INFORMATION

FAD1 Operating System v2.0b
Today's date is 24 /2 /90 (Saturday)
Universal Time is 1 :46 :27
Auto Mode is selected

SPIN PERIOD IS - 278

Z MAG firings = 0
+ SPIN firings = 33
- SPIN firings = 20
RAM Wash Pointer at D299
WOD commenced 24 /2 /90 at 0 :0 :10
with channels 10 ,11 ,19 ,29 ,
Last cmd was 109 TO 0 WITH DATA 0

Attitude control initiated, mode 1

Data collection in progress

Digitalker active

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z (Neptune, New Jersey)

MAIL : John A. Magliacane
Department of Electronics Technology
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738-1599
U.S.A.

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

1421. * SpaceNews 05Mar90 *

Newsgroup: rec.ham-radio
Date: 1990-03-03 03:26:10 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <197@ka2qhd.UUCP>
Source record: 13126
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0305

=========
SpaceNews
=========

MONDAY MARCH 5, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on UseNet and Amateur Packet Radio. It is available for UNLIMITED worldwide distribution.

* SHUTTLE NEWS *
================
Phil (KA9Q) heard UHF air-to-ground communications during the launch of shuttle ATLANTIS on mission STS-36. Phil copied a total of four very brief transmissions, all on a frequency of 259.7 MHz. The first transmission was heard at his home in New Jersey at about 02:59:30 AM EST shortly after launch. The last transmission heard at 02:59:30 EST clearly reported "APU shutdown on time".

* UoSAT-OSCAR-15 *
==================
Experiments are under way using a large (150ft) antenna at Stanford (SRI-USA) to attempt to detect very low level signals leaking from the UoSAT-4 on-board uplink receiver local oscillators. If the spacecraft power systems are still functioning, then these signals should always be present since the receivers cannot be switched off. However, these leakage signals are deliberately minimised during the design of the satellite and so they are very weak (-60 dBm = one thousand, millionth of a watt or the equivalent to looking for a single xmas tree light in Australia!). The experiments at Stanford are therefore very demanding: it will only be possible to detect the signals from the background noise using sophisticated off-line FFT signal processing, and a one second error in antenna tracking time may miss the satellite altogether!

de G3YJO

[Story via OSCAR-11]

* BURAN NEWS *
==============
The reusable Soviet space shuttle "BURAN", lying idle since its maiden flight a year ago is to undertake its next mission in 1991. The Soviet Union's chief rocket designer, Yuri Semyonov, told Soviet television recently, that Buran is scheduled to make an unmanned flight in the first half of 1991. A manned mission is expected to follow a year later. Long range plans call for Buran

to dock with the orbiting station Mir, with the possibility of cosmonauts moving between the two to simulate a rescue operation.

* DX CORNER *
=============
SpaceNews is available for unlimited, worldwide distribution. I'd like to personally thank ALL those who take the time to re-distribute SpaceNews on Amateur Packet Radio, telephone BBSs, and other networks. Your efforts are greatly appreciated by many people around the world.

Here is an example of one of the many mail messages I receive from those who read and enjoy receiving SpaceNews in distant places.

From Amateur Packet Radio, the following message was recently received from Germany:

Msg# TSP Size To @ BBS From Date Time Bid
6307 PN 779 KD2BD DL3BCH 900227 0747
Subject: to bbs: @NN2Z

Hello John. I've just received 2
issues of SpaceNews - amazingly!
One of the only interesting bulletins
in my BBS, hihi. It was delivered by
Mario HB9RZJ@HB9AC. Please continue if
possible. Mni tnx de Dieter DL3BCH @
DB0BQ (by the way: especially
interested in Voyager)

===

(Mario, could you please continue to supply the DB0BQ PBBS with SpaceNews? Thanks! de John, KD2BD)

* FEEDBACK WELCOMED *
=====================
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z (Neptune, New Jersey, USA)

MAIL : John A. Magliacane
Department of Electronics Technology
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738-1599
U.S.A.

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

1422. Re: Broadcasting Video from RC Plane

Newsgroup: rec.ham-radio
Date: 1990-03-03 06:39:48 UTC
From: alan@km4ba.UUCP
Message-ID: <124@km4ba.UUCP>
Source record: 12977

Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:

stuff deleted...

>NTSC video for spotting fish? I doubt that's the best solution to the problem
>anyway.

>73 de Jim Grubs, W8GRT

Compared to looking out the scratched, yellow and crazed windows of an
ancient Cessna 150 doing a 45 deg. bank, it is a pretty good , cost effective
solution.

Compared to sitting at sea level (literally!) and wondering where the fish are,
it would be great! Besides, it will work better than you think.

Most *big* fish signs are relatively easy to see... just look for the birds
and follow the food chain. most gamefish kill lots of baitfish, which the
birds scavenge. The other items you look for are:
flotsam, floating turtles (I guess they have to rest also!), and weed lines.
Besides providing cover, most weedlines indicate temperature changes in the
water. but this is not alt.fishing.

73,
Alan Barrow km4ba

gatech!kd4nc!km4ba!alan

1423. need copy of HAM RADIO articles

Newsgroup: rec.ham-radio
Date: 1990-03-03 08:05:56 UTC
From: chris@cups.la.locus.com.la.locus.com
Message-ID: <4661@oolong.la.locus.com>
Source record: 12978

I am looking for a copy of certain articles published in HAM RADIO.
My local public library does not keep back issues older than 3 years
old but I did manage to find a cumulative index and extract the dates:

Jul 83 p53 Two-band receiver, modular, WA3TFS
Sep 84 p8 Comments, WA3TFS
Nov 84 p57 Two-band receiver, extending the modular, WA3TFS
Feb 85 p67 Linear amplifier, HF, solid-state kilowatt, mobile, WA7SPR

If someone would be kind enough to send me a copy of these articles I
would be very grateful, and would of course reimburse any expenses.
I need these articles for reference in a construction project. BTW, if
anyone has built any of these or otherwise has any experience with them
I would be very interested in hearing your comments. Please post them
as I suspect others on rec.ham-radio would be interested also.

Thank you very much. BTW, e-mail to Locus has been having some problems
recently because we are not yet fully registered on the net, so please use
a full path in any replies. If you can route to UCLA or JPL (elroy) there
should be no problem with mail delivery to lcc. The uunet path to lcc may
not be operational for a while.

__ __ o __
| |__| |__| | |__ Chris J. Davis lcc!chris@seas.ucla.edu
|__ | | | \ | ___| (213) 338-7820 {uunet,ucla-se,elroy!turnkey}!lcc!chris
Any opinions or claims above are mine, unless I stole them from someone else

1424. News From OSCAR-11 03Mar90

Newsgroup: rec.ham-radio
Date: 1990-03-03 15:19:14 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <198@ka2qhd.UUCP>
Source record: 12979
Cross-posted to: rec.ham-radio,sci.space

UOSAT 2 COMPUTER STATUS INFORMATION

FAD1 Operating System v2.0b
Today's date is 3 /3 /90 (Saturday)
Universal Time is 14 :30 :48
Auto Mode is selected

SPIN PERIOD IS - 292

Z MAG firings = 0
+ SPIN firings = 1
- SPIN firings = 1
RAM Wash Pointer at 275
WOD commenced 3 /3 /90 at 0 :0 :10
with channels 10 ,11 ,19 ,29 ,
Last cmd was 109 TO 0 WITH DATA 0

Attitude control initiated, mode 1

Digitalker active

**** UoSAT-OSCAR-11 BULLETIN - 208 3rd March 1990 ****

UoSAT MISSION CONTROL CENTRE
University of Surrey, Guildford, Surrey, GU2 5XH, England

Data Formats

UO-14 continues to run the FORTH DIARY on the 1802 OBC, using Data formats distributed just after launch. The development, publication and implementation of downlink data formats for OSCARs is a delicate business, especially early in a mission. We do not want to publish data formats if they are likely to change quickly, lest people waste their time implementing software which will later become useless. On the other hand, if we do not publish formats, you cannot listen to the satellites - and that's what they're there for!

In the next month, we will be changing operating regimes on UO-14, as the PACSAT Communications Experiment is brought on line. Once this happens, asynchronous data formats (as used by the DIARY) will give way to synchronous, AX.25 packet formats.

As soon as possible, the PACSAT Communications Experiment on UO-14, and the BBS systems on PACSAT-OSCAR-16 and LUSAT-OSCAR-19 will be brought on line for general use. All three of these satellites will be running the same software, using the same protocols - developed jointly by UoSAT and AMSAT-NA.
NK6K and G0/K8KA have already published a standard for a broadcast

(e.g. bulletins and whole-orbit-data protocol. A final specification should be distributed soon, and early transmissions from the UO-15 PCE will use this protocol. Specification of the message-transfer protocol is well under way.

Thus, the stable state, which we expect to reach sometime this spring, is that UO-14, PO-16 and LO-19 bulletin boards will be accessible with the same groundstation protocol software. Broadcasts from these satellites (e.g. bulletins and whole-orbit data will also come down in a single standard data format. Until we change this state, groundstation software developers are advised to make their programs modular and be ready to revise!

DownlinK Modulation

UO-15 is capable of transmitting either 1200 bits/second AFSK (as used on all previous UoSATs and currently transmited by UO-15), or 9600 bits/second FSK. Ultimately, the PACSAT Commuications Experiment on UO-15 will support only 9600 bps FSK. During the transition from DIARY operations to PCE operations, however, we will also be transmitting AX.25 packets at 1200 bits/second AFSK. Like DOVE, this should be copyable with a standard, unmodified, TNC.

de G0/K8KA.

* UoSAT-OSCAR-15 *

Experiments are under way using a large (150ft) antenna at Stanford (SRI-USA) to attempt to detect very low level signals leaking from the UoSAT-4 on-board uplink receiver local oscillators. If the spacecraft power systems are still functioning, then these signals should always be present since the receivers cannot be switched off. However, these leakage signals are deliberately minimised during the design of the satellite and so they are very weak (-60 dBm = one thousand, millionth of a watt or the equivalent to looking for a single Xmas tree light in Australia!). The experiments at Stanford are therefore very demanding: it will only be possible to extract the signals from the background noise using sophisticated off-line FFT signal processing, and a one second error in antenna tracking time may miss the satellite altogether!

de G3YJO

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

1425. DOVE Telemetry Decoder for the Mac

Newsgroup: rec.ham-radio
Date: 1990-03-03 16:25:53 UTC
From: LANG@UNB.CA
Message-ID: <ID9559.D900303.T122554.LANG@UNB.CA>
Source record: 12980

If anyone still needs a program for the Mac to convert DOVE telemetry hex codes to engineering units, I have one to offer. It's written in FORTRAN (please no flames, I'm of the Baby Boomer generation, a.k.a. FORTRAN generation) and I can supply (via e-mail) source code or the binhexed application, or both. E-mail inquiries to me at the address below. If I get too many requests, I might have to ask some kind soul to put the files on their system so that they can be accessed via anonymous ftp.

==========
Richard B. Langley BITnet: LANG@UNB.CA or SE@UNB.CA
Geodetic Research Laboratory Phone: (506) 453-5142
Dept. of Surveying Engineering Telex: 014-46202
University of New Brunswick FAX: (506) 453-4943
Fredericton, N.B., Canada E3B 5A3
==========

1426. Re: ISDN for linking packet and repeaters

Newsgroup: rec.ham-radio
Date: 1990-03-03 21:16:50 UTC
From: kjh@pollux.usc.edu
Message-ID: <23214@usc.edu>
Source record: 12981
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <37@thoreau.nsc.com> greg@thoreau.nsc.com (Greg Dean) writes:
>ISDN (Integrated Services Digital Network), is a new network protocol
>which aims to handle both voice and data (including X.25).

ISDN is much too litle and far too late (IMHO). I want a few 10Mb/sec
lines coming into my house.

Recently I saw Dr. Robert W. Lucky here at USC. Dr. Lucky writes the
Reflections column in IEEE Spectrum. In his talk, Dr. Lucky mentioned
quite a few interesting things:

1. More than 98% of your telephone bill reflects the cost of
sending you the bill and keeping track of the accounts.
Almost none of your bill goes to maintaining the equipment; the
telephone companies are in the _service_ industry.

2. Over the past few years, the bandwidth capability of the
technology has risen at a phenominal rate, while demand for
bandwidth has remained constant.

Some of Dr. Lucky's suggestions were:

1. Give people HI-FI voice lines.

2. Give people wide bandwidth data lines.

(Note that the cost for both of the above is near zero! See above.)

3. Allow the phone companies to provide cable-tv type
entertainment. (Dr. Lucky suggested that what he wanted was 40
or 50 'channels' all playing the same movie continuously, but
starting about 5 minutes apart. You could start when you
wanted, go to the kitchen or bathroom and then switch 'channels'
to pick up where you left off. This would be quite
convenient.)

ISDN is a good idea, but it is very old technology. We should have had
this years ago. Let's take the idea of ISDN, (which is basically a good
idea), and update it to reflect current technology. I want a few
10Mb/sec lines coming into my house.

Ken Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

1427. HAM Radio/Packet radio Internet protocols with UNIX PC?

Newsgroup: rec.ham-radio
Date: 1990-03-03 23:16:24 UTC
From: lenny@icus.ICUS.COM
Message-ID: <1115@icus.ICUS.COM>
Source record: 12982
Cross-posted to: rec.ham-radio.packet,rec.ham-radio,unix-pc.general

Please forgive me for being very naive on this subject, but it's something that I've been interested in (while perusing rec.ham-radio.*) and I would like to learn a little more about it.

I've recently compiled KA9Q (TCP/IP) package for UNIX on my 3B1/UNIX PC. I've gotten it configured so I can run SLIP between my two 3B1's over a serial connection. Why you may ask would I want to do this with my STARLAN connection, the answer that I just wanted to learn, and with two local machines, it's easiest. I'm still having problems getting the "telnet" to work properly, I think it has to do with how I start the "telunix" and the gettys on the pty's (if someone might have a clue, I'd appreciate any pointers).

Well onto my questions, please E-MAIL me I will *summarize* this ...

How does one get into HAM-RADIO and interfacing it with computers so I could conceivably connect up to the .AMPR.ORG domain and have a TCP/IP connection for TELNET's and FTP's?

What hardware does one need?

The cost involved?

How do I go about getting an FCC license (what's involved education wise)?

Does one transmit modem tones (eg. Telebit Trailblazer PEP tones) over a particular frequency? How do you interface the modem to the ham-radio equipment?

What range in miles does the transmitting and receiving get done? How big is the .AMPR.ORG network? And what computer hardware/ham-radio hardware do they generally use?

Thanks in advance for any insight.

-Lenny
--
| Lenny Tropiano ICUS Software Systems lenny@icus.ICUS.COM |
| {ames,pacbell,decuac,sbcs,hombre,rayssd}!icus!lenny attmail!icus!lenny |
+------ ICUS Software Systems -- PO Box 1; Islip Terrace, NY 11752 ------+

1428. Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-03 23:42:44 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13832.25F057AF@stjhmc.fidonet.org>
Source record: 12983

> From: charlie@oakhill.UUCP (Charlie Thompson)
>
> I have noticed (for some time now) a sweeping carrier
> passing through the HF bands. It appears both in the
> amateur HF bands and other HF frequencies as well.

It sounds very much like one of the Air Force Communications Command's
propagation sounders. The FCC doesn't have diddly to say about it.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1429. Re: Re^2: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-03-03 23:42:56 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <13833.25F057B1@stjhmc.fidonet.org>
Source record: 12984

> From: phil@ux1.cso.uiuc.edu
>
> Why is it that the Canadian license was called "digital" when it in fact
> was
> really a "nocode" license?

I'm told the written exam is slanted toward packet radio techniques.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1430. IRCI Kenwood newsletter

Newsgroup: rec.ham-radio
Date: 1990-03-04 01:33:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9003040803.AA06755@ucbvax.Berkeley.EDU>
Source record: 12985

Does anyone else subscribe to International Radio's Kenwood
newsletter? If so, what is the last issue you have received?
(The last one I got was nr. 89, Sept/89). Thankx.

/Chris Thomas - AA6SQ (formerly, WA6HTJ)

Internet: csmscst@oac.ucla.edu
Bitnet: csmscst@uclamvs.bitnet

1431. FT301 mod file

Newsgroup: rec.ham-radio
Date: 1990-03-04 05:02:33 UTC
From: rfc@briar.philips.com
Message-ID: <83946@philabs.Philips.Com>
Source record: 12986
Cross-posted to: rec.ham-radio,sci.electronics

copied from packet:
MSG#7 03/03/90 23:33:47 FROM KD6TH TO WA2ISE
F:145.07

Subject: - files\FT301.MOD

FILE OF INFORMATION ON FT301 MODIFICATIONS

DISPLAY LED'S:

THESE RUN HOT AND OFTEN BURN OUT SEGMENTS. CURE IS TO REDUCE OPERATING
VOLTAGE WHICH TYPICALLY RUNS >5V. FROM VOLTAGE REGULATOR Q2 ON THE MAIN
CHASSIS. A 1N400 DIODE IN SERIES WITH THE OUTPUT OF Q2 DROPS NEARLY A
VOLT FROM THE SUPPLY VOLTAGE. IF THE DISPLAYS STILL WORK OK, THEY WILL
RUN COOL. (PREVIOUSLY, OTHERS HAVE REMOVED RED PLASTIC LENS FOR BETTER
VENTILLATION, OR HAVE EVEN DRILLED HOLES THRU TOP OF RIG.)

SPEECH PROC:

OFTEN FT301'S HEARD ON THE AIR HAVE HAD DISTORTED AUDIO. A SINGLE I.C.
CONTAINS ALL THE MIC AMPLIFICATION AND ALSO DRIVES THE RING MODULATOR
IN THE SSB TRANSMIT PATH. THIS AMP IS DRIVEN TO HORRIBLE DISTORTION IF
THE STOCK (HANDHELD) MIC IS USED AT FULL CLOCKWISE MIC GAIN SETTING.
THIS IS THE WRONG PLACE TO HAVE CLIPPING OCCUR. ALSO RESPONSE OF AMP
IS FAR TO "GENEROUS." SUGGEST LIMITING LOW END RESPONSE WITH SERIES 2.
UF CAP (MUST BE MYLAR OR NON-POLAR) AT MICROPHONE CONNECTOR. HAVE
IGNORED THE FACT THAT THE HI END RESPONSE OF THAT AMP GOES WELL BEYOND
50 KHZ. R.F. CLIPPING IN MY FT301 WAS ACTUALLY ONLY ABOUT 6Db. DUE TO THE LACK
OF RF GAIN IN THE CLIPPER STAGES. THIS CURE FOR LOW GAIN WAS MOST
EFFECTIVE: AN EXTRA STAGE OF GAIN IS AVAILABLE FOR THE TAKING ON THE
"NB UNIT" CARD. (Q201 IS NORMALLY USED ONLY WITH THE PROCESSER OFF AS
AN ALTERNATE RF PATH) RIG Q201 IN SERIES Q202, AND KEEP BOTH STAGES
POWERED UP REGARDLESS OF POSITION OF "RF PROC" SWITCH. WITH THE EXTRA
STAGE, IT IS EASILY POSSIBLE TO KEEP THE RING MODULATOR IN THE LINEAR
REGION AND STILL DEVELOP 15 TO 20 Db. OF RF CLIPPING.
TO IMPLEMENT THIS CHANGE: JUMPER PINS 10 & 11 ON THE N.B. CARD
SUPPLIES VOLTAGE). OPEN 1 K R205 AT WIPER TO VR201, LET IT HANG.
OPEN 0.01 C204 AT TRANSFORMER, AND JUMPER TO WIPER OF R205 WITH SHORT
LEAD (UNSHIELDED SEEMS OK). RUN VR201 AT NO MORE THAN ABOUT 3/4 GAIN.
WITH HIGH LEVELS OF RF CLIPPING, IT IS IMPORTANT THAT THE AUDIO BE
RATHER LACKING IN BASS TO AVOID A MUDDY SOUND. PREEMPHASIS ACCROSS THE
FULL AUDIO BANDPASS SOUNDS PRETTY BAD, SO I WOULD UP WITH A .1 CAP IN
SERIES WITH THE WIPER ON THE MIKE GAIN CONTROL AND FINALLY SHUNTED THAT
CAP WITH ABOUT 1000 OHMS (ADJUST THAT VALUE OF RESISTANCE TO GIVE GOOD
ARTICULATION AND STILL BE SEMI-PLEASANT.

INFO VIA K2ZLU @ KD6TH-4

I haven't tried or verified this, proceed at your own risk! WA2ISE
cmd:

1432. Dak radio

Newsgroup: rec.ham-radio
Date: 1990-03-04 14:38:56 UTC
From: sciamanda@edinboro.edu
Message-ID: <890@edinboro.edu>
Source record: 12987

I have dealt with Dak over several years, with satisfaction. They do back up their 30 day trial period with full refund (I even got return UPS charges). No complaints with them; but no info on this particular item. Try it and return it if unsatisfactory!
Bob Sciamanda W3NLV
Erie, PA

1433. Yaesu FRG9600

Newsgroup: rec.ham-radio
Date: 1990-03-04 20:05:43 UTC
From: crisp@mips.COM
Message-ID: <36661@mips.mips.COM>
Source record: 12988

Does anyone out there know of modifications that can be made to the FRG9600
to increase it's scanning speed? I feel like 7-8 seconds/frequency is too slow
for my needs.
thanks

--
Making the world safe for technocracy.

1434. Re: ISDN for linking packet and repeaters

Newsgroup: rec.ham-radio
Date: 1990-03-04 20:47:52 UTC
From: kevinr@tandem.com
Message-ID: <1990Mar4.204752.11276@tandem.com>
Source record: 12989

In article <23214@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
> I want a few
>10Mb/sec lines coming into my house.
>
>Ken Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

I'd like that too! However, don't set your expectation too high. It will be 10-20 years perhaps before this is commonly available from your local telco for the majority of subscribers at rates similiar to what you pay now.

Why? Well, the rate you pay doesn't reflect much to pay for equipment because the phone company spreads that cost over many people and many years.

Also, if you look at the actual data rate from each subscriber, it's very low compared to the 10Mbps your asking for. Worse, it's not the copper in the ground/pole limiting the bandwidht, it's the switch in the central office. It's sized to handle 10-20 of its subscribers off-hook at the same time. Massive upgrades and new technology will be required to support the total aggragate data rate indicated by your simple request. Bell is working on it (ATM networks), newer switching technology, but it's not as easy as it may first appear.

BTW, ISDN is really only an interface spec. ISDN doesn't help at all in terms of moving the data!

KR

1435. FT301D display

Newsgroup: rec.ham-radio
Date: 1990-03-04 22:03:36 UTC
From: root@sbcs.sunysb.edu
Message-ID: <5937@sbcs.sunysb.edu>
Source record: 12990

Does anyone know of a source for replacement displays for the
Yaesu FT301D?

Rick Spanbauer
wb2cfv

1436. Re: Atlantis heard during launch

Newsgroup: rec.ham-radio
Date: 1990-03-04 22:31:43 UTC
From: paul@hpldola.HP.COM
Message-ID: <12120033@hpldola.HP.COM>
Source record: 12991

Our local paper has unnamed sources stating that the payload
of the Atlantis flight was a sophisticated spy satellite which
would take pictures of areas of the Soviet Union never before
photographed by satellite. Make your own conclusion.

-Paul N0KCL

1437. Re: Transistor identification.

Newsgroup: rec.ham-radio
Date: 1990-03-04 23:26:59 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490011@hprmokg.HP.COM>
Source record: 12992

It crosses to a Sylvania ECG 160, pnp germanium rf/if amp. osc/mxr

BVCBO= 30v
BVCEO= 20v
Ic max. = 200ma
max. coll. diss.= 200mw
"frequency" -= 400 mhz
hfe= 60

Barry M. Fowler Hewlett Packard Company

Networked Computer Manufacturing Operation - Roseville, California

e-mail: barry@hprmokg.rose.hp.com
Verbal: Hey Barry!
R.F. : WB6JZL

1438. Re: ACC's RC-850 repeater

Newsgroup: rec.ham-radio
Date: 1990-03-05 00:32:00 UTC
From: graham.newton@canremote.uucp
Message-ID: <90030913431015@masnet.uucp>
Source record: 12993

I would be really interested to hear what "bugs" you have found in the RC850 firmware. I bought one of the earliest RC850's for VE3TRO here in Toronto Canada (I think it was less than the 10th unit ACC made).
The equipment has performed well over the years, and we have followed the upgrade path all the way. We are about to install the computer control board and the DVR. (I intstalled the DVR in a Montreal repeater almost two years ago and had good success with it.)
We used an Icom IC22U for a 2 meter remote base on a two meter repeater, using a pair of switched notch cavities to kill the output frequency on the remote base receiver.
We would have liked to see a provision to lock out a number of frequencies on the remote base, since some bright light discovered he could dial up the output frequency and lock up the whole effort!
Generally, I found ACC very co-operative and helpful, and they certainly make probably the best repeater controller available.

.... Graham Newton, VE3MEG, Toronto CANADA
---
* Via ProDoor 3.1R

1439. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-03-05 02:42:01 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003050805.AA15831@ucbvax.Berkeley.EDU>
Source record: 12994

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #657 -
Alouette 1
1 00424U 62B-A 1 90 60.41052256 .00000238 00000-0 27641-3 0 2618
2 00424 80.4593 32.3173 0022653 187.0988 172.9882 13.67300116367965
ATS 1
1 02608U 66110 A 90 59.83121188 -.00000218 00000-0 99999-4 0 1134
2 02608 13.4518 14.5973 0003423 301.4439 58.5330 1.00387209 1460
ATS 3
1 03029U 67111 A 90 56.92183760 -.00000074 00000-0 99999-4 0 2956
2 03029 13.0654 22.1218 0016814 206.6428 153.3235 1.00272446 81680
Cosmos 398
1 04966U 71 16 A 90 60.73832185 .00066751 16729-4 38943-3 0 6117
2 04966 51.5428 144.8082 2360532 307.5632 33.2703 10.86999716579911
Starlette
1 07646U 75010 A 90 58.89301169 .00000019 00000-0 62326-4 0 135
2 07646 49.8234 229.7315 0206338 190.1582 169.5108 13.82132129760669
LAGEOS
1 08820U 76039 A 90 59.43422293 .00000003 00000-0 00000 0 0 156
2 08820 109.8618 317.8811 0044622 261.3450 98.2272 6.38664549 66992
GOES 2
1 10061U 77048 A 90 46.00000000 -.00000258 00000-0 99999-4 0 3633
2 10061 7.7624 65.4409 0000805 193.4731 191.6728 1.00264670 7811
GPS-0001
1 10684U 78020 A 90 60.23656369 .00000008 00000-0 99999-4 0 3352
2 10684 63.6653 92.8811 0116675 200.1139 159.5177 2.00558626 73684
GPS-0002
1 10893U 78 47 A 90 53.22536190 -.00000026 00000-0 00000 0 0 991
2 10893 64.4361 333.9693 0162170 25.6468 335.1733 2.00548996 86362
GOES 3
1 10953U 78062 A 90 58.11270128 .00000083 00000-0 99999-4 0 8208
2 10953 6.6670 67.8212 0005788 256.6137 103.5136 1.00283727 3494
SeaSat 1
1 10967U 78064 A 90 56.62218685 .00000859 00000-0 34156-3 0 2386
2 10967 108.0201 89.9774 0003002 231.9445 128.1478 14.35434504610443
GPS-0003
1 11054U 78093 A 90 60.00579268 -.00000025 00000-0 00000 0 0 1696
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2 11054 63.9599 330.0930 0056498 117.7307 242.8578 2.00565740 83512
Nimbus 7
1 11080U 78098 A 90 60.26129715 .00000125 00000-0 14292-3 0 6345
2 11080 99.2029 327.5962 0009612 15.4384 344.7071 13.83400402573118
GPS-0004
1 11141U 78112 A 90 59.60344774 .00000008 00000-0 00000 0 0 2782
2 11141 63.6095 92.8176 0059640 316.5845 43.0160 2.00562248 82203
NOAA 6
1 11416U 79 57 A 90 60.47130980 .00001535 00000-0 65169-3 0 9778
2 11416 98.5232 55.4099 0013002 79.0072 281.2609 14.26516132554572
GPS-0005
1 11690U 80 11 A 90 59.24353162 .00000009 00000-0 00000 0 0 9129
2 11690 64.1500 94.8217 0157620 201.2495 158.1617 2.00557517 88052
GPS-0006
1 11783U 80 32 A 90 59.55686782 -.00000025 00000-0 00000 0 0 496
2 11783 63.7699 329.6893 0148410 60.5612 300.9295 2.00573486 72147
GOES 4
1 11964U 80 74 A 90 53.78685992 -.00000165 00000-0 00000 0 0 1377
2 11964 6.1442 70.5882 0029705 108.2506 252.2982 0.99233491 4515
GOES 5
1 12472U 81049 A 90 55.97600714 -.00000241 00000-0 99999-4 0 8267
2 12472 3.1857 77.0796 0011522 312.0794 48.8527 1.00256392 31124
DE 1
1 12624U 81 70 A 90 59.21886292 .00000193 00000-0 66047-3 0 3344
2 12624 89.0729 148.8872 6222517 318.5056 8.1072 3.51027219258297
SME
1 12887U 81100 A 90 58.08917288 .00043095 00000-0 99284-3 0 5027
2 12887 97.6531 99.4556 0003537 60.7384 299.4220 15.42474782464256
Meteor 2-08
1 13113U 82 25 A 90 57.82701156 .00000160 00000-0 13363-3 0 6934
2 13113 82.5375 216.3296 0017016 67.9470 292.3532 13.84134944400469
Salyut 7
1 13138U 82 33 A 90 60.28992269 .00008612 00000-0 13114-3 0 760
2 13138 51.6040 127.0926 0000717 43.7023 316.3899 15.55378681448010
Cosmos 1383
1 13301U 82 66 A 90 58.30513392 .00000133 00000-0 14444-3 0 5384
2 13301 82.9311 21.2980 0029102 102.1749 258.2670 13.67802161382653
LandSat 4
1 13367U 82 72 A 90 59.35780708 .00000352 00000-0 83019-4 0 2459
2 13367 98.1791 123.9572 0003985 102.2780 257.8915 14.57129440405453
Meteor 2-09
1 13718U 82116 A 90 58.95269142 .00000281 00000-0 14166-3 0 8595
2 13718 81.2413 31.2886 0056397 352.5913 7.4456 14.13452238371681
IRAS
1 13777U 83 4 A 90 57.54935596 .00000546 00000-0 40319-3 0 7204
2 13777 99.0319 256.0155 0012454 336.6115 23.4521 13.98743102 31473
Cosmos 1447
1 13916U 83 21 A 90 58.09208216 .00000113 00000-0 10899-3 0 6761
2 13916 82.9458 93.4638 0039916 85.7886 274.7835 13.74011287347555
TDRS 1
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1 13969U 83 26 B 90 59.96460331 -.00000206 00000-0 00000 0 0 9316
2 13969 4.2092 66.7254 0008533 268.2645 91.9157 1.00264953 91999
GOES 6
1 14050U 83 41 A 90 58.16044134 .00000110 00000-0 00000 0 0 847
2 14050 1.9524 79.8365 0003393 219.6801 140.7958 1.00282994 9161
OSCAR 10
1 14129U 83 58 B 90 49.80793411 .00000000 00000-0 00000 0 0 4563
2 14129 25.9253 218.0969 5995939 119.7301 312.5438 2.05881409 22299
GPS-0008
1 14189U 83 72 A 90 58.15581193 .00000007 00000-0 99999-4 0 7093
2 14189 63.3049 91.3462 0142164 217.2150 141.8663 2.00560030 48558
Meteor 2-10
1 14452U 83109 A 90 60.08251111 .00000894 00000-0 37647-3 0 8238
2 14452 81.1581 36.0102 0095744 76.2766 284.9052 14.22608305329068
LandSat 5
1 14780U 84 21 A 90 60.41454339 .00000757 00000-0 17792-3 0 598
2 14780 98.1331 122.2240 0003157 144.5657 215.5753 14.57157368319028
UoSat 2
1 14781U 84 21 B 90 60.18781917 .00002418 00000-0 46018-3 0 6212
2 14781 97.9647 116.2327 0012630 224.1641 135.8969 14.64947016320153
GPS-0009
1 15039U 84 59 A 90 59.71150208 .00000007 00000-0 00000 0 0 8222
2 15039 63.0551 90.4954 0019579 241.7192 118.2301 2.00562924 41863
Cosmos 1574
1 15055U 84 62 A 90 58.19287415 .00000117 00000-0 11462-3 0 8260
2 15055 82.9600 143.3942 0026030 270.7752 89.0421 13.73327789284974
Meteor 2-11
1 15099U 84 72 A 90 58.70470557 .00000283 00000-0 24654-3 0 9988
2 15099 82.5337 163.1447 0011841 239.5138 120.4863 13.83793621285457
GPS-0010
1 15271U 84 97 A 90 59.60645172 -.00000025 00000-0 00000 0 0 7577
2 15271 63.2601 329.3028 0106048 325.1303 34.2438 2.00573140 38972
Cosmos 1602
1 15331U 84105 A 90 60.15072357 .00003925 00000-0 54678-3 0 1776
2 15331 82.5360 100.9967 0023056 330.6258 29.3751 14.77399932292132
NOAA 9
1 15427U 84123 A 90 60.45603462 .00000940 00000-0 52976-3 0 4868
2 15427 99.1648 57.8071 0014466 314.1835 45.8150 14.12457910268779
Meteor 2-12
1 15516U 85 13 A 90 59.05832031 .00000231 00000-0 19600-3 0 1582
2 15516 82.5352 101.2388 0018089 114.5553 245.7503 13.84285160256454
Cosmos 1686
1 16095U 85 86 A 90 59.06906866 .00031310 00000-0 45849-3 0 5090
2 16095 51.6070 133.1941 0000803 30.6309 329.0566 15.55288725248920
GPS-0011
1 16129U 85 93 A 90 59.27110333 .00000008 00000-0 00000 0 0 4168
2 16129 63.8338 91.3930 0120586 150.5842 210.1705 2.00560259 32172
Meteor 3-1
1 16191U 85100 A 90 48.53696332 .00000043 00000-0 99999-4 0 8940
2 16191 82.5439 62.2770 0021297 50.2786 310.0210 13.16895091207812
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Meteor 2-13
1 16408U 85119 A 90 58.84687368 .00000232 00000-0 19826-3 0 5728
2 16408 82.5327 16.2371 0015460 309.4316 50.5479 13.84298334210929
Mir
1 16609U 86 17 A 90 60.29778265 -.00007013 00000-0 -84836-4 0 4345
2 16609 51.6177 153.8856 0016747 220.9865 138.9686 15.58930728231256
SPOT 1
1 16613U 86 19 A 90 60.12721925 .00001092 00000-0 53136-3 0 7783
2 16613 98.7106 136.1339 0001586 119.6560 240.4799 14.20040911 48597
Meteor 2-14
1 16735U 86 39 A 90 58.93816074 .00000202 00000-0 17159-3 0 3565
2 16735 82.5333 43.1223 0015381 20.8724 339.3066 13.84049743189836
Cosmos 1766
1 16881U 90 60.44973116 .00003859 00000-0 54266-3 0 8758
2 16881 82.5234 159.8857 0021311 345.8857 14.1756 14.76999434193240
EGP
1 16908U 86 61 A 90 53.55039819 -.00000025 00000-0 95708-4 0 1704
2 16908 50.0105 248.4193 0010798 262.7166 97.2451 12.44384952160583
FO-12
1 16909U 86 61 B 90 51.92031722 -.00000025 00000-0 99999-4 0 1794
2 16909 50.0153 253.7437 0010861 255.9721 103.9906 12.44404056160374
NOAA 10
1 16969U 86 73 A 90 60.52697286 .00000646 00000-0 30098-3 0 3460
2 16969 98.6135 90.8378 0012702 221.3159 138.7082 14.23474323179295
Meteor 2-15
1 17290U 87 1 A 90 58.61290293 .00000271 00000-0 23474-3 0 3345
2 17290 82.4697 308.8887 0011779 272.2755 87.7097 13.83863316158941
MOS-1
1 17527U 87 18 A 90 59.68658133 .00000321 00000-0 26436-3 0 4196
2 17527 99.1188 133.5919 0000862 75.7609 284.3653 13.94860641154138
GOES 7
1 17561U 87 22 A 90 57.86450471 -.00000043 00000-0 99999-4 0 4201
2 17561 0.0479 278.3465 0005510 97.0419 344.6065 1.00270231 4310
Kvant-1
1 17845U 87 30 A 90 59.91316386 .00053037 00000-0 66808-3 0 117
2 17845 51.6192 155.8195 0017005 219.2454 140.7285 15.58922845167241
DMSP B5D2-3
1 18123U 87 53 A 90 60.56695986 .00001177 00000-0 64039-3 0 4937
2 18123 98.8187 252.6005 0014245 332.6901 27.3521 14.13891053139196
RS-10/11
1 18129U 87 54 A 90 59.94953892 .00000165 00000-0 17015-3 0 515
2 18129 82.9235 48.4869 0013322 62.4188 297.8336 13.72063512134603
Meteor 2-16
1 18312U 87 68 A 90 58.91549732 .00000218 00000-0 18868-3 0 3748
2 18312 82.5506 16.8901 0010421 196.7088 163.3733 13.83602617127873
Meteor 2-17
1 18820U 88 5 A 90 58.98423229 .00000148 00000-0 12252-3 0 2026
2 18820 82.5413 77.2737 0015284 274.0695 85.8720 13.84296367105072
DMSP B5D2-4
1 18822U 88 6 A 90 60.56989027 .00001316 00000-0 62066-3 0 4083
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2 18822 98.6618 301.7475 0005909 217.6914 142.3854 14.21292442107535
AO-13
1 19216U 88 51 B 90 54.30232176 -.00000091 00000-0 99999-4 0 770
2 19216 57.0658 167.4162 6899473 221.7453 57.5228 2.09701313 13019
OKEAN 1
1 19274U 88 56 A 90 59.92157553 .00002876 00000-0 40877-3 0 6595
2 19274 82.5133 258.9916 0023367 113.9385 246.4313 14.76427824 88945
Meteor 3-2
1 19336U 88 64 A 90 57.87193849 .00000391 00000-0 99999-3 0 3791
2 19336 82.5488 355.4769 0015984 226.0902 133.8903 13.16876329 76439
NOAA 11
1 19531U 88 89 A 90 60.35370320 .00000890 00000-0 51175-3 0 2037
2 19531 98.9706 8.6194 0011513 225.0782 134.9451 14.11467817 73754
TDRS 2
1 19548U 88 91 B 90 57.04276429 .00000130 00000-0 99999-4 0 767
2 19548 0.0099 17.0293 0002077 313.7949 29.1376 1.00274086 4337
Cosmos 2001
1 19796U 89 11 A 90 59.02718768 -.00001041 00000-0 99999-3 0 3723
2 19796 63.0329 106.8917 7140220 319.7923 5.1050 2.00577684 7613
GPS BII-01
1 19802U 89 13 A 90 57.28277919 .00000016 00000-0 99999-4 0 703
2 19802 55.0694 201.7825 0059809 158.4626 201.7520 2.00561758 7524
Akebono
1 19822U 89 16 A 90 60.03773989 .00032605 00000-0 21048-2 0 4579
2 19822 75.1312 291.3529 4208510 290.3687 30.0587 7.05769414 25776
Meteor 2-18
1 19851U 89 18 A 90 58.20440967 .00000188 00000-0 16080-3 0 1531
2 19851 82.5234 316.0960 0013491 319.0705 40.9448 13.83938725 50359
TDRS 3
1 19883U 89 21 B 90 45.71262869 -.00000235 00000-0 99999-4 0 540
2 19883 0.0420 275.5431 0004258 356.2517 88.1551 1.00272821 2667
GPS BII-02
1 20061U 89 44 A 90 51.48309270 -.00000031 00000-0 00000 0 0 504
2 20061 54.7073 20.5658 0082028 172.4480 187.6808 2.00563796 5156
Nadezhda
1 20103U 89 50 A 90 60.87386968 .00000168 00000-0 16826-3 0 800
2 20103 82.9603 4.0984 0037993 339.9533 20.0145 13.73565484 32987
GPS BII-03
1 20185U 89 64 A 90 59.42995283 .00000016 00000-0 99999-4 0 434
2 20185 54.9367 202.5631 0026787 142.3951 217.7519 2.00563706 3886
Soyuz TM-8
1 20218U 89 71 A 90 49.78131967 .00016618 00000-0 22296-3 0 1653
2 20218 51.6150 206.6764 0018210 178.1172 182.1942 15.57896318 25820
Activnyi
1 20261U 89 80 A 90 60.38199291 .00013692 00000-0 43662-2 0 3126
2 20261 82.5965 296.9923 1258739 222.0017 127.7292 12.43277187 19199
Activnyi RB
1 20262U 89 80 C 90 59.18271564 .00001106 00000-0 34867-3 0 1399
2 20262 82.5924 297.7621 1260282 224.7506 124.4964 12.42986398 19041
Magion 2
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1 20281U 89 80 B 90 60.36959661 .00014627 00000-0 46209-2 0 3265
2 20281 82.5959 296.9650 1259329 221.9858 127.7651 12.43457658 19190
GPS BII-04
1 20302U 89 85 A 90 24.26182608 -.00000030 00000-0 99999-4 0 405
2 20302 54.7308 322.9201 0039138 309.5421 50.1182 2.00572809 1868
Meteor 3-3
1 20305U 89 86 A 90 60.01873175 .00000046 00000-0 10249-3 0 549
2 20305 82.5545 294.3024 0015118 240.3269 119.6305 13.15851639 16720
COBE
1 20322U 89 89 A 90 60.06930402 .00004687 00000-0 31288-2 0 532
2 20322 99.0256 71.4619 0007038 312.0500 48.0074 14.01367845 14343
Kvant-2
1 20335U 89 93 A 90 59.91315846 .00060824 00000-0 76454-3 0 1274
2 20335 51.6157 155.8206 0016098 217.7193 142.2238 15.58937804 14840
GPS BII-05
1 20361U 90 53.47073659 0.00000016 10000-3 0 159
2 20361 54.9655 144.8906 0064526 44.0045 316.5297 2.00576517 1423
Progress M2
1 20373U 89 99 A 90 39.96519137 .00040609 00000-0 54269-3 0 643
2 20373 51.6179 255.8868 0019612 143.3281 216.8138 15.57412172 6997
Cosmos 2053
1 20389U 89100 A 90 37.69776942 -.00009522 00000-0 -52566-3 0 841
2 20389 73.5350 12.9155 0009246 142.4199 217.7513 15.13845107 6312
1989 100B
1 20390U 89100 B 90 37.89506855 .00003174 00000-0 17917-3 0 452
2 20390 73.5364 12.4933 0008510 140.5643 219.6170 15.13676726 6346
Cosmos 2054
1 20391U 89101 A 90 36.43219190 -.00000113 00000-0 99999-4 0 683
2 20391 1.4298 273.9944 0013700 184.1560 176.3791 1.00219912 420
Skynet 4A
1 20401U 90 34.46985689 0.00000105 0 342
2 20401 3.3785 303.9369 0021714 52.1684 308.2156 1.00597179 216
JCSAT
1 20402U 90 1 B 90 37.19418073 -.00000138 00000-0 99999-4 0 218
2 20402 0.2478 260.8796 0002589 13.7330 85.3249 1.00270543 340
1990 001D
1 20404U 90 38.32261194 0.00002626 17207-2 0 331
2 20404 21.5429 270.3906 7209065 196.3238 114.5390 2.34605795 883
1990 001F
1 20406U 90 38.86337825 0.00007184 19135-2 0 300
2 20406 26.7137 254.6073 5866581 226.3657 66.9195 4.22382468 1597
LEASAT 5
1 20410U 90 44.00498078 0.00000071 10000-3 0 239
2 20410 3.3547 323.2542 0123328 185.1682 174.8531 1.00284836 283
1990 002C
1 20411U 90 46.13646292 0.00006624 15573-2 0 373
2 20411 27.1943 95.8363 5238158 60.6639 341.5665 5.20564091 1847
Cosmos 2056
1 20432U 90 48.61316750 0.00000331 13772-3 0 216
2 20432 74.0360 264.2249 0024233 282.9758 76.8658 14.29717088 4288
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1990 004B
1 20433U 90 51.16735862 0.00000442 17528-3 0 238
2 20433 74.0347 259.4384 0036366 290.2242 69.5000 14.31252170 4661
SPOT 2
1 20436U 90 56.78032648 0.00000994 48486-3 0 493
2 20436 98.7194 132.8230 0000604 78.9220 281.2107 14.20036650 4936
UO-14
1 20437U 90 55.20174903 0.00000657 27834-3 0 211
2 20437 98.7087 131.6114 0012010 122.2958 237.9431 14.28494406 4732
UO-15
1 20438U 90 55.27691186 0.00000389 17221-3 0 206
2 20438 98.7116 131.6863 0010839 119.4242 240.8021 14.28272390 4743
PACSAT
1 20439U 90 54.28921251 0.00000423 18447-3 0 217
2 20439 98.7162 130.7247 0011992 124.4410 235.7905 14.28583324 4606
DO-17
1 20440U 90 55.05890315 0.00000500 21537-3 0 121
2 20440 98.7155 131.4930 0012085 121.7102 238.5335 14.28618169 4715
WO-18
1 20441U 90 5 F 90 53.23543324 .00000543 00000-0 23195-3 0 129
2 20441 98.7114 129.6772 0012817 128.9972 231.2353 14.28729505 4459
LO-19
1 20442U 90 54.28439073 0.00000415 18065-3 0 179
2 20442 98.7145 130.7265 0012829 124.9132 235.3282 14.28797281 4600
Ariane RB
1 20443U 90 47.11760523 0.00000341 14765-3 0 239
2 20443 98.6136 123.3651 0012081 122.4540 237.7812 14.30158961 3572
1990 006A
1 20444U 90 53.94247100 0.00000268 25109-3 0 354
2 20444 62.8140 110.5001 7374630 288.1794 9.4138 2.00664213 632
1990 006B
1 20445U 90 52.10581244 0.05530393 41231-4 13387-2 0 567
2 20445 62.8035 4.8083 0071469 124.1586 236.6420 16.21856451 4565
1990 006C
1 20446U 90 47.39633712 0.00000368 74758-3 0 283
2 20446 62.8305 111.3944 7323218 288.1118 9.7051 2.06386089 509
1990 006D
1 20447U 90 46.18458433 0.17566679 43231-4 28811-3 0 596
2 20447 62.8070 26.9687 0044137 116.7309 243.8196 16.42602277 3638
1990 005C
1 20450U 90 49.67030172 0.00181920 -19189-5 16565-2 0 439
2 20450 37.6783 240.9912 6005396 220.7886 73.8632 4.14286423 1022
GPS BII-06
1 20452U 90 8 A 90 49.69577892 -.00000001 00000-0 99999-4 0 188
2 20452 54.6448 260.8045 0035459 56.6684 303.7177 2.00568365 465
1990 008B
1 20453U 90 50.59057152 0.00005710 69074-3 0 264
2 20453 35.6431 123.9630 0591705 329.0175 27.6846 14.04532218 3619
Cosmos 2057
1 20457U 90 60.16185683 0.00772447 39580-4 33964-3 0 934
```

```
2 20457 62.8205 195.9926 0139867 117.7668 228.5594 16.03094172 5546
Cosmos 2058
1 20465U 90 52.05250576 0.00002655 40114-3 0 264
2 20465 82.5082 306.3255 0022850 201.4816 158.5500 14.73794878 3181
1990 010B
1 20466U 90 57.13960967 0.00001501 22415-3 0 174
2 20466 82.5064 301.6148 0022858 187.2711 172.8185 14.74059308 3927
PRC-26
1 20473U 90 56.29731861 -.00000264 10000-3 0 259
2 20473 0.1175 278.3067 0000287 94.6251 347.0467 1.00275184 211
1990 011B
1 20474U 90 58.75597084 0.00000334 10000-3 0 123
2 20474 30.5915 298.2916 7266510 192.5939 127.3577 2.30017114 500
1990 012A
1 20476U 90 60.06681627 0.00339575 16715-4 96854-3 0 655
2 20476 65.8327 313.9948 1315189 138.5527 232.2960 13.19961071 2934
1990 012B
1 20477U 90 60.17241409 0.00652291 16866-4 12383-2 0 731
2 20477 65.8443 313.1677 1268718 137.6845 232.9474 13.34066009 2967
MOS-1B
1 20478U 90 60.14138576 0.00009371 70184-2 0 511
2 20478 99.2002 130.7711 0001956 70.7129 289.3638 13.94666327 3078
1990 013B
1 20479U 90 48.40043158 0.00000082 23413-3 0 163
2 20479 99.0572 117.4505 0540638 319.8437 36.3860 12.83148122 1380
FO-20
1 20480U 90 56.04185854 0.00000043 14712-3 0 141
2 20480 99.0553 123.6579 0540918 302.5752 52.4250 12.83114314 2368
1990 013D
1 20491U 90 56.15622604 0.00000383 77130-3 0 133
2 20491 99.0556 124.2656 0470143 293.6964 61.5499 13.02727175 1815
Soyuz TM-9
1 20494U 90 59.91322378 -.00038803 -48888-3 0 349
2 20494 51.6207 155.8184 0017250 220.4847 139.8207 15.58883155 2760
1990 015A
1 20496U 90 59.44196920 0.00011225 71111-3 0 208
2 20496 43.0911 199.4393 0013192 34.2240 325.9503 15.08911788 2085
1990 015B
1 20497U 90 59.81260482 0.00019219 59311-3 0 204
2 20497 43.1073 195.1431 0013889 354.3944 5.6754 15.33148074 2181
1990 015C
1 20498U 90 59.69761546 0.00060736 14852-2 0 231
2 20498 41.6430 194.3206 0041796 234.9843 124.7284 15.39008939 2173
Raduga 25
1 20499U 90 59.12566979 -.00000004 10000-3 0 216
2 20499 1.4547 273.3599 0004682 108.5587 250.6713 1.00260654 131
1990 016D
1 20502U 90 54.10485184 -.00000050 10000-3 0 55
2 20502 1.4939 273.5312 0040009 28.4599 331.0498 1.00012599 106
1990 017A
```

```
1 20508U 90 17 A 90 58.93378769 .00000006 00000-0 00000 0 0 15
2 20508 82.8741 140.3137 0044323 274.8818 84.7280 13.77911791 05
1990 017B
1 20509U 90017 B 90060.31674643 -.00002790 00000-0 00000-0 0 00048
2 20509 082.9598 139.4451 0036656 277.1956 082.5579 13.74642197000212
1990 018A
1 20510U 90 18 A 90 60.04683262 -.00002501 00000-0 -39421-3 0 52
2 20510 82.5274 197.2503 0018785 264.8646 95.0421 14.72624585 151
1990 018B
1 20511U 90 18 B 90 59.43531349 .00001098 00000-0 16770-3 0 29
2 20511 82.5251 197.8137 0018200 269.4693 90.9152 14.72930531 67
1990 020A
1 20513U 90 20 A 90 60.39283281 .00610680 00000-0 17883-2 0 51
2 20513 51.6201 153.7525 0040913 130.5951 229.8713 15.89438244 74
1990 020B
1 20514U 90020 B 90060.57141576 .05366419 00000-0 00000-0 0 00045
2 20514 051.6234 152.7613 0019310 094.3258 266.0674 16.32432540000107
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
```

1440. NASA Prediction Bulletin Format

Newsgroup: rec.ham-radio
Date: 1990-03-05 02:42:19 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003050806.AA15869@ucbvax.Berkeley.EDU>
Source record: 12995

As a service to the satellite user community, the following description of the NASA Prediction Bulletin's two-line orbital element set format is uploaded to sci.space on a monthly basis. The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical to that used by NASA and NORAD. The format description is:

```
Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1; plus sign = 2)
```

```
Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
```

09-16 Inclination [Degrees]
18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6
1 11416U 86 50.28438588 0.00000140 67960-4 0 5293
2 11416 98.5105 69.3305 0012788 63.2828 296.9658 14.24899292346978

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.

--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

1441. icom handheld receiver - brief review

Newsgroup: rec.ham-radio
Date: 1990-03-05 08:03:43 UTC
From: kawai@csli.Stanford.EDU
Message-ID: <12537@csli.Stanford.EDU>
Source record: 12996

I heard a brief review on the new Icom handheld receiver, the IC-R1.
I assume you know what it is (at least the catalog specs); here are
a few remarks. All info hearsay from JA land.

* No frequency up-down key. Must press "enter" every time.
Frequency dial seems okay.
* "Rubber duckie" antenna tuned to popular ham band frequencies,
namely 140, 440, and 1300. Poor sensitivity on other bands.
* Suffers from intermod and poor image rejection when you hook
up other antennas.
* Selling very well (sold out in many stores), but probably ought
to wait until an improved model comes along.

>goh<

1442. DUAL BANDER RIGS AS REPEATERS ???

Newsgroup: rec.ham-radio
Date: 1990-03-05 09:20:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9003060801.AA06942@ucbvax.Berkeley.EDU>
Source record: 12997

CAN SOMEONE PLEASE LET ME KNOW WHAT MOBILE RIGS ON THE MARKET
TODAY CAN OPERATE AS A CROSS-BAND REPEATER ?
I HAD AN ICOM 3210A AND RECENTLY SOLD IT BECAUSE I FOUND NO WAY FOR
IT TO OPERATE AS A CROSSBAND REPEATER USING THE OFFSET. IN OTHER
WORDS , IT ONLY OPERATED FROM ONE SIMPLEX FREQ. TO ANOTHER SIMPLEX
FREQ. THUS , THERE WAS NO WAY THAT I WAS ABLE TO GO IN ON UHF
AND COMEOUT ON VHF WITH THE 600 KHZ OFFSET.
ANY COMMENTS ABOUT USEOF DUAL-BANDERS, FEATURES ETC. WOULD BE APPRECIATED.

PLEASE USE THE RETURN MAILING ADDRESS LISTED WITH THIS MESSAGE AND NOT
THE GENERAL INFO-HAMS ADDRESS FOR COMMENTING.

73'S
DE 4X1DA @4Z4SV
RICHARD HAREL

1443. Re: ISDN for linking packet and repeaters

Newsgroup: rec.ham-radio
Date: 1990-03-05 10:42:59 UTC
From: kjh@pollux.usc.edu
Message-ID: <23252@usc.edu>
Source record: 12998

In article <1990Mar4.204752.11276@tandem.com> kevinr@tandem (Kevin J. Rowett) writes:
>BTW, ISDN is really only an interface spec. ISDN doesn't help at all
>in terms of moving the data!

I know ISDN is only an interface spec. The reason why I posted, (and
the only thing that makes it relevant for amateur radio use and this
newsgroup), is that I feel that the bandwidth that ISDN calls for is not
enough. Since equipment will have to be upgraded, and the price
difference for "doing it right the first time" is not that much higher,
I am suggesting that ISDN not be implemented; instead a new spec should
be designed and implemented.

ISDN is too little and too late IMHO.

Ken Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

1444. Re: FCC Petitions

Newsgroup: rec.ham-radio
Date: 1990-03-05 12:12:11 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500432@ux1.cso.uiuc.edu>
Source record: 12999

> How can I find out the status of a FCC Petition, specifically,
> RM 2493? What, if any, is the advantage to responding to a
> petition with an original and 5 copies? Thanks,

Since all matters going to the FCC for action are legal matters, certain procedures need to be followed. In particular, if you are commenting about something said by someone in particular, you MUST "serve" a copy of what you say to them as well. When you make comments about a petition itself, or when you make reply-comments about anyone's comments, you need to send them a copy. The FCC rules (Part 1) spell out exactly what you must do.

Since an NPRM is made by the FCC staff themselves, comments about the NPRM are in fact getting to the staff, so you don't have to serve a copy on them.

Don't file reply-comments unless you know what you are doing. If you don't, might I suggest learning.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1445. Re: Canadian digital to advanced upgrad

Newsgroup: rec.ham-radio
Date: 1990-03-05 12:12:46 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500431@ux1.cso.uiuc.edu>
Source record: 13000

>
> BASIC 250 watts on amateur frequencies 30 MHz
> and up using commercial transmitting
> equipment only. (No code requirement)
>
> BASIC+5WPM As above, plus all modes on 1.8-2.0 and
> 3.5-4.0 Mhz.
>
> BASIC+12WPM As above plus all modes on all remaining
> Amateur bands.
>
> ADVANCED As above, plus use of homebrew transmitting
> equipment, maximum legal power, and the
> right to own (?) and operate repeaters and
> remote base stations.

So apparently there are THREE varieties of ADVANCED:

ADVANCED As BASIC, plus use of homebrew transmitting
equipment, maximum legal power, and the
right to own (?) and operate repeaters and
remote base stations on VHF/UHF only.

ADVANCED+5WPM As BASIC+5WPM, plus use of homebrew transmitting
equipment, maximum legal power, and the
right to own (?) and operate repeaters and
remote base stations on VHF/UHF plus limited HF
frequency privileges.

ADVANCED+12WPM As BASIC+12WPM, plus use of homebrew transmitting
equipment, maximum legal power, and the
right to own (?) and operate repeaters and
remote base stations on VHF/UHF plus full HF
frequency privileges.

It almost makes sense even here south of the border in the USA.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1446. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-05 12:12:54 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500433@ux1.cso.uiuc.edu>
Source record: 13001

> I have noticed (for some time now) a sweeping carrier
> passing through the HF bands. It appears both in the
> amateur HF bands and other HF frequencies as well.
> It sounds just like someone spotting their VFO
> as they spin the VFO dail up or down the band.
> At first I assumed this was someone with bad
> operating practices but after I noticed it on the
> non-ham portions of the HF band I figured it was
> some military station with annoying operating
> practices.

I've heard this many times myself. One time I heard it running across the
20 meter band DOWNWARD and I decided to CHASE IT. It was moving about 20
khz per second, and just suddenly switched off somewhere around 12.7 Mhz.

> I now belive that none of the above explanations
> apply. I think this sweeping carrier is some sort
> of HF propogation sounder. It probably is finding
> the MUF and collecting data relating to HF
> propogation vs. frequency vs. time. If this is
> true how can the FCC license such an obnoixous
> thing?

Potentially under Part 5 rules. Read them.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1447. Re: IRCI Kenwood newsletter

Newsgroup: rec.ham-radio
Date: 1990-03-05 14:39:29 UTC
From: john@wa3wbu.UUCP
Message-ID: <593@wa3wbu.UUCP>
Source record: 13002

In article <9003040803.AA06755@ucbvax.Berkeley.EDU>, CSMSCST@OAC.UCLA.EDU (Chris Thomas) writes:
> Does anyone else subscribe to International Radio's Kenwood
> newsletter? If so, what is the last issue you have received?
> (The last one I got was nr. 89, Sept/89). Thankx.
>

The last one I received was issue #105 March 1990. Sounds like perhaps your subscription ran out. :-)

John

--
John Gayman, WA3WBU | UUCP: uunet!wa3wbu!john
1869 Valley Rd. | ARPA: john@wa3wbu.uu.net
Marysville, PA 17053 | Packet: WA3WBU @ WB3EAH

1448. Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-05 15:29:18 UTC
From: pswecker@med.unc.edu
Message-ID: <9003051529.AA05504@pelham.med.unc.edu>
Source record: 13003

Well, I finally passed my 5wpm, and am going to take the novice and
tech. tests (and maybe the general) tonight!
I'm continuing to work on my code speed towards the magic 13wpm, but
I'd like to get people's opinions on how best to do it. I'm using the
SuperMorse program on an IBM-PC (it's great), but I'm not sure of the best way
to proceed. Some people suggest that I start building up from 5 to 7 to 10 to
13, while others seem to suggest starting right away at 13 (or even 20!).
While different methods propbaly work for differnt people, I'm curious
to see how most of you went about it.
Thanks!
-- Peter

Peter St.Wecker Internet:pswecker@med.unc.edu
(919) 966-1096 UUCP:pswecker@uncmed.uucp
Dept. of Physiology, Univ. of North Carolina, Chapel Hill NC
If we knew what we were doing, it wouldn't be research

1449. Re: 'Ham' Origins? was (Re: Need old Hammarlund coils)

Newsgroup: rec.ham-radio
Date: 1990-03-05 16:46:42 UTC
From: wilson@ccop1.ocpt.ccur.com
Message-ID: <292@ccop1.ocpt.ccur.com>
Source record: 13004

One theory is that it pre-dates radio where a new, unskilled
landline telegrapher would be described as "ham-fisted".

Gary, WB2BOO

1450. ts440 and rtty hook-up

Newsgroup: rec.ham-radio
Date: 1990-03-05 17:04:20 UTC
From: Mark@HAMSTER.BUSINESS.UWO.CA
Message-ID: <3684@HAMSTER.business.uwo.ca>
Source record: 13005

==

I used the two RCA jacks on the back of the 440. I wired the PTT from pin 13 of the din to the spare RCA. It works ok. I couldn't find a source for 13pin din plugs. I never leave the mic in the radio because I don't like HF phone. No problems with packet or rtty with this setup. I use the mic level control to determin output. It varies a bit from phone, but not alot. I prefer having manual control with the 440.

=-=

Mark Bramwell, VE3PZR Located in sunny London, Ontario

Internet: mark@hamster.business.uwo.ca IP Address: 129.100.22.100
Packet: VE3PZR @ VE3GYQ UWO Phone: (519) 661-3714

1451. FT4700 freq expand mod

Newsgroup: rec.ham-radio
Date: 1990-03-05 19:22:08 UTC
From: rfc@briar.philips.com
Message-ID: <84050@philabs.Philips.Com>
Source record: 13006

copied from packet:
From: SV0DR@SV1IW
To: ALL

FT-4700 Frequency expanding modification.
Following example shows programming for 138-174Mhz, and 420-460Mhz.

1. Remove front panel.

2. Locate jumper spots 1,2,5,9,10,13 and short them with solder carefully.
(Other jumper spots must remain as current on the control unit.)

3. Turn power on, and set the display for the lower edge of UHF band
(420.000),u sing up/down buttons, and dial. Then press D/MR button.

4. Set the display to 460.000 and press D/MR. The display shows
47.75(if frequen cy of uhf). Press D/MR, and then uhf coverage is
programmed.

5. Set the display freq. to 138.000 and press D/MR. Then set to
174.000 and pres s D/MR again. the display now shows the VHF if req.
at 17.3. Press D/MR again. Now both band coverages are programmed.

6. After this modification the repeater shift is set to 000mhz, so
it must be set using the F and RPT buttons on both bands. Refer to
page 27 of manual for details.

7. Remember that transmiting outside the amateur bands is prohibited
unless you have a special licence.

>>>
>>>
73s to all and enjoy de Jimmy, SV0DR in Athens,
GREECE.....
Note: I haven't tried this, proceed at your own risk. WA2ISE
cmd:

BTW: look at the path this file took!
MSG#9 03/04/90 14:35:40 FROM KD6TH TO WA2ISE
SUBJECT: - files\FT4700.MOD
R: 890606/0816z 30001@KD6TH [Wyckoff, NJ 07481] Metro NY/NJ A:201 Z:07481
R:900304/1917z 20644@KD6TH [Wyckoff, NJ - 07481] MetroNY/NJ ROSE:201744
F:145.07
R: 890606/0804z 13927@WB2QJA [White_Plains,NY] (null)
R: 890606/0728z 13920@WB2QJA [White_Plains,NY] Z:10606 F:221.11
R:890606/0145z @:WA2UMX Ballston Spa NY #:12053 Z:12020
R:890603/1212z @:WA2PVV Valatie, N.Y. #:26506 Z:12184

R:890602/0512r 52425@WB0TAX [Hampton, Va. 23666]
R:890602/0501z 41901@WA4ONG [Richmond, VA] F:446.05 N:RIC,#RIC2,BRDN Z:23235
R:890602/0000z 32997@W3IWI [Balto/Wash MD/DC/VA/DE] Z:21029
R:890511/0332b @SK0WE (sun1.sk0we.ampr.org SMTP gateway)
R:890510/2113z 23045@SK0TM [Stockholm] F:144.675/433.650 MHz
R:890510/0930z 11415@SM5BKI [Balsta HF/VHF]
R:890508/2138z @:PA0SCH Schipluiden #:392 Z:JO21DX
R:890508/1934z 3604@SV1IW [ATHENS AMEA Net]

1452. Broadband ISDN

Newsgroup: rec.ham-radio
Date: 1990-03-05 19:23:36 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9003051923.AA01672@cmr.ncsl.nist.gov>
Source record: 13007

I note comments from N8DGN and others about ISDN data rates. There ARE
higher rates than 64 kb/s, but probably not to the home. Also I'm being
pulled into something called Broadband-ISDN (B-ISDN), which is more or
less real depending on whom you believe. The goal is 50 megabits per second
at an absolute minimum, and some feel that 600 Mb/s is the minimum that is
interesting. Don't hold your breath for rapid availability in the US.
I'll know a lot more about current state in a couple of weeks when I get
back from the tech meetings in Dallas.
73, Bob W3OTC

1453. VE in Vancouver WA

Newsgroup: rec.ham-radio
Date: 1990-03-05 19:24:30 UTC
From: tsf@druhi.ATT.COM
Message-ID: <4697@druhi.ATT.COM>
Source record: 13008

I'm looking for a volunteer examiner in or near Vancouver, WA
to give the novice exam. Anyone out there in net-land know of one?

Tom Fisher N0GOS att!druhi!tsf (303)-538-4642

1454. manual for Measurements 210 generator needed

Newsgroup: rec.ham-radio
Date: 1990-03-05 19:31:18 UTC
From: charlie@oakhill.UUCP
Message-ID: <3047@radio.oakhill.UUCP>
Source record: 13009
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

I am looking for a manual (or informed netters) for a
Measurements 210 Standard FM Signal Generator. Any
repsonses would be appreciated.

-Charlie Thompson WB4HVD

1455. Re: Re^2: You ask me to memorize...

Newsgroup: rec.ham-radio
Date: 1990-03-05 20:13:30 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1735@aurora.AthabascaU.CA>
Source record: 13010

In article <30500429@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:

>Why is it that the Canadian license was called "digital" when it in fact was
>really a "nocode" license?

The emphasis in the exam was towards digital modes of communication.
Specifically, packet and pulse. Call it what you want, it's still
not a duck :-)
--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

1456. FT4700 mod for extended freq coverage

Newsgroup: rec.ham-radio
Date: 1990-03-05 21:06:18 UTC
From: rfc@briar.philips.com
Message-ID: <84054@philabs.Philips.Com>
Source record: 13011

copied from packet:
From: SV0DR@SV1IW
To: ALL

FT-4700 Frequency expanding modification.
Following example shows programming for 138-174Mhz, and 420-460Mhz.

1. Remove front panel.

2. Locate jumper spots 1,2,5,9,10,13 and short them with solder carefully.
(Other jumper spots must remain as current on the control unit.)

3. Turn power on, and set the display for the lower edge of UHF band
(420.000),u sing up/down buttons, and dial. Then press D/MR button.

4. Set the display to 460.000 and press D/MR. The display shows
47.75(if frequen cy of uhf). Press D/MR, and then uhf coverage is
programmed.

5. Set the display freq. to 138.000 and press D/MR. Then set to
174.000 and pres s D/MR again. the display now shows the VHF if req.
at 17.3. Press D/MR again. Now both band coverages are programmed.

6. After this modification the repeater shift is set to 000mhz, so
it must be set using the F and RPT buttons on both bands. Refer to
page 27 of manual for details.

7. Remember that transmiting outside the amateur bands is prohibited
unless you have a special licence.

>>>
>>>
73s to all and enjoy de Jimmy, SV0DR in Athens,
GREECE.....
Note: I haven't tried this, proceed at your own risk. WA2ISE
cmd:

BTW: look at the path this file took!
MSG#9 03/04/90 14:35:40 FROM KD6TH TO WA2ISE
SUBJECT: - files\FT4700.MOD
R: 890606/0816z 30001@KD6TH [Wyckoff, NJ 07481] Metro NY/NJ A:201 Z:07481
R:900304/1917z 20644@KD6TH [Wyckoff, NJ - 07481] MetroNY/NJ ROSE:201744
F:145.07
R: 890606/0804z 13927@WB2QJA [White_Plains,NY] (null)
R: 890606/0728z 13920@WB2QJA [White_Plains,NY] Z:10606 F:221.11
R:890606/0145z @:WA2UMX Ballston Spa NY #:12053 Z:12020
R:890603/1212z @:WA2PVV Valatie, N.Y. #:26506 Z:12184

R:890602/0512r 52425@WB0TAX [Hampton, Va. 23666]
R:890602/0501z 41901@WA4ONG [Richmond, VA] F:446.05 N:RIC,#RIC2,BRDN Z:23235
R:890602/0000z 32997@W3IWI [Balto/Wash MD/DC/VA/DE] Z:21029
R:890511/0332b @SK0WE (sun1.sk0we.ampr.org SMTP gateway)
R:890510/2113z 23045@SK0TM [Stockholm] F:144.675/433.650 MHz
R:890510/0930z 11415@SM5BKI [Balsta HF/VHF]
R:890508/2138z @:PA0SCH Schipluiden #:392 Z:JO21DX
R:890508/1934z 3604@SV1IW [ATHENS AMEA Net]

1457. ft4700 mod file

Newsgroup: rec.ham-radio
Date: 1990-03-05 22:13:00 UTC
From: rfc@briar.philips.com
Message-ID: <84055@philabs.Philips.Com>
Source record: 13012

copied from packet:
From: SV0DR@SV1IW
To: ALL

FT-4700 Frequency expanding modification.
Following example shows programming for 138-174Mhz, and 420-460Mhz.

1. Remove front panel.

2. Locate jumper spots 1,2,5,9,10,13 and short them with solder carefully.
(Other jumper spots must remain as current on the control unit.)

3. Turn power on, and set the display for the lower edge of UHF band
(420.000),u sing up/down buttons, and dial. Then press D/MR button.

4. Set the display to 460.000 and press D/MR. The display shows
47.75(if frequen cy of uhf). Press D/MR, and then uhf coverage is
programmed.

5. Set the display freq. to 138.000 and press D/MR. Then set to
174.000 and pres s D/MR again. the display now shows the VHF if req.
at 17.3. Press D/MR again. Now both band coverages are programmed.

6. After this modification the repeater shift is set to 000mhz, so
it must be set using the F and RPT buttons on both bands. Refer to
page 27 of manual for details.

7. Remember that transmiting outside the amateur bands is prohibited
unless you have a special licence.

>>>
>>>
73s to all and enjoy de Jimmy, SV0DR in Athens,
GREECE.....
Note: I haven't tried this, proceed at your own risk. WA2ISE
cmd:

BTW: look at the path this file took!
MSG#9 03/04/90 14:35:40 FROM KD6TH TO WA2ISE
SUBJECT: - files\FT4700.MOD
R: 890606/0816z 30001@KD6TH [Wyckoff, NJ 07481] Metro NY/NJ A:201 Z:07481
R:900304/1917z 20644@KD6TH [Wyckoff, NJ - 07481] MetroNY/NJ ROSE:201744
F:145.07
R: 890606/0804z 13927@WB2QJA [White_Plains,NY] (null)
R: 890606/0728z 13920@WB2QJA [White_Plains,NY] Z:10606 F:221.11
R:890606/0145z @:WA2UMX Ballston Spa NY #:12053 Z:12020
R:890603/1212z @:WA2PVV Valatie, N.Y. #:26506 Z:12184

R:890602/0512r 52425@WB0TAX [Hampton, Va. 23666]
R:890602/0501z 41901@WA4ONG [Richmond, VA] F:446.05 N:RIC,#RIC2,BRDN Z:23235
R:890602/0000z 32997@W3IWI [Balto/Wash MD/DC/VA/DE] Z:21029
R:890511/0332b @SK0WE (sun1.sk0we.ampr.org SMTP gateway)
R:890510/2113z 23045@SK0TM [Stockholm] F:144.675/433.650 MHz
R:890510/0930z 11415@SM5BKI [Balsta HF/VHF]
R:890508/2138z @:PA0SCH Schipluiden #:392 Z:JO21DX
R:890508/1934z 3604@SV1IW [ATHENS AMEA Net]

1458. External ant on walkman?

Newsgroup: rec.ham-radio
Date: 1990-03-05 22:43:06 UTC
From: jxh@netcom.UUCP
Message-ID: <8462@netcom.UUCP>
Source record: 13013

Here's a plea to the technical radio people in here:
(By the way, I am studying for my Novice license, code and all, so don't write me off as quickly as usual. Thanks.)
I have one of those little FM-only Sony Walkman devices, and it has problems (no big surprise, there). I want to separate the antenna and audio output functions of the stereo mini jack so I can better receive an FM broadcast station (KITS-FM, San Francisco, 105.300MHz, 13KW @ Mt. San Bruno) from my marginal location (60 miles southeast, in San Jose, in a south-facing office of a Faraday cage). I believe I understand that I need a DC block between an external antenna and the device that will pass >100MHz or so; that's the easy part. Now how do I get the audio part out without weirding-out the front end of the tuner? Oh, yes: and without spending any money. Obviously, I can replace the entire thing for about 15 bucks (although I *still* don't get an antenna input), but I'm doing this for the experience as much as anything. That said, fire away. Am I wasting my time altogether? (With this radio, I mean, not studying code: I can handle that :-)
Should I just go out and *buy* a radio that meets my requirements (low cost FM tuner, stereo, mini-jack audio output, external antenna input)?
Is there one? By all means send me recommendations.

I also have a Sony ICF-2010, but it doesn't have stereo, in this band or any other; SWL doesn't demand it, from a marketing standpoint. *sigh* Is it absolutely out of the question to *modify* it to do stereo? Thought so.

So, here's another chance to set a young'un straight, all you old-timers. Maybe I can return the favor when you blow up both FATs and the partition table on your PC (*I'm* the old timer, over there!). (By the way, the answer to that one is: "When did you last back it up?" Sorry: even magicians have to work with the materials at hand. :-)

Sorry if my .sig comes out twice: this is the first time I've ever posted anything, so I made sure.

Neither can his mind be thought to be in tune, whose words do jarre;
nor his reason in frame, whose sentence is preposterous.

Jim Hickstein, Teradyne/Attain, San Jose CA, (408) 434-0822 FAX -0252
...!sun!teraida!jxh%attain [business]
jxh@netcom.UUCP [personal]
--

Neither can his mind be thought to be in tune, whose words do jarre;
nor his reason in frame, whose sentence is preposterous.

Jim Hickstein, Teradyne/Attain, San Jose CA, (408) 434-0822 FAX -0252

...!sun!teraida!jxh%attain [business]
jxh@netcom.UUCP [personal]

1459. Re: MFJ quality

Newsgroup: rec.ham-radio
Date: 1990-03-05 23:11:37 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880129@hpfcdc.HP.COM>
Source record: 13014

>> I have the 949C tuner. Now that I've built an amplifier capable of 300W
>> (the 949C's limit), I find that I burn out switch contacts if I use full
>> rated power on it.
>>
>
>Just to make this into a product review :) Are you adjusting these switches
>while the rig is transmitting or are the switches failing just by being in
>in the circuit?

Just by being in the circuit.

I soldered in another rotary switch, and I'm able to drive it to at
least 400W on a bad edge of 80 meters without any arcing on the contacts
or capacitors.

I think the switch is just under-engineered, and could be corrected with
a parts mfgr change. There is quite a bit of current on the lowest L
setting, which is where the switch wiper ate it.

Perry

1460. Re: Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-03-05 23:36:19 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880130@hpfcdc.HP.COM>
Source record: 13015

I'm in the process of building a legal-limit multi-band HF amplifier. There is an FCC-imposed limit on harmonic content (50 dB ?), but this can be hard to accurately measure without a REAL(tm) spectrum analyzer.

Could a rudimentary "spectrum analyzer" be rigged up using resonant circuits tuned to each harmonic, then sampling the RF voltage ? Or would the non-linearity make this approach unlikely to succeed ?

The approach of having a buddy listen to your harmonics is not a true measurement, since an antenna could radiate harmonics more or less efficiently than the fundamental.

Maybe what I am asking is how to make a spectrum analyzer out of bits of wire and canning jars. Can't be done, right ?

Perry Scott
KF0CA

1461. Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-06 00:07:11 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <21316@netnews.upenn.edu>
Source record: 13016

(Michael Harpe) writes:
>
>I called him one day to pick up V31 as a prefix and asked him to repeat his
>call when he answered since he was kinda weak to me. He refused, said no
>contact and launched into a big spiel about running "a tight ship" there.

I've worked V31BB on 10m before. Our QSO was very short, as if he were working a contest, but to the best of my knowledge, there was no contest. As I understand it, Jim (V31BB) worked the ARRL DX contest this past weekend with the V31B contest team.

Speaking of poor contest operators, I had the unpleasent experience of hearing a guy (don't remember the call) this past weekend during the contest. I read the mail for about 5 contacts, during which he never said his call. After the fifth, the guy at our station who was operating at the time stuck in our call sign when he QRZ'd, and he came back to us with "59 kilo". Tom, the guy who was operating, gave him his report and then asked for his call again. He said "If you don't have my call, I don't want to work you. QRZ?" Annoyed at this, Tom gave him about 30 second's worth of "I've seen some really rude operators but you take the cake, pal" sort of ramblings. The thing that really annoyed me is that if the DX guy was such a good operator, he should be giving his call on each contact. The contest rules state that the excange is BOTH station's call signs, sig report, and power or state, depending on which side of the contact you're on. Theoretically, the guy's log contains only about 10% legitimate contacts. Everybody could save time and hence work more contacts by only giving a call sign on one out of every 10 contacts, but some of us play by the rules. To decline a request for a callsign repeat is not only breaking the rules, but just plain rude, obnoxious, and shows what a poor operator you are.

Other contest highlight: we had a neighbor come to the shack complaining of RFI to her VCR. Nothing too unusual about that. However, the thing that made the incident stand out is that she was carrying a loaded rifle, had it pointed at my chest from four feet away, threatened to shoot up the station, and threatened to kill us unless we went off the air. There is a long story involved, but it all boils down to this: we weren't causing the RFI, we continued working the contest, and she got arrested for trespassing, assault with a deadly weapon, and wreckless endangerment. Women...

The moral of this story: Everybody's out for blood during a contest.

--- Jeff

+----------------------+---+
| Jeff DePolo - N3HBZ | Internet: depolo@eniac.seas.upenn.edu |
| Univ. of Pennsylvania | RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia) |

```
| Computer Science Eng. | Twisted pair: (215) 243-8125 home |
| Class of 1991 | Carrier pigeon: 3901 Spruce St Box 850 Philly 19104 |
+-----------------------+-----------------------------------------------------+
```

1462. Re: IC-02AT continuous xmit OK?

Newsgroup: rec.ham-radio
Date: 1990-03-06 01:41:56 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500434@ux1.cso.uiuc.edu>
Source record: 13017

Add some challenge to the T-hunt *AND* save your HT:

use LOW power

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1463. Re: Broadcasting Video from RC Plane

Newsgroup: rec.ham-radio
Date: 1990-03-06 02:28:37 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14019.25F32DAA@stjhmc.fidonet.org>
Source record: 13018

> From: alan@km4ba.UUCP (Alan Barrow)

> Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:
>
> stuff deleted...
>
> >NTSC video for spotting fish? I doubt that's the best solution to the
> problem
> >anyway.
>
> >73 de Jim Grubs, W8GRT
>
> Compared to looking out the scratched, yellow and crazed windows of an
> ancient Cessna 150 doing a 45 deg. bank, it is a pretty good , cost
> effective
> solution.

I didn't mean the RC airplane part, I meant the NTSC video part. Is broadcast quality really necessary or would something more modest (and cheaper) suffice?

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1464. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-06 03:47:10 UTC
From: liud@guille.ECE.ORST.EDU
Message-ID: <16508@orstcs.CS.ORST.EDU>
Source record: 13019
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <3034@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>I have noticed (for some time now) a sweeping carrier
>passing through the HF bands. It appears both in the
>amateur HF bands and other HF frequencies as well.

>Anybody have any explanations?
>Thanks in advance,

These are the SPREAD SPECTRUM communication signals. There are
usually two modulating signals. One is the useful signal which
modulates the carrier (HF) in one of the common method. The frequency
deviation caused by the useful signal (like data, audio, etc) is
very small.

The other modulation is much greater and results in a widely
spread frequency spectrum. It is the format of this modulation
that characterize the communication. There are several advantages
of the spread spectrum. The "spreading" format is unique for each
station, and only the authorized recevers know the format. Therefore
the S.S. is very secure. Secondly, since the energy is so weak (in
everage sense) in a 10 KC window (that of a radio), the signal can
hardly be noticed (unless slow formats are used).

Most US spied use S.S., by the way.

1465. Looking for person looking for me!

Newsgroup: rec.ham-radio
Date: 1990-03-06 03:56:21 UTC
From: jim@mmsac.UUCP
Message-ID: <5334@mmsac.UUCP>
Source record: 13020

I recently saw a message saying that someone was looking for me on
this newsgroup. Well, here I am. If you can't get mail to me, you
can try calling me voice at (916) 381-4052. Leave a msg on the
machine if no one answers. Sorry it took so long for me to get back
to you, but my "node" (mmsac) was down for a while. But it's back
now! 73.
--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==
The opinions stated herein are all mine.

1466. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-06 04:38:20 UTC
From: winter@Apple.COM
Message-ID: <39223@apple.Apple.COM>
Source record: 13021

In article <21316@netnews.upenn.edu> depolo@eniac.seas.upenn.edu.UUCP (Jeff DePolo-N3HBZ) writes:
>Speaking of poor contest operators, I had the unpleasent experience of hearing
>a guy (don't remember the call) this past weekend during the contest. I
>read the mail for about 5 contacts, during which he never said his call.

I heard 'way too many stations doing that this weekend. Whether it's breaking the rules or not, you're sure right that it's rude and inconsiderate. And, I maintain, wasteful to everyone concerned. I'd really like to know whether these stations have a higher dupe ratio because people go ahead and work them without waiting to find out who they are.

>Other contest highlight: we had a neighbor come to the shack complaining
>of RFI to her VCR.
>we continued working the contest, and she got arrested for trespassing,
>assault with a deadly weapon, and wreckless endangerment. Women...

Right. I've certainly never heard of any incidents where male neighbors got overwrought about RFI. Uh huh. :-)

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1467. Re: NPRM 90-55 - No test code priviledg

Newsgroup: rec.ham-radio
Date: 1990-03-06 12:18:27 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500435@ux1.cso.uiuc.edu>
Source record: 13022

Most of us "no-coders" are sticking to the International regulations
that access to HF requires Morse code.

Can't communicators get their Morse code practice from tapes and on 2 meters?
uh... well maybe 220 Mhz? Maybe the OF's won't go up there and help them.
Too bad.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1468. PHOENIX FORMULA ONE MOTOR RACE RADIO INFO REQUEST

Newsgroup: rec.ham-radio
Date: 1990-03-06 13:23:20 UTC
From: MKELLY@CARLETON.CA
Message-ID: <900306.08361913.066510@ADMIN.CP6>
Source record: 13023

As part of my preparation for attendance at the Canadian
grand prix this summer, I am once again looking for any
information regarding radio usage at the United States
grand prix motor race taking place in Phoenix this weekend.
If you are in Phoenix this weekend, and have a scanner, please
have a listen, and note the frequencies any of the teams are
heard to be using. It would also be helpfull to know which
teams are scrambling their communications, and which method they
are using (digital, band inversion, etc.) If someone could
relay this message to other related boards, I would appreciate it,
as I only have access to "INFO-HAMS" here. Thanks all 73
mike kelly VE3FFK Department of Electronics, Carleton University,
Colonel By Drive, Ottawa Ont., K1S 5B6

1469. Sun-noise Newspaper Notice

Newsgroup: rec.ham-radio
Date: 1990-03-06 13:46:38 UTC
From: rc@cmr.ncsl.nist.gov
Message-ID: <9003061346.AA03305@cmr.ncsl.nist.gov>
Source record: 13024

Advertisement from "The Frederick Post", Frederick, MD, March 6

ATTENTION
FREDERICK CABLEVISION SUBSCRIBERS

>From March 1st through March 9th 1990, SUN OUTAGES will affect all satellite-delivered channels. The satellites move into a direct line between the sun and the earth and the sun's rays overpower the satellite signal. We receive signals from 4 satellites, so time and duration of the outages will vary. They can last from a few seconds to 15 minutes and will occur approximately between 4:20 and 4:40 p.m. for most satellite services. Some will also be affected between 12:40 and 1:40 p.m.

****
My question: do many cable systems bother to place notices like this? BTW, the newspaper owns the cable system.
Bob W3OTC

1470. Re: External ant on walkman?

Newsgroup: rec.ham-radio
Date: 1990-03-06 14:28:11 UTC
From: davet@tsdiag.ccur.com
Message-ID: <746@tsdiag.ccur.com>
Source record: 13025

In article <8462@netcom.UUCP> jxh@netcom.UUCP (Jim Hickstein) writes:
[Stuff deleted]
>I want to separate the antenna and audio output
>functions of the stereo mini jack so I can better receive an FM broadcast
>station
[stuff deleted]
>Neither can his mind be thought to be in tune, whose words do jarre;
>nor his reason in frame, whose sentence is preposterous.
>---
>Jim Hickstein, Teradyne/Attain, San Jose CA, (408) 434-0822 FAX -0252
>...!sun!teraida!jxh%attain [business]
> jxh@netcom.UUCP [personal]

Here's something that may help - get a couple of 0.001-0.01 uF capacitors and
try some of the following:
1) attach a long piece of wire to one side of a capacitor, and
connect the other cap lead to one of the 3 leads of the head-
phone jack. One or more of these should provide a noticable
increase in signal strength. If not, try 2) below.

2) Using the other cap along with the one from 1), rig up a small
dipole for use at the freq of your station (you said you were
studying for your novice exam - good practice, huh? :-)) and
connect it across two of the headphone leads until you get
better reception. It may take a few tries.

```
|
|
---------||--> to phone lead
crude dipole-> ---------||--> to phone lead
| ^-----Capacitors
|
```

This'll let the RF in, but keep the audio in/out.
If this doesn't work, please send me E-mail and we'll discuss it.
PS - good luck on your exam! I got my Tech. ticket in Oct and have had a ball.
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 45" N 73 59' 00" W | N2KAU @ NN2Z

1471. (none)

Newsgroup: rec.ham-radio
Date: 1990-03-06 14:28:54 UTC
From: Jay_Appell_office@es.UUCP
Message-ID: <9003060928.23260604E8CD@es.office>
Source record: 13026

Would someone share the types of information contained within the
Kenwood newsletter and the particulars where it can be ordered.

Thanks...Jay (KA1SNA)

1472. ft4700 mods

Newsgroup: rec.ham-radio
Date: 1990-03-06 14:58:38 UTC
From: rfc@popeye.Philips.Com
Message-ID: <84088@philabs.Philips.Com>
Source record: 13027

copied from packet:
From: SV0DR@SV1IW
To: ALL

FT-4700 Frequency expanding modification.
Following example shows programming for 138-174Mhz, and 420-460Mhz.

1. Remove front panel.

2. Locate jumper spots 1,2,5,9,10,13 and short them with solder carefully.
(Other jumper spots must remain as current on the control unit.)

3. Turn power on, and set the display for the lower edge of UHF band
(420.000),u sing up/down buttons, and dial. Then press D/MR button.

4. Set the display to 460.000 and press D/MR. The display shows
47.75(if frequen cy of uhf). Press D/MR, and then uhf coverage is
programmed.

5. Set the display freq. to 138.000 and press D/MR. Then set to
174.000 and pres s D/MR again. the display now shows the VHF if req.
at 17.3. Press D/MR again. Now both band coverages are programmed.

6. After this modification the repeater shift is set to 000mhz, so
it must be set using the F and RPT buttons on both bands. Refer to
page 27 of manual for details.

7. Remember that transmiting outside the amateur bands is prohibited
unless you have a special licence.

>>>
>>>
73s to all and enjoy de Jimmy, SV0DR in Athens,
GREECE.....
Note: I haven't tried this, proceed at your own risk. WA2ISE
cmd:

BTW: look at the path this file took!
MSG#9 03/04/90 14:35:40 FROM KD6TH TO WA2ISE
SUBJECT: - files\FT4700.MOD
R: 890606/0816z 30001@KD6TH [Wyckoff, NJ 07481] Metro NY/NJ A:201 Z:07481
R:900304/1917z 20644@KD6TH [Wyckoff, NJ - 07481] MetroNY/NJ ROSE:201744
F:145.07
R: 890606/0804z 13927@WB2QJA [White_Plains,NY] (null)
R: 890606/0728z 13920@WB2QJA [White_Plains,NY] Z:10606 F:221.11
R:890606/0145z @:WA2UMX Ballston Spa NY #:12053 Z:12020
R:890603/1212z @:WA2PVV Valatie, N.Y. #:26506 Z:12184

R:890602/0512r 52425@WB0TAX [Hampton, Va. 23666]
R:890602/0501z 41901@WA4ONG [Richmond, VA] F:446.05 N:RIC,#RIC2,BRDN Z:23235
R:890602/0000z 32997@W3IWI [Balto/Wash MD/DC/VA/DE] Z:21029
R:890511/0332b @SK0WE (sun1.sk0we.ampr.org SMTP gateway)
R:890510/2113z 23045@SK0TM [Stockholm] F:144.675/433.650 MHz
R:890510/0930z 11415@SM5BKI [Balsta HF/VHF]
R:890508/2138z @:PA0SCH Schipluiden #:392 Z:JO21DX
R:890508/1934z 3604@SV1IW [ATHENS AMEA Net]

1473. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-06 15:20:10 UTC
From: barry@dgbt.uucp
Message-ID: <1368@dgbt.uucp>
Source record: 13028
Cross-posted to: rec.ham-radio,rec.radio.shortwave

From article <3034@radio.oakhill.UUCP>, by charlie@oakhill.UUCP (Charlie Thompson):
> I have noticed (for some time now) a sweeping carrier
> passing through the HF bands. It appears both in the
> amateur HF bands and other HF frequencies as well.
> It sounds just like someone spotting their VFO
> as they spin the VFO dail up or down the band.
> At first I assumed this was someone with bad
> operating practices but after I noticed it on the
> non-ham portions of the HF band I figured it was
> some military station with annoying operating
> practices.
>
> I now belive that none of the above explanations
> apply. I think this sweeping carrier is some sort
> of HF propogation sounder. It probably is finding
> the MUF and collecting data relating to HF
> propogation vs. frequency vs. time. If this is
> true how can the FCC license such an obnoixous
> thing?

Right you are. This annoying QRM emanates from a device known as a "chirpsounder", manufactured by an outfit called BR Communications (there may be other sources, but I haven't heard of any). The U.S. military (and Canada, amongst other countries) has a fairly extensive network of these things to support their HF links. Their gratuitous use of spectrum assigned to other services is, no doubt, justified on the basis of National Security. Funny thing though... I would have thought that this justification would only apply in times of National Emergency. Oh well. The next time you get jolted out of your chair by that carrier sweeping through your headphones, try and remember that it's all for the cause of peace 'n freedom, etc. :-)

> C. Thompson WB4HVD

Barry VE3JF

--
Barry McLarnon Communications Research Center Ottawa, ON Canada
Internet: barry@dgbt.crc.dnd.ca UUCP: ...utzoo!dciem!nrcaer!dgbt!barry
CI$: 71470,3651 PBBS: VE3JF@VE3JF AMPRnet: barry@bbs.ve3jf [44.135.96.6]

1474. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-06 15:25:37 UTC
From: trey@ut-emx.UUCP
Message-ID: <25612@ut-emx.UUCP>
Source record: 13029

In article <21316@netnews.upenn.edu>, depolo@eniac.seas.upenn.edu (Jeff DePolo-N3HBZ) writes:
> Other contest highlight: we had a neighbor come to the shack complaining
> of RFI to her VCR. Nothing too unusual about that. However, the thing
> that made the incident stand out is that she was carrying a loaded rifle,
> had it pointed at my chest from four feet away, threatened to shoot up the
> station, and threatened to kill us unless we went off the air.

I *hate* it when that happens. :-)

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

1475. Re: IC-02AT continuous xmit OK?

Newsgroup: rec.ham-radio
Date: 1990-03-06 15:58:31 UTC
From: jpd@pc.usl.edu
Message-ID: <4894@rouge.usl.edu>
Source record: 13030

>Add some challenge to the T-hunt *AND* save your HT:
>
> use LOW power

Why not transmit less than 100% of the time? A 555 timer IC driving
PTT would be ideal. It might even fit on an IDer board.

73 de N5KNX
--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

1476. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-06 16:05:58 UTC
From: barkeyp@silver.ucs.indiana.edu
Message-ID: <38003@iuvax.cs.indiana.edu>
Source record: 13031

The failure of DX stations to identify is something that really frustrates me. I think people learn to operate by imitating people they hear, and unless we can get them to change, the chances for seeing improved practices are bleak.

I feel that the main reason DX stations don't identify is that they are afraid of big pileups, and they think that giving their callsign out frequently leads to this. What they don't realize, however, is that failure to identify means getting worked over and over by the same "big" stations, each of whom do not have the time to sit and wait for the DX guy to ID.

In other words, if you give you callsign after every QSO, your pileup could actually be smaller, because the guys who have already worked you will simply move on.

-- Pat Barkey
WA8YVR

1477. Sweepers and Creepers - what are they?

Newsgroup: rec.ham-radio
Date: 1990-03-06 16:30:46 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <06.Mar.90.16
Source record: 13032

Charlie Thompson asks::
>
>Subject: Sweeping carrier in the HF bands
>Message-ID: <3034@radio.oakhill.UUCP>
>
>I have noticed (for some time now) a sweeping carrier
>passing through the HF bands. It appears both in the
>amateur HF bands and other HF frequencies as well.
>It sounds just like someone spotting their VFO
.....(text deleted)...
>Anybody have any explanations?
>Thanks in advance,
>C. Thompson WB4HVD

I have heard a few of these sweepers. They tend to occupy 10 and 20 meters. Often they have nasty notes (raw AC with hum). Certainly some of them are industrial processes. There are two 'Industrial' frequencies around 13.56 and 27.12MHz for these things. They are diathermy machines, RF-heaters, driers, plastic-welding machines etc. Usually a tuned power-oscillator, AC on the anodes seems to be commonplace. Powers in the tens of kilowatts range are not unusual. They are often coupled to the workpiece with lossy unscreened cables, and drift with changing load capacitance. It obviously doesnt take much imagination to see one of these things drifting into the 10 or 20 meter bands....! When you have 10Kw to play with you do not need an efficient antenna. Add in radiation back down the power lines, from the cooling pipes (they often have water-cooled anodes on the TX tubes - how do you put a choke in a water-pipe??) and undoubtedly more than a whiff of the RF gets out. That is what we hear as 'sweepers'.
When the bands are open, these things can cover enormous distances!
Another popular frequency for medical diathermy sets (used for localised heating/cauterising in hospitals) is around 48MHz. These could easily cause QRM to 50MHz.

///Pete G6WBJ

1478. Keyer Board for IBM PC

Newsgroup: rec.ham-radio
Date: 1990-03-06 16:55:09 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <575.25F3FB7E@weyr.FIDONET.ORG>
Source record: 13033

I am looking for a keyer board for an IBM PC. Does anyone have any suggestions and supplier info. What I want is a piece of software that uses one of the communications ports for paddle input and xcvr output with software that provides all the keyer functions. I asked this question a few weeks ago and got one answer -- unfortunately the sender didn't provide supplier information. You asssitance with this matter is appreciated.
73's de Syl VE5ZX

--

Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!Sylvan.Katz
Saskatoon, Sask Internet: Sylvan.Katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1479. 2nd CALL FOR VOTE: rec.radio.noncomm

Newsgroup: rec.ham-radio
Date: 1990-03-06 18:05:12 UTC
From: dsrekrg%prism@gatech.edu
Message-ID: <6717@hydra.gatech.EDU>
Source record: 13034
Cross-posted to:
news.announce.newgroups,news.groups,rec.music.misc,rec.arts.misc,soc.college,rec.radio.shortwave,rec.ham-radio

This is the second CALL FOR VOTES for the creation of a new newsgroup
to provide a forum for the discussion of noncommercial radio
among broadcasters and listeners.

Vote by replying to this article. Votes must be clearly stated
as for or against rec.radio.noncomm as described in this article.
People who have voted so far are listed at the end of this article.
Please check this list if you have already voted.
Votes will be accepted until March 13, 1990.

NAME: rec.radio.noncomm
CHARTER: unmoderated discussion of noncommercial radio.
Some topics to discuss are:
- listener opinion
- noncommercial AM/FM radio of the college, community, and NPR variety
- carrier current and cable based radio
- do trade journals manipulate or aid?
- upcoming conventions such as the Nat'l Assoc. of Broadcasters/BEA
meeting in Atlanta and the Intercollegiate Broadcasters Society in NY
- the newly released "Public Radio in the 1990s" report by The Public
Radio Expansion Task Force
- the FCC and its regulations
- obtaining and managing non-commercial grants
- programming sources

Rob Gibson, General Manager, WREK 91.1 MHz
Georgia Tech, Atlanta Georgia, 30332 404/894-2468
uucp: ...!{allegra,amd,hplabs,seismo,ut-ngp}!gatech!prism!dsrekrg
ARPA: dsrekrg@prism.gatech.edu

I have received votes from the following people:

"ALPHER, RALPH" <alpherr@gar.union.edu>
"C. Dennison" <C.Dennison%newcastle.ac.uk@NSFnet-Relay.AC.UK>
"Eli Messinger" <EBM@IBM.COM>
"Mark J.H. Cox" <mjhc8%eleceng.bradford.ac.uk@NSFnet-Relay.AC.UK>
"N. Miller, Trinity College" <NMILLER@vax1.trincoll.edu>
"Phil Gross" <philbo@chaos.cs.brandeis.edu>
"ROBERT STEWART" <stewart@arlvs1.arlut.utexas.edu>
"Randall Atkinson" <randall@uvaarpa.Virginia.EDU>
"Robert J. Drabek" <robert@cs.arizona.edu>
"Steve Huff, U. of Kansas, Lawrence" <HUFF@kuhub.cc.ukans.edu>
"U.K.C.Radio" <ukcr%ukc.ac.uk@NSFnet-Relay.AC.UK>
"William K. McFadden" <bill@videovax.tv.tek.com>

"jill holly hansen" <jill@tank.uchicago.edu>
Andrew Boardman <amb@cs.columbia.edu>
Boris "quartermaster" Goldowsky <boris@prodigal.psych.rochester.edu>
Brian.May@ditmela.cng.dit.CSIRO.AU
Charleen Bunjiovianna <charleen@ads.com>
Don Bork <cs4i03ab@maccs.dcss.mcmaster.ca>
FRN@PSUVM.PSU.EDU
Jeffrey Hsu <hsu@unisoft.com>
Jim Roche <roche@cs.rochester.edu>
Kevin Long <klong@pauling.bcm.tmc.edu>
MTARR@EAGLE.WESLEYAN.EDU
Margaret Puckette <mpucket@jacobs.CS.ORST.EDU>
Mark_Otto@mts.rpi.edu
Matthew Freedman <mattf@u.washington.edu>
Metafont Consultant Account <xanthian@ads.com>
Michael Trogni <mike@pasteur.cvm.uiuc.edu>
Mike Weavind <mjw189%ecs.southampton.ac.uk@NSFnet-Relay.AC.UK>
Paul Jaggard <pmj@CS.WARWICK.AC.UK>
Rich Kulawiec <rsk@boulder.Colorado.EDU>
Stan Barber <sob@tmc.edu>
Steve <Waltman.Henr@Xerox.COM>
Steve Kaminski <kaminski@SCL.CWRU.Edu>
Stuart Troutman <stuart@apollo.com>
System News Administrator <newsadm@pioneer.arc.nasa.gov>
Terry J. Wood <tjw@unix.cis.pitt.edu>
Tim Shepard <shep@PTT.LCS.MIT.EDU>
Tim Wicinski <wicinski%bill-n-ted.esd@sgi.com>
William Tsun-Yuk Hsu <hsu@uicsrd.csrd.uiuc.edu>
Yary Richard Phillip Hluchan <yh0a+@andrew.cmu.edu>
alexsy@gldoa.enet.dec.com
ames!amdahl!ames!ntmtv!shea@gatech (Ray Shea)
ames!amdahl!ames!ntmtv!shea@gatech (Ray Shea)
an12370@cancer.utexas.edu (David C. Tuttle)
bandy@mica.berkeley.edu (Andrew Scott Beals)
bic@cgl.ucsf.edu (Bruce Cohen)
chinacat.Lonestar.ORG!chip@cs.utexas.edu (Chip Rosenthal)
cj@mvuxr.att.com (Christopher J Hughes)
cje@elbereth.rutgers.edu (Cthulhu's Jersey Epopt)
cox@ucbarpa.Berkeley.EDU (Charles A. Cox)
csg@pyramid.pyramid.com (Carl S. Gutekunst)
ctuel@polyslo.calpoly.edu (Cliff Tuel)
dadoun@grads.cs.ubc.ca
danj1@cbnewse.att.com
dholz@zippy.net (Donald Schuerholz)
dsrekjk@prism.gatech.edu
dsrekrg@prism.gatech.edu
dube@cpdvax.csc.ti.com (DUBE TODD)
dupuy@hudson.cs.columbia.edu (Alexander Dupuy)
eiverson@NMSU.Edu
etxtsg@solsta.ericsson.se (Thomas Grennefors)

evan@sunrise.East.Sun.COM (Evan Marcus [Sun NJ Systems Consultant])
everson@spca.bbn.com
fc@lexicon.com (Frank Cunningham)
gil@banyan.banyan.com (Gil Pilz@Eng@Banyan)
gt6337a@prism.gatech.edu (Niel M. Bornstein)
halley!watson@cs.utexas.edu (William Watson)
jeffl@NCoast.ORG (Jeff Leyser)
jhf@cblpe.att.com (Jeffri H Frontz)
jj@alice.att.com
kkelly@boltzmann.rutgers.edu
mailrus!uunet!dciem!alzabo!kebera@gatech (Krishna E. Bera)
mailrus!uunet!hsi.com!mark@gatech (Mark Sicignano)
mas1!rizzi@apple.com (m. rizzi)
mbates@tusun2.mcs.utulsa.edu (Mike Bates)
mrm@Sun.COM (Marianne Kreuscher)
msmith@topaz.rutgers.edu (Mark Robert Smith)
msn@cbnewsh.att.com
munnari!minyos.oz.au!t902026@uunet.UU.NET (Luke Raisbeck)
munnari!vaxc.cc.monash.edu.au!OSA845B@uunet.UU.NET
n8442349@unicorn.wwu.edu (joy ralph m)
nimalr@ecse.rpi.edu (Nimal Ratnayake)
nomdenet@venera.isi.edu
otto@frith.egr.msu.edu (Carl Otto)
peirce@gumby.cc.wmich.edu (Leonard Peirce)
phiggins@orion.oac.uci.edu
ralph@mtune.att.com
reynhout@wpi.wpi.edu (Hagbard Celine)
riiali@lut.fi (Pekka Riiali)
rodney@ipl.rpi.edu (Rodney Peck II)
rose@orion.crd.ge.com (Michael Rose)
smtuttle@cs.uh.edu (Sharon M. Tuttle)
someone@jhunix.hcf.jhu.edu
sommar@enea.se (Erland Sommarskog)
striker@DPW.NYU.EDU
ucsd!sdsu!rducky!jrp@gatech (JIM PICKERING)
uniplex1!mjones@fenway.aix.kingston.ibm.com (Mike Jones)
uunet.UU.NET!oracle!nhess%gumby@cs.utexas.edu (Nate Hess)
vic@Solbourne.COM (Vic Schoenberg)
werner@cs.utexas.edu
wisner@hayes.fai.alaska.edu (Bill Wisner)
woj <woiccare@clutx.clarkson.edu>
xanadu!STella@uunet.uu.net

1480. Re: Dak radio

Newsgroup: rec.ham-radio
Date: 1990-03-06 18:47:28 UTC
From: rusty@cadnetix.COM
Message-ID: <11627@cadnetix.COM>
Source record: 13035

In article <890@edinboro.edu> sciamanda@edinboro.edu writes:
>... but no info on this particular item. Try it and return
>it if unsatisfactory!
> Bob Sciamanda W3NLV
> Erie, PA

And post a review here, in any case! :-)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1481. CDR HAM ROTOR TR-44

Newsgroup: rec.ham-radio
Date: 1990-03-06 18:59:16 UTC
From: mark@brandy.UUCP
Message-ID: <184@brandy.UUCP>
Source record: 13036

Does anybody know where I can buy replacement parts for the
TR-44 rotor? I need to replace the pot for positional data in
the rotor.

Mark Hilliard
N2HHR
rutgers!rochester!kodak!gizzmo!mark

1482. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-06 19:02:15 UTC
From: reisert@tallis.enet.dec.com
Message-ID: <9003061902.AA01228@decwrl.dec.com>
Source record: 13037

In article <25612@ut-emx.UUCP>, trey@ut-emx.UUCP (Trey Garlough) writes...
>In article <21316@netnews.upenn.edu>, depolo@eniac.seas.upenn.edu (Jeff DePolo-N3HBZ) writes:
>> of RFI to her VCR. Nothing too unusual about that. However, the thing
>> that made the incident stand out is that she was carrying a loaded rifle,
>> had it pointed at my chest from four feet away, threatened to shoot up the
>> station, and threatened to kill us unless we went off the air.
>
>I *hate* it when that happens. :-)

I know what you mean!

As far as DX stations who don't sign their callsign after every contact, it's not so much to avoid generating a big pileup (hey, if I hear a DX station with a pileup and not identifying him or herself, I'll hang around to find out who it is), but to maximize QSO rate. If a station can work 200 stations in an hour by signing the callsign after each QSO, but another station can work 250 by *not* signing the callsign as frequently, who's gonna win?

jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

1483. Looking for General Instruments

Newsgroup: rec.ham-radio
Date: 1990-03-06 19:03:10 UTC
From: MEHARP01%ULKYVM@CORNELLC.cit.cornell.edu
Message-ID: <9003070826.AA03397@ucbvax.Berkeley.EDU>
Source record: 13038

Does anyone out there have an address for General Instruments? I am looking for the Integrated Circuit division for a data sheet on a MOS IC.

I didn't think they were around anymore. I may be mistaken.

Thanks!

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

1484. Re: ISDN for linking packet and repeaters

Newsgroup: rec.ham-radio
Date: 1990-03-06 19:10:25 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <8962@shlump.nac.dec.com>
Source record: 13039
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <37@thoreau.nsc.com>, greg@thoreau.nsc.com (Greg Dean) writes...
>ISDN (Integrated Services Digital Network), is a new network protocol
>which aims to handle both voice and data (including X.25). Hardware
>(and probably software) are or will be available to facilitate an
>ISDN. It seems to me that ISDN running over a few microwave links
>would solve both of our linked repeater and packet problems. This is
>something the Amateur community should be on the leading edge of.

ISDN isn't a protocol. It's a set of services and interfaces. ISDN is what the phone company supplies, implemented using digital (rather than analog) signaling. Most of its components are taken from existing telephony; some are new -- mainly the call setup protocol and the physical link (wireline drivers). It has nothing to do with microwave links or anything else like that; it's what you'll get soon when you call and ask for a phone.

How can hams use it? The same way we use any other telephone wormhole. But then it's not "ham radio" per se. On the other hand, ISDN means that the non-ham BBS/modem crowd will soon have 64 kbps dial-up (the ISDN circuit rate). And they don't even know morse! ;-) Somehow ham radio won't look state of the art anymore. (Hey, it _was_, years ago.)
fred k1io
(member, ANSI T1S1: ISDN services, protcol, architecture)

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

1485. Re: ISDN for linking packet and repeaters

Newsgroup: rec.ham-radio
Date: 1990-03-06 19:19:22 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <8963@shlump.nac.dec.com>
Source record: 13040
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <23214@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes...

>ISDN is much too litle and far too late (IMHO). I want a few 10Mb/sec
>lines coming into my house.

See below about "Broadband ISDN".

>Recently I saw Dr. Robert W. Lucky here at USC. Dr. Lucky writes the
>Reflections column in IEEE Spectrum. In his talk, Dr. Lucky mentioned
>quite a few interesting things:

>1. More than 98% of your telephone bill reflects the cost of
> sending you the bill and keeping track of the accounts.
> Almost none of your bill goes to maintaining the equipment; the
> telephone companies are in the _service_ industry.

Either you misquote him or he's full of bat guano. How do you think
they pay to maintain the equipment -- government handouts? Prices and
true cost are out of line (less so than a decade ago) but telephone
companies have lots of real costs, particularly capital (recovered as
depreciation) and labor (guys pulling wires).

>2. Over the past few years, the bandwidth capability of the
> technology has risen at a phenominal rate, while demand for
> bandwidth has remained constant.

Partially true; demand has risen, especially on the data side. But not
as fast as supply. This has of course reduced profit margins...

>Some of Dr. Lucky's suggestions were:

>1. Give people HI-FI voice lines.

ISDN allows the 7 kHz ADPCM to be used over its 64 kbps circuits; that's
better than the usual 3.1 kHz. B-ISDN allows true hi-fi; CD-quality
was demoed in France some years ago.

>2. Give people wide bandwidth data lines.

>(Note that the cost for both of the above is near zero! See above.)

B-ISDN will allow high bandwidth (as in 150 Mbps). It ain't cheap,
though; they have to pull glass to your door. That might not cost a lot
more than copper, but the _installed_ cost of copper averages something
like $1k/house, capitalized.

>3. Allow the phone companies to provide cable-tv type
> entertainment. (Dr. Lucky suggested that what he wanted was 40

> or 50 'channels' all playing the same movie continuously, but
> starting about 5 minutes apart. You could start when you
> wanted, go to the kitchen or bathroom and then switch 'channels'
> to pick up where you left off. This would be quite
> convenient.)

B-ISDN allows dial-up of a video channel (around 135 Mbps). Not that
the CATV crowd is happy about that, but that's show biz!

>ISDN is a good idea, but it is very old technology. We should have had
>this years ago. Let's take the idea of ISDN, (which is basically a good
>idea), and update it to reflect current technology. I want a few
>10Mb/sec lines coming into my house.

Narrowband ISDN is mainly old technology, ordinary digital telephony and
X.25 with some new glue. Broadband ISDN is newer technology, using
all-glass transmission (well, mostly glass) and interface rates in the
150 and 600 Mbps range. It's got a lot of other "novel" features, and
requires some more development before it'll be practical, but you can
expect early deployments within a few years.

N-ISDN is better than analog telephony. Let's appreciate it for that.
Even 64 kbps beats a modem!
fred k1io

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

1486. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-06 19:30:35 UTC
From: murphy@ufp.enet.dec.com
Message-ID: <2944@decuac.DEC.COM>
Source record: 13041

In article <21316@netnews.upenn.edu>,
depolo@eniac.seas.upenn.edu (Jeff DePolo-N3HBZ) writes:
....
> assault with a deadly weapon, and wreckless endangerment. Women...
--^^^^^
And you thought you were in trouble before! :-)
-Rick

Rick Murphy, WA1SPT/4 Digital Equipment, Landover, MD
murphy@ufp.dco.dec.com (UFP stands for United Federation
of Planets - not what *you* were
decwrl!ufp.dco!murphy thinking!)
Disclaimer: I don't even speak for myself - my wife does!

1487. Personal to Tad Cook

Newsgroup: rec.ham-radio
Date: 1990-03-06 19:36:32 UTC
From: herbster@b11.ingr.com
Message-ID: <7660@b11.ingr.com>
Source record: 13042

Sorry for the bandwidth splatter, E-mail has been bouncing....

Mr. Cook,

Thanks for the E-mail on old-fashioned radio protocol,
I tried to reply but it bounced. My question is this;

I was in Suadi-Arabia about 6 years ago with a Florida
Ham by the name (i think?) of "Ted Cook". We used to ride
motorcycles in the desert while contemplating how to get a CW
rig operational. Could this be you?? If so, how are you doing??
If not, nice to hear from you anyway and what is your REAL mail
path??

de km4jn (was WB2DJH for a looooong time).

1488. unnet (was Re: College ARC's)

Newsgroup: rec.ham-radio
Date: 1990-03-06 19:48:17 UTC
From: rusty@cadnetix.COM
Message-ID: <11628@cadnetix.COM>
Source record: 13043

In article <1990Feb26.040252.10692@cec1.wustl.edu> sek9424@cec2.wustl.edu (Scott Eric Keller) writes:
>
>Saturday, 3/3 on 28.425+- at 1800Z. I realize it may be rough on 10, but
>lets give it a try. If anyone has any better time/freq suggestions, I would
>like to hear from you. We can always try some other bands in the near future.
> I will volunteer to try and call the net from Wash U club station
>W0QEV.

Well, I see I've not been doing a very good job of 'advertising' the
un-net (Saturdays, 1700 to 1900 Z).... :-)

Well, in any case, I'm still attempting to be on the air every saturday
9sorry, I missed last Saturday tho) from 1700Z to 1900Z (Z==UTC==GMT)
in the general neighborhood of 28.390 and/or 28.410 MHZ for the 'usenet
un-net'. In the past I've tried to stay between those freqs, but sometimes
band is such that I begin moving 10kHz either way off the end...

In any case, it looked like it was time for me to 'remind' everyone
about the un-net. I promise to make a very strong attempt to get on
the air this weekend, lets see how many usenetters we can talk to!
(Then, once your rig is warmed up, you can go to the Club Net mentioned
above... :-))

73 de rusty n7ikq

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1489. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-07 00:09:25 UTC
From: ldg@yoda.byu.edu
Message-ID: <66ldg@yoda.byu.edu>
Source record: 13044

In <9003061902.AA01228@decwrl.dec.com>, Jim, AD1C, writes:

>... If a station can work 200
>stations in an hour by signing the callsign after each QSO, but another
>station can work 250 by *not* signing the callsign as frequently, who's
>gonna win?

The station that ID's every time should win, because the other bozo
would only have, say, 25 legitimate contacts. But alas, nobody insists
on proper procedure and things get progressively worse.

Lyle D. Gunderson N6KSZ CIS: 73760,2354 GEnie: L.GUNDERSON
ldg@yoda.byu.edu "Any technology without some attendant risk
350 CB / BYU / Provo, UT 84602 of misuse is probably trivial" --Louise Kohl

1490. Re: FT4700 mod

Newsgroup: rec.ham-radio
Date: 1990-03-07 01:24:08 UTC
From: rfc@briar.philips.com
Message-ID: <84313@philabs.Philips.Com>
Source record: 13045

sorry about the multiple postings of the same article, appears that our system here did something wierd.
73 de WA2ISE

1491. Re: NEW(!) Idea on no code license

Newsgroup: rec.ham-radio
Date: 1990-03-07 01:46:28 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500437@ux1.cso.uiuc.edu>
Source record: 13046

> This idea came to me while I was in bed with the flu, so maybe it's just a
> fevered idea but.....

I'm worried already.

> What if the new communicator license was non-renewable? Seems to me that
> that would give people and easy entry into Ham Radio, give them on the air
> experience, and give them five years or so to learn the code.

That defeats the purpose. The purpose is NOT to trick people into getting
into ham radio just so hams can get them to learn code, but rather to let
people who never need to learn code to be IN ham radio without having to
bother with learning it at all.

> Heck, you could even let the communicators re-new if they re-passed the
> theory test again.

Sounds fine to me, let's make ALL classes re-newable by exam only, and
while we are at it, let's do it every TWO years. :-)

> Seems to me the Novice used to be two years, non-renewable. Maybe twp
> years was a little short, but I think the idea was right.

The idea of giving someone a short time to upgrade may be OK, but I strongly
object to your idea of not letting there be a CODELESS license that people
can upgrade TO.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1492. Re: V31BB ???

Newsgroup: rec.ham-radio
Date: 1990-03-07 02:22:01 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250131@hpnmdla.HP.COM>
Source record: 13047

I hope non-hams reading these notes don't get the idea that ALL operations on the HF ham bands are rude and crude. 99% of hams are reasonably considerate operators -- it's just that we tend to remember the other 1%.

SUGGESTION: Try CW. There seem to be far fewer loonies on this mode, and the ones that are there seem much less obnoxious. (Something about the difference between voice and tones.)

Al N1AL

1493. arrl

Newsgroup: rec.ham-radio
Date: 1990-03-07 03:07:30 UTC
From: gws@n8emr.UUCP
Message-ID: <1449@n8emr.UUCP>
Source record: 13048

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB ALL @ ALLUSA $RTDX0203
RTTY DX Notes, 1of3, 3/2/90

RTTY DX Notes for Weekending 2nd March 1990.
Part 1 of 3.
BID: $RTDX0203

Why must everyone have a mailbox or BBS? I know that they come with the
various units that are available on the market these days, but whatever
happened to communication? And why should all the mailboxes be on the
same frequency? The author of these notes had the pleasure (?) of
sitting on a frequency for four and a half hours the other day while
four or five mailboxes listed their bulletins. Oh well, I guess that
while their mailboxes are spitting out this stuff the owners can go out
and play golf or something. It's a pity that people dont talk to each
other these days.

Our thanks this week go to G0ABI, HL9TG, I5FLN,JA1BLV, JG1NBD, OD5NG,
TG9VT, VK2EG, W1DA, W2JGR, W6/G0AZT and the Tri-State DX Association VHF
Packet Cluster (NN2G, NB2P, WB2ZMK and others). Thanks, chaps. At
least some people do communicate.

Bandpass:

Friday 23:
RA1AW 14083 at 0505Z
F8XT 3588 at 0620Z
BZ4SAA 14091 at 0647Z
HH2BZ 14092 at 1207Z
EA9JV 14089 at 1835Z
PZ1BS 14089 at 2155Z
J88BS 14084 at 2212Z QSL
9H1MJ 14084 at 2230Z
9K2EC 14074 at 2355Z ARQ

Saturday 24:
J88AR 21083 at 0044Z QSL
BY9GA 21087 at 0120Z Z23
AH2CE 14085 at 0342Z
J28TY 14092 at 0420Z
BZ4RCC 21094 at 0500Z QSL
```

TJ1MW 14093 at 0725Z
EA6VS 28082 at 0912Z
RW4LYL 14086 at 1247Z
ZS8MI 14084 at 1545Z
TA3D 21089 at 1552Z
ZS9A 21064 at 1653Z QSL/Note
H44SH 14090 at 1945Z
HS1BV 14089 at 1950Z
SV5ADM 14093 at 1953Z
EA9JV 14087 at 2220Z
TU4AK 14093 at 2320Z

Continued in part 2.
/EX
SB ALL @ ALLUSA $RTDX0303
RTTY DX Notes, 2of3, 3/2/90

RTTY DX Notes for Weekending 2nd March 1990.
Part 2 of 3.
BID: $RTDX0303

Sunday 25:
BV2B 21092 at 0115Z
D44BC 14086 at 0550Z
TU4BB 14093 at 0830Z QSL/ARQ
TR8XX 28076 at 1027Z QSL/ARQ
HS1BV 14095 at 1451Z
J28TY 28092 at 1456Z
JY9SR 28092 at 1500Z
9Y4GC 28095 at 1639Z
EL4LH 28097 at 1715Z
9J2AL 28093 at 1731Z
HH2BZ 21083 at 1846Z
J88BS 21084 at 2020Z
HI8BG 14083 at 2125Z
ZF2ND 28089 at 2230Z QSL

Monday 26:
PZ1BS 14083 ae 0320Z
H44SH 14088 at 0751Z
UH0W/UA4LU 14081 at 0905Z
BY1SK 14086 at 0915Z QSL/Note/ARQ
EA6MS 21090 at 1705Z
HS1BV 14081 at 2021Z
JY9SR 14090 at 2050Z

Tuesday 27:
PJ8JP 14094 at 0130Z
RA9YD 14089 at 0205Z
JY9SR 21091 at 1323Z
TA3B 21086 at 1640Z
JX9CAA 14084 at 1837Z

ZF2ND 14093 at 2145Z
RT5UA 14087 at 2250Z
HH2BZ 14088 at 2334Z

Wednesday 28:
VP8BFH 14092 at 0616Z
8Q7DN 21090 at 0916Z QSL
ZF1GC 14070 at 1328Z
EA6VS 21086 at 1712Z
UC1AWW 14091 at 1830Z
V31HQ 14088 at 2250Z QSL

Thursday 1:
8Q7DN 14084 at 0020Z
PJ2MI 14091 at 0120Z
EA8EV 14084 at 0130Z
ZF2ND 14080 at 0230Z
UA9YE 14089 at 0230Z

QSL Information:

J88AR and J88BS collect their cards via WA4WIP.

ZS9A, Ian Sutherland, uses Box 2327, Walvis Bay 9190, Republic Of South Africa, for his cards.

TU2BB has the QSL manager of N2HOS.

ZF2ND collects his cards from KF6OG.

Continued in part 3.
/EX
SB ALL @ ALLUSA $RTDX0403
RTTY DX Notes, 3of3, 3/2/90
RTTY DX Notes for Weekending 2nd March 1990.
Part 3 of 3.
BID: $RTDX0403

BZ4RCC (Chang) wants his cards via Box 1827, Nanjing P.R. China while BY1SK (Meng) says to send his cards to Box 2916 Beijing, P.R. China. It is important when sending cards to the Chinese stations, that the name of the operator be included in the address.

TR8XX cards go to F2CW.

RH0W/RA4LU is via Box 88 Dimitrivograd-12, 433510 USSR.

Cards for EK0AH, KL7/RW3AH are available from Box 899 Moscow, 127018. USSR.

V31HQ will collect his cards from DL1ZP.

While 8Q7DN QSLS via JA4VUQ.

Information of Interest:

The Western Saraha operation is scheduled for commencement on 18th March for one week. The callsign will be S01LYNX and the QSL manager is EA2JG, Areli Exteguren, Las Vegas 91, 01479, Luyando (Alvaua) Spain. It will be an all band, all mode operation. The calls of S02, S03 and S04 may also appear.

Martti, OH2BH is still on schedule for Aves Island (YV0) around mid March.

Lord Howe Island will commence operation March 28th. It is still not known if there will be any RTTY operation.

ZS9A will be on 21064 every Saturday around 1700 to 1750Z. It is hoped that he will soon be on around 2300Z for the VK and Asia areas.

BY1SK (Meng, home call of BZ1FB) also runs ARQ and packet. His packet call is VS6UF where he has a BBS.

ZD8BOB says to hold his cards until mid June as he is going on vacation at this time.

Cocos TI9. TI2US stated that the trip is still on, but the exact date is not known as yet. He was not sure about RTTY either.

RE: Donations to the Spratly deal. Do not send donations to NT2X, as the information that I received was not completely correct at the time. More later.

GL DE DX1 (VK2SG) via TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1494. upcoming contests

Newsgroup: rec.ham-radio
Date: 1990-03-07 06:13:11 UTC
From: oo7@ut-emx.UUCP
Message-ID: <25678@ut-emx.UUCP>
Source record: 13049

Some upcoming contests you don't want to miss:

April 14: Combined Sprint and Chess contest. Same basic format as Sprint, but stations must work other stations enough times to complete a chess game. On initial contact with a station exchange first moves, (station calling CQ plays White), then sprint at least 5 KHz and begin game with second station, etc. Continue games by finding the stations again one at a time and exchanging one move. Score is number of games played multiplied by number of wins. Draws count half points. No boards permitted. CW only. Brilliancy prizes.

April 21: Olde Phartes Conteste. Exchange latest prescription number, days since last doctor visit and full description of current medical symptoms. Each exchange must last at least one hour. 75m only, use of callsign optional. Contestants must remain alive for the duration of this 24-hr contest.

April 28: Modified CQWW. No contacts allowed with JA, YU or UB stations. Special certificates for stations with total number of contacts in double figures in spite of this limitation.

May 5: 10-10 contest. As for regular phone 10-10 contest, except that operators giving their 10-10 numbers in "dollars and cents" are disqualified from future contests. The contest is therefore not expected to take place in following years.

May 12: Belize Egoists Contest. U.S. stations may work only Belize (V31) stations. Contestants may not use MFJ equipment unless disparaging remarks about it are made as part of the exchange. Belize stations need not give callsigns or follow any usual contest rules, and may flame any callers mercilessly. U.S. stations who attempt to reply to flames are disqualified.

May 19: Usenet Contest. Exchange full e-mail addresses, and opinions on no-code license. Bonus points for creative flaming.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

1495. Re: DUAL BANDER RIGS AS REPEATERS ???

Newsgroup: rec.ham-radio
Date: 1990-03-07 06:22:33 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500436@ux1.cso.uiuc.edu>
Source record: 13050

The Icom IC-2400 (144/440 Mhz) and IC-2500 (440/1240 Mhz) will operate cross band repeat with the offset on either or both bands.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1496. Re: small QRP HF transceivers

Newsgroup: rec.ham-radio
Date: 1990-03-07 08:38:38 UTC
From: RZ15@DLRVM.BITNET
Message-ID: <900307074842RZ15@DLRVM.BITNET>
Source record: 13051

Arun,

I suppose, that the QRP HF transceivers, which You describe in Your mail, are made by MIZUHO (japanese) company.

This transceivers are readily available here in Germany, but in the last (March) Issue of RadComm (Radio Communication, which is the member magazine of britisch RSGB), is an advertisement from british company selling this MIZUHO MX line.

They sell this QRP transmitters for 80, 40 and 20 m (only?). The power ist 2 Watts and each rig is VXO controled. What you get is 25 kHz tunning range in the 80 and 40 m and 50 kHz in the 20 m. One Xtal is supplied (I don't know, how many Xtals can be in simultaneously). Another features are IRT, noise blanker, S-meter, speaker, morse key, BNC socket. You can powered it from AA cells or from external power supply. The size is about 66 mm width, 39 mm high and 142 mm deep.The mode is CW and (perhaps) SSB (I am not sure here, perhaps the mode is CW only, with possibility to receive SSB).

The price in the british magazine is 189 pounds. Sorry, I cannot give you german price, the last issue of ,,cq DL" (which is our radio amateur magazine from DARC) shows no price, only the comment ,,Achtung! Kurzwellen-Mono-Bander jetzt zu Sonderpreisen" (Attention! HF monobander now for special price).

Vy 73 Peter DL 3 MCG

1497. Re: NPRM 90-55 - No test code priviledg

Newsgroup: rec.ham-radio
Date: 1990-03-07 10:34:29 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500438@ux1.cso.uiuc.edu>
Source record: 13052

> Communicators should receive full Novice CW priviledges. International reg's
> only require a knowledge of CW for HF operation. If the person is using CW
> they obviously have some knowledge.

I believe they required demonstrating such knowledge in advance, hence a test
is required. I don't know if any specifications of the test are indicated.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1498. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-07 13:29:07 UTC
From: flake@prdmgt.Columbia.NCR.COM
Message-ID: <223@prdmgt.Columbia.NCR.COM>
Source record: 13053

In previous articles
>>... poor contest operators ...
>>... about 5 contacts, during which he never said his call.
>

Yes it's rude when contacted and the operator refuses to give
his call. But then again, there's something wrong with the
operator who hasn't the foggiest idea who the station on the
other end of the pile-up is, but jumps in to work them. That's
poor operating practice too IMHO. There's a pile-up of stations
who have listened long enough (perhaps longer than they should
if the other operator doesn't give his call very often) to know
who's on the other end, and here comes some schmuck with more
kw than patience who jumps in to work the station. The ones
who stand on the outskirts of the pile up yelling "your call [please]"
with no call of their own are about half a step worse than those
who work the station then try to figure out who they worked.

Oh, well I still enjoyed my small part of the contest. I worked
perhaps 30-40 stations during several short sessions on 15M.

73,
Joe Flake, N4BGQ
joe.flake@columbia.ncr.com
...ncrcae!flake

1499. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-07 14:16:32 UTC
From: Jim.Grubs, .W8GRT@f1.n234.z1.fidonet.org
Message-ID: <14228.25F51BD8@stjhmc.fidonet.org>
Source record: 13054

> From: phil@ux1.cso.uiuc.edu
>
> > I have noticed (for some time now) a sweeping carrier
> > passing through the HF bands. It appears both in the
>
> > I now belive that none of the above explanations
> > apply. I think this sweeping carrier is some sort
> > of HF propogation sounder. It probably is finding
> > the MUF and collecting data relating to HF
> > propogation vs. frequency vs. time. If this is
> > true how can the FCC license such an obnoixous
> > thing?
>
> Potentially under Part 5 rules. Read them.

The Department of Defence, as a U. S. government user, is administered by the IRAC/NTIA, not the FCC. Ironically, not even FCC operated radio transmitters are administered by the FCC.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs,.W8GRT
Internet: Jim.Grubs,.W8GRT@f1.n234.z1.fidonet.org

1500. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-07 14:55:49 UTC
From: rodman@mfci.UUCP
Message-ID: <1255@m3.mfci.UUCP>
Source record: 13055

In article <9003051529.AA05504@pelham.med.unc.edu> pswecker@med.unc.edu (Peter St.Wecker) writes:
>
> I'm continuing to work on my code speed towards the magic 13wpm, but
>I'd like to get people's opinions on how best to do it. I'm using the

If you want to minimize the time to get to 13 wpm , don't bother listening to anything less than 13wpm. Start with the 20 and ramp down to 13 over 30 minutes or so, just write down any letters you make out and don't worry about checking your text, you'll know when you are ready to take the test. You could do a little 10 at the end just to make you feel better. Try to practice once a day, and don't do it if you are tired and not concentrating well.

This was the method suggested to me, and it worked great. I used the same method to get to 20 copying in my head, start with 35 wpm (!! machine-gun fire!!) and by the time W1AW gets to 20, it seems slow!

My only problem now is trying to copy the crap on the air that passes for morse code, :-) (blech).

73 & good luck!

Paul K. Rodman / KA1ZA / rodman@multiflow.com
Multiflow Computer, Inc. Tel. 203 488 6090 x 236
Branford, Ct. 06405

1501. Another (?) New idea on no-code

Newsgroup: rec.ham-radio
Date: 1990-03-07 15:25:57 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003071534.AA17763@ti.com>
Source record: 13056

Why not just go with a "Computer-Class" license. Not only would there be
no Morse Code requirement; there would be no analog questions on the written,
just digital electronics (after all, the radio part is just another peripheral
device). This would keep out all the OF's that don't want to waste time
learning all the digital electronics and computer terminology, and they
wouldn't clutter up the computer bands with all that CQ contest, and
beep-boop stuff.

73,
Dube Todd N5PDK

1502. Re: Looking for General Instruments

Newsgroup: rec.ham-radio
Date: 1990-03-07 16:11:33 UTC
From: john@anasaz.UUCP
Message-ID: <1411@anasaz.UUCP>
Source record: 13057

In article <9003070826.AA03397@ucbvax.Berkeley.EDU>
MEHARP01%ULKYVM@CORNELLC.cit.cornell.edu (Michael Harpe) writes:
]
]Does anyone out there have an address for General Instruments? I am
]looking for the Integrated Circuit division for a data sheet on a
]MOS IC.

The IC division did an LBO, and is now called Microchip Technology.
They are in Chandler, Arizona. Sorry, no number available - call
information.
--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

1503. Re: Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-03-07 16:35:27 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2629@wyse.wyse.com>
Source record: 13058

In article <7880130@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>I'm in the process of building a legal-limit multi-band HF amplifier.
>There is an FCC-imposed limit on harmonic content (50 dB ?), but this
>can be hard to accurately measure without a REAL(tm) spectrum analyzer.
>
I was the person who originally posted this item... In any case I have built the A&A engineering spectrum analyzer and it is great fun. Another company sells PCBs/Kits that +might+ be a cheaper way to go... But I am not sure... That company is called Science Workshop.

The main problem is finding an attenuator that can take 1KW+ down to a level that will not fry the spectrum analyzer or find a directional coupler that will do the same thing (although the ARRL handbook says this is not as accurate)..

If you belong to a club, maybe the club could buy the kit and various members assemble it and leave it available for club members use.... But this does not seem practical.

If you have a shortwave reciever around an article in 73 Magazine might work out. This used a shortwave reciever and a scope as well as some logic to interface the two. The accuracy of this will not be very good though.

73
DE KJ6NN
Phil

1504. tm-721a display

Newsgroup: rec.ham-radio
Date: 1990-03-07 16:43:25 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2630@wyse.wyse.com>
Source record: 13059

Here is the latest on the TM-721a display upgrade.

It is on its way from Japan and should be here by the end of the month...

Did not get an update on cost or procedures to return units for the upgrade... Call kenwood at the end of the month to find out about getting your radio with a display that can be read.....

DE KJ6NN
Phil

1505. Re: External ant on walkman?

Newsgroup: rec.ham-radio
Date: 1990-03-07 17:31:41 UTC
From: brian@positron.amd.com
Message-ID: <29403@amdcad.AMD.COM>
Source record: 13060

In article <8462@netcom.UUCP> jxh@netcom.UUCP (Jim Hickstein) writes:
| I have one of those little FM-only Sony Walkman devices, and it has problems
| (no big surprise, there). I want to separate the antenna and audio output
| functions of the stereo mini jack

Fast & Cheap Solution:

Get a short piece of fine wire and wind it around the ground
(or common) connection of the headphone cord. The ground connection
is the one closest to your fingers if you hold the jack like you would
to plug it in. Plug the jack into the socket of your Walkman (this
will wedge the wire in between the jack and the body of the Walkman).
Now connect an antenna (random hunk of wire) to the short wire.

Why this works: Most Walkmans use the shield/common line of the
headphone cord as an FM antenna. Inside the unit, this line is
connected to the FM input of the radio proper through a capacitor and
to the audio ground through a small coil (inductor).

Better reasons to try this: 1) I've done it and it works. 2) It
doesn't require opening your Walkman. 3) It can be undone if it
doesn't work. 4) It's outrageously cheap.

(Jim--your news posting system doesn't know your return address!)
Brian McMinn brian@neptune.AMD.COM
Advanced Micro Devices N5PSS
Austin, Texas 1-(512)-462-5389

1506. Re: MFJ quality

Newsgroup: rec.ham-radio
Date: 1990-03-07 19:44:29 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880131@hpfcdc.HP.COM>
Source record: 13061

Re: 949C switches

>I think the switch is just under-engineered, and could be corrected with
>a parts mfgr change. There is quite a bit of current on the lowest L
>setting, which is where the switch wiper ate it.

An update.

I replaced the switch, and gave it my standard "wrong end of 75 meters"
test. The new switch held, but the capacitors arced-over at 200W. I
measured the plate separation (.05"), and the Handbook sez this is good
for 1000 volts. Wow. I didn't know a shortened mistuned quarter-wave
ground plane antenna could develop that much reactance.

Anyway, it's time to go to a hamfest and get some REAL(tm) components.
In fairness to MFJ, the 949C works well with barefoot HF rigs in the
100W PEP range. I think that's its intended purpose. I'm able to tune
everything but dead shorts at that power level.

Perry Scott
KF0CA

1507. Need IC-04AT RX MODS Please!!

Newsgroup: rec.ham-radio
Date: 1990-03-07 20:00:56 UTC
From: marke@hpscdc.scd.hp.com
Message-ID: <5490094@hpscdc.scd.hp.com>
Source record: 13062

The subject of "mod's" for the IC-04AT have probably been brought up before here on the NET, but for some reason I have managed to miss them all. So, if some kind ol radio amateur could dig in to his or her files one more time, and post them for me, it would be muchly apprieciated. I am specifically looking for the mod's that pertain to out of band operation, and RX audio volume improvement.

Please post or e-mail, and thanks.

Mark Espinosa/WA6RGD

1508. Re: Who lives near 30 MHz?

Newsgroup: rec.ham-radio
Date: 1990-03-07 20:16:31 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003080815.AA27857@ucbvax.Berkeley.EDU>
Source record: 13063

I would expect broadcast-style signals in the 29-31 MHz range to be harmonics.
Of course, harmonics are also found elsewhere, but I hear reports of them
in this area quite often in the DX news info given by Glenn Hauser on
Radio Canada Int'l's SWL Digest program, or in his World of Radio program
on WRNO (& other outlets). In Alaska, I suppose it is reasonable for you
to be picking up harmonics of Soviet and other Asian stations; most of
the ones we hear about down here are Spanish-language.

Regards, Will

1509. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-07 20:55:54 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490012@hprmokg.HP.COM>
Source record: 13064

Get on the air.

The Morse programs teach you how to pass the test but not how to operate CW. Many of my friends are afraid to get on the CW bands because they only copy "sanitized CW" from their PC.

Who knows??? You might even have fun.

Seriously, it is important to be able to get on the air with CW and there are some really nice people on the bands. Not as much "territorialism" as in the phone bands.

Barry M. Fowler Hewlett Packard Company

Networked Computer Manufacturing Operation - Roseville, California

e-mail: barry@hprmokg.rose.hp.com
Verbal: Hey Barry!
R.F. : WB6JZL

1510. Re: Broadcasting Video from RC Plane

Newsgroup: rec.ham-radio
Date: 1990-03-07 21:11:52 UTC
From: rfc@popeye.Philips.Com
Message-ID: <84622@philabs.Philips.Com>
Source record: 13065

Instead of using an RC plane with a TV camera to spot fish, maybe a tethered balloon with the camera would work. The tether would be the coax cable for delivering the video. This gets rid of the problem of broadcasting the signal, and you don't have to worry about flying the plane, or crashing it. You also don't have to worry about running out of fuel, and where to land it.

hope this helps 73 de WA2ISE

1511. Re: DUAL BANDER RIGS AS REPEATERS ???

Newsgroup: rec.ham-radio
Date: 1990-03-07 21:58:44 UTC
From: jta@hydra.tmc.edu
Message-ID: <7326@jpl-devvax.JPL.NASA.GOV>
Source record: 13066

In article <30500436@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>The Icom IC-2400 (144/440 Mhz) and IC-2500 (440/1240 Mhz) will operate
>cross band repeat with the offset on either or both bands.
>
>--Phil Howard, KA9WGN--

Be aware! This does not provide a "repeater" operation like on your local hilltop (unless it was built by lids) - this "cross-band repeater" isn't full duplex. If you are talking on some two-meter channel and allowing this mobile radio to retransmit that on some 440 channel, you can't hear anything that is going on up on that 440 channel until you release the pickle. Generally, so long as you know this it's ok.
Here in La La Land, we get folks (I like to think of them as the "No Code" types (hi hi)) who buy one of those rigs, then immediately put them on the air as "repeaters" at their house, choosing some quiet channel (usually our repeater input!) as the dump out on 440; then the 2m input is set on some 2m repeater, and there's no end to the annoyance. And there's no way to talk back as the repeater never drops, and none of them speak English anyway (how about a "English Only" license?!?!). (sigh.)

Remember: Radios don't have a mind of their own; kinda like some of their owners.

Adios - Jon

--
Jon "What a GREAT guy" Adams, NW6H | "Amateur Radio isn't Everything;
JTA@hydra.jpl.nasa.gov | It's the ONLY thing..."
These are just OPINIONS, ok?!? | - Some Really Famous Person
"Railroading, however, is pretty important, too..." - ARFP

1512. Re: Sun-noise Newspaper Notice

Newsgroup: rec.ham-radio
Date: 1990-03-07 22:35:33 UTC
From: msmith@topaz.rutgers.edu
Message-ID: <Mar.7.17.35.31.1990.27868@topaz.rutgers.edu>
Source record: 13067

My girlfriend's cable company placed such a warning in it's guide for
this month.

Mark
--
Mark Smith, KNJ2LH All Rights Reserved
RPO 1604 You may redistribute this article only if those who
P.O. Box 5063 receive it may do so freely.
New Brunswick, NJ 08903-5063 msmith@topaz.rutgers.edu

1513. Re: Re: NPRM 90-55 - No test code priviledgesREAD/NEW/FOLLOWUP

Newsgroup: rec.ham-radio
Date: 1990-03-07 22:46:08 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250132@hpnmdla.HP.COM>
Source record: 13068

I believe the international regulations require a KNOWLEDGE of Morse code for HF operation, but I have never heard that they require a code TEST.

I for one would be perfectly comfortable with the idea of Communicators having HF Novice privileges (code only). They can't operate code if they don't know it.

Al N1AL

1514. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-08 01:16:36 UTC
From: carroll@bcsaic.UUCP
Message-ID: <21344@bcsaic.UUCP>
Source record: 13069
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <16508@orstcs.CS.ORST.EDU> liud@guille.ECE.ORST.EDU.ECE.ORST.EDU (Don Liu) writes:
>In article <3034@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>>I have noticed (for some time now) a sweeping carrier
>>passing through the HF bands. It appears both in the
>>amateur HF bands and other HF frequencies as well.
>
>These are the SPREAD SPECTRUM communication signals...

Not likely, for reasons I'll give below.

> There are
>usually two modulating signals. One is the useful signal which
>modulates the carrier (HF) in one of the common method. The frequency
>deviation caused by the useful signal (like data, audio, etc) is
>very small.

I know of no HF spread spectrum system in the field today. (This isn't to say there isn't one. In fact, I've heard rumors. But I've heard of no production contracts.) The lowest-frequency SS systems I know of (e.g., SINCGARS) are in the 30-88 MHz band, and are frequency-hopping rather than carrier-swept or psuedonoise-spread.

>The other modulation is much greater and results in a widely
>spread frequency spectrum. It is the format of this modulation
>that characterize the communication. There are several advantages
>of the spread spectrum. The "spreading" format is unique for each
>station, and only the authorized recevers know the format. Therefore
>the S.S. is very secure. Secondly, since the energy is so weak (in
>everage sense) in a 10 KC window (that of a radio), the signal can
>hardly be noticed (unless slow formats are used).

And a swept carrier would be about the stupidest method you could use for a SS signal, unless you didn't care about being detected and intercepted. SS is only secure if the enemy can't find enough of your signal to figure out what kind of encryption and hop rate/PN sequence you're using. Sometimes just having your signal *detected* can be deadly, because the enemy can DF on it and blow you away.

>Most US spied use S.S., by the way.

Not to mention the Army. And the Air Force. And, soon, your cellular phone.

Jeff Carroll
carroll@atc.boeing.com

1515. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-08 01:20:11 UTC
From: carroll@bcsaic.UUCP
Message-ID: <21346@bcsaic.UUCP>
Source record: 13070
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Oops. got so busy flaming I forgot to present my hypothesis.

I've heard about this kind of thing in my graduate EM classes. Forget the common name (I'll look it up tonight), but it's essentially an ionospheric effect.

1516. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-08 01:42:19 UTC
From: kenny@m.cs.uiuc.edu
Message-ID: <13900016@m.cs.uiuc.edu>
Source record: 13071

>"Well, it looks like you've forgiven the Japanese. Why can't you forgive the
>League?"

The Japanese are no longer trying to overthrow the United States by
force of arms. I'll forgive the League when they quit beating that
particular tired horse.

Kevin, KE9TV

1517. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-08 01:51:00 UTC
From: john@frog.UUCP
Message-ID: <12840@frog.UUCP>
Source record: 13072
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <13323@cbnewse.ATT.COM>, parnass@cbnewse.ATT.COM (Bob Parnass, AJ9S) writes:
> A search of FCC records shows SRI may also be using linear
> sweepers. SRI was granted license KA2XNH as an experimental
> contract station to fullfull U.S. Navy contract N00014-83-
> C-0267.

Ah, but did they pass a code test? And do they QSL??? ;-)

--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

1518. Re: Sun-noise Newspaper Notice

Newsgroup: rec.ham-radio
Date: 1990-03-08 02:35:00 UTC
From: scotto@crash.cts.com
Message-ID: <1762@crash.cts.com>
Source record: 13073

In article <9003061346.AA03305@cmr.ncsl.nist.gov> rc@cmr.ncsl.nist.gov (Robert Carpenter) writes:
>Advertisement from "The Frederick Post", Frederick, MD, March 6
>
> ATTENTION
> FREDERICK CABLEVISION SUBSCRIBERS
>
>>From March 1st through March 9th 1990, SUN OUTAGES will affect
>all satellite-delivered channels. The satellites move into a

>My question: do many cable systems bother to place notices like
>this? BTW, the newspaper owns the cable system.

My cable company sends a monthly newsletter in which they mentioned the "SUN OUTAGES". They're called "Jones Intercable" and have a very (VERY) small portion of San Diego, CA.

--
Scott O'Connell UUCP: {nosc, ucsd, hplabs!hp-sdd}!crash!ipars!scotto
ARPA: crash!ipars!scotto@nosc.mil
INET: scotto@ipars.cts.com

1519. Re: unnet (was Re: College ARC's)

Newsgroup: rec.ham-radio
Date: 1990-03-08 04:51:41 UTC
From: sek9424@cec1.wustl.edu
Message-ID: <1990Mar8.045141.17819@cec1.wustl.edu>
Source record: 13074

Well, I guess I now understand why everyone hates contests so much. I tried in vain to convene the College Net despite the DX contest. Besides having to spend quite a bit of time trying to wedge myself into a nearby frequency I had the pleasure of one OF explaining to me how all nets get closed down for contests. Arrgh!

In any case, I wish to try this net again. However, I think it would be best to wait a few weeks. These next couple of weeks fall within most schools spring breaks. Plus, the weekend of the 24th is CQWW and I have given up fighting international mayhem for the moment. I propose we retry this on the last weekend in March. Thats Saturday, March 31 at 1800Z on 28.425+-. My apologies to Rusty - I have known of your net and have tried to catch it a few times with no luck. Perhaps I'll try this weekend.

I will post a short reminder prior to the end of the month.

Scott

BTW: are any of the College ARC's interested in a radio chess match between our respective clubs?

--
Scott Keller (KA0WCH) - Permanent Undergrad - Dept. of Computer Science
Wa$hington Univer$ity - St. Louis, Mo. USA
Internet: sek9424@cec2.wustl.edu UUCP:ihnp4!wucec2!sek9424 (I think...)
The opinions represented here are mine and mine alone, not Wa$h. U's.

1520. Forgiving the League for Incentive Licensing

Newsgroup: rec.ham-radio
Date: 1990-03-08 07:42:09 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14302.25F60E20@stjhmc.fidonet.org>
Source record: 13075

> From: karn@ka9q.bellcore.com (Phil Karn)
>
> My division director, Steve Mendelsohn WA2DHF, is someone with whom I
> often
> disagree. However, he has found the perfect response to those who have
> held
> a grudge against the League for the past quarter century because of the
> League's support for Incentive Licensing.
>
> "Well, it looks like you've forgiven the Japanese. Why can't you forgive
> the
> League?"

Because the War in the Pacific is over....

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1521. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-08 15:55:57 UTC
From: trey@ut-emx.UUCP
Message-ID: <25725@ut-emx.UUCP>
Source record: 13076

In article <223@prdmgt.Columbia.NCR.COM>, flake@prdmgt.Columbia.NCR.COM (Joe Flake) writes:
> >>... about 5 contacts, during which he never said his call.
>
> But then again, there's something wrong with the
> operator who hasn't the foggiest idea who the station on the
> other end of the pile-up is, but jumps in to work them. That's
> poor operating practice too IMHO. There's a pile-up of stations
> who have listened long enough (perhaps longer than they should
> if the other operator doesn't give his call very often) to know
> who's on the other end, and here comes some schmuck with more
> kw than patience who jumps in to work the station.

I disagree with 100% of this. I think there is something really wrong with this attitude that the DX operator's time is more valuable than mine. The DX contest operator is a just guy with a radio, the same as me and everybody else on the band.

> The ones
> who stand on the outskirts of the pile up yelling "your call [please]"
> with no call of their own are about half a step worse than those
> who work the station then try to figure out who they worked.

I disagree with 50% of this. I put those frustrated people on a par with the DX station who is also not signing his call, although I secretly believe the DX station is getting what he deserves when he lets this happen *during a contest.*

I'm all in favor of DX stations increasing their throughput, but not at the expense of selfishly wasting the time of others. I consider the "but it improves my throughput" argument similar to someone saying "when I work a station in heavy QRM and I miss part of his call, it is more expedient to select a few random letters and fill in the parts that I missed."

The ultimate irony in all this is that these ops often spend more time saying things like "Q-S-L Q-R-Z" than it would if they would just say their callsign "X-E-2-blah-blah."

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

1522. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-08 16:18:31 UTC
From: gary@grc.UUCP
Message-ID: <595@grc.UUCP>
Source record: 12927

In article <223@prdmgt.Columbia.NCR.COM> flake@prdmgt.Columbia.NCR.COM (Joe Flake) writes:
>In previous articles
>>>... poor contest operators ...
>>>... about 5 contacts, during which he never said his call.

The worst case I ever heard was a certain 9Q5 station a year or two ago.
He refused to give his call after many QSOs. One big gun station worked
him and asked for his call. The 9Q5 said he *just* gave his call 5 minutes
ago and would do so again in 10 more minutes!

A couple of people commented that some DX stations don't ID to keep the
pileups down. I think KH6BZF (Bloomin' Zipper Flipper) has the best
way to handle that. Lee turns down his power when the pileup gets too
big. Fewer stations can copy him, thus few call. Keeps QRM down all
around.

My policy on stations who don't ID after several contacts: He is wasting
your time making you wait. I will work him again and ask for his
call. If its a dupe I'm not sorry I wasted his time.

I also keep a band activity sheet during slower times (Sunday afternoon).
I write down the frequency and call of the guys who don't ID frequently.
Later if I tune across him again I don't waste time trying to figure out
who he is a second time.

73
--
Gary Sutcliffe W9XT GENROCO, Inc. Slinger, Wis. (414) 644-8700
{ames, rutgers, harvard} uwvax!uwm!grc!gary

1523. Re: DUAL BANDER RIGS AS REPEATERS ???

Newsgroup: rec.ham-radio
Date: 1990-03-08 18:33:48 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <13448@cbnewse.ATT.COM>
Source record: 12928

In article <7326@jpl-devvax.JPL.NASA.GOV>, jta@hydra.tmc.edu (Jon
T. Adams) writes:

> ... and none of them speak English
> anyway (how about a "English Only" license?!?!). (sigh.)

...

> Adios - Jon

Is this English?

--
==
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

1524. QSL Routes

Newsgroup: rec.ham-radio
Date: 1990-03-08 20:30:58 UTC
From: Don_Lewine@dgc.ceo.dg.COM
Message-ID: <9003082130.AA00037@rtp40.dg.com>
Source record: 12929

CEO summary:
Can anyone supply QSL routes for the following?
5H3TW Tanzania
EA8BSI Canary Islands
FR4FD Reunion Island
HZ1AB Saudi Arabia

-- Thanks
Donald Lewine WB2UMF
lewine@dg-rtp.dg.com

1525. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-08 22:49:13 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Mar8.224913.15562@Neon.Stanford.EDU>
Source record: 12930

In article <29490012@hprmokg.HP.COM> barry@hprmokg.HP.COM (Barry Fowler) writes:
>The Morse programs teach you how to pass the test but not how to
>operate CW. Many of my friends are afraid to get on the CW bands because
>they only copy "sanitized CW" from their PC.

For some of us, that's fine. I learned CW for the sole purpose of obtaining
a license. At that, it took me ten years to convince myself that it was
worth my time.

>Who knows??? You might even have fun.

FB, OM? UR 599 QSL VIA BURO 73 ES CUL SK

This is international good will? This is communications? Ugh.

>Seriously, it is important to be able to get on the air with CW and
>there are some really nice people on the bands. Not as much
>"territorialism" as in the phone bands.

...until you decide to run hf packet or rtty in "their" segment...

Sorry, Barry, but I tried it, and I didn't like it.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

1526. Re: Misc. DX QSL Information - Fall/Winter 1989/90

Newsgroup: rec.ham-radio
Date: 1990-03-08 23:05:09 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720061@hplsla.HP.COM>
Source record: 12931

Jim Reisert writes:

>FS/KC1F via KC1F

My envelope to KC1F was returned by the post office: "Moved,
left no address". The address from the marvin server was
119 Brooks St, Brighton, MA 02135

Anyone have any better info?

Charlie, KX7L (UUCP: hplabs!hp-pcd!hplsla!charlier)
(domain: charlier%hplsla@hplabs.hp.com)

1527. Need recommendations for HF vertical.

Newsgroup: rec.ham-radio
Date: 1990-03-09 00:31:22 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1754@aurora.AthabascaU.CA>
Source record: 12932

Time to get back on HF ... I'm looking for a vertical that will cover
80 - 10 metres, including the WARC bands. The antenna will be roof
mounted on a fourplex, so I have quite a bit of room to play around
with radials. It doesn't have to handle full power, since the rig
only pumps out 150 watts or so. Coverage of the 160 metre band would
be nice, but it's not mandatory.

Please email and I'll summarize.

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

1528. Wanted: 440 preamp recommendations

Newsgroup: rec.ham-radio
Date: 1990-03-09 01:26:45 UTC
From: hs0u+@andrew.cmu.edu
Message-ID: <QZxkNJ600WB70YEEVT@andrew.cmu.edu>
Source record: 12933

The Carnegie Tech ARC (W3VC) plans to buy a 440 MHz preamp soon and would appreciate any recommendations, pointers to good review articles, and/or any "Horror Stories". The preamp will be used for SSB, ATV, and satellite work. Thanks and 73.

-Harry NR3L-

de whiskey three vitamin c

1529. what CODELESS class is FOR

Newsgroup: rec.ham-radio
Date: 1990-03-09 01:41:11 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500440@ux1.cso.uiuc.edu>
Source record: 12934

It seems we are getting lots of alternative ideas on new license classes and examination strategies. These ideas I have seen fail to address many issues and are essentially worthless in their limited scope. Therefore I want to bring up some of the issues so that if you get some ideas, you can work on making your idea address the issues (even if the idea is why the issue is not important).

I do in fact like to read other ideas, but I don't get much out of them if they are incomplete.

What is a codeless license class for?

In general it is to provide for a means for people who want to operate only certain subsets of amateur radio activities to be able to do so without having to learn morse code. If you believe that one should learn morse code for these particular activities, please say so and why you believe so. If you have an alternative licensing idea, please include a means to allow these people access to these activities (or explain why they should not have access).

1. microwave experimentation
2. high speed radio networking
3. general packet radio
4. ATV experimenting
5. voice repeater systems and networking
6. public service radio operation VHF/UHF

By no means is the above list complete, but an idea leaving out any of these is also incomplete.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1530. Re: Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-03-09 02:38:22 UTC
From: kenny@m.cs.uiuc.edu
Message-ID: <13900017@m.cs.uiuc.edu>
Source record: 12935

>The main problem is finding an attenuator that can take 1KW+ down to a
>level that will not fry the spectrum analyzer or find a directional
>coupler that will do the same thing (although the ARRL handbook says this
>is not as accurate)..

Uh, what's the problem? You *do* have a dummy load that will take
your transmitter's full power, right? Use that as the input resistor
for your attenuator: something like

```
2.2K (or whatever)
Input---+-------v^v^v^----------+------------- Output
| |
> 50 ohm > 50 ohms
> dummy >
> load >
| |
=== ===
/// ///
```

Kevin, KE9TV

1531. Re: Ham regs question.

Newsgroup: rec.ham-radio
Date: 1990-03-09 02:49:49 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500441@ux1.cso.uiuc.edu>
Source record: 12936

> I am curious if it is legal (note: legal with regards to FCC regs, not
> local freq coords etc.), to have a cross band repeater with input on
> 440 band and output on 144 or 220 band, or visa versa.

As one who has read the CURRENT rules over many times, I personally would not hesitate to put up and operate such a repeater, provided I can do so without causing intereference to any other communications, and had the equipment to do it.

I would NOT put up a remotely controlled phone patch (not part of a repeater and thus not under automatic control) with INPUT BELOW 220.5 Mhz (or on the 431-433 or 435-438 Mhz subbands). I am giving serious thought to putting one up on something like 446.475 in and 146.475 out, which would be full duplex, and in fact fitting the local band plan simplex channelling with an easy to remember 300 Mhz split.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1532. Re: NPRM 90-55 - No test code priviledg

Newsgroup: rec.ham-radio
Date: 1990-03-09 02:52:37 UTC
From: michaelb@mikebat.UUCP
Message-ID: <311@mikebat.UUCP>
Source record: 12937

In article <30500438@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> > International reg's
> > only require a knowledge of CW for HF operation.
>
> I believe they required demonstrating such knowledge in advance

International regs require knowledge of code for INTERNATIONAL communications
pivileges, NOT for operations below 30 MHz. Witness the dreaded CB'ers.
They operate below 30 MHz (some of them legally) and are not required to pass
a code test. There really isn't any reason a new class license couldn't
be given a low power HF limit (or high power for that matter) and restricted
to US contacts only below 30 MHz.

Of course, the ideal solution would be to bring back the canned FCC code tests
and anyone who wanted to could memorize the QSOs just like you memorize
the question pool.

Michael
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb
The ability to advance the leading edge of technology is
constrained by the ability to prune the trailing edge.
-- Charles Dickens (Stanford)

1533. macmorse

Newsgroup: rec.ham-radio
Date: 1990-03-09 03:16:00 UTC
From: UCSBPM@UWPLATT.EDU
Message-ID: <C9BE1F5A3E3FE01FB8@uwplatt.edu>
Source record: 12938

Does anyone know of any public domain/freeware/shareware morse programs for the mac? (I have an SE, 2.5 Meg of RAM, single floppy+HD system). It must be able to Farnsworth, and xmit a user entered message (we plan on using it to give tests). Random messages a strong plus. Being on macserve@pucc or avaialable to a lonely bitnet site also a strong plus. Thanks in advance.

With all the talk about code vs. no-code, no one has stated the REAL reason to learn morse. To know what they are saying in old war movies! (if anything). On a side note, anybody copy anything in The Hunt for Red October? "My morse is so rusty I could be sending the measurements of the latest centerfold"--The capt. of the Dallas (I think).

Brian P. McCarty (N9IWP)
bitnet:UCSBPM@UWPLATT
internet:UCSBPM@UWPLATT.EDU
p.s. to the person who needs to be nagged to get it so bitnet sites can access the callsign server: you are officially nagged.

1534. Re: Dak radio

Newsgroup: rec.ham-radio
Date: 1990-03-09 05:36:01 UTC
From: mikey@pnet01.cts.com
Message-ID: <1779@crash.cts.com>
Source record: 12939

I bought a audio spectrum analyzer/equalizer a couple years ago. It was termed a final close-out then and it's still being sold. But I'm satisfied with the merchandise and would purchase again if I found something appealling. I don't much like the cutsey catalog and I deplore the Shipping/handling charge which seems to have no rhyme or reason with respect to actual shipping charges incurred by DAK. I would just as soon see the listed price include the handling (a rather normal cost of mail order business) and the shipping charges could be imbedding the price also. Any premium shipping methods could be surcharged. Gosh, I feel a little better now.

Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey

1535. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-09 05:50:00 UTC
From: john@frog.UUCP
Message-ID: <12860@frog.UUCP>
Source record: 12940

In article <9003051529.AA05504@pelham.med.unc.edu>, pswecker@med.unc.edu (Peter St.Wecker) writes:
> Well, I finally passed my 5wpm, and am going to take the novice and
> tech. tests (and maybe the general) tonight!
> I'm continuing to work on my code speed towards the magic 13wpm, but
> I'd like to get people's opinions on how best to do it.

Well, my suggestion would be: hide your microphone. Work a LOT of CW. This way, you practice your code and have fun at the same time!

Obviously, your mileage will vary. But if only I had had a big enough ego to study for the Extra written exam, I could have gone from Novice to Extra in four months, instead of just to Advanced...
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

1536. QSL Route for 5H3TW

Newsgroup: rec.ham-radio
Date: 1990-03-09 12:21:39 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9003091221.AA23119@bunny.gte.com>
Source record: 12941

```
QSL 5H3TW via K3ZO
```

1537. Contester E-Mail addresses

Newsgroup: rec.ham-radio
Date: 1990-03-09 12:22:20 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9003091222.AA23129@bunny.gte.com>
Source record: 12942

Periodically, there have been postings by contesters here. I put together
a writeup for the Potomac Valley Radio Club bulletin on how to access
stuff on the net and there was a lot of interest in E Mail to other
contesters. I including a few addresses I knew, such as KM3T, WN4KKN, K1EA.

I was asked by several PVRCers to put together a more comprehensive list. If
any contesters out there are interested, send me some E-Mail direct and I will compile the
addresses and send the distribution file back out. Big gun, little gun, pop gun, top gun,
whatever, if you're interested or active in contesting
send your net address to PESCATORE_JT%NCSD@GTE.COM and some time in the distant
future I'll compile them.

P.S. My comment on the stations who run a pileup without identifying: I listen
for three contacts, then work them. If it is a dupe we both wasted time. K3NA
calls it the "crow threshold": you should identify whenever the sounds of
"call! call!" rise above the crowd. However, a lot of people start caw-ing
without listening AT ALL.

In the ARRL contest some DX stations were smart and used an odd-ball power
for the exchange, which made it easy to ID the station without the call.
I always knew it was TI2DU when I heard him send 59 900. In the CQ contests,
the zone helps a little but not as much.

73 John WB2EKK PESCATORE_JT%NCSD@GTE.COM 301-294-8486

1538. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-09 14:00:18 UTC
From: waco@cbnewse.ATT.COM
Message-ID: <13465@cbnewse.ATT.COM>
Source record: 12943

Just a few comments on the subject of DX stations identifying or not identifying after every QSO. As a "little gun" DXer who has always operated barefoot, and intends to keep doing so, I have learned that listening more than talking results in less frustration and more satisfaction. Yes, it is somewhat frustrating to hear a large pileup and not be able to immediately identify the station at the other end. However, all DX stations do identify periodically. If you are a big gun who has to get in and out immediately, so be it. I have found that if I listen a few minutes I will find out who the station is and usually the QSL information without cluttering up the frequency by asking "Who is this station, where is it, what's your call?", etc.

Some DX stations are more proficient at identifying at short intervals and providing QSL information than others. But if you REALLY NEED the country it is worth a little listening. Good operating procedures do work for chasing DX; listen and make your call when you know the other station can hear you and keep it short. I have heard countless DX stations come back to stations who keep calling and calling and never listen so never hear the DX station calling them.

Use your ears more than your mouth and you may be surprised how many DX contacts you might be able to make.

John L. Broughton, WB9VGJ
AT&T Bell Laboratories, Naperville, IL
(708) 713-4319
john.l.broughton@att.com

1539. Re: Misc. DX QSL Information - Fall/Winter 1989/90

Newsgroup: rec.ham-radio
Date: 1990-03-09 14:32:45 UTC
From: reisert@victim.enet.dec.com
Message-ID: <9003091432.AA22914@decwrl.dec.com>
Source record: 12944

In article <5720061@hplsla.HP.COM>, Charlie, KX7L writes...

> My envelope to KC1F was returned by the post office: "Moved,
>left no address". The address from the marvin server was
> 119 Brooks St, Brighton, MA 02135

> Anyone have any better info?

I do, I do. Apparently Stu hasn't updated his callbook address yet, or the on-line callbook doesn't have the latest information, a more likely story, since I've seen this sort of thing time and again.

His current address is:

Stu Santelmann
20 Larch Road
Milford, NH 03055

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

1540. Re: QSL Routes

Newsgroup: rec.ham-radio
Date: 1990-03-09 14:40:05 UTC
From: reisert@victim.enet.dec.com
Message-ID: <9003091439.AA23656@decwrl.dec.com>
Source record: 12945

In article <9003082130.AA00037@rtp40.dg.com>, Donald Lewine, WB2UMF, asks...

>Can anyone supply QSL routes for the following?

> 5H3TW Tanzania >>> via K3ZO
> FR4FD Reunion Island >>> via F6FYA
> HZ1AB Saudi Arabia >>> via K8PYD

You're welcome.

jim, AD1C

=-=

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Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

1541. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-09 15:06:23 UTC
From: reisert@victim.enet.dec.com
Message-ID: <9003091506.AA26681@decwrl.dec.com>
Source record: 12946

In article <595@grc.UUCP>, Gary Sutcliffe, W9XT, writes...

>A couple of people commented that some DX stations don't ID to keep the
>pileups down. I think KH6BZF (Bloomin' Zipper Flipper) has the best
>way to handle that. Lee turns down his power when the pileup gets too
>big. Fewer stations can copy him, thus few call. Keeps QRM down all
>around.

And if you asked Lee what his callsign was last weekend, he'd say, "KH6
Bloomin Zipper Flipper. Aren't you glad you asked?"

73, jim AD1C

=-=

"The opinions expressed here in no way represent the views of Digital
Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

1542. Forgiving the League for Incentive Licensing

Newsgroup: rec.ham-radio
Date: 1990-03-09 15:18:58 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003091756.AA04315@ti.com>
Source record: 12947

"Forgiving" presupposes that the forgivee has done harm. Tell me what's wrong with incentive licensing....or incentive anything else for that matter. While there are those who obviously don't like the League, this shouldn't be taken as evidence that it is the Evil Empire.

73,
Dube Todd, N5PDK

1543. sail boats

Newsgroup: rec.ham-radio
Date: 1990-03-09 15:39:00 UTC
From: JHOWARD@BUSINESS.UWO.CA
Message-ID: <9003091656.AA21377@ria.ccs.uwo.ca>
Source record: 12948

I'm looking for some advice on running a ICOM-735 from my sailboat. A good atte
na idea is what I need. I know many folks use insulated backstays but this mod
looks expensive. I have the 3m mobile whip that is sold with the radio. Is this
likely to work? If so how to ground? Are there better options for HF?
Long time no sea - but the season is coming!

1544. Re: Forgiving the League for Incentive Licensing

Newsgroup: rec.ham-radio
Date: 1990-03-09 15:54:27 UTC
From: mcross@hpcvck.CV.HP.COM
Message-ID: <5440012@hpcvck.CV.HP.COM>
Source record: 12949

Here in the Willamette valley of Oregon we (three different VE teams) recognized some of these problems that VE's go through. WE asked ourselves how could we change things! We got together and agreeded (strange word for hams huh?) to hold a VE session once a quarter and then agreeded upon the second saturday of the month. This keeps each team to only having to do a session every 3 months (less chance of burnout) and gives all the hams in the area a scheduled chance of taking a test.

We contacted the local community college and are teaching novice classes each quarter(the last class just "graduated" 12 novices and 1 tech!). Note that one 12 year old was in the class the rest were > 40!
(Insert Standard Disclaimer notice here:)

___
/ / Minor Cross KD7YJ
/ / Hewlett-Packard Northwest IC Division [NID]
/ /_____ _________ 1020 NE Circle Blvd.
/ ___ / ____ / ___ / Corvallis, OR 97330
/ / / / /___/ / /__/ / -------------------------
/__/ /__/ / ______/ AT&T: (503) 750-2044
/ / HP telnet 750-2044
/__/ }inhp4!hplabs!hp-pcd!hpcvca!hpcvck!mcross

1545. UNIDEN HR/2600 MODIFICATIONS.

Newsgroup: rec.ham-radio
Date: 1990-03-09 16:17:17 UTC
From: ENGE@IBM.COM
Message-ID: <030990.081625.enge@ibm.com>
Source record: 12950

Can anyone provide me with a schematic and a pin out of IC-315 (CPU)
for the Uniden HR/2510?

Would like to do a comparison between my 2600 and the 2510.

Also, if anyone has any info on extending the range of band segment "D"
from 29.500 to 29.999 Mhz instead of the factory 29.500 to 29.699,
Please drop me a line.

Thank You

Paul Hagar N2FAN Please use CALLUP for address. Poughkeepsie, N.Y.

P.S. = My HR2600 does not have a potted CPU chip!

1546. Re: Wanted: 440 preamp recommendations

Newsgroup: rec.ham-radio
Date: 1990-03-09 16:39:32 UTC
From: mac@idacrd.UUCP
Message-ID: <643@idacrd.UUCP>
Source record: 12951

From article <QZxkNJ600WB70YEEVT@andrew.cmu.edu>, by hs0u+@andrew.cmu.edu (Harry Stumpf):
> The Carnegie Tech ARC (W3VC) plans to buy a 440 MHz preamp soon and
> satellite work. Thanks and 73.

AMSAT runs an ongoing competition in order to encourage people to improve their listening set ups with the hope that they will use less transmit power on the uplink (on average of course ;-). What does this have to with preamps? ALL of the recipients of the top category certificates for quite some time have used LANDWEHR's on both 2 meters and 70 cm. They are available from Henry Radio in LA. If you are an AMSAT member, ask for Jack Sommers, WA6VGS. He will cut a few points of the usual retail. I have both of these preamps and am extremely satisfied with them. I have not made an exhaustive comparison, but these are the best I have tried in twenty years of VHF/UHF/satellite work. The intermod performance is outstanding, they are capable of three different types of keyed switching to several hundred watts or RF sense switched to over a hundred watts. I recommend them highly. I have no connection in any way with Henry Radio, Landweher, etc. other than as a satisfied customer.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

1547. Re: MFJ quality

Newsgroup: rec.ham-radio
Date: 1990-03-09 17:22:59 UTC
From: tech@cs.AthabascaU.CA
Message-ID: <1755@aurora.AthabascaU.CA>
Source record: 12952

From article <7880131@hpfcdc.HP.COM>, by perry@hpfcdc.HP.COM (Perry Scott):
> Re: 949C switches

> Anyway, it's time to go to a hamfest and get some REAL(tm) components.
> In fairness to MFJ, the 949C works well with barefoot HF rigs in the
> 100W PEP range. I think that's its intended purpose. I'm able to tune
> everything but dead shorts at that power level.

I noticed a recent ad for a highr power version of this little gem. You
should maybe look into it.

I would be more interested except that 12 years ago I built a transmatch the
size of a GE Progress Line containing a couple of Johnson amd Millen capacitors
of excessive proportions and all for a price of only double that of an
equivelant commercial unit. (blush, I run 40 W) But it was fun.

********* 73
********** Richard Loken VE6BSV
. ****
.. **** Athabasca University
.... **** Athabasca, Alberta Canada
.........**** tech@cs.AthabascaU.CA {alberta|decwrl}!atha!tech

1548. RShack CB radio recommendation

Newsgroup: rec.ham-radio
Date: 1990-03-09 17:33:08 UTC
From: iws@rayssdb.ray.com
Message-ID: <5313@rayssdb.ray.com>
Source record: 12953
Cross-posted to: rec.ham-radio,sci.electronics

My local Radio Shack (and maybe yours too) is having a
sale on their CB radio. It is the Realistic TRC-418 CB
(catalog number 21-1511). Sale price is $49.95, which
is half the regular price of $99.95. No license needed,
extra rugged mic with locking plug (what's a locking plug?)
priority switch for Channel 9 and 19, LED channel display,
5 bar LED signal/power meter, with jacks for PA and external
speakers. They are also selling a magnetic mount CB antenna
(catalog number 21-1006), with a 16 foot prewired connector.
This is a Special Purchase at $15.88.

I am interested in getting one. Is this a:
Good radio?
Good antenna?
Good price?
Any problems/idiosyncracies to be aware of?
Any other recommendations?

Thanks (and 10-4 Good Buddy!) - Ihor
~[:-) couldn't resist that one ;-)

1549. Re: macmorse

Newsgroup: rec.ham-radio
Date: 1990-03-09 18:00:20 UTC
From: fyfe@bgsuvax.UUCP
Message-ID: <5522@bgsuvax.UUCP>
Source record: 12954

From article <C9BE1F5A3E3FE01FB8@uwplatt.edu>, by UCSBPM@UWPLATT.EDU ("Brian P. McCarty ", N9IWP):
> Does anyone know of any public domain/freeware/shareware morse
> programs for the mac? (I have an SE, 2.5 Meg of RAM, single floppy+HD
> system).

A year ago, another ham gave me a mac disk with programs from Project Mac (from QST?). It had a variety of programs as part of it. It appears from a ReadMe file that Stan Hozepa, WA1LOU coordinated it (Stan, you out there?) I assume my friend pulled it off the net from this group so some others out there probably could give more info about it. The hypercard application is what I liked the best that had a variety of applications built into it, one being a morse code tutor. I use it all the time as I am studying to upgrade my license.

Stan are you out there or does anyne have an e-mail addr or know more about Project Mac? I have some questions about it myself.

Oh yeah, BTW, I've been following this code/nocode debate. Just for the record, for one who is studying code to upgrade: I was reading the ARRL general class license manual an they made a comment about station accessories. They said, "There are a number of station accessories that make the difference between simply operating a radio and having a full awareness of the communications medium called Amateur Radio." The philosophy between "simply operating a radio" and understanding Amateur Radio seems to be the difference in the debate that goes on. I don't really care about others but for me, one of the enjoyments of getting into the hobby of Ham Radio is to learn about Ham Radio - which includes morse code. Enough....

Bob Fyfe, KA8YWQ
fyfe@andy.bgsu.edu

1550. Re: macmorse

Newsgroup: rec.ham-radio
Date: 1990-03-09 20:14:49 UTC
From: winter@Apple.COM
Message-ID: <39354@apple.Apple.COM>
Source record: 12955

In article <5522@bgsuvax.UUCP> fyfe@bgsuvax.UUCP (Bob Fyfe) writes:
>From article <C9BE1F5A3E3FE01FB8@uwplatt.edu>, by UCSBPM@UWPLATT.EDU ("Brian P. McCarty
", N9IWP):
>> Does anyone know of any public domain/freeware/shareware morse
>> programs for the mac?
>
>A year ago, another ham gave me a mac disk with programs from Project Mac
>(from QST?). It had a variety of programs as part of it. It appears from
>a ReadMe file that Stan Hozepa, WA1LOU coordinated it (Stan, you out there?)

Excerpted from the Macintosh ham software list I recently posted:

COLLECTIONS AND MISCELLANY

"Project Mac"
Contest logging, antenna design, satellite tracking, clip art, etc.
Microsoft BASIC required for many (but not all) of the programs.
Stan Horzepa WA1LOU, 75 Kreger Drive, Wolcott, CT 06716.
Send three formatted 800K Macintosh disks with stamped, self-
addressed return disk mailer.

****

However, Stan tells me that virtually all of the Project Mac stuff
plus lots of newer programs are in the MacNet collection, to wit:

****
MacNet
Public-domain programs (currently on nine disks) contributed by
Macintosh packet users. Includes test preparation, contest logging,
propagation prediction, satellite tracking, and amateur television.
John D. Seney, KB1HE, 144 Pepperidge Dr., Manchester, NH
03103. Send formatted 800K Macintosh disks with stamped, self-
addressed return disk mailer. Contributions of public-domain
programs encouraged.
****

>I assume my friend pulled it off the net from this group so some others out
>there probably could give more info about it.

I'm not aware that the Project Mac programs have been posted to Usenet
or are archived on any Internet sites. I'd like to know about the latter
if there are any.

73,
Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1551. Yaesu FT-727 HT mods

Newsgroup: rec.ham-radio
Date: 1990-03-09 20:52:08 UTC
From: bnewton@atleng1.atl2
Message-ID: <164@atleng1.atl2>
Source record: 12956

I have a Yaesu FT-727 dual-bander HT and I have set it up to receive (and transmit) out of band. I did this by resetting the microprocessor and giving it the code 111111 instead of the normal six digit code. The LCD will display from 100-200 MHz and 400-500 MHZ. However, I can only receive signals within about 10 MHz of the ham bands.

I really want to pick up 162.55, etc., and I would like to know if anyone knows how to increase the receive range. I imagine it is an out of range IF problem. Please e-mail replies.

Thanks, Barry Newton

| Barry E. Newton, N4WXV | bnewton@atleng1.atl2 | AT&T Network Ops. |

1552. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-09 20:56:21 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003100807.AA04026@ucbvax.Berkeley.EDU>
Source record: 12957

These contests are run by the magazines, right? So if you hear that rare-station-X is violating the rules by not making a complete "exchange", including his callsign, in each contact during a contest, why not write or call the magazine and make a formal protest, asking that they disqualify any contacts with that station and any entry from that station from consideration in figuring the scores of the competitors?

Maybe they'll ignore you, or maybe they will reject your contention, but, if you don't DO that, it doesn't seem you have any right to complain about this conduct. As long as it tacitly or explicitly accepted, and there is no attempt to counteract it, it must be OK and THEN you should begin to press for the written rules to be revised to accord with the reality.

There seem to be enough paths for publicizing such things in the ham radio hobby that it wouldn't be possible for such formal protests to be quietly ignored if you pushed them.

Regards, Will

1553. Yaesu FT-757 vs FT-757GX

Newsgroup: rec.ham-radio
Date: 1990-03-09 20:58:14 UTC
From: k9hi@wang.com
Message-ID: <1990Mar9.205814.14321@wang.com>
Source record: 12958

A friend of mine wanted me to post this query to the net:

What are the differences between the -757 and the -757GX? Minor,
cosmetic? Or substantial? He is trying to decide between two
used rigs at the moment. Thanks.

"death: to stop sinning suddenly."

Phil Temples Wang Laboratories, Inc., Lowell MA 01851 USA
k9hi@wang.com (508) 967-7900

1554. IC-751 Manual wanted

Newsgroup: rec.ham-radio
Date: 1990-03-09 21:10:36 UTC
From: herbster@b11.ingr.com
Message-ID: <7670@b11.ingr.com>
Source record: 12959

Net-persons,

I am posting this for an unfortunate friend in need.....

WANTED: Icom IC-751 service manual (NOT THE '751-A'). Will
pay mailing and/or copying costs.

Any help appreciated. The predecessor to the 751A is wrought
with problems and the manual is becoming a weekly necessity.

Thanks in advance, J. Herbster KM4JN

V-mail: (205) 730-6209 (work)
(205) 423-2715 (home)

1555. 16:1 Transformer

Newsgroup: rec.ham-radio
Date: 1990-03-09 22:19:01 UTC
From: guhsd000@crash.cts.com
Message-ID: <1788@crash.cts.com>
Source record: 12960
Cross-posted to: rec.ham-radio,sci.electronics

I have a friend working on a radio transmitter circut that calls for a "16:1 transformer."

As far as I can tell, it is for a 150 watt circut and these is no further information on it in the schematics.

Does anyone have construction details for such a RF Transformer? I know little about it, and just told him I'd ask around, so....

Please mail replies.

1556. Six Meter R/C Channel Info Request

Newsgroup: rec.ham-radio
Date: 1990-03-09 22:36:53 UTC
From: chris@hplvli.HP.COM
Message-ID: <4590033@hplvli.HP.COM>
Source record: 12961

Can somebody please post a list of Radio Control frequencies
for the Six Meter Band? I know that the ARRL repeater Directory
Band Plan lists 50.80-50.98 (by 20 KHz) but I also remember
a comment that the ARRL Bandplan does not reflect reality
as recognized by the rest of the country. Please post any
clarification, and thanks.......73 de WD5IBS

1557. Re: Sun-noise Newspaper Notice

Newsgroup: rec.ham-radio
Date: 1990-03-09 23:37:15 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14345.25F83F77@stjhmc.fidonet.org>
Source record: 12962

> From: msmith@topaz.rutgers.edu (Mark Robert Smith)

> My girlfriend's cable company placed such a warning in it's guide for
> this month.

It's a safe bet that almost all cable companies do that. After all, they don't want to be bothered with a zillion telephone complaints about crummy service.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1558. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-10 02:06:46 UTC
From: winter@Apple.COM
Message-ID: <39375@apple.Apple.COM>
Source record: 12963

In article <30500442@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>If Incentive Licensing is so great, then why don't other countries practice
>it, too?

Say what?? Many--I'd bet most--countries certainly do have multiple
license classes. To take a few random examples from the DX Callbook:

Spain: 3 classes
Ireland: 1 class
England: 2 classes
France: 4 classes (3 if you don't count the one you get simply
by holding the highest license for a certain time)
Ecuador: 2 classes
Lichtenstein: 4 classes
Netherlands: 4 classes
Japan: 5 classes
Italy: 1 class

Granted, few countries have as many classes as we do, but the *concept*
of greater privileges as a reward for passing more tests is clearly
very popular.

Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1559. Re: 16:1 Transformer

Newsgroup: rec.ham-radio
Date: 1990-03-10 02:39:58 UTC
From: kjh@pollux.usc.edu
Message-ID: <23378@usc.edu>
Source record: 12964

In article <30500443@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>I was wondering how you determine just how many winds are needed for a
>transmformer. I'm sure 2 winds and 32 winds of #2 copper wire on an air
>core are not going to do well when connected to the 110 volt mains.
>--Phil Howard, KA9WGN--
><phil@ux1.cso.uiuc.edu>

I think . . .

you need to make sure that at the operating frequency, the reactance of
the unloaded transformer is very high (so little current will be drawn
when the transformer is unloaded).

Ken Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

1560. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-10 02:48:55 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500442@ux1.cso.uiuc.edu>
Source record: 12965

> I disagree--vehemently. In fact, I can't understand why incentive licensing
> has suddenly started taking such a bashing. I got into amateur radio about

First of all, Incentive Licensing is occupying a LARGE number of the class slots in the FCC computer. The FCC is making it clear they do not want to change their computer system. Since Incentive Licensing is taking up a large number of these slots, those who don't feel it is working are quick to call for its removal. The FCC has also opened up this new can of worms by proposing the deletion of the Novice and Technician classes. Petitions have been for just adding a class, but the issue is getting to be more one of restructuring the entire amateur licensing system.

> 15 months ago only because I wanted to fly my R/C planes on 6 meters. It
> seemed a little extraneous to have to learn CW in order to get the technician
> license I needed for my planes, but those were the requirements so I did it.

I did it, too, so we both have a little brown on the nose.

> Somehow I got more involved than I planned, though, and I went straight to
> extra. Now I spend almost all my time in 7-7.025, 14-14.025, and 21-21.025.
> That's where most of the DX is, you don't hit too many lids there, and if some-
> body is poking along at least it's not another American. For my money,
> incentive licensing IS working. As far as the workload on the VE's is concern-
> ed, let the VE's worry about that. I'm more than willing (and I do) to give up
> a Sunday morning every few weeks to give exams. We have plenty of people in
> our VEC (the Sunneyvale, Ca. VEC) who are willing to do the same. For those
> people who are willing to put in the effort to earn the privileges, we're
> there to help. To hell with the rest. Amateur radio doesn't need them.

If what you want out of incentive licensing is to squeeze most of the hams into a smaller amount of space, then I guess it is working. I recall the ARRL saying something entirely different at the time; something about increasing the competency level (theory AND code) of radio amateurs.

I'm not convinced that we need FIVE different levels (one of them being an EMPTY level, i.e. no HF privs for no code) of HF privs.

If Incentive Licensing is so great, then why don't other countries practice it, too?

In fact, all the I.L. really gets done is create yet another layer of the "haves" and the "have nots".

In order to not get foreign hams mad at us, we probably do need to keep some band segments relatively clear of the intense density of US hams. We can do this in many ways. We can keep TWO or THREE (but NOT FIVE) levels of HF privs and get the same effect. We can ALSO promote VHF/UHF MORE and HF LESS.

Compromise is the name of the game.

Many suggestions have been made and many more are coming. Good ideas are encouraged; ideas that are well thought out and consider all aspects of the problem. Send contributions to the hamlicen@vmd.cso.uiuc.edu mailing list. E-mail to ME for instructions on how to get on the mailing list and discuss actual and realistic ideas.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1561. Re: 16:1 Transformer

Newsgroup: rec.ham-radio
Date: 1990-03-10 04:42:57 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500443@ux1.cso.uiuc.edu>
Source record: 12966

> I have a friend working on a radio transmitter circut that calls for a
> "16:1 transformer."
>
> As far as I can tell, it is for a 150 watt circut and these is no further
> information on it in the schematics.
>
> Does anyone have construction details for such a RF Transformer? I know
> little about it, and just told him I'd ask around, so....
>
> Please mail replies.

This is not actually a reply...

I was wondering how you determine just how many winds are needed for a transmformer. I'm sure 2 winds and 32 winds of #2 copper wire on an air core are not going to do well when connected to the 110 volt mains.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1562. ham manufacturer's phone #'s

Newsgroup: rec.ham-radio
Date: 1990-03-10 06:12:51 UTC
From: rfc@briar.philips.com
Message-ID: <85801@philabs.Philips.Com>
Source record: 12967

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
20794 BF 2763 6 0303/1845 30_KA2EZN KA2EZN ALL@ALLBBS ()
Sb: HAM SERVICE DEPT' PHONE #'S

Here are some phone numbers to Amateur Manufacturers....
Compiled by KZ1Z
AEA Customer Service (206) 775-7373
Alinco Customer Service (213) 618-8616
FAX (213) 618-8758
Ameritron Service (419) 531-3024
Azden Customer Service (404) 769-8706
AM-WHOLE) Repair (from 2-4 pm only) (404) 769-8706
FAX (from 7pm to 10am) (404) 769-7970
B & W Customer Service (215) 788-5581
Butternut Service/parts/technical information (512) 398-7117
Cushcraft Service/parts/technical information (603) 627-7879
ETO Customer Service (719) 260-1191
FAX (719) 260-0395
Hy-Gain Rotor Parts (402) 465-7021
Antenna/tower/parts (402) 465-7022
Technical Assistance (402) 465-7022
ICOM Service (206) 454-7619
Parts (206) 454-8155
FAX (206) 454-1509
JRC Customer Service (212) 355-1180
Kenwood Service (213) 639-7140
Parts (213) 639-9000
FAX (213) 609-2127
MFJ Service/Parts (601) 323-5859
Telrex Customer Service (210) 775-7252
Ten-Tec Service/Parts (615) 453-7172
Yaesu Service (213) 404-4884
Parts (213) 404-4847
FAX (213) 404-1210

Any corrections or additions would be appreciated, @KA2EZN,NJ,USA,NA

==========
Notation note: A few days ago I needed to label some inputs on my
equipment. Needed to tell inputs from outputs. Needed a clear tag,
and I had some of those stickers intended for labeling wires. Spelling
"IN" was too messy, and too big. Turns out that the Chinese symbol for
"in" looks like a capital "Y" upside-down. So, I used that, by using
a "Y" upside-down.

73 de WA2ISE

1563. Regency RH256 Radio

Newsgroup: rec.ham-radio
Date: 1990-03-10 11:11:24 UTC
From: dmb@DELPHI.MIT.EDU
Message-ID: <9003101111.AA11072@DELPHI.MIT.EDU>
Source record: 12968

Does anyone know how to program freq. and CTCSS tones for this radio?

1564. Re: Keyer Board for IBM PC

Newsgroup: rec.ham-radio
Date: 1990-03-10 13:43:52 UTC
From: rusty@cadnetix.COM
Message-ID: <11688@cadnetix.COM>
Source record: 12969

In article <575.25F3FB7E@weyr.FIDONET.ORG> katz@weyr.FIDONET.ORG (sylvan katz) writes:
>I am looking for a keyer board for an IBM PC. Does anyone have any
>suggestions and supplier info. What I want is a piece of software
>that uses one of the communications ports for paddle input and xcvr
>output with software that provides all the keyer functions. I asked
>this question a few weeks ago and got one answer -- unfortunately the
>sender didn't provide supplier information. You asssitance with this
>matter is appreciated.

[re-formatted so everyone can read it :-)]

>73's de Syl VE5ZX

Well, I tell you what. I recently downloaded a program (CW311 or something
like that) which uses your 'standard' serial port on your PC compatible
to control your HF rig. I don't know if it accepts keyer input, but
it does accept keyboard input, with a pretty nifty typeahead buffer
(I got about 50 characters ahead of the code before I ran out of
'now is the time' text :-)). I've only run it once since I found out
that it is designed more for sending code than for practicing it.

In any case, I'll make you (and everyone else here on the net) the
following offer:

Send me a FORMATTED MS-DOS disk (3 1/2" 1.44 or 720k, or 5 1/4" 360k or
1.2 meg), or even a DC300 or 600 cartridge (urg! :-)), with return
postage, a note saying that you want the code programs I mentioned
here, and a self-addressed return label, and I'll put CW311 on it,
along with the 2 or 3 other morse programs I've got (SuperMorse and
Morse, I think... there may be another one, too). If you send me a
360k disk, and you are more interested in the learning programs than
in the sending program, tell me so, since I'm not sure they will all
fit on a 360k disk. Also, tell me if you need the PKZIP unarchiver,
since thats the format they come in....

If you are using something other than a PC, sorry about that,
these are PC (XT/AT, i.e. IBM compatible) programs only...

Oh, yes - an address! What with the weather, you may want to send
disks to my P.O box (it is a little more protected from the
rain/snow/whatever): Rusty Carruth, P.O. Box 461, Lafayette, CO 80026.
But, you can also send it to my home: 1260 Forum Drive,^^^^, CO 80026.
(It will be a little faster that way, since I don't always get to the
P.O. box every day, but more at risk for water damage!)

If I get deluged with disks, it may take me a while, but I'll try
to do my best...

Oh, if you want email acknowledgement of your disk, send me your
email address too.

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1565. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-10 14:24:59 UTC
From: rusty@cadnetix.COM
Message-ID: <11689@cadnetix.COM>
Source record: 12970

In article <9003051529.AA05504@pelham.med.unc.edu> pswecker@med.unc.edu (Peter St.Wecker) writes:
>
> I'm continuing to work on my code speed towards the magic 13wpm, but
>I'd like to get people's opinions on how best to do it.

Well, I've not 'done it' yet, I'm currently working on it. I'm listening to a tape while drivingn to and from work (not the whole time, maybe 5 to 15 minutes each way), and I've begun using one of those morse code programs on my AT (confusible, not the 'true blue' stuff :-)). The tape sounds like about 15 wpm chars with 13 wpm spacing, I'm running the program in keyboard copy mode, with chars at 18 wpm, spacing determined by how fast I get the character right (probably not the best way to do it, but I'm having fun anyway). I'm adding 'new' characters in groups according to the way the tape does it (since I never learned D and B solidly, for one thing!). I plan to do some listening to 'the real thing' on HF soon, and I'll probably do some practice writing things on paper to see if I can overcome my writing problem...

> If we knew what we were doing, it wouldn't be research

Ah! I'm researching morse code! :-)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1566. Re: Measurement of Harmonics

Newsgroup: rec.ham-radio
Date: 1990-03-10 14:39:08 UTC
From: rusty@cadnetix.COM
Message-ID: <11690@cadnetix.COM>
Source record: 12971

In article <7880130@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>
>Maybe what I am asking is how to make a spectrum analyzer out of bits
>of wire and canning jars. Can't be done, right ?
>
>Perry Scott
>KF0CA

There have been quite a few articles in 'recent' years about how
to make a 'poor man's spectrum analyzer'. most of the articles
(Ham Radio, QST, 73) based the design on the use of a modified
TV tuner. One article (wireless world? hmm, don't remember, sorry)
used a few IC chips, with no help from a TV tuner.

I believe any one of the above could be built for under $100.

Not quite bits of wire and canning jars, but pretty close! :-)

I would also be interested in any other ideas people have (which
is why I posted rather than mailed).

P.S: Perry, since you are so close, and since I've got a "Real
Spectrum Analyzer (TM)" now (not calibrated, however :-( ),
I'd be happy to let you come over and use it. Warning -
it weighs 175 pounds, so you'll have to come down to my house...

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1567. Re: unnet (was Re: College ARC's)

Newsgroup: rec.ham-radio
Date: 1990-03-10 14:50:41 UTC
From: rusty@cadnetix.COM
Message-ID: <11691@cadnetix.COM>
Source record: 12972

In article <1990Mar8.045141.17819@cec1.wustl.edu> sek9424@cec2.wustl.edu (Scott Eric Keller) writes:
>
> Well, I guess I now understand why everyone hates contests so much. I
>tried in vain to convene the College Net despite the DX contest.

I can sympathize!

>Besides
>having to spend quite a bit of time trying to wedge myself into a nearby
>frequency ...

Probably one of the most frustrating things about trying to run a net on 10M, in my VERY inexperienced and Humble Opinion! That and being able to hear people 5-9 and having them not even be able to hear you call them back...

>I had the pleasure of one OF explaining to me how all nets get
>closed down for contests. Arrgh!

Boy, I miss out on all the fun! :-)

>... Thats Saturday, March 31 at 1800Z on 28.425+-. My
>apologies to Rusty - I have known of your net and have tried to catch it
>a few times with no luck. Perhaps I'll try this weekend.

No apologies needed. I'll try to remember to look for you folks on march 31, also. Probably won't say much, I've been out of school for quite a while...

In any case, good luck with your net! I will say that an hour of calling CQ with no response can be very frustrating, though.

73 to all, and hope to cu on the un-net (today, even! :-))

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1568. * SpaceNews 12-Mar-90 *

Newsgroup: rec.ham-radio
Date: 1990-03-10 16:36:54 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <211@ka2qhd.UUCP>
Source record: 12973
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0312

=========
SpaceNews
=========

MONDAY MARCH 12, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on UseNet and Amateur Packet Radio. It is available for UNLIMITED worldwide distribution.

* STS-31 NEWS *
===============
A series of background briefings on the Hubble Space Telescope, the deployment mission, secondary payloads and the astronaut pre-flight press conference for Space Shuttle mission STS-31, now set for launch on April 12, will be held March 15 and 16 at the NASA Goddard Space Flight Center, Greenbelt, Md., and March 19 and 20 at the NASA Johnson Space Center, Houston.

Briefings will be carried live on NASA Select television, available on Satcom F2R, transponder 13 at 3960 MHz. Two-way question and answer capability will be available at other NASA centers and at Headquarters.

During the mission, media wishing to focus attention on the Hubble Space Telescope activities are advised to contact Goddard Public Affairs, 301/286-5565, to arrange for accreditation at the Goddard News Center. Goddard will operate a 24-hour-a-day newsroom during the mission and will have telescope scientists and managers available for briefings and interviews.

[From: Peter E. Yee @ NASA Ames Research Center, Moffett Field, CA]

* UOSAT NEWS *
==============
UO-14 continues to run the FORTH DIARY on the 1802 OBC, using Data formats distributed just after launch. The development, publication and implementation of downlink data formats for OSCARs is a delicate business, especially early in a mission. We do not want to publish data formats if they are likely to change quickly, lest people waste their time implementing software which will later become useless. On the other hand, if we do not publish formats, you cannot listen to the satellites - and that's what they're there for!

In the next month, we will be changing operating regimes on UO-14, as the PACSAT Communications Experiment is brought on line. Once this happens, asynchronous data formats (as used by the DIARY) will give way to synchronous, AX.25 packet formats.

As soon as possible, the PACSAT Communications Experiment on UO-14, and the BBS systems on PACSAT-OSCAR-16 and LUSAT-OSCAR-19 will be brought on line for general use. All three of these satellites will be running the same software, using the same protocols - developed jointly by UoSAT and AMSAT-NA. NK6K and G0/K8KA have already published a standard for a broadcast (e.g. bulletins and whole-orbit-data protocol. A final specification should be distributed soon, and early transmissions from the UO-15 PCE will use this protocol. Specification of the message-transfer protocol is well under way.

Thus, the stable state, which we expect to reach sometime this spring, is that UO-14, PO-16 and LO-19 bulletin boards will be accessible with the same groundstation protocol software. Broadcasts from these satellites (e.g. bulletins and whole-orbit data will also come down in a single standard data format. Until we change this state, groundstation software developers are advised to make their programs modular and be ready to revise!

Downlink Modulation:

UO-15 is capable of transmitting either 1200 bits/second AFSK (as used on all previous UoSATs and currently transmited by UO-15), or 9600 bits/second FSK. Ultimately, the PACSAT Communications Experiment on UO-15 will support only 9600 bps FSK. During the transition from DIARY operations to PCE operations, however, we will also be transmitting AX.25 packets at 1200 bits/second AFSK. Like DOVE, this should be copyable with a standard, unmodified, TNC.

[From G0/K8KA via OSCAR-11]

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<<< Stay on course......Say YES to Morse! >>>

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,

neat and wrong." -- H.L. Mencken

1569. dual_gate mosfet mixer

Newsgroup: rec.ham-radio
Date: 1990-03-10 21:50:18 UTC
From: elzea@sersun0.essex.ac.uk
Message-ID: <3353@servax0.essex.ac.uk>
Source record: 12974

I have designed an unbalanced mixer (frequncey changer) using 40673 dual_gate

mosfet which I belive needs a voltage level of 1V at it's local oscillator port

in order to function correctly. The output from my local oscillator is

in the order of 0.4V, but I still get the right frequencey at the output,

can anybody explain please?

thanks in advance,

1570. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-03-11 01:42:40 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003110801.AA13663@ucbvax.Berkeley.EDU>
Source record: 12975

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #661 -
Alouette 1
1 00424U 62B-A 1 90 63.84975028 .00000273 00000-0 31757-3 0 2622
2 00424 80.4587 28.9245 0022818 178.1023 182.0218 13.67302767368435
ATS 1
1 02608U 66110 A 90 65.80799845 -.00000227 00000-0 99999-4 0 1162
2 02608 13.4576 14.5445 0003435 318.6499 41.3450 1.00385578 1524
ATS 3
1 03029U 67111 A 90 64.89885483 -.00000074 00000-0 99999-4 0 3009
2 03029 13.0757 22.1104 0012712 199.1670 160.3195 1.00271851 81767
Cosmos 398
1 04966U 71 16 A 90 68.18445684 .00065491 16810-4 39072-3 0 6449
2 04966 51.5392 126.6538 2355073 321.1865 24.0893 10.87965544580721
Starlette
1 07646U 75010 A 90 64.82178846 -.00000032 00000-0 21979-4 0 145
2 07646 49.8256 206.3355 0206287 209.7069 149.1977 13.82132287761482
LAGEOS
1 08820U 76039 A 90 66.32425032 .00000003 00000-0 00000 0 0 235
2 08820 109.8640 320.2353 0044521 260.1302 99.4634 6.38664367 67430
GOES 2
1 10061U 77048 A 90 67.00414822 -.00000137 00000-0 99999-4 0 3666
2 10061 7.8225 64.9979 0006411 201.6299 159.4051 1.00515600 68
GPS-0001
1 10684U 78020 A 90 67.21728405 .00000008 00000-0 99999-4 0 3437
2 10684 63.6734 92.6704 0115742 199.3661 160.3838 2.00557794 73821
GPS-0002
1 10893U 78 47 A 90 67.18712144 -.00000026 00000-0 00000 0 0 1010
2 10893 64.4293 333.5396 0162150 25.6464 335.1729 2.00548716 86642
GOES 3
1 10953U 78062 A 90 66.08945584 .00000081 00000-0 99999-4 0 8228
2 10953 6.6859 67.7194 0006239 256.5914 103.4934 1.00285787 3577
SeaSat 1
1 10967U 78064 A 90 67.98131311 .00000926 00000-0 36472-3 0 2442
2 10967 108.0168 113.4159 0002020 250.2354 109.8683 14.35466640612078
GPS-0003
1 11054U 78093 A 90 62.00016521 -.00000025 00000-0 00000 0 0 1720
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2 11054 63.9604 330.0294 0056442 117.7547 242.8600 2.00566312 83553
Nimbus 7
1 11080U 78098 A 90 65.25166867 .00000087 00000-0 10787-3 0 6351
2 11080 99.1975 332.4807 0008969 3.6499 356.4714 13.83402919573805
GPS-0004
1 11141U 78112 A 90 67.58104268 .00000008 00000-0 00000 0 0 2825
2 11141 63.6727 92.5856 0059399 316.7372 42.8719 2.00561776 82364
NOAA 6
1 11416U 79 57 A 90 65.45127031 .00001188 00000-0 50820-3 0 9798
2 11416 98.5260 60.2655 0012697 65.8349 294.4155 14.26531400555280
GPS-0005
1 11690U 80 11 A 90 65.22770174 .00000009 00000-0 00000 0 0 9164
2 11690 64.1581 94.6710 0112140 203.9351 155.6043 2.00556588 88170
GPS-0006
1 11783U 80 32 A 90 67.53409866 -.00000025 00000-0 00000 0 0 567
2 11783 63.7651 329.4355 0148156 62.6631 298.8876 2.00573338 72301
GOES 4
1 11964U 80 74 A 90 66.88643772 -.00000137 00000-0 00000 0 0 1405
2 11964 6.1989 70.1831 0029765 107.7515 252.9277 0.99230392 4646
GOES 5
1 12472U 81049 A 90 65.94865317 -.00000239 00000-0 99999-4 0 8297
2 12472 3.2180 77.1059 0002091 312.8500 47.4900 1.00252019 31224
DE 1
1 12624U 81 70 A 90 66.62614517 -.00000052 00000-0 -35883-3 0 3391
2 12624 89.0791 148.8357 6221663 316.0034 8.6777 3.51025771258551
SME
1 12887U 81100 A 90 67.10447644 .00031549 00000-0 71309-3 0 5102
2 12887 97.6535 108.9256 0003028 45.4518 314.6890 15.43116668465641
Meteor 2-08
1 13113U 82 25 A 90 64.40520367 .00000227 00000-0 19440-3 0 6946
2 13113 82.5368 211.0986 0017038 52.1193 308.1523 13.84138220401379
Salyut 7
1 13138U 82 33 A 90 67.93426969 .00032192 00000-0 46036-3 0 914
2 13138 51.6058 88.8635 0001148 72.3081 287.8294 15.55923033449201
Cosmos 1383
1 13301U 82 66 A 90 65.32761367 .00000164 00000-0 18019-3 0 5398
2 13301 82.9317 16.1527 0029158 83.1090 277.3379 13.67804892383615
LandSat 4
1 13367U 82 72 A 90 67.04870421 .00000166 00000-0 41735-4 0 2515
2 13367 98.1784 131.5081 0004200 82.2369 277.9309 14.57130626406578
Meteor 2-09
1 13718U 82116 A 90 64.89884521 .00000485 00000-0 24816-3 0 8622
2 13718 81.2398 25.4665 0055922 335.8749 23.9833 14.13461514372520
IRAS
1 13777U 83 4 A 90 65.56088371 .00000496 00000-0 36906-3 0 7228
2 13777 99.0311 263.9114 0011706 312.4395 47.5776 13.98752674 32595
Cosmos 1447
1 13916U 83 21 A 90 65.08284417 .00000145 00000-0 14336-3 0 6771
2 13916 82.9443 88.2916 0040004 67.4775 293.0610 13.74013778348513
TDRS 1
```

```
1 13969U 83 26 B 90 61.95914084 -.00000206 00000-0 00000 0 0 9339
2 13969 4.2136 66.7158 0009218 271.1980 88.9221 1.00264241 92019
GOES 6
1 14050U 83 41 A 90 67.13751504 .00000117 00000-0 00000 0 0 926
2 14050 1.9800 79.4165 0004278 235.8146 125.1443 1.00252822 9250
OSCAR 10
1 14129U 83 58 B 90 67.77193390 -.00000019 00000-0 00000 0 0 4571
2 14129 25.9797 215.0637 5993697 124.8676 307.1795 2.05888417 22665
GPS-0008
1 14189U 83 72 A 90 66.63205714 .00000007 00000-0 99999-4 0 7121
2 14189 63.3087 91.0808 0142801 217.2621 141.8028 2.00559703 48721
Meteor 2-10
1 14452U 83109 A 90 65.35742022 .00001148 00000-0 48516-3 0 8262
2 14452 81.1561 30.7165 0096003 61.5457 299.5352 14.22624715329810
LandSat 5
1 14780U 84 21 A 90 67.00665864 -.00000211 00000-0 -41974-4 0 673
2 14780 98.1324 128.6582 0003250 116.4163 243.7383 14.57147557319989
UoSat 2
1 14781U 84 21 B 90 67.70099511 .00002591 00000-0 49184-3 0 6241
2 14781 97.9635 123.5065 0012374 200.1464 159.9233 14.64991357321252
GPS-0009
1 15039U 84 59 A 90 67.68893950 .00000007 00000-0 00000 0 0 8292
2 15039 63.0500 90.2381 0018592 239.7374 120.1323 2.00562083 42023
Cosmos 1574
1 15055U 84 62 A 90 67.15425380 .00000158 00000-0 15877-3 0 8293
2 15055 82.9599 136.7929 0025863 244.5017 115.3461 13.73331455286208
Meteor 2-11
1 15099U 84 72 A 90 67.30906800 .00000408 00000-0 35867-3 0 11
2 15099 82.5345 156.3051 0011958 213.5115 146.5285 13.83802585286646
GPS-0010
1 15271U 84 97 A 90 64.09359576 -.00000025 00000-0 00000 0 0 7600
2 15271 63.2660 329.1822 0105226 325.1601 34.1940 2.00573017 39066
Cosmos 1602
1 15331U 84105 A 90 66.78792776 .00003000 00000-0 41697-3 0 1811
2 15331 82.5354 94.8526 0021588 307.8110 52.0867 14.77447117293117
NOAA 9
1 15427U 84123 A 90 66.40637471 .00000776 00000-0 44123-3 0 4879
2 15427 99.1654 63.8912 0014389 296.8896 63.0808 14.12466534269612
Meteor 2-12
1 15516U 85 13 A 90 67.08140928 .00000231 00000-0 19730-3 0 1619
2 15516 82.5344 94.8542 0018263 93.1275 267.1971 13.84288846257565
Cosmos 1686
1 16095U 85 86 A 90 67.09953381 -.00134845 00000-0 -19817-2 0 5168
2 16095 51.6357 93.0320 0004086 327.1253 34.2950 15.55731940250176
GPS-0011
1 16129U 85 93 A 90 67.24876072 .00000008 00000-0 00000 0 0 4219
2 16129 63.8301 91.1285 0120052 150.5772 210.1701 2.00559574 32335
Meteor 3-1
1 16191U 85100 A 90 66.99914949 .00000043 00000-0 99999-4 0 8992
2 16191 82.5391 49.2076 0020724 3.4921 356.6341 13.16895667210249
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Meteor 2-13
1 16408U 85119 A 90 66.86986499 .00000295 00000-0 25369-3 0 5757
2 16408 82.5328 9.8531 0015031 285.8040 74.1457 13.84304265212034
Mir
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2 17845 51.6104 119.7281 0016596 251.3874 108.3535 15.59442495168367
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2 18123 98.8201 258.9543 0014099 314.1938 45.8074 14.13899986140105
RS-10/11
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1 18312U 87 68 A 90 66.87022473 .00000219 00000-0 18868-3 0 3785
2 18312 82.5569 10.5909 0012425 169.8523 190.2896 13.83607451128974
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1 18820U 88 5 A 90 66.42902540 .00000143 00000-0 11815-3 0 2054
2 18820 82.5408 71.3536 0015087 251.7138 108.2378 13.84298266106107
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2 19274 82.5132 251.5141 0023680 89.5801 270.8073 14.76461468 90132
Meteor 3-2
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2 19336 82.5422 348.8070 0018021 201.3835 158.6511 13.16879386 77677
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1 19531U 88 89 A 90 66.73355969 .00000406 00000-0 24457-3 0 2066
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2 19802 55.0710 201.4099 0059530 158.9588 201.2474 2.00561853 7716
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1 19822U 89 16 A 90 67.54642668 .00021406 00000-0 14261-2 0 4667
2 19822 75.1079 287.7002 4205126 285.6289 32.8354 7.06114480 26306
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1 19851U 89 18 A 90 67.09705581 .00000189 00000-0 16080-3 0 1568
2 19851 82.5295 309.0202 0013231 292.5327 67.4430 13.83944183 51580
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1 20446U 90 47.39633712 0.00000368 74758-3 0 283
2 20446 62.8305 111.3944 7323218 288.1118 9.7051 2.06386089 509
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1 20450U 90 49.67030172 0.00181920 -19189-5 16565-2 0 439
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1 20457U 90 60.41396968 0.00615956 39350-4 26857-3 0 942
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1 20465U 90 52.05250576 0.00002655 40114-3 0 264
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1 20466U 90 57.13960967 0.00001501 22415-3 0 174
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2 20491 99.0559 127.6878 0470185 284.1687 70.7629 13.02726559 2345
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1 20496U 90 15 A 90 64.73747562 .00010816 00000-0 68364-3 0 241
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2 20514 51.6137 149.3249 0007235 101.0427 259.2289 16.47208829 207
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1571. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-03-11 01:56:35 UTC
From: tkelso%galaxy@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003110802.AA13704@ucbvax.Berkeley.EDU>
Source record: 12976

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #661 -
Alouette 1
1 00424U 62B-A 1 90 63.84975028 .00000273 00000-0 31757-3 0 2622
2 00424 80.4587 28.9245 0022818 178.1023 182.0218 13.67302767368435
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2 02608 13.4576 14.5445 0003435 318.6499 41.3450 1.00385578 1524
ATS 3
1 03029U 67111 A 90 64.89885483 -.00000074 00000-0 99999-4 0 3009
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Cosmos 398
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2 04966 51.5392 126.6538 2355073 321.1865 24.0893 10.87965544580721
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1 07646U 75010 A 90 64.82178846 -.00000032 00000-0 21979-4 0 145
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1 10967U 78064 A 90 67.98131311 .00000926 00000-0 36472-3 0 2442
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2 11054 63.9604 330.0294 0056442 117.7547 242.8600 2.00566312 83553
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1 11141U 78112 A 90 67.58104268 .00000008 00000-0 00000 0 0 2825
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1 11416U 79 57 A 90 65.45127031 .00001188 00000-0 50820-3 0 9798
2 11416 98.5260 60.2655 0012697 65.8349 294.4155 14.26531400555280
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1 11690U 80 11 A 90 65.22770174 .00000009 00000-0 00000 0 0 9164
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1 11964U 80 74 A 90 66.88643772 -.00000137 00000-0 00000 0 0 1405
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1 13301U 82 66 A 90 65.32761367 .00000164 00000-0 18019-3 0 5398
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1 13718U 82116 A 90 64.89884521 .00000485 00000-0 24816-3 0 8622
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1 14452U 83109 A 90 65.35742022 .00001148 00000-0 48516-3 0 8262
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2 14780 98.1324 128.6582 0003250 116.4163 243.7383 14.57147557319989
UoSat 2
1 14781U 84 21 B 90 67.70099511 .00002591 00000-0 49184-3 0 6241
2 14781 97.9635 123.5065 0012374 200.1464 159.9233 14.64991357321252
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2 15055 82.9599 136.7929 0025863 244.5017 115.3461 13.73331455286208
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1 15099U 84 72 A 90 67.30906800 .00000408 00000-0 35867-3 0 11
2 15099 82.5345 156.3051 0011958 213.5115 146.5285 13.83802585286646
GPS-0010
1 15271U 84 97 A 90 64.09359576 -.00000025 00000-0 00000 0 0 7600
2 15271 63.2660 329.1822 0105226 325.1601 34.1940 2.00573017 39066
Cosmos 1602
1 15331U 84105 A 90 66.78792776 .00003000 00000-0 41697-3 0 1811
2 15331 82.5354 94.8526 0021588 307.8110 52.0867 14.77447117293117
NOAA 9
1 15427U 84123 A 90 66.40637471 .00000776 00000-0 44123-3 0 4879
2 15427 99.1654 63.8912 0014389 296.8896 63.0808 14.12466534269612
Meteor 2-12
1 15516U 85 13 A 90 67.08140928 .00000231 00000-0 19730-3 0 1619
2 15516 82.5344 94.8542 0018263 93.1275 267.1971 13.84288846257565
Cosmos 1686
1 16095U 85 86 A 90 67.09953381 -.00134845 00000-0 -19817-2 0 5168
2 16095 51.6357 93.0320 0004086 327.1253 34.2950 15.55731940250176
GPS-0011
1 16129U 85 93 A 90 67.24876072 .00000008 00000-0 00000 0 0 4219
2 16129 63.8301 91.1285 0120052 150.5772 210.1701 2.00559574 32335
Meteor 3-1
1 16191U 85100 A 90 66.99914949 .00000043 00000-0 99999-4 0 8992
2 16191 82.5391 49.2076 0020724 3.4921 356.6341 13.16895667210249
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Meteor 2-13
1 16408U 85119 A 90 66.86986499 .00000295 00000-0 25369-3 0 5757
2 16408 82.5328 9.8531 0015031 285.8040 74.1457 13.84304265212034
Mir
1 16609U 86 17 A 90 67.92467590 .00031640 00000-0 39408-3 0 4501
2 16609 51.6183 115.5524 0016298 250.4141 109.4568 15.59477936232448
SPOT 1
1 16613U 86 19 A 90 67.66643164 .00000506 00000-0 25507-3 0 7899
2 16613 98.7080 143.5550 0001695 107.8127 252.3214 14.20050764 49664
Meteor 2-14
1 16735U 86 39 A 90 66.96259658 .00000218 00000-0 18594-3 0 3590
2 16735 82.5342 36.7409 0014987 358.8713 1.2409 13.84053331190941
Cosmos 1766
1 16881U 86 55 A 90 67.96941668 .00003417 00000-0 47940-3 0 8800
2 16881 82.5254 152.9190 0021603 320.7191 39.2452 14.77052573194352
EGP
1 16908U 86 61 A 90 53.55039819 -.00000025 00000-0 95708-4 0 1704
2 16908 50.0105 248.4193 0010798 262.7166 97.2451 12.44384952160583
FO-12
1 16909U 86 61 B 90 51.92031722 -.00000025 00000-0 99999-4 0 1794
2 16909 50.0153 253.7437 0010861 255.9721 103.9906 12.44404056160374
NOAA 10
1 16969U 86 73 A 90 66.29076646 .00000433 00000-0 20698-3 0 3482
2 16969 98.6093 96.4779 0013387 202.5149 157.5442 14.23484507180112
Meteor 2-15
1 17290U 87 1 A 90 66.99992907 .00000296 00000-0 25708-3 0 3378
2 17290 82.4687 302.1596 0011562 245.3000 114.6950 13.83868724160105
MOS-1
1 17527U 87 18 A 90 68.00731255 .00000412 00000-0 33192-3 0 4276
2 17527 99.1180 141.8146 0001020 80.0150 280.1103 13.94870352155293
GOES 7
1 17561U 87 22 A 90 66.83979733 -.00000044 00000-0 99999-4 0 4273
2 17561 0.0420 187.8649 0001259 110.4712 61.6243 1.00271557 4402
Kvant-1
1 17845U 87 30 A 90 67.09158205 .00054095 00000-0 66808-3 0 181
2 17845 51.6104 119.7281 0016596 251.3874 108.3535 15.59442495168367
DMSP B5D2-3
1 18123U 87 53 A 90 67.00667049 .00000787 00000-0 43412-3 0 4996
2 18123 98.8201 258.9543 0014099 314.1938 45.8074 14.13899986140105
RS-10/11
1 18129U 87 54 A 90 67.97115083 .00000055 00000-0 53356-4 0 606
2 18129 82.9248 42.5592 0013029 42.3405 317.8754 13.72065671135705
Meteor 2-16
1 18312U 87 68 A 90 66.87022473 .00000219 00000-0 18868-3 0 3785
2 18312 82.5569 10.5909 0012425 169.8523 190.2896 13.83607451128974
Meteor 2-17
1 18820U 88 5 A 90 66.42902540 .00000143 00000-0 11815-3 0 2054
2 18820 82.5408 71.3536 0015087 251.7138 108.2378 13.84298266106107
DMSP B5D2-4
1 18822U 88 6 A 90 66.69452425 .00000859 00000-0 41096-3 0 4148
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2 18822 98.6620 307.7554 0006052 198.7555 161.3396 14.21301980108409
AO-13
1 19216U 88 51 B 90 65.26873556 -.00000096 00000-0 99999-4 0 797
2 19216 57.0490 165.7955 6906185 222.4549 56.2548 2.09701434 13247
OKEAN 1
1 19274U 88 56 A 90 67.98642049 .00001904 00000-0 26944-3 0 6690
2 19274 82.5132 251.5141 0023680 89.5801 270.8073 14.76461468 90132
Meteor 3-2
1 19336U 88 64 A 90 67.29313842 .00000391 00000-0 99999-3 0 3852
2 19336 82.5422 348.8070 0018021 201.3835 158.6511 13.16879386 77677
NOAA 11
1 19531U 88 89 A 90 66.73355969 .00000406 00000-0 24457-3 0 2066
2 19531 98.9711 14.9948 0011086 206.2891 153.7723 14.11476742 74652
TDRS 2
1 19548U 88 91 B 90 64.02357395 .00000131 00000-0 99999-4 0 788
2 19548 0.0442 320.5204 0002112 9.9341 29.5234 1.00275488 4405
Cosmos 2001
1 19796U 89 11 A 90 67.00434710 -.00001069 00000-0 99999-4 0 3813
2 19796 63.0443 105.8420 7136350 319.8127 5.0878 2.00560504 7771
GPS BII-01
1 19802U 89 13 A 90 66.75585580 .00000016 00000-0 99999-4 0 723
2 19802 55.0710 201.4099 0059530 158.9588 201.2474 2.00561853 7716
Akebono
1 19822U 89 16 A 90 67.54642668 .00021406 00000-0 14261-2 0 4667
2 19822 75.1079 287.7002 4205126 285.6289 32.8354 7.06114480 26306
Meteor 2-18
1 19851U 89 18 A 90 67.09705581 .00000189 00000-0 16080-3 0 1568
2 19851 82.5295 309.0202 0013231 292.5327 67.4430 13.83944183 51580
TDRS 3
1 19883U 89 21 B 90 61.66941217 -.00000235 00000-0 99999-4 0 554
2 19883 0.0671 311.3832 0004241 346.4808 62.3386 1.00272460 2822
GPS BII-02
1 20061U 89 44 A 90 66.44052675 -.00000032 00000-0 00000 0 0 523
2 20061 54.7257 19.9569 0081882 172.9986 187.1067 2.00562492 5453
Nadezhda
1 20103U 89 50 A 90 66.26431437 .00000202 00000-0 20475-3 0 838
2 20103 82.9606 0.1265 0037693 325.0555 34.8135 13.73568367 33724
GPS BII-03
1 20185U 89 64 A 90 65.41293992 .00000016 00000-0 99999-4 0 472
2 20185 54.9439 202.3381 0027092 141.2282 218.9103 2.00563453 4007
Activnyi
1 20261U 89 80 A 90 67.94718454 .00001425 00000-0 44868-3 0 3258
2 20261 82.5964 292.1903 1259283 204.8886 148.5952 12.43309103 20135
Activnyi RB
1 20262U 89 80 C 90 67.63522894 .00000906 00000-0 28436-3 0 1430
2 20262 82.5925 292.3993 1260522 205.6459 147.6549 12.43001271 20099
Magion 2
1 20281U 89 80 B 90 67.93376313 .00001644 00000-0 51514-3 0 3410
2 20281 82.5958 292.1612 1259323 204.8718 148.6283 12.43479633 20130
GPS BII-04
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1 20302U 89 85 A 90 63.14971201 -.00000029 00000-0 99999-4 0 419
2 20302 54.6985 321.3479 0038948 313.4955 46.2046 2.00571014 2641
Meteor 3-3
1 20305U 89 86 A 90 67.62237586 .00000067 00000-0 15929-3 0 603
2 20305 82.5539 288.9382 0014972 218.7203 141.2827 13.15853385 17724
INTELSAT-6A
1 20315U 89 87 A 90 62.65793662 -.00000226 00000-0 99999-4 0 311
2 20315 0.0414 3.5726 0013733 254.5985 101.6503 1.00262829 1232
COBE
1 20322U 89 89 A 90 67.56590658 .00004660 00000-0 31075-2 0 567
2 20322 99.0259 78.8746 0006823 290.9908 69.0509 14.01437427 15391
Kvant-2
1 20335U 89 93 A 90 67.15572753 .00009884 00000-0 12823-3 0 1348
2 20335 51.6191 119.4237 0016517 248.9876 111.0886 15.59408245 15979
GPS BII-05
1 20361U 89 97 A 90 67.43005802 .00000016 00000-0 99999-4 0 187
2 20361 54.9514 144.3204 0064909 42.9382 317.6285 2.00576858 1707
1990 001D
1 20404U 90 38.32261194 0.00002626 17207-2 0 331
2 20404 21.5429 270.3906 7209065 196.3238 114.5390 2.34605795 883
1990 001F
1 20406U 90 38.86337825 0.00007184 19135-2 0 300
2 20406 26.7137 254.6073 5866581 226.3657 66.9195 4.22382468 1597
LEASAT 5
1 20410U 90 44.00498078 0.00000071 10000-3 0 239
2 20410 3.3547 323.2542 0123328 185.1682 174.8531 1.00284836 283
1990 002C
1 20411U 90 46.13646292 0.00006624 15573-2 0 373
2 20411 27.1943 95.8363 5238158 60.6639 341.5665 5.20564091 1847
Cosmos 2056
1 20432U 90 48.61316750 0.00000331 13772-3 0 216
2 20432 74.0360 264.2249 0024233 282.9758 76.8658 14.29717088 4288
1990 004B
1 20433U 90 51.16735862 0.00000442 17528-3 0 238
2 20433 74.0347 259.4384 0036366 290.2242 69.5000 14.31252170 4661
SPOT 2
1 20436U 90 5 A 90 67.06747129 .00000339 00000-0 17635-3 0 594
2 20436 98.7165 142.9576 0000749 97.0898 263.0362 14.20052414 6391
UO-14
1 20437U 90 5 B 90 65.70822728 .00000219 00000-0 95347-4 0 261
2 20437 98.7061 142.0959 0012085 91.8332 268.4241 14.28507069 6231
UO-15
1 20438U 90 5 C 90 66.27539708 .00000509 00000-0 22019-3 0 254
2 20438 98.7082 142.6571 0010933 88.9040 271.3375 14.28286637 6319
PACSAT
1 20439U 90 5 D 90 66.26580149 .00000770 00000-0 32291-3 0 263
2 20439 98.7169 142.6872 0012271 89.7766 270.4810 14.28607136 6316
DO-17
1 20440U 90 5 E 90 66.26479038 .00000843 00000-0 35129-3 0 173
2 20440 98.7173 142.6896 0012468 90.0185 270.2410 14.28642399 6311
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WO-18
1 20441U 90 5 F 90 66.26128287 .00000826 00000-0 34373-3 0 150
2 20441 98.7100 142.6846 0013054 90.7444 269.5194 14.28753450 6315
LO-19
1 20442U 90 5 G 90 66.25918867 .00000770 00000-0 32132-3 0 239
2 20442 98.7166 142.6938 0013265 90.9498 269.3198 14.28821018 6313
Ariane RB
1 20443U 90 47.11760523 0.00000341 14765-3 0 239
2 20443 98.6136 123.3651 0012081 122.4540 237.7812 14.30158961 3572
1990 006A
1 20444U 90 53.94247100 0.00000268 25109-3 0 354
2 20444 62.8140 110.5001 7374630 288.1794 9.4138 2.00664213 632
1990 006C
1 20446U 90 47.39633712 0.00000368 74758-3 0 283
2 20446 62.8305 111.3944 7323218 288.1118 9.7051 2.06386089 509
1990 005C
1 20450U 90 49.67030172 0.00181920 -19189-5 16565-2 0 439
2 20450 37.6783 240.9912 6005396 220.7886 73.8632 4.14286423 1022
GPS BII-06
1 20452U 90 8 A 90 62.65854411 -.00000001 00000-0 99999-4 0 229
2 20452 54.6380 260.3053 0035259 57.4095 302.9406 2.00567623 728
1990 008B
1 20453U 90 50.59057152 0.00005710 69074-3 0 264
2 20453 35.6431 123.9630 0591705 329.0175 27.6846 14.04532218 3619
Cosmos 2057
1 20457U 90 60.41396968 0.00615956 39350-4 26857-3 0 942
2 20457 62.8210 195.0039 0138628 118.4735 243.0622 16.03448844 5582
Cosmos 2058
1 20465U 90 52.05250576 0.00002655 40114-3 0 264
2 20465 82.5082 306.3255 0022850 201.4816 158.5500 14.73794878 3181
1990 010B
1 20466U 90 57.13960967 0.00001501 22415-3 0 174
2 20466 82.5064 301.6148 0022858 187.2711 172.8185 14.74059308 3927
PRC-26
1 20473U 90 11 A 90 63.27809681 -.00000263 00000-0 99999-4 0 303
2 20473 0.0923 286.8966 0000175 85.5433 347.5312 1.00271902 285
1990 011B
1 20474U 90 11 B 90 60.49062863 .00018571 00000-0 48740-2 0 135
2 20474 30.7455 297.1171 7266635 194.1257 124.0353 2.30072121 540
1990 012A
1 20476U 90 12 A 90 64.75925635 .00283362 16306-4 80535-3 0 801
2 20476 65.8312 303.0647 1302575 136.3231 234.8687 13.22822832 3555
1990 012B
1 20477U 90 65.03457425 0.00557807 17242-4 10236-2 0 920
2 20477 65.8433 301.5565 1244640 135.3498 235.4890 13.39782405 3613
MOS-1B
1 20478U 90 13 A 90 67.96050217 -.00000010 00000-0 57278-5 0 702
2 20478 99.1985 138.5655 0000440 84.0115 276.1141 13.94846564 4167
1990 013B
1 20479U 90 58.77030313 -.00000054 -91874-4 0 183
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2 20479 99.0554 125.8771 0540173 296.3538 58.3058 12.83148742 2712
FO-20
1 20480U 90 13 C 90 66.17820252 .00000052 00000-0 16645-3 0 178
2 20480 99.0526 131.8923 0540615 279.6136 74.4312 12.83116845 3664
1990 013D
1 20491U 90 13 D 90 60.22658031 -.00000126 00000-0 -21297-3 0 144
2 20491 99.0559 127.6878 0470185 284.1687 70.7629 13.02726559 2345
Soyuz TM-9
1 20494U 90 14 A 90 67.15570154 .00029344 00000-0 36682-3 0 411
2 20494 51.6165 119.4211 0016326 248.7086 111.2220 15.59421887 3896
1990 015A
1 20496U 90 15 A 90 64.73747562 .00010816 00000-0 68364-3 0 241
2 20496 43.0968 170.4187 0011536 71.0357 289.1711 15.09034906 2884
1990 015B
1 20497U 90 15 B 90 64.69851481 .00017665 00000-0 54315-3 0 254
2 20497 43.1147 167.3578 0013276 22.2860 337.8514 15.33316935 2934
1990 015C
1 20498U 90 15 C 90 64.43405608 .00046753 00000-0 11275-2 0 294
2 20498 41.6397 166.4870 0042123 267.0234 92.5759 15.39503914 2901
Raduga 25
1 20499U 90 16 A 90 64.10940512 -.00000004 00000-0 99999-4 0 266
2 20499 1.4030 272.1448 0005594 113.3562 246.0002 1.00262805 183
1990 016D
1 20502U 90 60.10379984 0.00000002 10000-3 0 69
2 20502 1.4699 273.3134 0036718 25.7294 333.9177 1.00011310 164
1990 017A
1 20508U 90 17 A 90 64.69007164 -.00000011 00000-0 -17712-4 0 69
2 20508 82.9557 136.2221 0043251 273.7875 85.8362 13.73190403 805
1990 017B
1 20509U 90 17 B 90 64.82957793 -.00007006 00000-0 -73837-2 0 66
2 20509 82.9527 136.1131 0036987 256.8728 102.8289 13.74595126 821
1990 018A
1 20510U 90 18 A 90 65.07487403 .00002601 00000-0 40399-3 0 100
2 20510 82.5285 192.6278 0019023 246.6141 113.3066 14.72661183 890
1990 018B
1 20511U 90 18 B 90 64.80187474 .00004631 00000-0 71692-3 0 44
2 20511 82.5276 192.8770 0018542 250.8776 109.0426 14.72963965 857
1990 020A
1 20513U 90 65.04087811 0.00040671 50740-3 0 166
2 20513 51.6193 130.0318 0016331 240.6961 119.3571 15.59307730 801
1990 020B
1 20514U 90 20 B 90 61.18142825 .25407542 60571-4 45544-3 0 88
2 20514 51.6137 149.3249 0007235 101.0427 259.2289 16.47208829 207
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@galaxy.afit.af.mil Air Force Institute of Technology
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1572. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-11 04:07:16 UTC
From: rick@lrark.UUCP
Message-ID: <172@lrark.UUCP>
Source record: 12877

In article <9003051529.AA05504@pelham.med.unc.edu> pswecker@med.unc.edu (Peter St.Wecker) writes:
>
> Well, I finally passed my 5wpm, and am going to take the novice and
> tech. tests (and maybe the general) tonight!

Congratulations! Welcome to the ranks.

> I'm continuing to work on my code speed towards the magic 13wpm, but
> I'd like to get people's opinions on how best to do it. I'm using the
> SuperMorse program on an IBM-PC (it's great), but I'm not sure of the best way
> to proceed. Some people suggest that I start building up from 5 to 7 to 10 to
> 13, while others seem to suggest starting right away at 13 (or even 20!).
> While different methods propbaly work for differnt people, I'm curious
> to see how most of you went about it.

I learned the code starting at 5 then 10 then 15 then 25 then later 55.
By learning it in steps I don't have trouble copying even the slowest of
signals.

I have taught it both ways. I prefer the steps, but it takes longer. If you
learn it listening to fast characters spaced out slow, you will have trouble
copying slow code.

> Thanks!
> -- Peter

Just my own methods!

73 - Rick.

--
Ricky L. Mobley, WB5FDP | Mail) ...!uunet!wugate! | CIS: 70505,1157
1800 Sanford Drive #4 | Path) wuarchive!texbell! | PACKET: WB5FDP @ WD5B
Little Rock, AR 72207 | ark!lrark!rick | XBBS: (501) 224-9454

1573. Re: ACC's RC-850 repeater

Newsgroup: rec.ham-radio
Date: 1990-03-11 04:56:02 UTC
From: mikey@pnet01.cts.com
Message-ID: <1797@crash.cts.com>
Source record: 12878

graham.newton@canremote.uucp (GRAHAM NEWTON) writes:
>I would be really interested to hear what "bugs" you have found in the
>RC850 firmware. I bought one of the earliest RC850's for VE3TRO here in

We have had numerous lockups. Must energize the software reset code to reset the controller. We have a clandestine call sign that shows up as WB6AAX (or similar, think it's the guy at ACC). A bug fixed in V3.41 was not being able to voice over-ride a list of mail box msgs. So in V3.42, ACC tried to fix it and now trying to voice over-ride (key-up during listing), the controller switches to CW call signs. We also have the word 'safe' showing up in call slot 33 even thou it is programmed with a valid call sign. This is intermitent. Ok, that's some of the buggers I've found. There's more less apperent bugs, I'll dig them up and post them soon. Also, the ACC notes used to be great reading. Now, seldom published, the notes are more or less a quarterly broshure of ACC products, kinda like to 'cutesey DAK catalog. But ,at least, ACC went to the trouble,time,expense to publish a good newsletter in the beginning.

So much for the bitchin'. The 850 is still, as afar as personal experience, the finest repeater controller available. I wish our club had the money to buy the DVR, computer interface, IC-900 interface, and all the other available options. But, alass, bongo dollars. Hence the desire for a more afordable controller with the same abilities on a PC based system. Any ideas?

****
Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey
****

1574. Re: Six Meter R/C Channel Info Request

Newsgroup: rec.ham-radio
Date: 1990-03-11 05:28:02 UTC
From: rick@lrark.UUCP
Message-ID: <173@lrark.UUCP>
Source record: 12879

In article <4590033@hplvli.HP.COM> chris@hplvli.HP.COM (Chris Kelly) writes:
> Can somebody please post a list of Radio Control frequencies
> for the Six Meter Band? I know that the ARRL repeater Directory
> Band Plan lists 50.80-50.98 (by 20 KHz) but I also remember
> a comment that the ARRL Bandplan does not reflect reality
> as recognized by the rest of the country. Please post any
> clarification, and thanks.......73 de WD5IBS

I have been out of RC'ing for about 8 years now, but my gear is still
crystalled up on 6 meters. At that time the standard frequencies were:

53.1, 53.2, 53.3, 53.4 and 53.5

No doubt this has all changed..

--
Ricky L. Mobley, WB5FDP | Mail) ...!uunet!wugate! | CIS: 70505,1157
1800 Sanford Drive #4 | Path) wuarchive!texbell! | PACKET: WB5FDP @ WD5B
Little Rock, AR 72207 | ark!lrark!rick | XBBS: (501) 224-9454

1575. Fugitsu Ten UHF 16 channel commercial radio mod info needed

Newsgroup: rec.ham-radio
Date: 1990-03-11 05:56:02 UTC
From: mikey@pnet01.cts.com
Message-ID: <1798@crash.cts.com>
Source record: 12880

I have a Fujitsu Ten 450-470 commercial tranceiver (model # FTM40-3092H). This is a 16 channel scanning synthesized mobile radio.

I'm looking for a way to be able to program the radio down into the ham band. It currently on 453 Mhz. I have the programming prom for the radio and, of course, it will not allow entry of freqs below 450. I called Fujitsu and you can guess what their response was after they figured out that I had a programming prom. So here I am. This is a nice radio and I only have limited use of it in the commercial segment. If anyone knows any way to get around the programming restriction, I'd appreciate any responses.

****
Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey
****

1576. re: re: 16:1 transformer

Newsgroup: rec.ham-radio
Date: 1990-03-11 08:41:53 UTC
From: ormsby@ohstpy.mps.ohio-state.edu
Message-ID: <8080.25f9c901@ohstpy.mps.ohio-state.edu>
Source record: 12881

A transformer is designed so that the voltage on the secondary does not drop appreciably under load. This requires the use of an iron core to reduce leakage. The number of windings in the primary is determined by the size and type of the core as well as the frequency involved (60 hz on the main). As a general rule, small tranformers have about 8 turns per volt on a 1 inch square cross section core per volt and a magnetic path of 10 inches or so. Of course the turn ratio will be whatever is desired by matching impedances to the load.

1577. Re: Cushman CE-7 Manual Needed!

Newsgroup: rec.ham-radio
Date: 1990-03-11 10:47:29 UTC
From: bateman@nsslsun.gcn.uoknor.edu
Message-ID: <1990Mar11.104729.16005@uokmax.uucp>
Source record: 12882
Cross-posted to: rec.ham-radio,sci.electronics

*** WANTED ***

Manual (Service, User's or both!)

for Cushman CE-7, and/or the Cushman 302 & 303 plug-ins.

Will gladly pay all duplicating and mailing costs.

Please e-mail; any help is appreciated!

Monte Bateman
WB5RZX @ WB5RZX
bateman @ nsslsun.gcn.uoknor.edu
National Severe Storms Laboratory, Norman, OK! 73069

1578. Re: NPRM 90-55 - No test code priviledg

Newsgroup: rec.ham-radio
Date: 1990-03-11 17:39:42 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14468.25FA9245@stjhmc.fidonet.org>
Source record: 12883

> From: michaelb@mikebat.UUCP (Michael R. Batchelor)
>
> In article <30500438@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> >
> > > International reg's
> > > only require a knowledge of CW for HF operation.
> >
> > I believe they required demonstrating such knowledge in advance
>
>
> International regs require knowledge of code for INTERNATIONAL
> communications
> pivileges, NOT for operations below 30 MHz. Witness the dreaded CB'ers.
> They operate below 30 MHz (some of them legally) and are not required to
> pass
> a code test.

The code is specifcally required for HF operation by amateurs - not land
mobile, which is what CB is technically.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1579. Re: Broadcasting Video from RC Plane

Newsgroup: rec.ham-radio
Date: 1990-03-11 17:39:55 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14469.25FA9246@stjhmc.fidonet.org>
Source record: 12884

> From: rfc@popeye.Philips.Com (Robert Casey)
>
> Instead of using an RC plane with a TV camera to spot fish, maybe a
> tethered
> balloon with the camera would work.

Or maybe one of those anti-aircraft barrage ballons that look like a miniature diribible. It's pointy and has tail fins. It would tag along behind a moving boat like a well trained puppy.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1580. Re: Forgiving the League for Incentive Licensing

Newsgroup: rec.ham-radio
Date: 1990-03-11 17:41:13 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <4063@kd4nc.UUCP>
Source record: 12885

In article <9003091756.AA04315@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>"Forgiving" presupposes that the forgivee has done harm. Tell me what's wrong
>with incentive licensing....or incentive anything else for that matter. While
>there are those who obviously don't like the League, this shouldn't be taken
>as evidence that it is the Evil Empire.
>
>73,
>Dube Todd, N5PDK

Since 1968 when incentive licensing went into effect, the number of new amateurs as a percentage of the increase of general population has declined every year except one. From 1946 until 1968 the number of new amateurs was increasing faster than the rate of general population growth. From 1968 to 1972 over a dozen old line American amateur radio equipment manufacturers went out of business. Since I was there (first licensed in 1963), my opinion is that incentive licensing is directly responsible for halting the growth of amateur radio in this country. Like many of my peers who held the General class license (which was THE license and conferred ALL privledges before 1968), I found other things to occupy my limited spare time than amateur radio after I was told I had to take two more tests to get BACK what I had already earned. The advent of packet and satellites finally caused me to grit my teeth and upgrade. In my opinion there should be ONE class of license; AMATEUR. Paper chasing, whether it be DXCC or INCENTIVE licensing, is a disease and the cause of most of the problems in amateur radio, and perhaps in American society in general.

73 Gary KE4ZV

1581. hp/harrison 6206b info?

Newsgroup: rec.ham-radio
Date: 1990-03-11 18:13:00 UTC
From: kenb@techsup.UUCP
Message-ID: <400020@techsup>
Source record: 12886

...

i have an h.p. "harrison 6206b" dc power supply. works great!
unfortunately, i have no documentation on it. there seem to be
lots of jumper selectable options -- but without info...

btw, this is a 0-60 volt 1.2 amp supply manufactured, i'd guess,
in the early 1970's.

any info would be greatly appreciated. naturally, i'm willing to
pay any copy and/or mailing costs. thanks guys...

ken brookner, n5lpi

uucp: ...!texbell!techsup!kenb
kenb@techsup.lonestar.org

1582. Goldwater on _Firing Line_

Newsgroup: rec.ham-radio
Date: 1990-03-11 18:23:53 UTC
From: wht@n4hgf.uucp
Message-ID: <640@n4hgf.uucp>
Source record: 12887

Barry Goldwater was on William F. Buckley's _Firing Line_ today.
When saying he some insight into the feelings of the Soviet people,
he mentioned amateur radio. I hate to paraphrase ... I wish I had
taped the program. He said something like: With my understanding
of what the Soviets feel, you know I am an amateur radio operator,
and I talk to them, not a lot, but some ...

Warren Tucker, Tridom Corporation ...!gatech!kd4nc!n4hgf!wht
E = I * R, if you're lucky, and only then on alternate Tuesdays.

1583. Re: Misc. DX QSL Information - Fall/Winter 1989/90

Newsgroup: rec.ham-radio
Date: 1990-03-11 18:51:00 UTC
From: bowen@cs.Buffalo.EDU
Message-ID: <19214@eerie.acsu.Buffalo.EDU>
Source record: 12888

In article <9003091432.AA22914@decwrl.dec.com>,
reisert@victim.enet.dec.com (Jim -- LTN1-2/H03 -- DTN 226-6905
09-Mar-1990 0933) writes:
> I do, I do. Apparently Stu hasn't updated his callbook address yet, or the
> on-line callbook doesn't have the latest information, a more likely story,
> since I've seen this sort of thing time and time again.

Marvin's server (and probably any server that got its data from Rusty) is
updated once a year around October. More frequent updates are not possible
due to lack of financial support.

Devon

1584. 10m Beacon list

Newsgroup: rec.ham-radio
Date: 1990-03-11 22:12:35 UTC
From: gws@n8emr.UUCP
Message-ID: <1453@n8emr.UUCP>
Source record: 12889

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

The following 10 meter beacon list has been compiled and maintained by Joe
Gumino (K2OLG). If you have any corrections, additions or deletions please
direct them to me (WA2ZYU @ KB1BD-4) and I will forward them to Joe. Thank you
for your interest and response to this list in the past. Joe and I shall work
to keep it current.......agn tnx & 73.

10 METER BEACON'S de K2OLG 2/19/90 Part 1

Edited and distributed under OKIPN by N8GTC

FREQ. CALL OPERATION LOCATION NOTES

28.175 VE3TEN C OTTAWA, CANADA 10W, GP
28.191 VE6YF EDMONTON, ALBERTA 10W
28.195 IY4M ROBOT BOLOGNA, ITALY 20W, 5/8 GP
28.200 GB3SX C CROWBOROUGH, ENGLAND 8W, DIPOLE
28.201 LU8ED ARGENTINA 5W
28.202 KE5GY ARLINGTON, TX 5W, VERTICAL
28.2025 ZS5VHF NATAL, RSA 5W, GP
28.204 DL0IGI C W. GERMANY 100W, VERT. DIPOLE
28.205 KA3OEM MEADVILLE, PA. 27W, YAGI/WEST
28.206 KJ4X PICKENS, SC 2W, VERTICAL
28.2075 W8FKL C VENICE, FLA 10W, VERT.
28.208 WA1IOB C MARLBORO, MASS 75W, VERT.
28.209 NX2O C STATEN ISLAND, NY 10W, GP
28.210 3B8MS C MAURITIUS GP
28.210 K4KMZ I ELIZABETHTOWN, KY. 20W, VERT.
28.210 KC4DPC C WILMINGTON,NC 4W, DIPOLE
28.212 EA6RCM PALMA DE MALLORCA 4W, 5 EL NNE
28.2125 ZD9GI C GOUGH IS. GP
28.215 GB3RAL C SLOUGH, BERKSHIRE 20W, GP
28.2175 W8UR MACKINAW ISLAND,MI .5W, GP
28.2175 WB9VMY C CALUMET, OK. 2W, DIPOLE
28.2195 LU4XS CAPE HORN
28.220 5B4CY C CYPRUS 26W, GP
28.221 PY2GOB SAN PAULO, BRAZIL 15W, VERT.
28.222 W9UXO C NR CHICAGO, ILL. 10W, GP
28.2225 HG2BHA C TAPOLCA, HUNGARY 10W, GP
*28.225 PY2AMI C SAO PAULO, BRAZIL 5W, DIPOLE
28.2275 EA6AU C MALLORCA, BALEARIC IS. 10W, 5/8 GP
28.230 ZL2MHF C MT. CLIMIE, NZ. 50W, VERT. DIPOLE
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28.232 W7JPI/AZ C SONOITA, ARIZ. 5W, 3 EL YAGI NE
28.233 KD4EC C JUPITER, FLA. 7W, GP
28.235 VP9BA C HAMILTON, BERMUDA 10W, GP
28.2375 LA5TEN C OSLO, NORWAY 10W, 5/8 GP
28.2405 5Z4ERR C KIAMBU, KENYA
28.245 A92C BAHRAIN NW/SE DIPOLE
28.2455 ZS1CTB C CAPETOWN, RSA 20W, 1/4 VERT.
28.247 EA3JA BARCELONA, SPAIN
28.2475 EA2HB I SPAIN 6W, GP
28.248 K1BZ C BELAST, MAINE 5W, VERT. DIPOLE
28.250 W3SV C ELVERSON, PA 10W, VERT.
28.250 K0HTF C DES MOINES, IA 2W, GP
28.250 Z21ANB C BULAWAYO, ZIMBABWE 15W, GP
28.2505 4N3ZHK C MT. KUM, YUGOSLAVIA 1W, VERT.
28.252 WJ7X C SEATTLE, WA 5W, RINGO
28.252 WB4JHS I FLORISSANT, MO. 7W, VERT.
28.2525 OH2TEN FINLAND
28.255 LU1UG GRAL PICO, ARGENTINA 5W, GP
28.2575 DK0TEN C ARBEITSGEN, W. GERMANY 40W, GP
28.259 WB9FVR C PEMBROKE PINES, FLA. 1W, DIPOLE
28.260 VK5WI C ADELAIDE, SA, AUSTRALIA 10W, GP
28.262 VK2RSY C SYDNEY, NSW, AUSTRALIA 25W, GP
28.264 VK6RWA C PERTH, WA, AUSTRALIA
28.266 VK6RTW C ALBANY, WA, AUSTRALIA
28.266 KB4UPI C BIRMINGTON, ALA 20W, 1/4 VERT.
28.2685 W9KFO I EATON, ILL 750MW, VERT.
28.270 ZS6PW C PRETORIA, RSA 10W, 3 EL YAGI
28.270 VK4RTL C TOWNSVILLE, QLD, AUSTRALIA
28.2725 9L1FTN I FREETOWN, SIERRA LEONE 10W, VERT. DIPOLE
*28.2745 ZS1LA STILLBAY, RSA 20W, 3 EL YAGI NW
28.275 AL7GQ C DENVER, CO 1W, LOOP
28.2755 N6RDX I STOCKTON, CA 20W, 3 EL YAGI
28.2775 DF0AAB C KIEL, W. GERMANY 10W, GP
28.280 LU8EB ARGENTINA 5W
28.282 VE1MUF C FREDRICKTON, NB, CANADA 500MW, DIPOLE
28.282 VE2HOT C BEACONSFIELD, QUE 5W, VERT DIPOLE
28.2825 OK0EG C HRADEC KRALOVE 10W, DIPOLE
28.284 VP8ADE C ADELAIDE IS, NR ANTARCTICA 8W, V BEAM TO G LAND
*28.286 KE2DI NR ROCHESTER, NY 2W, VERT. DIPOLE
28.286 KK4M C LAS VEGAS, NEV. 5W, VERT.
28.287 W8OMV NR ASHVILLE, NC. 5W, GP
28.287 H44SI C SOLOMON IS. 15W
28.288 W2NZH I MOORESTOWN, NJ 3W, GP
28.290 SK5TEN SWEDEN
28.290 VS6TEN C HONG KONG 10W, VERT.
28.292 ZD8HF ASCENSION ISLAND
28.2925 LU2FFV SAN JORGE, ARGENTINA 5W, GP
28.295 WC8E I CINCINNATI, OHIO 10W, RINGO
28.296 W3VD C LAUREL, MARYLAND 1.5W, VERT. DIPOLE
28.297 WA4DJS I FT. LAUDERDALE, FLA 30W, GP

28.301 KF4MS C ST. PETERSBURG, FLA 5W
28.3025 PT7AAC FORTALEZA, BRAZIL 5W, GP
28.306 PT8AA RIO BRANCO, BRAZIL 5W, GP
28.315 ZS6DN C IRENE, RSA 100W, VERT.
28.888 W6IRT HOLLYWOOD, CA 5W, GP CODE PRACTICE
28.992 DF0ANN MOTITZBERG, W. GERMANY 20MW, 1 EL DELTA LOG

* REVISION
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1585. QEX - Mar 90

Newsgroup: rec.ham-radio
Date: 1990-03-11 22:23:06 UTC
From: gws@n8emr.UUCP
Message-ID: <1455@n8emr.UUCP>
Source record: 12890

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
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QEX - The ARRL Experimenter's Exchange - March 1990
Gateway Column

Conducted by: Stan Horzepa, WA1LOU

PROTOTYPE 905-MHZ DIGITAL RADIO COMPLETED

The first prototype 905-MHz "user" digital radio has been completed. The intent of the prototype phase was to arrive at a reproducible design using readily available components which could provide good performance at low to moderate cost. These radios are intended to provide moderate speed, 250 to 500 kbit/s, user access to an Amateur Radio network.

The prototype radio consists of four boards, PA, LO, RX and TX, mounted on a U-shaped chassis. This modularity was used to facilitate design; the pilot run design will be more integrated. The present effort involves laying out two PC boards, one for the PA and another containing the entire low-power radio, power and control circuits. It all appears to fit in a 5- x 7-inch enclosure with a top consisting entirely of a heat sink. Interface to the radio is differential ECL: TXD, RXD, RTS, DCD and S-meter output, antenna connecor and 12 V dc @ 0.3A on receive and under 4A on transmit.

An attempt was made to produce local oscillator signals of good signal purity and stability. This was thought to be important since similar radios will probably be used in the near term at backbone IP switch sites and will need to operate in congested RF environments. There has also been some thought given to full- duplex operation of this hardware, but such operation is not being considered at this time. Dual outputs of +10 dB at approximately 96 MHz and 764 MHz are provided for transmitter and receiver mixing. Both output frequencies are derived from a single crystal oscillator. Spurious signals are below -80 dB.

Transmitter output power is in excess of +41 dB (12 watts) with modulation related sidebands down at least 70 dB (at 250 kbauds, modulation index equal to 1.4) at the edges of a 2-MHz wide, 905-MHz centered channel with out of band spurious performance also over 70 dB down (this excludes the second harmonic which is approximately -60 dB). Suppression of adjacent-channel interference is achieved by control of the deviation and an active filter ahead of the VCO tuning input. The VCO is presently free running at 45 MHz and doubly converted up to 905 MHz. This provides 905-MHz output frequency stability and accuracy essentially the same as that of the 45-MHz VCO alone.

This performance seems acceptable, but alternative plans are being considered for providing complete crystal derived frequency accuracy along withfast transmit start-up and 0.5 Mbaud sorts of modulation, if necessary. The present architecture has the advantage of being easily adapted to transverter operation by a slight change of the crystal frequency and the substitution of a multimode HF transceiver for the 45-MHz VCO and receiver demodulator circuits.

The receiver has good BER down to below -90 dB. Turnaround time is better than expected. Since adding a little design effort to the switching circuits, it is now possible to square-wave modulate the RTS (PTT) line at rates of several kilohertz and generate a clean RF square wave at full power. In between these square-wave 12-watt output pulses, the receiver is able to demodulate a -90 dBm signal applied to the same antenna connector (with a 30-dB power attenuator inserted to protect the signal generator). The receiver is fully alive less than 40 microseconds after the falling edge of RTS. It is truly a "packet radar" and calculations show that with an 8-foot TVRO dish antenna or something similar, the radio should be able t copy its own packets reflecting off a 747 aircraft at a 4 to 10 miles distance. In normal use, the radio should easily be back on receive before the previously transmitted packet has reached a distant node.

The first pilot run is expected to be twelve radios and will undoubtedly reveal some areas where change can improve performance and reduce cost. Some thought is being given to a "one-board" lower power radio which can plug into a PC slot. To reduce cost, such a radio might use the phased-lock of an on- hannel FSKed VCO instead of the dual conversion approach.

PC board design is presently in progress for the pilot run radios. It is anticipated that these will initially be used as backbone/switch radios as well as for user access radios as a part of the prototype Northern California moderate speed IP network now being constructed. Plans have not yet solidified for construction of additional radios, but it is expected that the next design effort will be aimed at providing similar radios for ee digital allocations at 1249, 1251 and 1298 MHz.

by Glenn Elmore, N6GN

TEXNET-TNC 2 FIRMWARE ON THE HORIZON

Some of you may have heard rumors of the effort to transport the TexNet software to TNC 2s, which would support smaller "feeder" networks to link to the larger long-haul backbone networks, among other uses. This effort continues and second beta testing is underway and going very well. No releases are yet available.

from Texas Packet Radio Society Quarterly Report

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Gateway Column

MICROSAT SOFTWARE DEVELOPMENT REPORT

Some of you might be wondering what we (Harold Price, NK6K, and Bob McGwier, N4HY) are doing with the MICROSATs and why you can't connect up yet.

The development cycle for these launches was very short. Most of the time available for software development, beyond getting the basic operating system and I/O drivers running, was in writing support code for ground-based hardware heck-out. A fully operational CPU wasn't mated to a fully operational spacecraft until very late in the game. After that, much of the available software time went into qualifying the ROM-based bootloader. Given the short time available, the goals were to:

l) Check out all of the hardware on the ground.

2) Have the best chance possible of getting good telemetry as soon as possible once the spacecraft reached orbit.

This resulted in a limited-feature, but very reliable set of launch support software. This is the sftware that was running when the transmitter-on commands were sent.

Once the satellites were in orbit, several shortcomings in the high-level software loader and the battery management routines were seen. Bob and I have been working to fix these, in addition to commissioning the ground-stations which have never talked to MICROSATs before, and spacecraft which have never talked to the ground before, times 4. Once procedures are worked out, they are documented so that new command stations can be broughton line.

Here is a typical day in the life of Bob and Harold. Each day has been like this since launch (times approximate).

1200-1600 UTC: Bob wakes up, reads the mail from Harold for the previous night's passes, copies the early passes, checks the action of the software loaded last night, reconfigures the spacecraft as required, finishes testing the new command and control software for the next spacecraft, and sends it to Harold.

1500-1800 UTC: Harold wakes up, reads the mail from Bob, gets the new command andcontrol software from Bob, integrates it with the new loader code, and tests it on the spacecraft CPU simulator.

1800-2000 UTC: Harold goes to TRW, starts the upload of the new software to the spacecraft (this is a bit tricky, which is why a new loader is being sent). The TRW ARC crew tapes or copies the other spacecraft in real-time. Harold reviews all of the telemetry for all of the spacecraft.

2200 UTC: Harold sends .EXE, which was partially uploaded to Bob to finish the uploading, sens a list of the diagnostic variables to the WEBERSAT ground-station crew to download on their next orbits or calls them to coordinate the use of uplinks to allow the WEBERSAT ground-station crew to access their experiments.

2200 UTC: Bob prepares and tests the new command and control software for the next spacecraft. Harold works on making the ground upload software distribution. The WEBERSAT ground-station crew tests the final camera code on the software simulator at Weber in preparation for it sending to Harold

to run on the hardware simulator.

0100-0400 UTC: Bob completes the upload of the new software, prepares the source code for the next spacecraft for the start of the new cycle, answers fan mail, and calls Harold to confirm that the software is uploaded.

0400-0600 UTC: Harold goes back to TRW, holds his breath, tells the spacecraft to terminate the old program and start the new one, calls Bob to discuss the day, and gets a call from Weber on the diagnostic values. Bob goes to bed.

0600-0800 UTC: Harold and the TRW ARC crew tape or copy the other spacecraft in real-time and review all of the telemetry for all of the spacecraft. Harold puts the status message on Telemail.

1200 UTC: Bob wakes up and starts again.

Coming events: Harold and Bob polish their resumes as the above schedule leaves no time to pick up their pay checks, let alone do work.

Once the basic hardware is checked out and the batteries are in good shape, this frantic schedule will change. And once the loader and command software are tweaked fr the last time, they will be turned over to the production command groups, hopefully by the beginning of February.

The next goal is to load the application software. Weber will be ready to do that in a few days. I have to take a business trip and more development needs to be done, which will delay the uploading of the first user-access software until late February. This will allow time for the final hardware check-out, which will include memory tests on the 8-Mbyte of mass memory, determintion of the channel center frequencies, required uplink power, and the like.

by Harold Price, NK6K

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Gateway Column

SOFTWARE FOR THE PACKET-RADIO STATION

Lately, a lot of new and updated software for the packet-radio shack has become available. A synopsis of these programs follows.

APLink Version 3.94, the IBM PC AMTOR mailbox/packet-radio BBS software package, fixes a minor bug in the packet-radio log-off routine. The software is available on disk from TAPR.

Atari TCP/IP (KA9Q's NET) has been released by PE1CHL in a new version for the Atari computer. It is available directly from PE1CHL, however, TCP/IP fans in the US can obtain it by sending two double-sided or three single-sided disks, a self-addressed stamped disk mailer and a note stating what you want to Mike Curtis, WD6EHR, 7921 Wilkinson Ave, North Hollywood, CA 91605- 2210.

from Julian Macassey, N6ARE

DOSgate Version 1.13 is now available. This version should be compatible with most TNCs and has been tested with the AEA and Kantronics TNCs. DOSgate is an IBM PC program that allows any remote packet-radio user to connect to and use a PC compatible computer as if the user was sitting in front of the PC (see Gateway, Volume 5, Number 23). To obtain a copy of DOSgate, send a 360-kbyte formatted 5-1/4-inch DOS disk, a self-addressed stamped disk mailer and your request for DOSgate to Rich Bono, NM1D, 7 Redfield Cir, Derry, NH 03038.

DRSI TCP/IP PC-Packet Driver is available in a new version that fixes all of the reported bugs in the earlier releases, nowsupports the NOS version of TCP/IP and marks the first release of the source code for the DRSI drivers. The pexecutables and DRSI driver source files may be downloaded from CompuServe's HamNet (file name: DR_NOS.ZIP) or may be obtained on disk from DRSI, 2965 Range Rd, Clearwater, FL 34625.

G4YFB Packet Mailbox Version 3.24 for the IBM (C and compatibles may be downloaded from CompuServe's HamNet (file name: YFB324.ZIP).

G8BPQ Packet Switch Version 3.53 has a number of changes and enhancements including a remote SYSOP feature for etering route/node information, node CTEXT for users accessing the switch via its alias, a BYE command and STATS information.

from Carl R. Finke, WB5DDP, via CompuServe's HamNet

KC8JN PBBS Version 8.21 for the Radio Shack TRS-80 Model I, III or IV (in the III mode) includes reverse-forwarding and BID store-and-forward. It is available by sending three unformatted 5-1/4-inch disks plus $2 (to cover mailing and documentation costs) to Bill Ritchie, N8FIS, 725 Rawson Ae, Fremont, OH 43420. Note that Bill is only able to copy the Model III disks because he does not own a Model I; anyone that wants to run this program on a Model I will have to convert it themselves.

MSYS Version 1.06, the IBM PC and compatible multiuser, multiport PBBS with support for TCP/IP, gateways and packet-radio clusters may be downloaded from CompuServe's HamNet.

PRMBS Version 1.05, the ROSE packet-radio mailbox and server for the IBM PC and compatibles fixes two major problems: the crash- inducing response to a non-standard "Link State is" message generated by a Kantronics KPC-4 and the failure to detect carrier loss of a landline modem connection in the "super-user state." The software may be downloaded from CompuServe's HamNet. The software is also available on disk from TAPR.

W0RLI Mailbox Version 11.8 removes support for MBL3.13, port types AEA and KAM, which is no longer required, and the line "?_name" from config.mb; fixes several cases of mail file corruption when GM. and several different TC hang situations; and adds the V command (like T with FLOW ON). The software's file name is FS1108.EXE and it may be downloaded from N1EDF at 508-949-3590 or WA6RDH at 916-678-1535. The software is also available on disk from TAPR.

WA7MBL PBBS Version 5.13 adds limited support to hierarchical-addressed messages. It may be downloaded from CompuServe's HamNet or via anonymous ftp on Internet from either tomcat.gsfc.nasa.gov (\public\bbs\wa7mbl) or biocat.chem.usu.edu (\pub). Its file name is MBL513.ARC. The software is also available on disk from TAPR.

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Gateway Column

Packet-Radio Satellite Tracking Programs

The recent launches of amateur packet-radio satellites has generated a lot of interest among packeteers worldwide. In order to use the satellites, it is necessary to know when they will be "visible" to your station. To find out when satellite visibility occurs, the following satellite tracking software is available from the Radio Amateur Satellite Corporation (AMSAT) at PO Box 27, Washington, DC20044, telephone 301-589-6062. Write or call AMSAT for pricing and ordering. Note that the software is discounted for AMSAT members.

"InstantTrack 1.00" for the IBM PC and compatibles was written by Franklin Antonio, N6NKF, and features speed, ease of use, instant visibility, real-time displays, automated orbital element entry and time-setting, satellite and station databases, a 1754 city database, grid square support, satellite co-visibility, squint angle, path loss, real-time rotor control, background moe, sun and moon tracking, fast rise-time finder, multiple station tracking and on-line help.

"Orbits II" is for IBM PCs and compatibles with 256-kbyte of RAM memory, CGA and compatible monitor, one 5-1/4-inch floppy diskette drive and DOS 2.0 or later.

"Orbits III" is functionally equivalent to ORBITS II, but has been designed for use with EGA and an Enhanced Color Display.

"Orbits IV" is the equivalent to ORBITS II, but has been designed for use with VGA.

"N4HY Quiktrak 4.0" is for IBM PCs with DOS 3.0 or later. An 8087 math co-processor is not needed, but the program will run much faster with it. CGA requires 512-kbyte of RAM, while EGA requires 640-kbyte of RAM.

"Quiktrak For IBM" is for IBM PCs without graphics capabilities.

"C-64 Supertrac" for the Commodore C-64, combines N4HY's Quiktrak program and enhanced graphics. It provides sharp, clear and colorful graphics with excellent scheduling flexibility. This program also has the ability to drive commercially available dual-axis rotors. It is available on disk only.

"Apple Quiktrak" is an Apple II menu-driven program for tracking and scheduling of amateur satellites. It incorporates a very fast algorithm for finding usable passes of the satellite of your choice. Satellite pointing angles relative to your QTH and a "window track" mode are included. The window track feature identifies mutual "windows" between your QTH and other

specified locations around the world. It includes menu driven utilities fordata entry and requires an 80-column card and 64-kbyte of RAM.

"Satellite Helper," written by W7HR for the Apple Macintosh, provides tabular data output of tracking and scheduling information for up to ten satellites. Graphic displays include rectangular, polar and great circle world maps, and there is a "view" mode which shows the Earth as seen from the satellite at any time. A real-time mode displays data as it changes and is compatible with the KLM/Mirage antenna tracking interface. Data can be displayed on the screen or printed on an Imagewriter printer. A propagation prediction package is also included which calculates the maximum usable frequency (MUF) to any point, sunrise and sunset times, bearings and distances, and displays the gray-line. Satellite Helper requires 1-Mbyte of RAM.

"C-128" is a version of the Orbits program that is written to take advantage of the unique capabilities of the Commodore C-128. It uses time-based incrementing with user-selected increments of time, which results in uniform time increments btween data lines. The program features automatic page formatting and pagination. As many as 20 satellites may be entered into Keplerian files. It requires an 80-column monitor and a Commodore compatible printer.

"Commodore Amiga" is designed for the Amiga operating in 80-column mode. It has the same features as C-128, but runs considerably faster. The program has provision for mode and phase programming to alert you as to which transponder is active. It requires 256-kbyte of RAM.

"Quiktrak for TRS-80 Model 4/TRSDOS 6.0" is the N4HY Quiktrak program modified to run on the TRS-80 Model 4.

"W3IWI Tracking Program" is available for the following computers: Tandy/TRS-80 Color Computer 1, 2 and 3 (cassette or disk); TRS-80 Model 3 (32-kbyte of RAM, one disk drive); Atari 400 and 800 (disk only); Each program provides all of the data needed for tracking satellites, space shuttles, etc in an easily understandable tabular form.

"HP-41 Programmable Calculator Orbit I" will output azimuth and elevation in real-time or all W3IWI arameters in the prediction mode. Special requirements: HP-41C plus QUAD Memory, HP-41CV, HP-41CX; Card Reader is desirable, but not essential.

"HP-41 Programmable Calculator Orbit II" is the same as Orbit I with the addition of functions from the Time Module for output of time and input from the time clock in a real-time mode.

QEX - The ARRL Experimenter's Exchange - March 1990 - Part 5 of 5
Gateway Column

IP ADDRESS COORDINATOR LIST UPDATE

The following list, courtesy of Brian Kantor, WB6CYT, may be used to update the regional IP address coordinator list that was published in Gateway,

Volume 6, Number 7. (An IP address is required in order to use the KA9Q Internet Protocol Package for amateur packet-radio TCP/IP operation. Contact your region's coordinator for an address assignment.)

IP IP ADDRESS
LOCATION ADDRESS COORDINATOR

US Coordinators

CA: San Bernardino and Riverside 44.018 KE6QH
DC: 44.096 WA1IVD
ID: 44.012 K7JD
KS: 44.122 WI0/R
MI: upper peninsula 44.092 KD9UU
MN: 44.094 WD0/HEB
NJ: southern 44.065 WB2MNF
NY: upstate 44.069 WA2WPI
OR: northwestern and Portland 44.116 WS7S
PR: 44.126 KP4QG
WA: eastern 44.012 K7JD
WA: Vancouver 44.116 WS7S
WI: 44.092 KD9UU
WY: 44.086 WB7CJO

International Coordinators

Chile 44.157 Flavio Llanos
c/o CE6EZG
France 44.151 FC1BQP
Portugal 44.158 CT1DIA
Spain 44.133 EA4DQX

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail or or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS or IP address 44.88.0.14.)

The deadline for each installment of Gateway is the tenth day of the month preceding the issue date of QEX.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1586. RTTY DX Notes, 3/9/90

Newsgroup: rec.ham-radio
Date: 1990-03-11 22:28:15 UTC
From: gws@n8emr.UUCP
Message-ID: <1456@n8emr.UUCP>
Source record: 12891

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB ALL @ ALLUSA $RTDX0903
RTTY DX Notes, 1of3, 3/9/90

RTTY DX Notes for Weekending 9th March 1990.
Part 1 of 3.
BID: $RTDX0903

A point to ponder. This week I received reports of 370 stations; some
of them rare DX, some good DX, some just DX, and finally, others who
were just normal stations. What does one leave out and what does one
use? As you can imagine, the editing pencil had a lot of work to do to
keep the notes to a reasonable size. I am not complaining, just
indicating that if the stations that you reported do not appear, its a
case that for this week there were some rarer stations around. But
thanks all the same, and keep up the good work.

Our thanks this week go to BV4VB, I5FLN, JA1BLV, JG1NBG, KT7H,
OD5NG, TG9VT, VK2EG, VK2KM, W1DA, W2JGR, W6/G0AZT, W0LHS and the
Tri-State DX Association VHF packet cluster. Thanks, chaps for your
efforts. They really assist with the work.

Bandpass:

Friday 3:
J88BS 14086 at 0047Z QSL
JX9CAA 14085 at 0051Z
UH8ABM 28082 at 1325Z
BZ4RDZ 14090 at 1520Z
TA3D 28087 at 1630Z QSL
EA6VS 28084 at 1740Z
4K2OT 21092 at 1910Z 50 BD
TU2BB 14074 at 2130Z ARQ
JY9SR 14084 at 2146Z QSL
8Q7DN 14086 at 2231Z

Saturday 3:
J88BS 21093 at 0040Z
UB5IPU 14094 at 0455Z
XW8KPL 21082 at 0723Z Note
5H3NL 21093 at 1015Z QSL
8Q7DN 14089 at 1225Z
```

RA9AO 21084 at 1239Z
JY9SR 28087 at 1553Z
UQ2HO 21085 at 1557Z QSL
ZS9A 21063 at 1700Z
6W6JX 21085 at 1830Z
ZS8MI 14081 at 1854Z
FO5MA 28091 at 1945Z
ZP6XDW 28088 at 2010Z QSL
HH2BZ 14082 at 2217Z QSL

Continued in part 2.
/EX
SB ALL @ ALLUSA $RTDX1003
RTTY DX Notes, 2of3, 3/9/90

RTTY DX Notes for Weekending 9th March 1990.
Part 2 of 3.
BID: $RTDX1003

Sunday 4:
J88BS 21082 at 0036Z
8P6QA 14080 at 0050Z
8Q7DN 14088 at 0110Z
VP8BFH 14095 at 0125Z
TA3D 14086 at 0350Z
LY2WW 14085 at 0646Z QSL
ES7JW 28093 at 1145Z QSL
VS6UW 14082 at 1211Z
ZS8MI 14081 at 1333Z
TU2BB 28075 at 1359Z
BY1BY 28088 at 1414Z
9J2AL 28093 at 1730Z
TK5IU 14084 at 2045Z
JY9SR 14086 at 2137Z
JX9CAA 14084 at 2150Z

Monday 5:
6Y5EW 14074 at 0330Z ARQ
FO5DB 14074 at 0445Z ARQ
YI1BGD 21092 at 1323Z
FR5ZD 14070 at 1355Z ARQ
J28TY 28092 at 1510Z
PJ4V 21080 at 1528Z QSL/Note
HL1ST 14088 at 2025Z
TA3D 14091 at 2030Z
KP4YD 21084 at 2040Z

Tuesday 6:
LQ19DX 21085 at 0030Z QSL/Note
J28TY 14089 at 0205Z
FO5DB 14074 at 0300Z ARQ
CE0ZIG 14090 at 0609Z QSL

TJ1MW 14086 at 0610Z
LY2WW 28086 at 0841Z
HL1SX 21089 at 0933Z
VK0JR 14072 at 1312Z ARQ
ZL0AIC 14086 at 1349Z QSL/Note
5B4NC 21087 at 1420Z
TA3D 14094 at 2110Z
EA9FI 14092 at 2222Z

Wednesday 7:
9Y4RJS 14091 at 0330Z
VK0JR 14075 at 0710Z ARQ
J28TY 28092 at 1226Z
TA2DO 21088 at 1311Z
FM5WL 21088 at 1340Z
UV9CC 21089 at 1420Z
V31HQ 14094 at 2055Z QSL
TU4AK 14091 at 2110Z
P43MD 14087 at 2325Z

Thursday 8:
GJ4YMX 14090 at 0001Z
LY1BYL 14085 at 0045Z
BY1SK 21083 at 0930Z
UY5EG 21095 at 1144Z
BV4VB 14090 at 1515Z
VS6VC 21083 at 1605Z

QSL Information:

J88BS says to QSL via WA4WIP.

TA3D is at Box 963, Izmir, Turkey.

JY9SR will QSL via W3FYT.

5H3NL QSLS via I4ULG.

UQ2HO says to QSL to Box 495, Riga 226047, Latvia USSR.

Continued in part 3.
/EX
SB ALL @ ALLUSA $RTDX1103
RTTY DX Notes, 3of3, 3/9/90

RTTY DX Notes for Weekending 9th March 1990.
Part 3 of 3.
BID: $RTDX1103

ZP6XDW has Box 73, Caacupe, Uruguay.

HH2BZ says to QSL via N1DRS.

ES7JW to Box 73, Viljandi, 202910 USSR.

LY2WW is Gintas Sakenas, Box 2237, Vilnius 232050, Lithuania, USSR.

PJ4V will QSL via WD4JNS.

LQ19DX QSLS via Box 36, CP-1834, Buenos Aires.

V31HQ says to QSL to DL1ZBP.

ZL0AIC says to QSL via HB9AAA.

CE0ZIG says to QSL via NR8J.

GJ4YMX QTH is Box 437, St Helier, Jersey, C.I.

BV4VB will QSL via Box 146, Taichung, 40099 Taiwan.

Notes of Interest:

UA3DK and RW3DX with UA3DZ are reported to be starting activity as 3W3DX, 3W3DK and 3W3DZ after March 13th. QSL 3W3DX to Box 145, Dubna, 141980. 3W3DK and 3W3DZ go to Box 45, Dubna.

Spratley is still on course for 15th March to 30th March, but there appears to be some problem with donations from the U.S.A. It is suggested that you do not make donations until you have consulted with your local foreign assets control office, or whatever it is called in your country. There could be large problems if advice is not received.

OH2BH, Martti, reports that his trip to Aves Island depends on a naval vessel being repaired in time. More later.

The TI9 operation also depends upon a naval vessel being available at the required time, and even so it may only be a 16 hour operation.

VK9NS (Jim Smith) informed me in a phone conversation that all was fine for the A5 (Bhutan) operation in about six weeks, but he is hoping that he can make S2 (Bangaladesh) sometime in the near future before the A5 operation. We will keep in touch.

PJ4V is Saba Island and counts as Saint Maarten.

LQ19DX is a special call for the Argentinian DX Group.

ZL0AIC is in Antarctica.

Lord Howe Island: Well, from reports received, all of which mention SSB and CW, it seems that there will be no RTTY operation. I have tried to contact VK3OT with no success.

XW8KPL states that he will be on RTTY every Saturday and Sunday, but only on 15 meters.

GL DE DX1 (VK2SG) via TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA.
/EX
SP KT7H @ N7HFZ.WA.USA.NA

A
A.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1587. Anthro 101

Newsgroup: rec.ham-radio
Date: 1990-03-11 22:36:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9003120802.AA25835@ucbvax.Berkeley.EDU>
Source record: 12892

Re: Kok Chien's ideas for computer licenses...

Novice/Techs will toggle in the boot strap code to a CDC MP-60, in Hex,
from their own memories to the computer's. Betcha Seymour Cray could...

Bob N5GNA

1588. Re: Scanner For Sale

Newsgroup: rec.ham-radio
Date: 1990-03-12 03:30:00 UTC
From: robert.bonenfant@canremote.uucp
Message-ID: <90031201022278@masnet.uucp>
Source record: 12893

```
For Sale:

1 - Uniden Bearcat Scanner 200XLT
Covers:
29.000 mhz - 54.000 mhz
118.000 mhz - 174.000 mhz
406.000 mhz - 512.000 mhz
806.000 mhz - 956.000 mhz

Comes With:
- Carrying Case
- Charger(ni-cads Included)
- Mobile Ant.

Scanner is 3 months old, and Must sell. Asking $450.00
or Best Offer. Call Robert Bonenfant at (416)823-4850,
After 6:00 P.M. Monday-Friday, Anytime on Weekends, or
Leave Message. (CRS St Conf. 6)
---
* Via ProDoor 3.1R
```

1589. Part 15 on 21 mtrs

Newsgroup: rec.ham-radio
Date: 1990-03-12 03:55:42 UTC
From: tad@ssc.UUCP
Message-ID: <545@ssc.UUCP>
Source record: 12894
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Did anyone notice the new allocation for low power transmitters
under Part 15 at 13.553 to 13.567 MHz? It is mentioned on page
7 of the March issue of Monitoring Times.

What did the FCC have in mind with this allocation?

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

1590. Re: License plates

Newsgroup: rec.ham-radio
Date: 1990-03-12 04:37:25 UTC
From: Ken.Crowston@weyr.FIDONET.ORG
Message-ID: <582.25FB3C0A@weyr.FIDONET.ORG>
Source record: 12895

Here in Saskatchewan while the provincal ham organization died and most amateurs were fast asleep, our "Devine" goverment changed our ham plates to "vanity plates". We now rate the same as anyone else who wants a personalized plate - pay your $75.00 - you can have anything on your plate. Not hard to see how much our government appreciated our help during emergencies etc.

73,s de VE5KEN - Ken
--
Ken Crowston - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Ken.Crowston
Internet: Ken.Crowston@weyr.FIDONET.ORG
Standard Disclaimers Apply...

1591. Re: Ham regs question.

Newsgroup: rec.ham-radio
Date: 1990-03-12 04:54:14 UTC
From: alan@km4ba.UUCP
Message-ID: <125@km4ba.UUCP>
Source record: 12896

phil@ux1.cso.uiuc.edu writes:
stuff deleted...

>I would NOT put up a remotely controlled phone patch (not part of a repeater
>and thus not under automatic control) with INPUT BELOW 220.5 Mhz (or on the
>431-433 or 435-438 Mhz subbands). I am giving serious thought to putting one
>up on something like 446.475 in and 146.475 out, which would be full duplex,
>and in fact fitting the local band plan simplex channelling with an easy to
>remember 300 Mhz split.

I hate to sound like a legal eagle, but what you just described *is* a
repeater, and really shouldn't be in the simplex part of the band. I guess
low power, 1/4 mile range would be ok, but I think things would get
out of hand quickly. (IE: in some areas, there would be one of these on
each simplex "pair". saves the expense of getting a duplexer, also!)

As I understand the intent of the bandplan, repeaters are intentionally excluded
so there will always be freqs for mobile to mobile, etc. I also feel, personally
that high site remote bases should not be parked on simplex freqs with xmit
enabled for the same reason. Leaving rx enabled is fine.

With the cross band *remote base* (not repeater, as the ads say) capability of
the newer radios, It is even more important. Otherwise, some rptr operator
gets a call from an irate simplex user (or, worse freq. coordinator) wanting
to know why his repeater is on a simplex freq. When the smoke clears, they
figure out that some new kenwood/yaesu/icom owner is leaving his dual band
parked in remote base mode. (Usually using his 2mtr handheld to hit a 440
repeater from his house)

This happens regularly in our area. Sometimes even worse scenarios occur,
like when the new radio owner sets his radio for 2 rptrs, rather than
1 rptr & a simplex freq. Instant ping pong once one of the rptr's is kerchunked.

anyway, that's my $47 worth. neat idea though!

73
Alan Barrow km4ba
..!gatech!kd4nc!km4ba!alan

>--Phil Howard, KA9WGN--
><phil@ux1.cso.uiuc.edu>

1592. Ohm's law

Newsgroup: rec.ham-radio
Date: 1990-03-12 06:30:41 UTC
From: kjh@pollux.usc.edu
Message-ID: <23411@usc.edu>
Source record: 12897

In article <640@n4hgf.uucp> wht@n4hgf.uucp (Warren Tucker) writes:
>Warren Tucker, Tridom Corporation ...!gatech!kd4nc!n4hgf!wht
>E = I * R, if you're lucky, and only then on alternate Tuesdays.
^^^^^^^^^
This is a gross simplification, that is only "exactly" true at DC, but
of course you knew that. . . . .

Ken Hendrickson N8DGN kjh@usc.edu ...!uunet!usc!pollux!kjh

1593. FT-2700RH Mods

Newsgroup: rec.ham-radio
Date: 1990-03-12 12:51:27 UTC
From: daveh@compnect.UUCP
Message-ID: <488@compnect.UUCP>
Source record: 12898

I just picked up a used Yaesu FT-2700RH dual band 2m/70cm rig at a hamfest. It appears that the previous owner has already opened up the coverage from what the manual says. I am interested in details of this mod and any other enhancements for this rig. Thanks and 73.

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!ka3adu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

1594. Yaesu 757 vs 757GXII

Newsgroup: rec.ham-radio
Date: 1990-03-12 14:44:51 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9003121444.AA23182@bunny.gte.com>
Source record: 12899

About four years ago I bought a Yaesu FT 757 after playing with it, the Kenwood TS 440, and whatever the equivalent ICOM 12V all band receiver HF transceive was. I bought the 757 because it was cheaper, I liked the way it operated, and because it sounded better than the other two. I did a lot of playing with the choices at EEB.

When the radio worked, it was a great radio. In less than two years it died three times: one switching diode went, and the final xsistors blew twice. Ironically, after picking it up from EEB after the third repair, it was stolen from my car.

I have spoken to several local guys who had reliability problems with the 757 and several on the air.

According to the repair tech at EEB, Yaesu came out with the GXII in part to solve some of those problems. The GXII also has a notch filter and a "soft" mode switch, so you can store mode in memory with the frequency. No more hvinf to switch from CW when you want to check WWV.

I'm not sure I would buy a 757 again, but if I did it would definitely be the GXII. One reliable indicator is the relative value of the TS 440 and the FT 757 seen at hamfests. Equivalently aged 757s are selling for $2-300 less than 440s here. The integral antenna tuner represents only a part of that, I think.
73 John WB2EKK PESCATORE_JT%NCSD@GTE.COM

1595. Re: antenna problems

Newsgroup: rec.ham-radio
Date: 1990-03-12 15:12:45 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840028@hpl-opus.HP.COM>
Source record: 12900

I had similar troubles, and worse, with mine.

I resorted to cutting some sections in order to get it to
resonate. Mine is ground mounted with 3 radials covering only
90 degrees, since it is in the corner of my yard.

I had an intermittant resonance problem on 80&40 which turned out
to be either a bad connection between the trap coil and terminal
or dirt in the trap "capacitor", because after runnning full power
into it on 80 for a while - it got zapped, and now works! ;-}

George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ

1596. Re: dual_gate mosfet mixer

Newsgroup: rec.ham-radio
Date: 1990-03-12 15:16:51 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840029@hpl-opus.HP.COM>
Source record: 12901

Your mixer works! The fact that you have low oscillator injection
voltage only affects its conversion GAIN. You might try an auto-
transformer or ferrite broadband transformer to step up the
voltage, but depending on the particular application you may
just leave it alone.

George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ

1597. Re: 16:1 Transformer

Newsgroup: rec.ham-radio
Date: 1990-03-12 15:20:09 UTC
From: chris@hplvli.HP.COM
Message-ID: <4590034@hplvli.HP.COM>
Source record: 12902

There is a good new ARRL publication about transmission line transformers (in fact, I think that the title is "Transmission Line Transformers", but I don't have it here). I suspect your question is about an RF transformer, not 60Hz power supply transformer, so forgive me if I'm off base. This book discusses toroidal transformers and baluns, as well as other kinds. Probably for best results at most RF (up to VHF) toroidal transformer is most efficient and is "self shielding". Amidon, Palomar, Ferritronics, and many others make these toroidal forms. See also ARRL Handbook for design info. Choice of form composition and size depend on both frequency of interest and power level. Good Luck, 73. de WD5IBS.

1598. Re: Misc. DX QSL Information - Fall/Winter 1989/90

Newsgroup: rec.ham-radio
Date: 1990-03-12 16:43:37 UTC
From: rusty@cadnetix.COM
Message-ID: <11699@cadnetix.COM>
Source record: 12903

In article <19214@eerie.acsu.Buffalo.EDU> bowen@cs.Buffalo.EDU (Devon Bowen) writes:
>In article <9003091432.AA22914@decwrl.dec.com> reisert@victim.enet.dec.com (Jim) writes:
>> or the on-line callbook doesn't have the latest information, a more likely story,
>
>Marvin's server (and probably any server that got its data from Rusty)

Minor correction - definately any server that got its data from me :-)

>is updated once a year around October.

I'm planning on making the next update be Jan 1, 1991, I hope thats ok
with everyone!

>More frequent updates are not possible due to ...

Actually, I've been thinking, and I'd like to have all callsign server folks
(and those considering setting up a callsign server) email me, I would like
to talk to you all privately. (Also, anyone wanting monthly updates should
email, too.)

Thanks!

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1599. CW, RTTY decoder question

Newsgroup: rec.ham-radio
Date: 1990-03-12 17:04:53 UTC
From: elliott@optilink.UUCP
Message-ID: <3243@optilink.UUCP>
Source record: 12904

I am trying to find out what products exist that demodulate and decode morse code and rtty.

I am working the design of some at home, and while I don't mind re-inventing the wheel in this case (I seem to use CW generators and decoders as a mechanism for learning programming languages and hardware interface), it seems that my latest almost-finished product may fit in some currently unfilled market niche.

Products I am aware of, so don't bother to tell me unless you really want to:
1) The various packet-radio TNCs
2) The CW/RTTY decoder in April 1990 _Radio_Electronics_
3) A cute $180 (or so) decoder with LCD display, advertised in QST and elsewhere

Things I have seen allusions to, so more info would be appreciated:
1) Some packages for (Atari?) computers

My current design has the following features:
1) Small, fits in DB-25 shell (uses surface-mount)
2) Audio input jack (not really a feature, just a requirement)
3) Connects to IBM-PC / clone serial port, port-powered
4) IBM / clone _only_ (uses PC-specific programming)
5) CW only, but this is negotiable. RTTY a different unit for now
6) Adaptave filtering speed and weighting tracking in software
7) Transcript logging to disk
8) Morse generator output for free (rs-232 levels out on jack)
9) *Low Cost* ($49.95 target price)

Any comments on the above? This is not an offer to sell a product, but if you *would* buy one of these, or something similar I would like to hear why (or why not). Should I even consider trying to sell this?

Please Email me, all news feeds to Optilink are currently very flaky.

Thanks for your comments,
-- Paul Elliott, WB6CXC

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{pyramid,pixar,tekbspa}!optilink!elliott
"You shall kill only the killers." -- Wilbur Mercer

1600. Call for discussion - rec.arts.tv.catv

Newsgroup: rec.ham-radio
Date: 1990-03-12 19:52:53 UTC
From: mrapple@quack.UUCP
Message-ID: <5188@quack.UUCP>
Source record: 12905
Cross-posted to: news.groups,rec.arts.tv,rec.ham-radio,rec.radio.shortwave

[crossposted to ham-radio because of possibility of technical
discussions, to radio.shortwave because of possibility of including
satelite programming, a distant relative to shortwave listening]

I would like to open a discussion period on the possible formation
of rec.arts.tv.catv, a group for the discussion of issues pertaining
to cable TV. Possible issues include regulation, programming,
quality of service and technical issues.

This group would be beneficial in that it would allow non-catv
readers to focus on broadcast issues in r.a.tv. It would also
allow discussions of non-programming topics not well suited
to r.a.tv.

The proposed group is not moderated.

Optionally this group may also include satelite broadcasting,
although that is not really cable TV. If they are, perhaps the
name should be changed.

This, of course, is not a call for votes. Discussions should
take place in news.groups to determine a proposed charter.
This discussion should end on April 1. At that time it should
be taken to e-mail or a call for votes.

If I've left anything out, I appologise in advance.
--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~+~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
quack!mrapple@uop.edu ! "Okay, Dr. Ryan, we've just
...pacbell!uop!quack!mrapple ! unzipped our fly."
N6QQQ via DIA (145.05) ! - THFRO
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1601. Operation in Mexico

Newsgroup: rec.ham-radio
Date: 1990-03-12 20:06:46 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9003122006.AA01556@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 12906

My daughter is going to be in Mexico for a week. What is required to operate there? She has a Tech and the goal would be hf cw.

-- Doug WA6VVV`

1602. Re: 10m Beacon list

Newsgroup: rec.ham-radio
Date: 1990-03-12 20:47:16 UTC
From: dvh@cci632.UUCP
Message-ID: <34993@cci632.UUCP>
Source record: 12907

Great list, Gary. Now I wonder- has anyone considered putting together
a similar list of Six Meter beacons? With the hot conditions to many parts
of the world now existing on six, this would be a useful bit of
information.

If such a list exists and I don't know about it, please point my
punkin head in the right direction and I'll be a happy kid.

Thanks in advance for any help with this.

Dave KD5RO/2

1603. Club mtg ideas

Newsgroup: rec.ham-radio
Date: 1990-03-12 22:19:29 UTC
From: abm@mbunix.mitre.org
Message-ID: <102224@linus.UUCP>
Source record: 12908

I asked for suggestions for topics / speakers for a luchhour ham
club at work. Here are the responses to date -thanks to all who
contributed
73 Alex wd2t abm@mbunix.mitre.org

*** from Phil Howard KA9WGN <phil@ux1.cso.uiuc.edu>
1. RFI: how to prevent it
2. RFI: how to cure it
3. SAFETY in the ham shack and on the tower
4. Rare DX certificates
5. What is EME all about
6. Signal processing developments
7. Soldering workshop
8. Are you grounded
9. MORE SAFETY in the ham shack and on the tower
10. The joy of fox hunting

*** from Steve Wilson KA6S
xait!think!ames!versatc!wyse!wyse.com!stevew

One program that we(the local Amateur Auxiliary) are putting on
for anyone that is interested is a combo program where we talk
about the Amateur Auxiliary(OO's) and also talk about DF techniques.
The DFing part seems to be a real popular topic. The meetings
seem to run a bit long because there are usually so many
questions.

Try contacting your local OO Co-ordinator(get his name from your
ARRL Section Manager) and maybe he can help you find a
speaker.

*** from Barry Fowler WB6JZL <barry@hprmokg.hp.com>

Simple antenna design (rules of thumb). Specifically, space-saving
antennae since many live in tract houses.

Maybe a t-hunt after the meeting to get the lard butts going.

Pictorials of the "evolution of commercial (and homebrew)"
amateur radio rigs.

Maybe a family oriented ham radio campout (something besides
ham radio to keep the rest going and not make it as intense as
Field Day). Maybe at a nice lake in the summer.

"The world's most simplest xmtr/rcvr and have them come to the
next club meeting and compare results".

*** from John Covington WN4BBJ cs00jmc@unccvax.uncc.edu
1. Presentation on proper method of traffic handling
(we had a local ham do this once; it was very helpful and
interesting since with packet many people are now trying to
handle traffic that have never bothered with it before)

2. History of Radio Communication
(a local radio history buff put on a good presentation about the
early days of amateur and broadcast radio)

3. DXpedition/special event slide shows:
(we have had slide shows of St. Maarten dxpedition; a trip to
Dayton hamvention, etc.; it gets those who haven't participated in
the past a "feel" for how much fun it is)

4. National Weather Service representative:
(we have a very active SkyWarn group around here; the NWS is
much in favor of us and glad to help out. He brought some
videotapes of tornadoes taken from a helicopter 0.5 miles away;
combined with his discussion of weather phenomena and tracking
techniques made for a very interesting meeting).

5. Packet Radio
(you may already have heard this one; but any kind of
specialized communications technique makes for an interesting
show if you get someone enthusiastic to do the presentation)

The selection of an enthusiastic speaker can be just as important
as the topic. Picking someone who really enjoys what they do will
usually give you the best program -- the speaker enjoys the
subject, gets an ego boost for being asked to do the program, tries
to convey to everyone else how much fun (or important if not
necessarily a fun topic) it is, and helps to broaden the horizons of
the attendees. Ham Radio is a learning hobby and anything you
can do to boost the interests of club members will make for a
better club. Some clubs don't have programs (or very good ones)
and end up becoming political bitching societies.

*** from Steve Harding -- KA6ETB @ N6LDL.#NOCAL.CA.USA -
steveh@atherton.com

Consider emergency preparedness. What to do if the big [your
favorite disaster here] hits.

How to handle NTS traffic, both via packet and on your local and
section nets.

1604. Incentive Licensing...and the League....

Newsgroup: rec.ham-radio
Date: 1990-03-12 23:11:20 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003122341.AA05084@ti.com>
Source record: 12909

Gary Coffman presented some good stats regarding the growth and decline of new Amateur licensees since 1968. These are interesting figures, but I would hesitate to attribute them to incentive licensing. NEW amateurs are hardly affected by I.L., since they generally start at Novice. There are some other reasons that bear directly on the variations in new licenses, among which are:
(1) Perceived cost to get on the air. If a prospective new ham is given the notion that (s)he has to purchase a $500 radio, a $100 antenna, a $150 tuner, a $200 TNC, and a $1000 computer (s)he will probably think twice or three times before going for it, and may be scared off by the economics.
(2) Recreation options. There are more options available now than there were 20 years ago. One such option is computers. A person can buy a computer, join a computer club and have lots of fun---all without having to pass any tests org getting any license from the government.

getting any license from the government!
(3) Observing Hams. I'm sure that a lot of people have been turned off by what they hear today on the bands, in publications, and BBSs. Inexpensive scanners, for instance, let prospective Hams listen in on our hobby in far greater numbers than they did 20 years ago.

I got my Novice ticket during the "1946 to 1968" period Gary mentions. My first station was about as cheap as you could get: an S-38C, a homebrew two-tube crystal-controlled transmitter, and a TV twin-lead doublet antenna. I wasn't a Ham when the NEW incentive license classes were added. Why do I emphasize "new"? Because there was incentive licensing then! My Novice was good for (I think) one year, after which I had to upgrade to General or get out of the hobby! (I got out). I can certainly sympathize with Gary and others who weren't "grandfathered" the privileges they held before the NEW incentive license classes were added. I would have been one of them. But it has little to do with whether an individual choses to become a Ham today. Gary closes by citing the very reason why I think I.L. works: "The advent of packet and satellites finally caused me to grit my teeth and up-grade". I applaud Gary for that! It is the stuff of which better Hams are made! So, you see, there really is only one class of license: Amateur Radio Operator. A Novice is a Ham just like the Extra; (s)he just doesn't have all the privileges yet.

73,
Dube Todd, N5PDK

1605. Multi-Mode Terminal Units

Newsgroup: rec.ham-radio
Date: 1990-03-12 23:12:00 UTC
From: Ken.Crowston@weyr.FIDONET.ORG
Message-ID: <584.25FC3924@weyr.FIDONET.ORG>
Source record: 12910

I would be interested in hearing comments from users of the Muilti-Mode TU's - PK232, KAM and MFJ 1278 (especially new versions).

How good are they on modes other than Packet? How well do they copy hand sent CW? Is the software from the manufacturers good or what programs do you find work well for you.

Nothing beats a first hand review from a product user!

73's de VE5KEN - Ken

--
Ken Crowston - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Ken.Crowston
Internet: Ken.Crowston@weyr.FIDONET.ORG
Standard Disclaimers Apply...

1606. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-12 23:58:20 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Mar12.235820.10395@NCoast.ORG>
Source record: 12911

As quoted from <11689@cadnetix.COM> by rusty@cadnetix.COM (Rusty Carruth):
+---------------
| In article <9003051529.AA05504@pelham.med.unc.edu> pswecker@med.unc.edu (Peter St.Wecker) writes:
| > I'm continuing to work on my code speed towards the magic 13wpm, but
| >I'd like to get people's opinions on how best to do it.
|
| Well, I've not 'done it' yet, I'm currently working on it. I'm listening
| to a tape while drivingn to and from work (not the whole time, maybe
| 5 to 15 minutes each way), and I've begun using one of those morse code
| programs on my AT (confusible, not the 'true blue' stuff :-)). The tape
+---------------

I'm using a program on my Mac, and waiting for my Sony 2010 to come in later this month so I can get some *real* experience. (The "boom-box" (see rec.radio.shortwave) just doesn't cut it.) I learned Morse at 5WPM, then started increasing speed; I'm now at 8WPM and should jump to 10WPM on Thursday (might be sooner, but Tuesday and Wednesday are going to be muy busy).

++Brandon
--
Brandon S. Allbery (human), allbery@NCoast.ORG (Inet), BALLBERY (MCI Mail)
ALLBERY (Delphi), uunet!cwjcc.cwru.edu!ncoast!allbery (UUCP), B.ALLBERY (GEnie)
BrandonA (A-Online) ("...and a partridge in a pear tree!" ;-)

1607. Re: computer rfi

Newsgroup: rec.ham-radio
Date: 1990-03-13 01:28:06 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250133@hpnmdla.HP.COM>
Source record: 12912

Get the antenna as far away from the computers as possible and use
double-shielded coax or hardline. You may also have to shield the radio
and add decoupling to power and control lines.

Al N1AL

1608. Design Project Ideas Wanted

Newsgroup: rec.ham-radio
Date: 1990-03-13 02:23:33 UTC
From: ua2@sage.cc.purdue.edu
Message-ID: <3782@sage.cc.purdue.edu>
Source record: 12913

I'm looking for ideas and thought that maybe you netters could provide some helpful ideas. I'm a student at Purdue University and I need ideas for an electronic project.
Requirements:
1) Approx. 80 hours or less to complete.
2) No more than 2/3 can be premade or kit. The other 1/3 must be built up from the breadboard level.
3) It would be best as a stand alone project, i.e. capable of working by itself or with equipment I own. (NOT an absolute requirement.)

Please E-mail any ideas or parts of ideas that you may have.
Many thanks in advance.
John Schmitz ua2@sage.cc.purdue.edu

1609. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-13 05:30:39 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490013@hprmokg.HP.COM>
Source record: 12914

paulf@bodega.stanford.edu (Paul Flwrites:

FB, OM? UR 599 QSL VIA BURO 73 ES CUL SK

This is international good will? This is communications? Ugh.

...until you decide to run hf packet or rtty in "their" segment...

Sorry, Barry, but I tried it, and I didn't like it.

I agree. This kind of "conversation" is exactly what I want to stay away from. The same exists on SSB on those damned DX nets. That is why I often get on the novice bands. They haven't been screwed up by the contest mentality. Actually, shooting the bull can be lots of fun on either CW, SSB, or Unix for that matter. It all depends upon how one initiates the conversation. If it's "strictly business", the reply will be similar, as in typical conversations.

I just use CW as a means of meeting more friendly people without all of the backbiting and territorialism. 'Works fer me...

Adios,
Barry
WB6JZL

1610. Hamradio software uploaded to SIMTEL20

Newsgroup: rec.ham-radio
Date: 1990-03-13 08:10:17 UTC
From: mto@KOLVI.HUT.FI
Message-ID: <9002221123.AA12883@kolvi.hut.fi>
Source record: 12915

I have uploaded two ham radio related files to WSMR-SIMTEL20.ARMY.MIL.
They are:

pd1:<msdos.hamradio>
DXCC104.ARC DXCC Award logger and lister with statistics

An electronic DXCC Award logbook by OH2DN and OH2BU. User can
select display from 5 different languages (English, Spanish,
German, Swedish and Finnish). It also makes statistics about
confirmed/worked countries.

pd1:<msdos.hamradio>
SATRA10.ARC Satellite tracker for MS-Windows

Satellite tracker with visual display using Microsoft Windows.
Maps can be displayed in two resolutions and Europe can be zoomed.
Also includes an interface to a (home-brew) rotator control.

Regards, Markku (OH2BQZ)

--
Markku Toijala, OH2BQZ ! tel: +358 0 4512467
Helsinki University of Technology !
Otakaari 5 A ! Internet: mto@kolvi.hut.fi
SF-02150 Espoo, Finland ! UUCP: {uunet,mcsun}!kolvi!mto

1611. Re: Call for discussion - rec.arts.tv.catv

Newsgroup: rec.ham-radio
Date: 1990-03-13 12:48:50 UTC
From: C.Dennison@newcastle.ac.uk
Message-ID: <1990Mar13.124850.24587@newcastle.ac.uk>
Source record: 12916
Cross-posted to: news.groups,rec.radio.shortwave,rec.ham-radio

In article <5188@quack.UUCP> mrapple@quack.UUCP (Nick Sayer) writes:
>I would like to open a discussion period on the possible formation
>of rec.arts.tv.catv, a group for the discussion of issues pertaining
>to cable TV. Possible issues include regulation, programming,
>quality of service and technical issues.

Wouldn't "rec.tv.cable" give a clearer indication of what the group was about?
Most of the 'rec.arts.tv' series tend to discuss program content, and I would
imagine that the kind of group that is being proposed here would be for
technical bits and bobs.
Just a thought anyway!

Chris.

.

+ Computing Science Dept, University of Newcastle | All opinions expressed +
+ Newcastle upon Tyne, UK, NE1 7RU (091 265 2486) | are mine and mine alone! +
+ ARPA: C.Dennison@newcastle.ac.uk | Chris Dennison +
++

1612. Motorola SABER III's @ Dayton ???

Newsgroup: rec.ham-radio
Date: 1990-03-13 14:46:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9003140802.AA17048@ucbvax.Berkeley.EDU>
Source record: 12917

Hello all you Motorola aficionados out there !

In my opinion, with all the features built into the Japanese
HT's these days,unfortunately we still have to treat them too
delicately to enjoy them as much as we ought to.

I'll be looking around this year at Dayton for Saber III's,
Motorola's gem of an HT. (upgrading my MT-500)
A few of these were around last year at Dayton and were
being sold at 700-900 dollars. I hope the price drops this year
like they already did on the once-so-pricey MX's.
If anyone has any comments on the subject and/or has info.
concerning availability at Dayton please contact me via
my return-path address. (Not via the Info-Hams address please).

73's
4X1DA @4Z4SV
RICH HAREL

DISCLAIMER
*THESE OPINIONS IN NO WAY ARE CONNECTED WITH THOSE OF MY EMPLOYER

1613. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-13 15:30:19 UTC
From: jill@tank.uchicago.edu
Message-ID: <8024@tank.uchicago.edu>
Source record: 12918

In article <30500442@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
:
(edited)
:
: In order to not get foreign hams mad at us, we probably do need to keep some
: band segments relatively clear of the intense density of US hams. We can do
: this in many ways. We can keep TWO or THREE (but NOT FIVE) levels of HF privs
: and get the same effect. We can ALSO promote VHF/UHF MORE and HF LESS.
:
: Compromise is the name of the game.
:

I have to agree that the current hierachy doesn't address today's
technology. It seems very sad, however, that reform is inhibited, not
by the lack of good ideas, but by the FCC's computer.

However, this is probably the best opportunity we have to change the
system. If we don't respond now to the FCC with new and creative
ideas (even within the limitation of their computer), we will have no
one to blame but ourselves as new technology outpaces a very archaic
system.
--
==
Jill Hansen | Can you imagine what this world be like
jill@tank.uchicago.edu | if God's operating system were Unix?

1614. Re: Anthro 101

Newsgroup: rec.ham-radio
Date: 1990-03-13 16:14:52 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Mar13.161452.6505@Neon.Stanford.EDU>
Source record: 12919

In article <9003120802.AA25835@ucbvax.Berkeley.EDU> bob%50781.decnet@WPAFB-AMS1.AF.MIL ("50781::BOB") writes:

>Re: Kok Chien's ideas for computer licenses...

>Novice/Techs will toggle in the boot strap code to a CDC MP-60, in Hex,
>from their own memories to the computer's. Betcha Seymour Cray could...

Nah. Seymour Cray couldn't count above 8. All his stuff was octal or base-4.
LOTS of us know how to set the bootstrap code for a 6600, though... the panel
was organized in octal, not hex.

Marc Kaufman (kaufman@Neon.stanford.edu)

1615. Operating schedule

Newsgroup: rec.ham-radio
Date: 1990-03-13 18:16:51 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9003140803.AA17103@ucbvax.Berkeley.EDU>
Source record: 12920

Would someone please e-mail to me the current
operating mode schedule for AO-13?

Thanks

Mike Owen W9IP/2
MROWEN @ STLAWU

1616. HF verticals (summary)

Newsgroup: rec.ham-radio
Date: 1990-03-13 18:28:42 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1762@aurora.AthabascaU.CA>
Source record: 12921

Thanks to all for the responses to my posting about HF verticals.
The hands down winner seems to be the Butternut HF6V, especially
for roof mounted applications. Although it's a bit narrow banded
on 40 and 80 (what vertical isn't?), it seems to show good SWR
across the remaining bands (30-10). Butternut provides an add on
kit for the WARC bands, as well as what seems to be a reasonably
good radial kit.

There were a couple of comments about it handling significant ice
loads with little difficults. This is important when you live at
51 degrees north :-)

A couple of people mentioned the Cushcraft AP8. From the people
I've talked to, this antenna works well if you mount it on the
ground with radials, but is almost hopeless when roof mounted.
(When I called the local ham dealer, he refused to sell one to me
when he found out where I was going to put it!)

Another response mentioned the August and December 1983 issues
of CQ which contain articles on how to build a (legal) clone of
the AV-25.

Out of the nine replies I received, six were for the HF6V. Since
I was biased towards this one to begin with, guess what's going
on the roof :-)

Thanks (in no particular order) to the following people for
giving me their thoughts on this:

Bill Meahan (WA8TZG), Tad Cook (KT7H), Mark (VE6MGS), Goh Kawai (N6UOK),
Mike Edelman (KE8YY), Chris Kelly (WD5IBS), Mike Harris (KM4UL),
haynes@ucscc.ucsc.edu, George La Belle (WB6YZZ).

I'll let you all know in a couple of weeks how this works out.
(See you Saturday on 10 :-)

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

UREP: Peru in disguise?

1617. Wait a minute...

Newsgroup: rec.ham-radio
Date: 1990-03-13 19:26:09 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003140803.AA17127@ucbvax.Berkeley.EDU>
Source record: 12922

There have been a lot of postings to the effect of "we need {the no-code license | the elimination of incentive licensing | your favorite cure-all} because all the hams are dying out, there are too few new ones, and we'll lose everything if we don't."

Yet, the following statement has appeared a couple times, and no one has complained about it or refuted it:

: In order to not get foreign hams mad at us, we probably do need to keep some
: band segments relatively clear of the intense density of US hams.
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

You can't have it both ways, folks.

Either there are too few hams, which means that we cannot have an "intense density of US hams", or we already have too many, in which case you want *more* arbitrary filters to reduce the candidates and fewer applicants.

Will

1618. Weather Fax. HELP!!!!!

Newsgroup: rec.ham-radio
Date: 1990-03-13 19:50:27 UTC
From: lawrence@smcnet.UUCP
Message-ID: <710@smcnet.UUCP>
Source record: 12923
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.radio.shortwave

Our Earth Science Department purchased a Kenwood R-2000 HF receiver and an AldenElectronics 9321 Weather Chart Recorder for reception of radio fax weather pictures. Being the resident ham on the staff of the college they assumed that I would know how to hook the gear up. Unfortunately I have not had much experience with HF yet. I have set up a long wire antenna and can hear some sort of data trasmission on the freqs. that came with the Alden docs. Nonetheless we have never seen anything printed in the fax machine except black lines.

The questions:

-- Is there a better way to receive weather pictures with different gear? Is there a TNC and PC setup that might work better than the paper based fax unit?

-- What should the receiver bet set on? (AM, USB, LSB, CW)

-- Is a long wire good enough or do we need a beam or something?

Any assistance or help would be greatly appreciated. Earth Science won't let me walk down their hall until I get this thing working.

--

Lawrence Roney - Santa Monica College Telecommunications Department
KC6HQR 1900 Pico Blvd., Santa Monica, CA 90405-1628
Mail: uunet!ucla-cs!smcnet!lawrence or ...!csun!smcnet!lawrence

1619. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-13 21:58:55 UTC
From: flash@lopez.UUCP
Message-ID: <1196@lopez.UUCP>
Source record: 12924

phil@ux1.cso.uiuc.edu writes:

>> I have noticed (for some time now) a sweeping carrier
>> passing through the HF bands. It appears both in the
>> amateur HF bands and other HF frequencies as well.
>> It sounds just like someone spotting their VFO
>> as they spin the VFO dail up or down the band.
>> At first I assumed this was someone with bad
>> operating practices but after I noticed it on the
>> non-ham portions of the HF band I figured it was
>> some military station with annoying operating
>> practices.

What you are hearing is a CHIRPSOUNDER. This is a highly sophisticated device used by the military for plotting real time ionospheric conditions, for the determination of MUF and LUF. These devices (there are several of them) operate in the manner described, sweeping from about 3khz to 30khz at a uniform rate, and a transmitter and receiver plot the spectrum characteristics over a number of global paths, and the display (so I have been told) is a very beautiful on screen representation of the current condition of the entire radio spectrum. Too bad this info is not available to the general public (Oh if only I could provide this on our system here!)... BUT it is a pretty hush hush deal.

There are other noises you will hear in ham bands and elsewhere that first appear to be random, but are actually military in origin (Spread spectrum, etc). There are digital "buzzes" which are used with radio navigation, and these can pop up anywhere, EVEN IN THE HAM BANDS. There is also a very strange sound that I call a "Pock-a-pock" which sounds sort of like someone hitting a microphone with a pencil, but upon careful listening the seemingly random patterns are repeated (I noticed this by accident while playing a recording while simultaneously receiving the signal again live, and found that the pattern was repeated) In addition to hearing these sounds regularly for YEARS on my nightly operating frequency of 3950khz, they also show up on MILITARY channels like 6761, and you can bet your binaries that if this was some sort of pirate activity, it would not have lasted long THERE. These sounds have been around for YEARS. The fact that they are seemingly random leads operators to believe that they are local in origin, but in reality they are heard almost world wide.

There is also an obnoxious signal on 3922 in the 75m band, which reportedly originates in CUBA. It is hand keyed gibberish CW, and it splatters all up the band. It has wiped out communication on 3950,

where a "negative spur" shows up during the transmissions. (When the transmitter is UNKEYED, it puts this terrible NOISE on 3950).

I wonder whatever happened to INTRUDER WATCH. Of course, if your own government is responsible for the interference, I guess they have first "dibs" on the spectrum, eh?

Lots of strange signals out there in the wee hours. Join us on 3950 some morning around 1 or 2am and listen, you will hear this stuff. I imagine it shows up elsewhere as well....

>I've heard this many times myself. One time I heard it running across the
>20 meter band DOWNWARD and I decided to CHASE IT. It was moving about 20
>khz per second, and just suddenly switched off somewhere around 12.7 Mhz.
>
>> I now belive that none of the above explanations
>> apply. I think this sweeping carrier is some sort
>> of HF propogation sounder. It probably is finding
>> the MUF and collecting data relating to HF
>> propogation vs. frequency vs. time. If this is
>> true how can the FCC license such an obnoixous
>> thing?

>Potentially under Part 5 rules. Read them.

>--Phil Howard, KA9WGN--
><phil@ux1.cso.uiuc.edu>
--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

1620. TS-790 Sat feature

Newsgroup: rec.ham-radio
Date: 1990-03-13 23:04:41 UTC
From: s36572u@puukko.hut.fi
Message-ID: <1990Mar13.230441.478@santra.uucp>
Source record: 12925

Does anyone know a a better way to use the sat feature on the Kenwood ts-790 than to constantly press the sat button, when you want to change the sub rx frequency to the corresponding uplink on the main. I really was hoping that the sat function would do the inverse of what the function 'trace' does, in other words, it would simultaneously change the sub frequency, when you rotate the main vfo knob. Can this be done? In my opinion, the info on this point in the manual is inadequate.

1621. Kenwood TM631A/731A Mods

Newsgroup: rec.ham-radio
Date: 1990-03-13 23:09:09 UTC
From: scotto@crash.cts.com
Message-ID: <1825@crash.cts.com>
Source record: 12926

Greetings!

I am looking for the modification information for the new Kenwood
631A/731A Dual-Banders.

Please post as I know of at least three others who are also looking
for this information.

Thanks in advance.

--
Scott O'Connell UUCP: {nosc, ucsd, hplabs!hp-sdd}!crash!ipars!scotto
ARPA: crash!ipars!scotto@nosc.mil
INET: scotto@ipars.cts.com

1622. ICOM 2GAT

Newsgroup: rec.ham-radio
Date: 1990-03-13 23:33:52 UTC
From: mustard@heights.cit.cornell.edu
Message-ID: <1990Mar13.233352.471@heights.cit.cornell.edu>
Source record: 12827

Does anyone have instructions on how to modify an Icom 2GAT so that it can transmit out of the ham bands. I work for my campus police department and have had several occasions where it would have been convenient to be able to contact them without the trouble of having to first find a 10-21(landline). If anyone has sucessfully completed this Mod, I'd appreciate it if they could send me some instructions on how to do it.

The freq's I'd need are in the 155-157 MHz range.

NOTE:: I don't have my license yet, though I recently passed my tests through technician. If nothing else, this will give me something to do with my radio until I can use it on 144-148.

will middelaer

in%"mustard@heights.cit.cornell.edu" INTERNET

V6DY@CRNLVAX5 Bitnet

thanks

1623. Current callsign list?

Newsgroup: rec.ham-radio
Date: 1990-03-13 23:35:57 UTC
From: MLS129@psuvm.psu.edu
Message-ID: <90072.183557MLS129@psuvm.psu.edu>
Source record: 12828

Does anyone have a current FCC callsign list that they could send me?
I know that QST publishes them but I'm not a League member and the lists
they publish are *months* old anyway.

Thanx,
Mike Sensor KD3LR / AFA1UP <MLS129@PSUVM>

US Snail: Box 249 Maple Hall
Penn State Altoona
Altoona PA 16601-3760

1624. QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-13 23:42:32 UTC
From: jneher@tenorman.Sun.COM
Message-ID: <132888@sun.Eng.Sun.COM>
Source record: 12829

Does anybody have a recommendation for a qsl card
maker? I just got my ticket and have already started
receiving some from others so I guess I need to get some
soon. I've seen some little adds in the magazines, but
I'm looking for personal recommendations.

Thanks,

Jon Neher
N6XUI

sun!jneher

1625. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-14 01:41:20 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500444@ux1.cso.uiuc.edu>
Source record: 12830

> Granted, few countries have as many classes as we do, but the *concept*
> of greater privileges as a reward for passing more tests is clearly
^^^^^^
> very popular.

I disagree with the concept of making privileges a reward. This makes it
something like a prize.

The exams SHOULD measure how capable we are of NOT abusing the privileges
that we want to have.

Prizes are offered for doing things that may in fact NOT be related to the
nature of the prize. We should not be doing this in ham radio. VHF/UHF
privileges are unrelated to Morse Code for most people.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1626. Newcastle "Brick Awards"

Newsgroup: rec.ham-radio
Date: 1990-03-14 05:39:53 UTC
From: alan@numm.nu.oz
Message-ID: <1990Mar14.053953.26428@numm.nu.oz>
Source record: 12831
Cross-posted to: aus.radio,rec.ham-radio

I have been given the following information to distribute:
(Any email enquiries, I guess, should come through me)

alan.

The Newcastle Brick Award

Newcastle Earthquake Appeal

Amateurs Helping Rebuild Newcastle

In conjuction with the Australian Broadcasting
Corporation's Radiothon for the Newcastle Earthquake Appeal,
members of Newcastle's Amateur Emergency team, called WICEN,
will be broadcasting for 22 hours from 1400 UTC on Saturday
March 17, until 1200 UTC on Sunday March 18, on the follow-
ing bands as conditions permit.

3.610 MHz
7.090 MHz
10.130 MHz
14.280 MHz
21.190 MHz
21.280 MHz
28.510 MHz

There will be 3 awards for contacting the station.

Basic Brick AUS$3
Big Brick AUS$5
Super Brick AUS$10

Help Newcastle amateurs dispose of bricks to help
rebuild Newcastle. A magnificent award created in honor of
this occasion. And, in honour of this occasion, a special
callsign, VK2EQA, has been allocated for the period.

All mail including QSL cards and payment should be
addressed to:

Newcastle WICEN
c/- ABC Radio
Newcastle 2300
Australia

Philip Greentree VK2IW
Secretary and Operations Officer

--
Alan Hargreaves (vk2mgl) SysCleric alan@numm.nu.oz Phone: (049) 685 597
University Computing Services, University of Newcastle, NSW 2308, Australia.
F u cn rd ths u cnt spl wrth a dm!

1627. ACC's RC-50 repeater controller; Bugs, Mods, support, and/or info

Newsgroup: rec.ham-radio
Date: 1990-03-14 07:16:08 UTC
From: mikey@pnet01.cts.com
Message-ID: <1829@crash.cts.com>
Source record: 12832

I am sysop on a 220 Mhz repeater in San Diego County. We have had the Advanced Computer Control's RC-850 repeater controller online since 1987. I'm looking for anyone with experience with the same controller. I have found numerous bugs with the firmware and would like to discuss mutual problems.

We started with firmware version 3.41 and upgraded to 3.42 as soon as it was released. The revision was nice in many respects but somewhat clunky in others. We are runnings the 850 with the voice option, no DVR, UF functions in latched, 3 remote bases, control receiver, home-brew autopatch at the site and 1 remote auto-patch using firmware support of REMOTE PHONE 1.
Overall, we have been very pleased with system even with some of it's short-commings. I have talked to ACC by phone a few times about the clunker bugs, but they were'nt to concerned by them and, I doubt, that they even logged them for fixes in later releases.

I would now be interested in a MS-DOS based controller with voice support. Anybody want to comment on this aspect of computer-controlled Ham repeaters.

Thanks, 73's

...Mike

ps--this is a repost in case ya missed it or did'nt think it mattered the first time around. Thanks, ...Mike

****
Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey
****

1628. Re: Ham regs question.

Newsgroup: rec.ham-radio
Date: 1990-03-14 07:59:18 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500445@ux1.cso.uiuc.edu>
Source record: 12833

> >I would NOT put up a remotely controlled phone patch (not part of a repeater
> >and thus not under automatic control) with INPUT BELOW 220.5 Mhz (or on the
> >431-433 or 435-438 Mhz subbands). I am giving serious thought to putting one
> >up on something like 446.475 in and 146.475 out, which would be full duplex,
> >and in fact fitting the local band plan simplex channelling with an easy to
> >remember 300 Mhz split.
>
> I hate to sound like a legal eagle, but what you just described *is* a
> repeater, and really shouldn't be in the simplex part of the band. I guess
> low power, 1/4 mile range would be ok, but I think things would get
> out of hand quickly. (IE: in some areas, there would be one of these on
> each simplex "pair". saves the expense of getting a duplexer, also!)

I am sounding like a legal eagle, too, by sticking to my position and asking
you to show how it is that what I described is a repeater. I see nothing in
it to indicate it is a repeater. The received audio is not (significantly)
repeated in the transmission due to an isolation bridge in the actual phone
connection. Some will leak through, but it would be quite low.

> As I understand the intent of the bandplan, repeaters are intentionally excluded
> so there will always be freqs for mobile to mobile, etc. I also feel, personally
> that high site remote bases should not be parked on simplex freqs with xmit
> enabled for the same reason. Leaving rx enabled is fine.

As long as your argument is based on your believing that my idea is a repeater
then I can only consider it a moot argument.

There may be arguments for not putting a non-repeater autopatch on simplex
frequencies, but repeater frequencies are also NOT the place for it. Think
it through again and see what you come up with. Maybe we need to redo all
the bandplans to accomodate new things. That means reducing the number of
frequencies usable by repeaters, of course.

> With the cross band *remote base* (not repeater, as the ads say) capability of
> the newer radios, It is even more important. Otherwise, some rptr operator
> gets a call from an irate simplex user (or, worse freq. coordinator) wanting
> to know why his repeater is on a simplex freq. When the smoke clears, they
> figure out that some new kenwood/yaesu/icom owner is leaving his dual band
> parked in remote base mode. (Usually using his 2mtr handheld to hit a 440
> repeater from his house)

First of all, why is it that the simplex user or the coordinator didn't copy
the call sign of the guy operating the crossband repeater? If he did have it
identifying, then it should be copied and that tells you what is going on.
If he did NOT have it identifying, then it is illegal, period.

Some are simplex and some are duplex. The duplex ones can be easy set up to cross a repeater pair from one band into a repeater pair on another. This reduces the problem somewhat. It would be nice if these radios had separate power level selection on each band.

It would be prudent to use CTCSS in these cases. In fact I intend to do so for my crossband autopatch. I also believe ALL repeaters should be REQUIRED to use CTCSS.

> This happens regularly in our area. Sometimes even worse scenarios occur,
> like when the new radio owner sets his radio for 2 rptrs, rather than
> 1 rptr & a simplex freq. Instant ping pong once one of the rptr's is kerchunked.

Are all these examples of people doing things wrong supposed to justify why people who would do things right should not? This same kind of reasoning can be used to eliminate ham radio altogether just because there are a bunch of lids on 20 meters.

> anyway, that's my $47 worth. neat idea though!

Well, I do plan to go through with it. If you can determine how it is not legal, I am interested in hearing it. If you can explain why it is a repeater even though it is not repeating anything, I'd like to hear that as well. Suggest a pair of frequencies for it (say, for your location).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1629. Re: Forgiving the League for Incent

Newsgroup: rec.ham-radio
Date: 1990-03-14 13:38:00 UTC
From: stevedak@cpe.UUCP
Message-ID: <37400009@cpe>
Source record: 12834

>The exams SHOULD measure how capable we are of NOT abusing the privileges
>that we want to have.

What sort of exam is able to do this?

Steve Dakin WQ5N

1630. Re: Dak radio

Newsgroup: rec.ham-radio
Date: 1990-03-14 13:46:54 UTC
From: wa2sff@cbnewsh.ATT.COM
Message-ID: <8885@cbnewsh.ATT.COM>
Source record: 12835

In article <1779@crash.cts.com>, mikey@pnet01.cts.com
(Mike Shirley__Wb6wui) writes:
>...
> I don't much like the cutsey catalog and I deplore the Shipping/handling
> charge which seems to have no rhyme or reason with respect to actual shipping
> charges incurred by DAK. I would just as soon see the listed price include
> the handling (a rather normal cost of mail order business) and the shipping
> charges could be imbedding the price also. Any premium shipping methods could
> be surcharged. Gosh, I feel a little better now.

The best that I can determine is the
shipping charges are designed
to ensure that money is made even if
the customer returns the product.
By something for $100 with $15 Shipping, etc.
Money back guarantee.
Return it; get back $100.
Company has $15 for its effort.
Others may argue that $15 doesn't cover costs but it sure helps.

Many money back companies work that way.
I use the shipping % of price as a filter of who not to order from.

Joe Wilkes
att!homxb!wa2sff

1631. Re: INFO-HAMS Digest V90 #277

Newsgroup: rec.ham-radio
Date: 1990-03-14 15:23:00 UTC
From: 390624331@UWPLATT.EDU
Message-ID: <C56ABAAC925FE008B7@uwplatt.edu>
Source record: 12836

Well, this isn't really about digest V90 #277 but the computer gave me that subject.

What value capacitor would anyone recommend to be put accross my stereo's speaker terminals to stop humming caused by Xmting on 2m? I amagine that this would happen too (probably even worse) with HF. The RF gets into the stereo so bad that when transmitting at high power, it kicks in the stereo's protection circuits and turns off the speakers for a few seconds. Also what voltage? Stereo specs say max of 65W/ch.

Hmmm. (pun) Thanks!

'73, Randy WK9M

1632. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-14 15:31:10 UTC
From: ken@swbatl.sbc.com
Message-ID: <1254@swbatl.sbc.com>
Source record: 12837

flash@lopez writes:

>There are other noises you will hear in ham bands and elsewhere that
>first appear to be random, but are actually military in origin (Spread
>spectrum, etc). There are digital "buzzes" which are used with radio
>navigation, and these can pop up anywhere, EVEN IN THE HAM BANDS. There
>is also a very strange sound that I call a "Pock-a-pock" which sounds
>sort of like someone hitting a microphone with a pencil, but upon
>careful listening the seemingly random patterns are repeated (I noticed
>this by accident while playing a recording while simultaneously
>receiving the signal again live, and found that the pattern was
>repeated) In addition to hearing these sounds regularly for YEARS on my
>nightly operating frequency of 3950khz, they also show up on MILITARY
>channels like 6761, and you can bet your binaries that if this was some
>sort of pirate activity, it would not have lasted long THERE. These
>sounds have been around for YEARS. The fact that they are seemingly
>random leads operators to believe that they are local in origin, but in
>reality they are heard almost world wide.

I'm almost certain that the "pock-a-pock" noises you refer to are from
frequency hopping HF radios. I have also heard them for the last few
years -and with ever increasing frequency (Ha ha -no pun intended).
At the IEEE Milcom '88 Conference Hughes Radio had a demo booth with
some frequency hopping PRC-104A HF packsets. When you listened in on a
third non-hopping mode radio you heard only that familiar "pock" sound.

I would assume that the hopping can be spread over any portion of the
2-30 MHz range of the radio if it can switch fast enough. (Pin
diodes in the antenna tuner and half-octave filters?) Propagation
between stations would probably dictate a smaller chunk of spectrum
-possibly explaining the large number of "pocks" you can hear on a single
frequency.

If you (like myself not too long ago) think the Big 3 ham manufacturers
are the last word in HF technology then you should get a recent copy of
"Jane's Military Communications". There has been a big resurgence in
the popularity of HF for point to point communications in the past 10
years.(Even with satellites.) Every country with a decent section in Jane's
has hopping HF systems in service. Check your public library for Jane's.
--
/ Ken Gianino \ uunet!swbatl!ken \
/ / Southwestern Bell Telephone \ Phone: (314) 235-9081 \
/ / / Advanced Technology Laboratory \ Fax: (314) 235-5797 \
/ / / /\ 1010 Pine, St. Louis, MO 63101 \ ** WB0QNA ** \

1633. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-14 16:18:46 UTC
From: jeffr@aai2.itstd.sri.com
Message-ID: <30365@sparkyfs.istc.sri.com>
Source record: 12838

>Does anybody have a recommendation for a qsl card
>maker?
>[. . .]

Well Jon, I made my own cards, and am quite pleased with the
results. I used a formatter (troff) to make a custom "back,"
as I work only QRP CW, so didn't need the standard "CW/SSB"
or "Power" choices. I took a bunch of B/W pictures of me
"out in the wild" with my QRP rig, and then went to a local
printer for advice and to get the cards printed. Cost for
1000+ cards, foto on one side, with call and QRP ARCI logo
in red, came to just over $100. The card almost always gets
comments, even if it is "You sure are ugly" :-)

73,
jeff, N6MNI

{rutgers, ames, mordor, sri-unix, zodiac, csi}!joyce!jeffr

1634. re: Design Project Ideas Wanted

Newsgroup: rec.ham-radio
Date: 1990-03-14 17:06:40 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <589.25FE8790@weyr.FIDONET.ORG>
Source record: 12839

Have you looked at the Digitrex Mini-MPX QRP rig (80-10 + warc/10 watts) ... kit 180.00 - see ad in CQ mag.

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1635. DX CONTESTS

Newsgroup: rec.ham-radio
Date: 1990-03-14 17:11:28 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <590.25FE8794@weyr.FIDONET.ORG>
Source record: 12840

I have been giving some thought to how an international dx contest can be designed so that anyone/anywhere has a chance to win with no regard to how much money you have or the type of QTH you have. The secret is in the rules (eg multiplier maybe a funtion of ERP ... perhaps a log function). In addition there would have to be some kind of multiplier that accounts for local propagation conditions (eg. if you live close to the artic circle you are subject to more severe propagation distubances than if you a

re near the equator). Perhaps beacons could be usedand a multiplier derived that is applied at the point of submission of contest logs.
I know that this is not a trivial design problem. I sure would like some feedback and ideas!

CU in the WPX TEST - 73's Syl

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1636. Re: Part 15 on 21 mtrs

Newsgroup: rec.ham-radio
Date: 1990-03-14 19:00:08 UTC
From: ornitz@kodak.UUCP
Message-ID: <2393@kodak.UUCP>
Source record: 12841
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <545@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>Did anyone notice the new allocation for low power transmitters
>under Part 15 at 13.553 to 13.567 MHz? It is mentioned on page
>7 of the March issue of Monitoring Times.

The frequency of 13.560 MHz +/- 7 KHz is already assigned by the FCC as an Industrial, Scientific and Medical Frequency. Things like diathermy machines, plasma generators, and dielectric heaters operate on these frequencies. Some other ISM frequencies are:
6.78 MHz +/- 15 KHz
27.12 MHz +/- 163 KHz
40.68 MHz +/- 20 KHz
915 MHz +/- 13 MHz
2450 MHz +/- 50 MHz (Home microwave ovens)
5800 MHz +/- 75 MHz
24125 MHz +/- 125 MHz
61.25 GHz +/- 250 MHz
122.50 GHz +/- 500 MHz
245.00 GHz +/- 1 GHz
Most ISM equipment operates at high power (I have two 20 KW units here that will be surplus soon) with unfiltered power supplies. A few low-power signals here probably wouldn't be noticed. Count on the low power stuff to have to accept the interference.
Barry WA4VZQ


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-----------------
| ___ ________ | Dr. Barry L. Ornitz WA4VZQ
| | / / | | UUCP: ....rutgers!rochester!kodak!ornitz
| | / / | | Eastman Kodak Company
| |< < K O D A K| | Eastman Chemical Company Research Laboratories
| | \ \ | | P. O. Box 1972, Building 167B
| |__\ \________| | Kingsport, TN 37662 615/229-4904
| | INTERNET: ornitz@kodak.kodak.com
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1637. Re: computer rfi

Newsgroup: rec.ham-radio
Date: 1990-03-14 19:13:20 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230014@hpfcdj.HP.COM>
Source record: 12842

>Robert,
>I would return the computer to the place of purchase ASAP. A class 'A'
>computing device is 10dB louder than a class 'B' device.

Not necessarily - a computing device which says that it is "class A" simply means that it (more precisely, samples of this model) has been tested and certified to pass the FCC requirements for a class A device. It may actually be significantly quieter than another device labelled "class B" but was for various reasons not tested to that standard. (Class A is, in general, a looser requirement than class B, but there are other considerations taken into account by manufacturers when they choose which class to certify to.)

Even Class B devices may cause annoying interference, if they happen to generate RFI at a particular frequency of interest to you - as may be the case here. Also, not all interference comes over the power lines, so it's not too suprising that adding a line filter didn't help. (Actually, given that it's relatively simple to keep VHF frequencies off the power cord, I would've been surprised if conducted interference had been the culprit here.) You are more likely seeing interference radiated from the system. Some possible means of reducing interference in any event:

1. Make sure the computer is on a different power line than the unit being interfered with (primarily useful in the case of conducted interference).

2. Make sure that the computer's case is assembled correctly, that all screws are in place, and that the proper cables and connectors are being used. (One very common source of interference is from the system cables, esp. when the connectors being used do not provide the proper ground/return path.)

3. If you suspect that any of the peripheral devices are causing a problem, disconnect their interface cables one at a time to isolate the problem. If you can isolate the faulty unit or cable, half the battle's over.

4. If you have opened the computer's case to install optional cards, etc., make sure that such cards are properly installed and that all grounding screws, etc., are in place. (And then, see item #2!)

5. The monitor is a likely suspect in computer interference problems; check to see if your problem comes from the video by disconnecting/re-connecting the video cables, and turning the brightness up and down, while noting the effect on the interference.

6. Finally, noise can escape to the outside world through slots and other openings in the computer's case. Ideally, all digital electronics would be sealed up inside of completely closed metal boxes, but the need for cooling and connectors makes this difficult. However, if you can do so without comprising the unit's cooling or electrical safety, closing up

opening with something conductive - copper tape is the most common solution - can be helpful. Slots between interface cards is one common area of leakage. NOTE: DO NOT do ANYTHING to your machine unless you're CERTAIN that you can do it without compromising cooling or safety. Also, be careful of damaging your *warranty* through any such mods.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

1638. Re: Keyer Board for IBM PC

Newsgroup: rec.ham-radio
Date: 1990-03-14 19:28:24 UTC
From: brianm@nstar.UUCP
Message-ID: <2XF2F1w160w@nstar.UUCP>
Source record: 12843

> Send me a FORMATTED MS-DOS disk (3 1/2" 1.44 or 720k, or 5 1/4" 360k or
> 1.2 meg), or even a DC300 or 600 cartridge (urg! :-)), with return
> postage, a note saying that you want the code programs I mentioned
> here, and a self-addressed return label, and I'll put CW311 on it,
> along with the 2 or 3 other morse programs I've got (SuperMorse and
> Morse, I think... there may be another one, too). If you send me a
> 360k disk, and you are more interested in the learning programs than
> in the sending program, tell me so, since I'm not sure they will all
> fit on a 360k disk. Also, tell me if you need the PKZIP unarchiver,
> since thats the format they come in....
>

SuperMorse is the evolutionary product of CW111 and CW102. Lee Murrah wrote both of the programs and they are excellent for code practice on the PC. The latest version of supermorse (SM309.*) will also allow you to connect to another person via modem and practice CW with each other.

All in all a VERY good package. I have it available on my BBS at 317 882 9330, just login as Ham Radio with a password of yagi. This will allow people to download on their first call to the system.

Brian Murrey - KB9BVN

1639. PRO-2004 wierdness

Newsgroup: rec.ham-radio
Date: 1990-03-14 20:58:56 UTC
From: jimkirk@OUTLAW.UWYO.EDU
Message-ID: <900314135856.20201ebe@UWYO.BITNET>
Source record: 12844

I just had a very strange thing happen with my PRO-2004 scanner, and was wondering if anybody has an explanation. I was attempting to re-program several frequencies, but in certain ranges it would add 3.2768 mHz to the frequency I keyed in! For example, I would key in 160.0 but as soon as I press ENTER it would change to 163.2768 (the last digit was smaller than the rest). Likewise 154.31 would change to 157.5868. After fiddling with it for a while to determine the range(s) effected, I noticed they would "narrow" after repeated attempts, and after about 30 minutes of fiddling, the scanner finally accepted the frequencies as I input them. I tried power off/on and reset to no (immediate) avail. It acted as though it forgot how to be programmed after many idle months!

Has anybody else had similar experiences? Any thoughts? What's magic about 3.2768 mHz?

Jim Kirkpatrick WB7BUP JIMKIRK@UWYO or JIMKIRK@CORRAL.UWYO.EDU

1640. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-14 23:42:22 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003142347.AA20291@ti.com>
Source record: 12845

Phil Howard says
> I disagree with the concept of making privileges a reward. This makes
> it something like a prize.

My Webster's defines privilege as "a right or benefit granted as a peculiar advantage or favor". Phil may not agree with the concept, but until the meaning of the word changes, I guess we'll all have to live with it, or quit calling our amateur activities privileges and call them something else.
In my opinion, I think "privileges", as defined by the dictionary, fits the situation perfectly.

73,
Dube Todd N5PDK

1641. Re: Wait a minute...

Newsgroup: rec.ham-radio
Date: 1990-03-15 01:45:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500449@ux1.cso.uiuc.edu>
Source record: 12846

> Yet, the following statement has appeared a couple times, and no one
> has complained about it or refuted it:
>
> : In order to not get foreign hams mad at us, we probably do need to keep some
> : band segments relatively clear of the intense density of US hams.
> ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
> You can't have it both ways, folks.
>
> Either there are too few hams, which means that we cannot have an "intense
> density of US hams", or we already have too many, in which case you want
> *more* arbitrary filters to reduce the candidates and fewer applicants.

You sounds like one of those "HF bigot OF's". I hope this isn't true.

The assumption you made is an assumption a lot of hams are making which is what is making this whole process so difficult. Lots of hams are so wrapped up in HF hamming that they forget that there are bands above 10 meters and they don't realize this it is THESE bands that are the issue in the "no-code" matter.

NO, we do NOT want more hams on the HF bands. The HF bands are TOO CROWDED as it is. We do not face significant threat of loss of HF bands due to lack of use. 40 meters appears to be facing some threat from broadcasters, but that is a different issue.

What we DO WANT is more hams on VHF and UHF and SHF bands, most particularly on UHF and SHF. These bands are the threatened ones.

Whether I.L. has failed or succeeded is UNIMPORTANT. It merely stands in the way when combined with FCC computer limits, of implementing a workable licensing structure for making access to VHF/UHF/SHF based on the actually needed competency.

If you can reduce the number of classes with HF privileges to FOUR, then the problem can be dealt with. Try it and see what you come up with.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1642. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-15 01:57:41 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500446@ux1.cso.uiuc.edu>
Source record: 12847

> >The exams SHOULD measure how capable we are of NOT abusing the privileges
> >that we want to have.
>
> What sort of exam is able to do this?
>
> Steve Dakin WQ5N

MY IDEA of a ham exam is not too far from what we have now, except in its level of comprehensiveness.

The REGULATIONS exam SHOULD be an "open book" exam, since what we really should be pushing is the ability to look up and understand the rules, not memorize them. The questions, and there need to be more of them, ask questions generally requiring the lookup of most of the rules. The VEC's are NOT to provide a copy of the rules, so if you don't own a copy yourself, then you memorize anyway, or fail that section. I recommend 40 to 80 questions for this section.

The THEORY should cover the electronics and radio knowledge necessary to understand what radio is, how radio waves are made, propogated, modulated, amplified, etc. There should be many questions on how various kinds of interference to other communcaitions, amateur and non-amateur, can occur. The lower theory exams should cover the basics of RFI prevention and cure. The upper theory exams should cover things more comprehensively, including these aspects of the design of radio transmitters. Any aspect of radio or electronic theory, which if not known would NOT result in interference to any service or result in a hazard to life or property, does not need to be in the exam. Safety for oneself and others must be in the exam, of course.

As you can see, it is not too much different than it is now. I would put more emphasis on things like RFI and Safety and not so much on propogation.

Amateur privileges should be granted to those who can prove they are capable of their proper use, and be retained by those who practice their proper use. Amateur privileges should NOT be a reward for any "song and dance" such as proving that one can copy Morse Code to get privileges unrelated to it.

We should generate the tests by computer. For each question on the exam, there should be a set of a few algorithms that can generate an applicable question. An algorithm would be chosen at random by the computer, and then the actual values for questions requiring computation, would be chosen at random from a large set of reasonable values. The same algorithm should also choose alternate false answers of different varieties. The pool of algorithms should be public, but would potentially result in millions of possible questions, certain of the computational ones. It is necessary to publish the algorithms for assurance of the correctness of the exam. No

one could blindly memorize the answers because there are so many possibilities. Short term memorization of the actual facts and formulas is still possible, but that can be addressed by there being more questions on the exam and thus covering more things.

The passing grade should be 80% on BOTH the regulation AND theory exams parts.

Here is another idea. We could use ONE exam for two or more levels of classes and base the class on the level of passage. For instance a single exam would earn a lower level license if it was passed by 75% and earn a higher level license if it was passed by 90%. One should have to pass BOTH the regulation and theory exams by 90% to earn that level.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1643. Regency RH256 Radio

Newsgroup: rec.ham-radio
Date: 1990-03-15 02:46:14 UTC
From: jdb@athena.mit.edu
Message-ID: <1990Mar15.024614.11602@athena.mit.edu>
Source record: 12848
Cross-posted to: rec.ham-radio,sci.electronics

I have recently aquired a Regency RH256 Radio. It is a sixteen channel programable VHF radio. No instructions came with the radio, but it is my understanding that it can be programmed in the ham band as well as the land mobile radio band. (and is FCC type accepted).

Does anyone know how to program this radio? Any help would be appreciated. Thanks...

1644. Public domain satellite tracker

Newsgroup: rec.ham-radio
Date: 1990-03-15 03:37:42 UTC
From: rwb@vi.ri.cmu.edu
Message-ID: <8430@pt.cs.cmu.edu>
Source record: 12849

Version 3.7 of the N3EMO orbit program has been posted to comp.sources.misc.

Joe Bob says check it out.

Bob, N3EMO
rwb@vi.ri.cmu.edu

1645. Re: Forgiving the League for Incent

Newsgroup: rec.ham-radio
Date: 1990-03-15 04:35:47 UTC
From: john@anasaz.UUCP
Message-ID: <1454@anasaz.UUCP>
Source record: 12850

In article <37400009@cpe> stevedak@cpe.UUCP writes:
]>The exams SHOULD measure how capable we are of NOT abusing the privileges
]>that we want to have.
]
]What sort of exam is able to do this?
]

Well...
I think that the exams should have a lot more on good operating
practices and a lot less on widely varied technology. When we run
the hurricane watch net, our biggest problem isn't that someones
rig has a technical glitch - it's that the computer between some
of the operators' ears is defective. At least these people would
have had to memorize some questions such as:

3A:
You live in Michigan are curious about a hurricane about to hit
Florida. There is a Hurricane net operating on 14.325 forwarding
weather and damage reports between the affected area and the National
Hurricane Center. You should:
(1) Say "break break break" and then ask for the latest hurricane
coordinates.
(2) Wait for the net control to ask for "any stations in the affected
area with weather reports" and then give your call and ask your
question.
(3) Wait for net control to ask for "emergency or priority traffic"
and then ask.
(4) Disconnect your microphone and listen until you hear the
information that you need.

3B:
A massive flood has hit Phoenix, AZ. Your next door neighbor has
a favorite nephew somewhere in Arizona and is terribly worried. You
should:
(1) Find an emergency net, break in, and ask about your neighbor's
nephew.
(2) Find a health and welfare net, break in, and ask about your neighbor's
nephew.
(3) Find a ham who regularly handles this sort of traffic, and give it
to him.
(4) Listen to health and welfare nets, wait for them to ask for anyone
with traffic for the area, and then give it to him.

3C:
You are listening to a net and someone is jamming it. You should:

(1) Join them in the jamming;
(2) Wait until they stop, and then say "What a LID"
(3) Call the FCC and demand that they stop the jamming.
(4) Ignore the jammer.

I would sure like to see a bunch of questions like this in the question pool!

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

1646. Special Canadian Call Prefixes

Newsgroup: rec.ham-radio
Date: 1990-03-15 06:42:35 UTC
From: Ken.Crowston@weyr.FIDONET.ORG
Message-ID: <592.25FF4CA3@weyr.FIDONET.ORG>
Source record: 12851

To Mark the 25th aniversary of the Canadian Flag, Communications Canada has authorized the following prefixes from March 1, 1990 to April 30, 1990.

VE1 can use CF1
VE2 " " CF2
VE3 " " CF3
VE4 " " CF4
VE5 " " CF5
VE6 " " CF6
VE7 " " CF7
VE8 " " CF8
VY1 " " CZ1
VY2 " " CZ2
VY9 " " CZ3
VO1 " " VO3
VO2 " " VO4

73's DE VE5KEN - Ken - Saskatoon, Saskatchewan, Canada

--
Ken Crowston - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Ken.Crowston
Internet: Ken.Crowston@weyr.FIDONET.ORG
Standard Disclaimers Apply...

1647. Re: Part 15 on 21 mtrs

Newsgroup: rec.ham-radio
Date: 1990-03-15 07:16:05 UTC
From: J.i.m..G.r.u.b.s, ..W.8.G.R.T@f1.n234.z1.fidonet.org
Message-ID: <14718.25FF42BA@stjhmc.fidonet.org>
Source record: 12852

> From: kjh@pollux.usc.edu (Kenneth J. Hendrickson)
>
> In article <545@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
> %Did anyone notice the new allocation for low power transmitters
> %under Part 15 at 13.553 to 13.567 MHz? It is mentioned on page
> %7 of the March issue of Monitoring Times.
> %
> %What did the FCC have in mind with this allocation?
>
> The FCC has demonstrated that there is no intelligence in the Commission
> over the last year or so. Of course, there is a long tradition of
> short-sightedness in the FCC, dating back at least to the 50's when CB
> was created.

Will you lighten up? You've been a real crosspatch lately. The 21 mtr frequency
was probably an old ISM allocation. I don't remember what it was used for, but
I vaguely recall some reference to that in the NPRM when Par 15 was being
restructured. Leaky cable proximity detectors, maybe.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!J.i.m..G.r.u.b.s,..W.8.G.R.T
Internet: J.i.m..G.r.u.b.s,..W.8.G.R.T@f1.n234.z1.fidonet.org

1648. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-15 07:48:10 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500447@ux1.cso.uiuc.edu>
Source record: 12853

> chagrined, but maybe it has changed. As an example, I would be much more
> concerned with approval from agencies like the FAA and NASA when and if I
> launch my own satellite, than memorizing the period I have to notify the FCC
> of my launch date and satellite activation. I realize that such questions
> are intended to test if the subject has read the license manual from cover
> to cover with signicant comprehension, but it does seem a little bit
> rote. It has been pointed out that those with a real interest in the details
> will find out anyway, and that goes for learning code as well.

As such, I propose that the written exam be divided distinctly into a THEORY exam and REGULATION exam. The REGULATION exam should be given in OPEN BOOK style, using tough questions that require you to look things up. Because most people forget details and trivia anyway, it is better for us to stress the skill of reading the rules instead of memorizing them. In addition we need to also stress the idea of owning a copy of the rules. The VEC's will NOT provide a copy of the rules; you bring your own to the exam. You get to use ONE book or pamphlet during the REGULATION exam.

> If the consensus here is that we still need a 5 tier license system with
> the communicator possibly a sixth, then I guess that's democracy.
> I don't like it and I know the FCC doesn't either. I wonder if any other
> countries have so many license classes.

Perhaps we should ask how many tiers of HF privileges other countries have.

> I do want to see more activity on VHF/UHF, at least around here where there
> are more repeaters than hams. Some areas like LA probably have plenty, but
> I also believe its time for regional band planning. Let's keep amateur
> radio growing!

Regional band planning is already going for the larger areas now, especially in California.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1649. Re: Kenwood TM631A/731A Mods

Newsgroup: rec.ham-radio
Date: 1990-03-15 07:48:15 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500448@ux1.cso.uiuc.edu>
Source record: 12854

No, do not post.

If you have FTP access, check out the database on:
hamster.business.uwo.ca (IP 129.100.22.100)

If you do not have FTP access, ask for someone to mail you a copy
of what you are interested in.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1650. Info-Hams To Packet BBS Gateways ??

Newsgroup: rec.ham-radio
Date: 1990-03-15 07:49:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9003150806.AA14117@ucbvax.Berkeley.EDU>
Source record: 12855

Is there a way I can get a message to a particular BBS VIA Info-Hams
AUTOMATICALLY ??
Packet on 20 and 15 meters these days seems to take forever from here but once
in the States - it seems like the messages zip right along.

Please answer via E-Mail (return address) and not via Info-hams.

1651. Re: Wait a minute...

Newsgroup: rec.ham-radio
Date: 1990-03-15 08:09:55 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1767@aurora.AthabascaU.CA>
Source record: 12856

In article <9003140803.AA17127@ucbvax.Berkeley.EDU>, wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
> : band segments relatively clear of the intense density of US hams.
> ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
> You can't have it both ways, folks.
> Either there are too few hams, which means that we cannot have an "intense
> density of US hams", or we already have too many, in which case you want
> *more* arbitrary filters to reduce the candidates and fewer applicants.

Maybe the original poster meant that American amateurs aren't very clever compared to foreign ops? That's one reading of the phrase "intense density". I could understand it too, considering some of the blather I've heard on 20 metres lately.

NOTE TO THE HUMOURLESS : THIS IS A TONGUE-IN-CHEEK POSTING. I DON'T EXPECT FLAMES ABOUT A JOKE. TAKE A DEEP BREATH AND RELAX. THANKS.
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA ve6pdq

--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

1652. Ham slide shows (long) (Was Re: Club mtg ideas)

Newsgroup: rec.ham-radio
Date: 1990-03-15 10:23:17 UTC
From: winter@Apple.COM
Message-ID: <39492@apple.Apple.COM>
Source record: 12857

In article <102224@linus.UUCP> abm@mbunix.mitre.org (Murphy) writes:
>I asked for suggestions for topics / speakers for a luchhour ham
>club at work. Here are the responses to date -thanks to all who
>contributed
>
>*** from John Covington WN4BBJ cs00jmc@unccvax.uncc.edu
>3. DXpedition/special event slide shows:

Looks like the perfect opening for me to remind everyone about the
free slide shows available from the Northern California DX Foundation.
To wit:

(last updated 3/15/90)

The Northern California DX Foundation has for loan a number of
DX-oriented slide shows. Each program consists of one or two slide
trays plus an audio tape with narration, so they make a good ready-
to-use program for ham clubs. I'm not going to claim that they're
all professional-quality productions, but when was the last time a
network news crew offered to spend 10 days on Clipperton? :-)

The rental "fee" is cost of postage only (about $5 roundtrip in the US).
Library manager is Josephine (Jo) Clarke, WB6ZUC, 207 Evergreen Drive,
Kentfield, CA 94904. If you'd like to order a show, please send her the
name of your club, the date for which you need the slides, and more
than one choice of program in case your first choice isn't available
for that time. The shows are quite popular, so you should write at
least a couple of months in advance.

Here's the current list:

SLIDE SHOWS
1. Kingman Reef and Palmyra Island 1974
2. Africa (K5YY) 1978
3. Easter, Galapagos, San Andreas, etc. (W6KG, W6QL)
4. Kermadec (W6REC, ZL1AMO, etc.) 1984
5. Saipan AH0C, CQWW contest 1983
6. Clipperton Island FO0XX 1985
7. Ponape Island travelogue (N6HR)
8. Pribilof Islands 1982
9. Midway Island (NA6T, KD7P) 1985
10. Antarctica travelogue (WB6ZUC)
11. Pitcairn Island (ZL1AMO, ZL1ADI) 1979
12. Transpacific (SM0AGD) 1982
13. Burundi (ON5NT) 1985
14. Benin (ON5NT) 1981

15. Lord Howe Island VK3DXU/2 (K2UO)1985
16. Monaco (F6EYS, F6HIX) 1984
17. Uganda (DJ6SI) 1985
18. Market Reef (PA0GAM/OH0/OJ0) 1983
19. Marshall Islands KX6DS
20. Andorra (DL1HBT, DL3HAH, DL5BAD, DL4BBO, DL4BAH) 1986
21. Clipperton Island FO0XX 1986
22. Peter I Island 3Y1EE, 3Y2GV 1987
23. U.S. Virgin Islands KP2N CQWW CW contest 1986
24. Market Reef OF0MA 1987
25. Abu Ail A15AA (DJ6SI) 1988
26. Macau XX9CW (DK7PE) 1986
27. Palmyra (K9AJ, KP2A, WA2MOE, W0RLX, F6EXV, JA5DQH) 1988
28. Kingman Reef (same operators as above) 1988
29. Cocos Keeling Islands, Christmas Island, etc. (W7SW) 1988
30. Banaba Island T33JS 1989
31. Revilla Gigedo XF4L 1989

VHS VIDEOTAPES
1. XU1SS (plus BV0YL and BV0JA)
2. 7J1RL (includes ZK9ZR, Mellish Reef) 1976,78
3. VK9ZR (plus Ogasawara) 1978
4. Frankford Radio Club ARRL Phone contest parody (plus JH7YFL CQWW CW)
5. Okino Torishima JF1IST/7J1 1979
6. Australian travelogue: Climbing Big Ben; Heard Island
7. Ham Radio in the South Cook Islands (ZK1CA, ZK1CT)
8. Pitcairn Island (ZL1AMO, ZL1ADI) (copy of slide show listed above)
9. Looking Up in Rio Linda (W6GO, K6HHD antenna farm) 1986
10. Revilla Gigedo XF4DX 1987
11. Northern Texas Contest Club: Towers and Contesters
12. It Started with a Broken Fence (JH3DPB Tall Tower Tale)
13. Pile Up Busters (humorous)
14. St. Martin FG/W2QM/FS: DXing Senior Style
15. Laccadive Islands VU7WCY (plus VK0HI 1983 from TV) 1984
16. The K6UA Contest Station Story
17. Malpelo HK0TU (in Spanish) 1983
18. The Ship That Shouldn't Have (VK0JS Heard Island)
19. The New World of Amateur Radio (hosted by K6DUE) 1988
20. The Western Sahara Story S0RASD (Lynx Group) 1987
21. Auckland Island (ZL1AMO, ZL1BQD, N7NG) 1988
22. Owen Garriott Talk (about his ham/shuttle activities) 1984
23. Russian Ham Radio Tour (WA6WXD) 1986
24. Peter I 3Y DXpedition, 1987 (copy of slide show)
25. Peter I, from JA7ARW 1987
26. Spratly Island (K4SMX, K1MM, VK2BJL, etc.) 1979
27. Malyj Vysotskij Island (OH2BH, UZ3AU, etc.) 1988
28. 3W8DX and 3W8CW (HA5WA, HA5MY, HA5PP, HA5BBC) 1988
29. Aruba, P40V CQWW Contest 1988
30. A Message from Barry Goldwater [I think about no-code]
31. Navassa (N2EDF, K2SG, etc.) 1988

32. Rhodes, SV5, by N2OO and SV0AA 1989
33. Howland Island NO1Z/KH1 (NO1Z, 7J3AAB, etc.) 1988
34. BEARS at the Great Wall of China (W7EA, etc.) 1988
35. Kansas City DX Club DXpedition to Tonganoxie Island

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1653. BIT RATE SPEEDS - WORLD RECORDS ??

Newsgroup: rec.ham-radio
Date: 1990-03-15 11:33:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9003160819.AA16137@ucbvax.Berkeley.EDU>
Source record: 12858

Can anyone give me some feedback as to what speeds data transfer is
achieving these days over:
a. Conventional Telephone lines
b. Leased data lines
c. RF (mainly microwave)

Is anyone doing some experiments out there digitizing voice and then
transferring it at high speeds via RF ???
Maybe the day 'aint so far off when repeater clubs will have a microwave
dish at their site pointed at OSCAR 'XX' that will forward
voice messages at 56 mbyte per second.

73 de 4X1DA
Richard Harel

Feedback ???
Please direct responses to return E-Mail address.

1654. RE: INFO-HAMS Digest V90 #288

Newsgroup: rec.ham-radio
Date: 1990-03-15 13:00:00 UTC
From: STELLABO@CSHLAB.BITNET
Message-ID: <9003160820.AA16201@ucbvax.Berkeley.EDU>
Source record: 12859

Please remove me from this list

1655. Re: PRO-2004 wierdness

Newsgroup: rec.ham-radio
Date: 1990-03-15 14:36:58 UTC
From: cyamamot@aludra.usc.edu
Message-ID: <8630@chaph.usc.edu>
Source record: 12860

In article <900314135856.20201ebe@UWYO.BITNET> jimkirk@OUTLAW.UWYO.EDU (James Kirkpatrick) writes:
>I just had a very strange thing happen with my PRO-2004 scanner, and was
>wondering if anybody has an explanation. I was attempting to re-program
>several frequencies, but in certain ranges it would add 3.2768 mHz to
>the frequency I keyed in! For example, I would key in 160.0 but as soon
>as I press ENTER it would change to 163.2768
>
>Has anybody else had similar experiences? Any thoughts? What's magic
>about 3.2768 mHz?

Just that 2^15 = 32768.... Here's a wild guess but I'd say the 15th bit going between your keyboard and the PLL/Display circuitry was stuck as logic "1" causing you a bunch of grief. I don't have any clues/solutions other than reseating the connectors between the keyboard subassy and the rest of the radio. Never heard of this problem before.

Cliff Yamamoto - KA6JRG

1656. Re: Dak radio

Newsgroup: rec.ham-radio
Date: 1990-03-15 14:57:15 UTC
From: megabyte@chinet.chi.il.us
Message-ID: <1990Mar15.145715.9304@chinet.chi.il.us>
Source record: 12861

In <8885@cbnewsh.ATT.COM> wa2sff@cbnewsh.ATT.COM (joseph.e.wilkes) writes:
>In article <1779@crash.cts.com>, mikey@pnet01.cts.com
>(Mike Shirley__Wb6wui) writes:
>> I deplore the Shipping/handling charge which seems to have no
>>rhyme or reason with respect to actual shipping charges incurred by DAK.
>The best that I can determine is the shipping charges are designed
>to ensure that money is made even if the customer returns the product.

While some companies may do this, DAK refunds both the cost and the
shipping charges if you return the product. You pay return shipping to
DAK, but that's always less than they charge you for some reason.
--
Mark E. Sunderlin: IRS Technocrat in Winchester, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
"Welcome to my fog! There's room for you, to come right in.
Welcome to my fog..... I guess?!"

1657. Re: Call for discussion - rec.arts.tv.catv

Newsgroup: rec.ham-radio
Date: 1990-03-15 15:18:47 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003160821.AA16281@ucbvax.Berkeley.EDU>
Source record: 12862

>| catv = community access television (not "cable tv")
>I think if you go back to ancient times, you will find that it stands
>for "community ANTENNA television".

Right. As opposed to "MATV" which is "Master-antenna television", when an apartment house or ^ other multiple-dwelling unit had their own antenna farm, distribution amps & splitters, and internal cabling to each unit.

In the industry, "catv" is now used to refer to cable tv generically. If you are buying broadband LAN cable and splitters, say, you look at "catv catalogs" for that stuff.

Anybody using the term to mean "community access" probably works in that activity, and such usage is limited in scope and would not be recognized in the general video industry. If THAT is what this proposed USENET newsgroup is to discuss, the name should be rec.arts.tv.community or something specific like that. (I thought of suggesting "rec.arts.tv.commun" but figured that would be interpreted as "communist tv"... :-)

Actually, I disagree with the whole concept of finer and yet finer distinctions and splitting topics up into more and more specific newsgroups. I believe that each newsgroup should have a rather broad charter, and each one be fully two-way gatewayed into an Internet mailing list, the way rec.video interacts with Videotech@wsmr-simtel20. All TV and video technically-oriented stuff should go into that list, and all content and programming-oriented stuff should go into a "rec.tv" or "rec.tvprog" which should have a corresponding mailing list for non-USENET participants. [I don't know what current tv newsgroups there are, not having USENET access myself currently.] Only with that approach can you maximize the number of participants and avoid losing information.

This approach helps avoid the possibility of newsgroup access being cut off by an organization as "non-work-related" (the academics out there don't consider this, but it is a very real consideration at non-school sites!), because it is easier to defend a group as having valuable content that just happens to also contain frivolous (and therefore enjoyable! :-) related postings. Broad-spectrum groups can get in when specific narrow-interest ones cannot. [Actually, "rec.video" should become "sci.video" under this approach, to get it into places that embargo the "rec" groups. Or maybe there should be a "tech" top-level heading for things that are sort of "engineering" -- not pure science but more technical than recreational.]

Anyone who is interested in one aspect of video technicalities, or in one aspect of TV programming or content, really should be at least

somewhat interested in all other aspects of that field, and, for their own good (<-- dangerous concept, this! :-), should be exposed to the whole range of topics in that field. The arguments for specific narrow-interest newsgroups thus are specious and should not be given weight. The entire idea of isolating topics and limiting that is inherent in the move to ever-more-specific newsgroups is wrong. It encourages narrow-mindedness, when the whole concept behind the net (in all its forms and extensions) is to *broaden* ones exposure and knowledge base. Too many times, I have seen complaints from people about "having to wade thru too many postings" on other subjects in order to get some specific topic or subject. This is NOT a valid complaint. It is a *benefit* for there to be a sea of knowledge out there that you dip into. Just because you cannot drink it all down is no reason to gripe about it being there!

Since I cannot post it over there, someone on USENET feel free to repost this whereever in the "news.xxx" groups the discussion is taking place. I hope the net.wizards out there will recognize the validity of this point of view and take steps to reduce or eliminate newsgroup subdivision, and, hopefully, do all they can to encourage the existence of gatewayed mailing lists for all groups, so as to insure participation is available to as many people as possible.

Regards, Will Martin
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

1658. Re: Call for discussion - rec.arts.tv.catv

Newsgroup: rec.ham-radio
Date: 1990-03-15 15:25:38 UTC
From: carlo@electro.UUCP
Message-ID: <1496@electro.UUCP>
Source record: 12863
Cross-posted to: news.groups,rec.radio.shortwave,rec.ham-radio

In article <539@humu.NOSC.MIL> psilva@humu.NOSC.MIL (Paul A. Silva) writes:
>In article <1990Mar13.124850.24587@newcastle.ac.uk> C.Dennison@newcastle.ac.uk (C. Dennison) writes:
>>In article <5188@quack.UUCP> mrapple@quack.UUCP (Nick Sayer) writes:
>>>I would like to open a discussion period on the possible formation
>>>of rec.arts.tv.catv, a group for the discussion of issues pertaining
>>>to cable TV.
>>
>>Wouldn't "rec.tv.cable" give a clearer indication of what the group was about?
>> Just a thought anyway!
>>
>>Chris.
> In case nobody else has pointed this out:
> catv = community access television (not "cable tv")

Well, isn't that a strong argument against the name? It certainly isn't clear what catv is from looking at the name. I would suggest coming up with a different name (e.g. rec.arts.tv.community if the group is about community access TV and rec.arts.tv.cable if the group is about cable TV?).

Also, please don't limit your distribution unless the distribution of the group will also be limited. If it wasn't for the fact that we get articles with usa distribution passed on to us, we would have missed out on this discussion. Of course, if the topic is Cable TV, then it may be a good idea to limit distribution since it is so much different down there :-).

--

Carlo Sgro Not a card-carrying member of the
watmath!watcgl!electro!carlo Laurie Bower Singers Fan Club.

1659. TV and FM DXing

Newsgroup: rec.ham-radio
Date: 1990-03-15 16:18:47 UTC
From: price@MARLIN.NOSC.MIL
Message-ID: <9003151618.AA19401@marlin.nosc.mil>
Source record: 12864

Several people have asked me to elucidate a bit on this topic as a follow-on to my posting a couple of weeks ago.

What we're talking about here is relatively long-distance reception on commercial TV and FM frequencies at basically unpredictable times and from unpredictable places.

The mechanism is the ionosphere when the E-layer gets excessively ionized and causes skip not unlike the F-layer skips to which we are accustomed in ham radio and normal shortwave. Thus frequencies up to 50, 60, 70, 80, even over 100 MHz are reflected back to earth. In fact this last summer, a 220 MHz E-skip QSO was verified over a few hundred miles, but that is a rare exception.

The most common E-skip reception is on channel 2 (the lowest frequency) from about 1000 miles away. Here in Southern California, frequent "visitors" on channel 2 are from Midland, Texas and Denver, Colorado, for example. My personal reception records distance wise are Saskatchewan to the North and Mexico City to the South.

If the E-skip is really strong, it will be in effect up through channel 6 and even into the FM band. And some hams see E-skip on 2 meters on occasion.

We are at a sunspot peak, and the E-skip conditions are especially good right now. The peak months are June and July, and I'd expect to see something almost every day this Summer.

So what does it take? The primary asset is living somewhere that channels 2 thru 6 are essentially devoid of local signals. Well, that doesn't apply in many areas (California's San Joaquin Valley is Nirvana for TV DX). But here in San Diego, for example, channel 3 is vacant and I can steer a rotary TV antenna away from LA enough to pull E-skip signals out on channel 2, 4, and 5 if they're strong enough. No special equipment required--you can sometimes receive distant TV stations with rabbit ears! By extension, these comments apply to the FM band as well.

Someone asked about publications. Many moons ago (1960 plus/minus) I subscribed to a magazine called "TV DXing Horizons" which was published in Modesto, CA. I'm sure it's long gone, but there is a group called something like the TV-FM DXing Society, and I think several people on the net belong. I'm sure they publish a newsletter, station lists, etc.

A handy piece of reference material is a list of TV stations around the country. Until recently the best source was the "North American Radio and TV Station Guide," a Sams book authored by Vane Jones. But it hasn't been republished in several years and is terribly out of date. (Does anyone know why? Is Vane dead?) But at least the most recent edition will tell you what cities have channel 2s and that's a good place to start.

This might be a good forum to compare reception notes this Summer. Three of us did that informally last year with our own mini-Net, and on days when reception is good out here, it generally is good throughout the country. In fact, on days when TV E-skip is "in," check out 10 meters for some places you don't normally work on 10 (i.e. relatively close by), 6 meters for almost anything, and 2 meters for unusual repeaters.

TV stations are quite good about QSLing DX receptions, by the way. I have cards or letters from 20 states, 3 Canadian provinces, and Mexico that I've accumulated over the years.

So, good DXing to us all.

--Jim, K6ZH

P.S. Rarely does only one station come in at a time. The result is noisy, blurry, color fading in and out, sound from one station over a picture from another, etc. If there's someone in your household who isn't too fond of listening to radio interference, TV DX will drive 'em nutz!!

1660. FAIR INTERNATIONAL DX CONTEST

Newsgroup: rec.ham-radio
Date: 1990-03-15 17:46:55 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <594.25FFD914@weyr.FIDONET.ORG>
Source record: 12865

[NOTE: Message modified, 15 Mar 90 11:47:54]
I have had a number of replies and suggestion about how to create a fair DX contest. However most of these have been through private mail. Maybe if we could open up this discussion for all to see we might be able to generate enuff ideas to get the momentum to have one of the large ARS organizations pay attention and actually formally sponsor a "FAIR INTERNATIONAL DX CONTEST" which anyone in any location with any equipment would have a shot at winning. Let's not forget that there is no doubt that unless the

operator is competent and competitive no matter the location or equipment there will be no chance of winning. All suggestions and discussion welcome.

73's & GUD DX - VE5ZX (Syl)

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1661. Re: RShack CB radio recommendation

Newsgroup: rec.ham-radio
Date: 1990-03-15 17:56:11 UTC
From: bbesler@vela.acs.oakland.edu
Message-ID: <370@vela.acs.oakland.edu>
Source record: 12866
Cross-posted to: rec.ham-radio,sci.electronics

From personal experience with a CB and magnetic mount antenna, I would recommend getting a CB with microphone mounted channel controls. It is very convenient while driving. I would also get a CB with an analog noise limiter(ANL). Radio Shack carries such a CB, but it is around $100 regular price. I have a Midland CB(don't remember the model number) with the above specs. I would recommend a K40 antenna above any other. The fiberglass cover one is nice, since it won't rust.

Brent H. Besler

1662. 'tenna help please?

Newsgroup: rec.ham-radio
Date: 1990-03-15 18:25:29 UTC
From: herbster@b11.ingr.com
Message-ID: <7686@b11.ingr.com>
Source record: 12867

Yet another request for info please....

I am putting up a used (got a DEAL) TA-33 tri-band beam but did not get any paperwork with it. I am looking for any information on the assembly instructions, element spacing, etc. I hate to work in the dark. This is a Mosley TA-33M three element 14' boom for 10/15/20.

Thanks very much, de km4jn

1663. QSL's for QSO's from the 60's

Newsgroup: rec.ham-radio
Date: 1990-03-15 19:01:00 UTC
From: raisbeck_m@apollo.HP.COM
Message-ID: <49369116.20b6d@apollo.HP.COM>
Source record: 12868

Anyone have any idea how I might locate the following folks? I would
dearly love to get QSL's for these qso's that I made in the 60's

KZ5CU, Joe in Ft. Clayton, Canal Zone, worked Nov. 13, 1964 on 14.070 cw at 1703
CR6GS, Henry in Nova Lisboa, Angola, worked March 6, 1965 on 21.090 cw at 1327

Any help would be greatly appreciated.

73,
Mike
K1TWF

1664. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-15 19:51:56 UTC
From: dvh@cci632.UUCP
Message-ID: <35110@cci632.UUCP>
Source record: 12869

I'd recommend W4MPY out of Monetta, South Carolina. He advertises in QST every month so you can get the address there. I have done business with them, and they produce a very nice card for a VERY reasonable price. They can do customs or you can pick from a number of standard designs. They will also send you samples, pricing and an order form for the asking. Also, they rarely charge for extras such as logos or awards, which a lot of the others have a fee to include in your design. Give 'em a try- you won't be sorry, but if you are, they'll refund your money.

I have no affiliation with QSLs by W4MPY other than as a satisfied customer.

73 Dave KD5RO/2

1665. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-15 20:35:54 UTC
From: MLS129@psuvm.psu.edu
Message-ID: <90074.153554MLS129@psuvm.psu.edu>
Source record: 12870

Check Gail's QSLs in Missouri. They're *vrey* inexpensive and do the job...
Don't be looking for exotic graphics or neat little pictures, though.
Their QSLs are simple and useful...

Mike KD3LR <MLS129@PSUVM>

1666. 6m Beacon List

Newsgroup: rec.ham-radio
Date: 1990-03-15 21:30:00 UTC
From: zwirko%v5120.decnet@CCF3.NRL.NAVY.MIL
Message-ID: <9003160823.AA16491@ucbvax.Berkeley.EDU>
Source record: 12871

This list was complied by KA3B & K5ZMS and was added to by VK5LP, JA1AN, K1HTV and KA1GD.

Columns are: Frequency in MHz, Callsign, Location, Grid Square, Power Output, Antenna, and Operation (C=Continous, I=Intermittent)

73 & Good Dx'n ... Andy (KA1GD/3)

International 6m Beacon List

Frequency	Callsign	Location	Grid	Pwr.	Antenna	Opr
35.810	VK6RO	Western Australia		3w	6L yagi	I
41.750	VK6RO	Western Australia		8w	6L yagi	I
45.250		CH. 1 New Zealand TV (video)				I
46.250		CH. 0 Australian TV (video)				I
48.250		CH. E2 EU & AF TV (video)				I
49.750		CH. R1 EU/AS TV (video)				I
50.005	ZS2SIX	Rep. of South Africa	KF25	25w	Dipole	C
50.005	H44HIR	Honiara, Solomon Is.	QI00			
50.008	K0GUV	Park Rapids, Mn	EM26	10w	Halo@30'	C
50.010	VE7SIX	Kaleden, BC	DN09	130w	Swiss Quad	C
50.010	ZS6PW	Rep. of South Africa	KG44			C
50.010	JA2IGY	Mie, Japan	PM84	10w	Grnd Plane	C
50.013	P29BPL	Port Moresby, P.N.G	QI30	30w	Dipole	C
50.015	SZ2DH	Athens, Greece	KM18	10w	5L yagi	I
50.015	PJ4B	Aurba				C
50.017	JE6ZIH	Miyazaki, Japan	PM84	10w	2x Squalo	C
50.018	ZS3VHF	Rep. of South Africa		60w		C
50.020	CX1CCC	Montevideo, Uruguay		5w	Vertical	C
50.020	GB3SIX	Anglesey, England	IO73	25w	3L yagi	C
50.025	6Y5RC	Kingston, Jamaica	FK17	40w	3L yagi	C
50.028	JA7ZMA	Fukushima, Japan	QM07	10w	6L yagi	C
50.030	CT0WW	Joao Pesdueira, Port	IN61	40w	Dipole	C
50.0325	ZD8VHF	Ascension Island	II22	50w	Vertical	C
50.033	LU8YYO	Argentina				C
50.034	ZB2VHF	Gibraltar				C
50.035	ZS3VHF	Rep. of South Africa		60w	Vertical	C
50.039	FY7THF	Kourou, French Guyana	GJ35	100w	Grnd Plane	C
50.040	CX8BE	Montevideo, Uruguay	GF15	10w	4L yagi	I
50.043	KB8RO/KP4	Puerto Rico				
50.045	DL3ZM/YV5	Caracas, Venezuela	FK60	10w	6L yagi	C
50.045	OX3VHF	Simiutaq, Greenland	GP60	20w	Grnd Plane	C

50.050 GB3HNQ Potters Bar, England IO91 15w Dipoles C
50.050 ZS6DN Irene, South Africa KG44 C
50.055 ZS6LN Rep. of South Africa KG46 I
50.0575 TF3SIX Iceland HP94 50w Vertical C
50.060 GB3RMK Rosemarkie, England IO77 20w Dipole C
50.060 K4TQR Birmingham, Ala EM63 1w Dipole@60' C
50.060 WA8ONQ Middletown, Ohio EM79 2w T-stile@50' C
50.060 W5VAS Slidell, La EM50 .5w Vert.@310' C
50.061 K1NFE Burlington, Ct FN31 15w T-stile@70' C
50.062 PY2AA Sao Paulo, Brazil GG66 25w Grnd Plane C
50.062 W3VD Laurel, Md FM19 10w Vert.@40' C
50.0625 GB3NGI Londonderry, England IO65 18w Dipole C
50.063 N4PZ Sarasota, Fla EL87 .4w Whip@70' C
50.063 K6MYC/KH6 Kona, Hi BK29 10w yagi I
50.064 WD7Z Yucca, Az DM24 75w Squalo@60' C
50.064 W5WF EM11
50.065 NB3O/1 RI FN41 100w 5L yagi C
50.065 W9KFO Eaton, Ind EN70 1.5w C
50.065 KA0CDN Aurora, Co DM79 20w Halo@30' C
50.065 W0IJR Aurora, Co DM79 20w Halo@30' C
50.065 KL7WE Anchorage, Ak BP51 1.5w 3L yagi I
50.0655 GB4HXJ St. Helier, England IN89 10w Halo C
50.066 VK6RPR Perth, Australia OF78 20w Horizontal C
50.067 WA1OJB Bowdoin, Me FN54 2w J-Pole@15' C
50.067 WB8IGY Loveland, Ohio EM79 2w Vert.@100' I
50.067 N7DB Boring, Ore CN85 10w Halo@30' I
50.067 W0BJ North Platte, Neb DN91 5w T-stile@12' C
50.067 W4RFR Nashville, Tenn EM66 2w C
50.068 W7US Arizona C
50.069 W4HHK Collierville, Tenn EM55 1w Dipole@30' C
50.069 K6FV Woodside, Ca CM87 100w Various@30' C
50.070 KA4VEY Harvest, Ala EM64 10w Vertical C
50.070 KB4UPI Birmingham, Ala EM63 4w Dipole@25' C
50.070 K0HTF Des Moines, Iowa EN31 3w Inverted V C
50.070 N4LTA Spartanburg, SC EM94 10w Halo@50' C
50.070 WA7ECY Troutdale, Ore CN85 10w Squalo@30' C
50.070 WB0CGH Lewisville, Tex EM13 1.5w Halo@180' C
50.070 WB4GJG Danville, Va FM06 1w Ringo@70' I
50.071 W0VD Alba, Mo EM27 C
50.072 WA2YTM Canandaigua, NY FN12 15w T-stile C
50.072 KW2T Palmyra, NY FN13 .25w Squalo@30' C
50.074 WB5DSH Oklahoma City, Ok EM15 30w Halo@40' C
50.074 PY2AMI Sao Paulo, Brazil GG67 5w Grnd Plane C
50.074 WB4OSN Florida C
50.075 KP4EKG Bayamon, P.R. FK68 10w Vert.@35' I
50.075 VS6SIX Hong Kong OL72 30w Grnd Plane C
50.077 N0LL Smith Center, Ks EM09 21w 2xHalo@30' C
50.077 N5JM New Orleans, La EL49 3w Vert.@50' I
50.0775 TI2NA San Jose, Costa Rica EK70 20w Dipole C
50.079 W6SKC/7 Nogales, Az DM41 80w Horiz.@15' C

50.080 KH6JJK Honolulu, Hi BL11 5w 3L yagi I
50.080 WB4OOJ Tampa, Fl EL87 10w Vert.@25' C
50.080 W1AW Newington, Ct FN31 50w 6L yagi@60' I
50.082 HC8SIX Galapagos Island EI59 4w Vertical C
50.085 LU1MA Argentina C
50.086 9H1SIX Malta JM75 25w 5L yagi C
50.086 K7NV Pahrump, Nev DM16 I
50.086 VE2STL Val Belair, Quebec FN46 1.5w Dipole C
50.086 VP2MO Plymouth, Montserrat FK86 10w 6L yagi@50' I
50.090 KJ6BZ Johnston Island AK56 10w 6L yagi C
50.090 TR8CA Gabon I
50.091 J52US Guine Bissau
50.091 9L1US Sierra Leone
50.092 W5GTP New Iberia, La EM40 30w 3L yagi@30' I
50.095 K7IHZ Mesa, Az DM43 20w Squalo C
50.100 HC2FG Guayaquil, Ecuador FI07 8w J-Pole C
50.100 VP5D Turks&Caicos Island FL31 6w Ringo@60' C
50.100 KG6DX Latte Heights, Guam QK23 40w 3L yagi I
50.110 KG6DX Latte Heights, Guam QK23 40w 3L yagi I
50.110 JA2IGY Mie, Japan PM84 10w Grnd Plane C
50.110 A61XL United Arag Emirates LL74 50w 6L yagi I
50.120 4S7EA Sri Lanka MJ97 50w 6L yagi I
50.321 ZS5SIX Pietermaritzburg, RSA KG50 10w Halo C
50.490 JG1ZGW Tokyo, Japan PM95 10w Dipole C
50.500 5B4CY Zyghi, Cyprus KM64 15w Grnd Plane C
50.740 CH. 1 Aukland, NZ (WBFM) I
50.750 CH. 1 Kaukapunake, NZ (WBFM) I
50.760 CH. 1 Kaukapunake, NZ (WBFM) I
50.880 ZS4SA Rep. of South Africa KG33 I
50.904 ZS1STB Rep. of South Africa KF05 25w 4L yagi C
51.020 ZL1UHF Auckland, NZ RF73 25w Dipole C
51.030 ZL2MHB Napier, NZ RF80 10w Vertical C
51.225 ZL2VHT Inglewood, NZ RF70 30w C
51.740 CH. 0 Wagga, Australia (FM) I
51.750 CH. 0 Brisbane, Australia I
51.760 CH. 0 Melbourne, Australia I
52.100 ZK2SIX Niue AH50 C
52.200 VK8VF Darwin, Australia PH57 20w Horizontal C
52.250 ZL2VHM Manawatu, NZ RE79 8w C
52.310 ZL3MHF Christchurch, NZ RE66 50w Vertical C

1667. two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-15 23:09:59 UTC
From: jneher@tenorman.Sun.COM
Message-ID: <132992@sun.Eng.Sun.COM>
Source record: 12872

Hello,

I own two j-pole antennas, one for 2 meters and on for 440 Mhz.
Does anyone know if there is a simple way to hook them up
to one feed line (i.e. present the appearance of
a 50 ohm, dual-band antenna to my dual-band transiever)?

Thanks,

Jonathan Neher

sun!jneher
N6XUI

1668. Re: PRO-2004 wierdness

Newsgroup: rec.ham-radio
Date: 1990-03-15 23:19:00 UTC
From: georgep@vice.ICO.TEK.COM
Message-ID: <4831@vice.ICO.TEK.COM>
Source record: 12873

In article <8630@chaph.usc.edu> cyamamot@aludra.usc.edu (Cliff Yamamoto) writes:
+In article <900314135856.20201ebe@UWYO.BITNET> jimkirk@OUTLAW.UWYO.EDU (James Kirkpatrick) writes:
+>I just had a very strange thing happen with my PRO-2004 scanner, ...
+>I would key in 160.0 but ....it would change to 163.2768
+>
+Just that 2^15 = 32768.... Here's a wild guess but I'd say the 15th bit
+going between your keyboard and the PLL/Display circuitry was stuck as
+logic "1" causing you a bunch of grief.

I agree that it has something to do with 2^15, but it is not the PLL/Display. Data is sent via a serial to the display and to the PLL's. Keyboard inputs generate scan codes which are read by the u-proc and converted to serial words for the PLL and display, and are also converted to parallel 8 bit data and stored in memory as 4 bytes which hold the value of the 1st mixer freq and 2nd mixer freq.

I suspect a glitch in the u-proc programming. Pressing the reset button recessed on the back should re-initialize the unit. YOU WILL CLEAR ALL CHANNEL MEMORY WHEN YOU DO THIS.

If this doesn't fix the problem, you could e-mail me several examples of the freq you put in, and what it put out, and I could calculate the 1st and 2nd mixer divide values to see what is common.

good luck.

geo

1669. Re: ic-2sat mod question

Newsgroup: rec.ham-radio
Date: 1990-03-16 01:41:22 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500453@ux1.cso.uiuc.edu>
Source record: 12874

> The schematic seems to indicate that D6 is only there in the Italian version
> of the IC-2SAT. Does the Italian version offer the 108-136 band by default?

The Italian version of the IC-2GAT offers full band transmit out of the box,
so this is a fairly safe assumption. Got your passport?

I suspect either the regulations or the enforcement in Italy are very lenient
in this area.

> Where does one get this diode?

You don't have to use a chip diode, **IF** you can find a place to put an
ordinary "big" one in. You can get chip diodes from dealers like DIGIKEY
(call 1-800-DIGIKEY). Many chip diodes come in 3 or 4 terminal chips that
have many combinations of diodes in and out. Be sure you are getting the
correct one for what mod you are applying.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1670. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-16 02:22:15 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500451@ux1.cso.uiuc.edu>
Source record: 12875

> Phil Howard says
> > I disagree with the concept of making privileges a reward. This makes
> > it something like a prize.
>
> My Webster's defines privilege as "a right or benefit granted as a peculiar
> advantage or favor". Phil may not agree with the concept, but until the meaning

NO!! I agree with the Webster's definition.

What I am saying is that we are actually TREATING privileges as DIFFERENT
than the Webster's definition.

> of the word changes, I guess we'll all have to live with it, or quit calling
> our amateur activities privileges and call them something else.
> In my opinion, I think "privileges", as defined by the dictionary, fits the
> situation perfectly.

We agree on the definition, but we disagree on whether the current activity
meets this definition. You say it does and I say it does not.

I believe we should make it match the definition.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1671. Re: two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-16 02:28:33 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500452@ux1.cso.uiuc.edu>
Source record: 12876

> I own two j-pole antennas, one for 2 meters and on for 440 Mhz.
> Does anyone know if there is a simple way to hook them up
> to one feed line (i.e. present the appearance of
> a 50 ohm, dual-band antenna to my dual-band transiever)?

If your two antennas present an INFINITE impedence at the T point on
the opposite frequency, then you can directly connect them. However
this is very unlikely.

What you need is a duplexer at the antenna. This device splits the
RF based on freqeuncy. Larsen and Diamond make them and others probably
do as well. Any dealer worth their salt carries one of these.

If your dual-band radio has ONE RF connection, then it has an internal
duplexer. An example is the ICOM IC-3210. If not, then you will need
another duplexer at the radio end. Certainly you need this if you are
using a pair of single band radios.

Typical duplexer costs are in the $50 ballpark.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1672. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-03-16 02:49:55 UTC
From: schein@cbmvax.commodore.com
Message-ID: <10198@cbmvax.commodore.com>
Source record: 12777

In article <34689@cci632.UUCP> rkd@cci632.UUCP (Ray Downes) writes:
>Randall J. Davis writes:
>
>Ok, now I'm confused (easily so I guess). I just received one of these
>(BC200XLT) via Grove. It makes my PRO34 look and feel very wimpy - how
>much are PRO34's worth on the used market? Grove included instructions

GULP.... I just sent a check for $175 to buy a used PRO34 last
week. Now that I hear about your 200XLT im not feeling all that well.

Sneakers

--

___
Dan "Sneakers" Schein //// Quote:
Guest of Commodore //// Those who worked the hardest
International Ltd. ___ //// are the last to surrender.
\\\\\//// -= Gary Ward =-
\\\///
sneakers%heimat@commodore.com (or) uunet!cbmvax!heimat!sneakers

1673. Re: Operation in Mexico

Newsgroup: rec.ham-radio
Date: 1990-03-16 03:56:35 UTC
From: bobw@col.hp.com
Message-ID: <18230001@col.hp.com>
Source record: 12778

Excerpts from the ARRL handout on operating in Mexico
[dated June 1988, approx.]

The United Mexican States has not entered into a reciprocal
licensing/operating agreement with the United States (though the
two countries share a third-party traffic agreement).

Mexico, however, issues operating permits to U.S. amateurs
on a courtesy basis. Upon arrival in Mexico, visit the nearest
Delegacion Regional de Concesiones y Permisos de Telecomunicaciones.
There are many offices througout the country, and a list of them
is available from the ARRL Regulatory Information Branch for
a business-size SASE.

You should take the following:

- A written request for a temporary operating permit, which
contains information on your equipment, address in Mexico
(friend or hotel/motel) and automobile.

- A copy of your tourist card or visa (issued free of charge
by the Mexican consulate located in many U.S. cities or by
the immigration office in Mexico).

- An HD-1 tax receipt for a license fee (37,000 pesos, or $26,
as of September 1987) paid by you at the nearest Office of
Secretaria de Hacienda y Credito Publico.

- A copy of your FCC license

[stuff deleted]

Guest operation by foreign amateurs of XE stations is permitted.
[stuff deleted]

Phone patch operation is discouraged except in emergency communications.

The following are editorial comments by KB0CY (based on talking to
several US amateurs who hold XE licenses)

* The actual procedures seem to vary, depending on where you are
in Mexico.

* The license is good for the same length of time as your tourist
card which is usually 6 months. It is not easily renewed -- it
requires the same fee & hassle all over again.

* It takes about 1/2 day to obtain the license (if things go well).

* The latest info can be obtained from the ARRL for an SASE.

* Contacting a local amateur or someone who has obtained a license recently is very helpful.

*

1674. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-16 05:14:38 UTC
From: cjk4800@ultb.isc.rit.edu
Message-ID: <2469@ultb.isc.rit.edu>
Source record: 12779

Our club station (K2GXT RIT ARC) uses a very nice QSL. We can afford to do this because we use the same QSL as the local Rochester club. They can buy them in quantity, make a few plates to personlize them, and produce many cards in the same printing, saving time and money.

See if yuor local club offers such a service.

Christopher J. Kohanek
(newly appointed) Secretary
Rochester Institute of Technology ARC
Center for Imaging Science

1675. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-16 12:18:20 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500454@ux1.cso.uiuc.edu>
Source record: 12780

> Well...
> I think that the exams should have a lot more on good operating
> practices and a lot less on widely varied technology. When we run
> the hurricane watch net, our biggest problem isn't that someones
> rig has a technical glitch - it's that the computer between some
> of the operators' ears is defective. At least these people would
> have had to memorize some questions such as:

[examples deleted, go back and read them]

> I would sure like to see a bunch of questions like this in the question
> pool!

Me, too!

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1676. Effect of Sun/Heat on Reception

Newsgroup: rec.ham-radio
Date: 1990-03-16 14:17:57 UTC
From: nrg@nsscb.UUCP
Message-ID: <1273@nsscb.UUCP>
Source record: 12781

I would like to know if Spring and Summer has any effect on reception.
For the past few days, it has been very hot in NJ and the reception on
my Sony-2010 was poor and there was lot of disturbance especially tuning
to All India Radio. However, there was no effect on BBC and other major stations

Can some enlighten me in this regard.

Narotham Reddy

--

1677. VISIBLE diode lasers

Newsgroup: rec.ham-radio
Date: 1990-03-16 14:34:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9003170801.AA10099@ucbvax.Berkeley.EDU>
Source record: 12782

I've been reading some things lately about visible laser diodes. They havn't mentioned any sources for these new little beasts! Has anyone got any ideas where they can be ordered (preferably cheap!)? It looks like they might be a natural for experimental laser communications. Barry, do you have any experience with any of these?

Thanks

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

1678. Re: two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-16 14:59:23 UTC
From: genem@hpindda.HP.COM
Message-ID: <5120008@hpindda.HP.COM>
Source record: 12783

Hi,

Depending upon the amount of work you do on 440, the answer is you need to do nothing. Using a 2-meter J-pole on 440 only results in an SWR of 1.8:1 or so! I couldn't believe it either until I verified it. That is about the same as a rubber duck if you were anywhere near a wall or something.

If you operate a lot of 440, you may want to consider something else, but I thought you would be interested in that fact.

73,
Gene
AA6IY (@N6LDL)

1679. Re: computer rfi

Newsgroup: rec.ham-radio
Date: 1990-03-16 17:00:24 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2638@wyse.wyse.com>
Source record: 12792

In article <18230014@hpfcdj.HP.COM> myers@hpfcdj.HP.COM (Bob Myers) writes:
>>Robert,
>>I would return the computer to the place of purchase ASAP. A class 'A'
>>computing device is 10dB louder than a class 'B' device.
>
>Not necessarily - a computing device which says that it is "class A" simply
>means that it (more precisely, samples of this model) has been tested and
>certified to pass the FCC requirements for a class A device. It may actually
>be significantly quieter than another device labelled "class B" but was for
>various reasons not tested to that standard. (Class A is, in general, a looser
>requirement than class B, but there are other considerations taken into
>account by manufacturers when they choose which class to certify to.)

Well.... I don't know where he tests computers, or what he buys, but FCC
level 'B' does not come for free in any +modern+ computer (aka over the
last 7 years). If a "CLASS A" computer is tested and acutally exceeds the
limits of a "CLASS B" device I do not know a single person in any company
that would not list it as a "CLASS B" device. I have tested computers
from many companies and getting to Class B is no small task. A class
"A" device will in almost all cases be much hotter than a Class "B"
device. When we do testing at my company it takes nearly 3 months to get
to the point where we can submit to the FCC on almost any product that is
class 'B'. Getting to Class 'A' takes one week and no submital is required.
That should say something about the work involved.

The person who originally asked for the help had a problem with a Class 'A'
device. I would bet that he also had problems with his FM Radio (some
freq) and his TV if it used an antenna and not cable.

A Class 'A' device has no place in the home and especially no place in the
ham shack where the ability to hear RF (that rare DX station) is critical.

>
>Even Class B devices may cause annoying interference, if they happen to
>generate RFI at a particular frequency of interest to you - as may be the case
>here. Also, not all interference comes over the power lines, so it's not
>too suprising that adding a line filter didn't help. (Actually, given that
>it's relatively simple to keep VHF frequencies off the power cord, I would've
>been surprised if conducted interference had been the culprit here.) You
>are more likely seeing interference radiated from the system.

All true and shows that even Class 'B' devices are not perfect from a
hams perspective. So why not get the best that you can and avoid most of
the problems.... As a side note, If you see a "VDE level 'B'" sticker
on the product that is better yet since it has been tested to an even
harder standard (this test is harder on conducted emissions and also

checks for Magnetic emissions).

I deleted all of the suggestions to conserve net bandwidth... All are valid...

1680. Re: BIT RATE SPEEDS - WORLD RECORDS ??

Newsgroup: rec.ham-radio
Date: 1990-03-16 17:13:48 UTC
From: koning@koning.dec.com
Message-ID: <9319@shlump.nac.dec.com>
Source record: 12790

In article <9003160819.AA16137@ucbvax.Berkeley.EDU>,
RHAREL%FAB8@SC.INTEL.COM ("RICHARD HAREL CAL.LAB INTEL") writes:

> Can anyone give me some feedback as to what speeds data transfer is
> achieving these days over:
> a. Conventional Telephone lines
19.2 kbits/second

> b. Leased data lines
44 megabits/second on copper; multiples of that on fiber.

> c. RF (mainly microwave)
No idea, but I'd expect hundreds of megabits/second minimum.

> Is anyone doing some experiments out there digitizing voice and then
> transferring it at high speeds via RF ???
> Maybe the day 'aint so far off when repeater clubs will have a microwave
> dish at their site pointed at OSCAR 'XX' that will forward
> voice messages at 56 mbyte per second.

2.4 kbits/second suffices for digitized voice, with appropriate digitizing
algorithms.

paul, ni1d

1681. JIL Scanner Info Wanted

Newsgroup: rec.ham-radio
Date: 1990-03-16 17:16:30 UTC
From: w1gsl@athena.mit.edu
Message-ID: <1990Mar16.171630.4803@athena.mit.edu>
Source record: 12789

I have recently aquired a JIL Scanning Monitor, it is marked
HF/VHF/UHF and FCC ID BGL90MSX-400 but has no model number.
It also came with a UHF converter (800-1400 MHz) JIL model RF-8014.

It seems to work and be reasonably easy to operate, but came with
no info. I am looking for at least the operators manual, and
possibly a service manuel. I have had no luck locating the
manufacture are they still in around?

I am particullarly interested in the functions (interface to) of
the rear pannel connectors, the 34 pin remote control, 3 pin AUX
control and the 5 pin REC control.

Does anyone know anything about this beast? Is it worth investing
my time in it? Has anyone done a review?? About how old is it,
and what was it sold for new?

73
Steve F
W1GSL

Please reply either directly or to rec.ham-radio, as I follow that
group via the digest.

****
Steve Finberg
PO Box 82 MIT Br. Canbridge MA 02139
617-258-3754
W1GSL@athena.mit.edu
via W1XM/R 449.725 PL 2A
****

1682. Re: DAYTON!

Newsgroup: rec.ham-radio
Date: 1990-03-16 17:39:19 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500455@ux1.cso.uiuc.edu>
Source record: 12791

> BTW the "OFFICIAL U-NET FREQ WILL BE 223.60 DIR. I believe there was mention
> of a 440 MHz freq as well but it escapes me now. Can someone please post it ?
> Also the "MOBILE CROSSBAND REPEATER" is not making the trip this year so
> I will not be able to provide the 220-440 link. Can anyone else ??

How about 445.60 Mhz?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1683. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-16 17:45:49 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880134@hpfcdc.HP.COM>
Source record: 12784

The poster of the basenote is trying to get from 5 to 13. I'm trying to break the 13wpm barrier and get to 20. I ran into a guy on the 80m novice CW band that suggested that I copy in my head by sound, without writing it down.

One of the problems with writing down characters while listening is just that - you can't do two dissimilar things at once. By getting the translation part down, you can buffer words in your head, then write down words link normal people do. The key is to compress the information in your mind as much as possible - concentrating on word sounds, rather than sounding out letters. For example, what sound is easier to remember - "example" or "e"-"x"-"a"-"m"-"p"-"l"-"e" ?

I've tried this approach, and find that I can understand most characters at 20 wpm, but I'm still having trouble buffering the words. The worst words are ones that are not spelled the way they sound.

Perry Scott
KF0CA

1684. Re: hp/harrison 6206b info?

Newsgroup: rec.ham-radio
Date: 1990-03-16 18:14:42 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880135@hpfcdc.HP.COM>
Source record: 12785

You might try dropping a line to the local HP support office (HP in Yellow Pages). Sometimes they can dig up info on this old gear.

Perry Scott

1685. Re: INFO-HAMS Digest V90 #277

Newsgroup: rec.ham-radio
Date: 1990-03-16 18:30:38 UTC
From: whester@nyx.UUCP
Message-ID: <351@nyx.UUCP>
Source record: 12786

In article <C56ABAAC925FE008B7@uwplatt.edu> 390624331@UWPLATT.EDU (W K 9
) writes:
>Well, this isn't really about digest V90 #277 but the computer gave me t
at
>subject.
>
>What value capacitor would anyone recommend to be put accross my stereo'

>speaker terminals to stop humming caused by Xmting on 2m? I amagine tha
this
>would happen too (probably even worse) with HF. The RF gets into the st
reo
>so bad that when transmitting at high power, it kicks in the stereo's pr
-
>tection circuits and turns off the speakers for a few seconds. Also wha

>voltage? Stereo specs say max of 65W/ch.
>
>Hmmm. (pun) Thanks!
>
>'73, Randy WK9M

Randy, Please be very carefull! Some stereo amps can not take the low
impedance that a capacitor across the output will present at ultrasonic
frequencies. Typically, wide-band response amps "see" a load that is
almost a short circuit at higher frequencies. Some amps will shut down
due to excessive current in the output. Other amps burn up the output
stages because the capacitive load changes the original design parameters
used for the amp's internal feedback...the amp go into high frequency
oscillations which may not even be heard in the speakers (BTW, this can
also burn out the voice coil of tweeters due to excessive high freq.
power levels that they were never designed for).

I learned about this little problem first hand when I was a stereo
service tech and had to rebuild an amp when the owner put >shielded<
wiring to the speakers in an effort to solve an RFI problem. There's
lots of capacitance added with this type of wire.

Before you charge ahead, contact the manufacturer of you stereo for
their exact recommendations on resolving the RFI problem. Perhaps
the signal is not entering through the speaker wiring at all...mayby
it's coming directly in through a non-shielding plastic case into the
low level circuitry or perhaps its coming in through the line cord.

I have the same problem with my stereo, a buzzing sound when transmitting,
which I found could be cured by moving the transmitting antenna further

away...a case of fundamental overload.

Good Luck with this problem...it can be very frustrating to resolve.

73's, Bill, N0LAJ

1686. Re: BIT RATE SPEEDS - WORLD RECORDS ??

Newsgroup: rec.ham-radio
Date: 1990-03-16 18:56:37 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Mar16.185637.27390@Neon.Stanford.EDU>
Source record: 12793

In article <9003160819.AA16137@ucbvax.Berkeley.EDU> RHAREL%FAB8@SC.INTEL.COM ("RICHARD HAREL CAL.LAB INTEL") writes:
>Can anyone give me some feedback as to what speeds data transfer is
>achieving these days over:
>a. Conventional Telephone lines

Theoretical Bandwidth is 22KHz; 19.2Kb (or 2x9.6Kb) are pretty close.

>b. Leased data lines

Depends on how much money you want to spend. ISDN over simple 4 wire pair goes about 144Kb. OC3 service will get you 155.52 Mb, but will cost a whole lot more.

>c. RF (mainly microwave)

Yo, Glen? What are you up to these days? ;-)

Seriously, using cheap stuff, some common data rates are 240.3Kb, 1.544Mb, 10Mb. Define cheap as being under $500 per end.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

1687. Re: Re: INFO-HAMS Digest V90 #277

Newsgroup: rec.ham-radio
Date: 1990-03-16 19:49:00 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250134@hpnmdla.HP.COM>
Source record: 12787

Don't put too big a cap across your speaker terminals to cure RFI.
It might cause instability in the amplifier.

In fact, 330 pF capacitors are series-resonant at about 146 MHz (assuming short leads), so would make an excellent bypass capacitor for the 2 meter band. This should be small enough not to mess up amplifier response.

Al N1AL

1688. Re: two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-16 19:55:45 UTC
From: mark@kodak.UUCP
Message-ID: <2397@kodak.UUCP>
Source record: 12794

In article <132992@sun.Eng.Sun.COM> jneher@tenorman.Sun.COM (Jonathan Neher X62863) writes:
>Hello,
>
>I own two j-pole antennas, one for 2 meters and on for 440 Mhz.
>a 50 ohm, dual-band antenna to my dual-band transiever)?
>

Yes, buy a 2m 70cm duplexer and put it at the end of your feed line.
This will make your 2 antennas look like one dual bander. The cost for
a good outdoor duplexer from larson is about $60.00. Good luck.

73
Mark Hilliard N2HHR
rutgers!rochester!kodak!brandy!mark

1689. Re: Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-16 20:39:54 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003162057.AA03933@ti.com>
Source record: 12800

This discussion seems to be drifting back to "code vs no-code" via "new" ideas for licensing exams

Most of the ideas presented so far approach a call for two classes of license: (1) Radio Operator (RO), and Technical Operator (TO).
The RO license would be issued to anyone who could demonstrate proficiency in 1. Coming up with enough money to buy a rig, computer, peripherals, antenna, software, and tuner.
2. being able to locate the on-off switch and knowing which position is the "on" position.
3. Knowing the diference between a D-type connector and a PL-239.
4. The appropriate terminology to use on 2-meter FM (voice) and packet routing.

The TO license would require substantially the same technical knowledge as is now required, with the addition of a few questions regarding FCC type-acceptance and what types of equipment may be used in which radio services.

A person could have either a RO, a TO, or a ROTO (combination) license.

In practice, a RO could not make any adjustments to equipment that would affect the frequency (other than the tuning knob(s)), the output power, or the modulation characteristics of the transmitter. But could use any FCC type-accepted equipment that they could find a way to chain together to effect communication with other stations. The TO would not be under these restrictions and could modify, build, or make any adjustments to equipment that would not result in emitting a signal outside the limits placed on the service. This would, of course, include modifications or adjustments to RO equipment.

For both the TO and RO classes (commutatively applicable to ROTO), a comprehensive operating rules exam would have to be passed. It would be an open-book exam to encourage reading and studying about the radio service they are (or hope to be) licensed for. Such an exam would be required at annual intervals to maintain this encouragement. It would cover such aspects as: (1) What the band limits are and why they are there. (2) What modes of operation are allowed on each band. (3) What to do when the frequency you want to use is occupied. (4) How to Call another station; and how to reply to a call. (5) when you need to ID your station and how it is to be done. (6) What is music and what is profanity (not a court definition, but a service definition). (7) How To Be Courteous and Considerate. (8) What the transmitter power limits are. Finally, an actual operator run, with two VE's unknown to the testee evaluating would be administered. The operator would be required to ACTUALLY operate his equipment, in the presence of the evaluators, in each of the modes he intends to run. Successful demonstration would

then be indicated by checking off the appropriate blocks on the license application.

This would do for a start. The Lawyers can add myriad details to each point as they see fit. Notice that the dreaded letters, CW, will only appear at the Operator Evaluation Annual Test (OEAT), and then will apply only to those expecting to actually operate this mode.

To make sure that operators adhere to their license conditions, any operator found to be operating in a mode or manner inconsistent with his license would have his equipment seized and his zicense revoked for six months, or until his next annual renewal date, whichever is later. Such an operator would be placed in "Status Operator License Activity Revoked" category (SOLAR).

73,
Dube Todd N5PDK :)

1690. Re: QSL's for QSO's from the 60's

Newsgroup: rec.ham-radio
Date: 1990-03-16 20:51:46 UTC
From: dvh@cci632.UUCP
Message-ID: <35151@cci632.UUCP>
Source record: 12795

In article <49369116.20b6d@apollo.HP.COM>, raisbeck_m@apollo.HP.COM (Michael Raisbeck) writes:
> Anyone have any idea how I might locate the following folks? I would
> dearly love to get QSL's for these qso's that I made in the 60's
>
> KZ5CU, Joe in Ft. Clayton, Canal Zone, worked Nov. 13, 1964 on 14.070 cw at 1703
> CR6GS, Henry in Nova Lisboa, Angola, worked March 6, 1965 on 21.090 cw at 1327
>
> Any help would be greatly appreciated.
>
> 73,
> Mike
> K1TWF

I can't help you specifically with THESE calls, however a little sleuthing may produce results. When I got back into DXing in '82, after being off the air for 6 years and not interested in DX for a few before that, I found I had QUITE a collection of QSO's with DX countries for which I needed a card (for DXCC credit). I got myself the latest copy of the DX Callbook and started looking up the countries (hopefully to get addresses of these old stations). More often than not, the guy you worked is still around. For example, even tho' CR6 is no longer the prefix for Angola, there aren't too many hams in that country and examining the list of (I think) D2 calls listed may reveal one such as "D2GS" with the same first name and in the same city. Bingo! Odds are you just found him! With KZ5 stations, you will have a problem, since those were military personnel stationed in the (then) U.S. Canal Zone. However, there are ways to track at least some of these folks down, assuming they're still alive and licensed. "QRZ DX" is a newsletter published exclusively for the DX community and if you write Bob W5KNE (the publisher) and tell him you'd like to find the whereabouts and QSL info for such and such (your KZ5 for example), he'll publish your request in the newsletter. Many people read it and the odds are pretty good that someone knows the guy (again- if still kicking and/or licensed) and will pass the info along. Another tip is the "GO List"- published by W6GO, this is a list of QSL managers/ QSL routes. Though most are for the more or less current crop of DX stations, there are many old stations still listed- I think he claims something like 6000 stations/ managers QSL routes.

Now- you've found him, how to get a card? I found that a letter to the guy, much more than a QSL card (or at least along with a card) is the key to success. Tell him how much you enjoyed the QSO "n" years ago, and how you really need the card (if you do) for an award, or

for the sentimental value. I've found that the vast majority of these guys still have cards around, even from calls they no longer hold, or from DX-peditions long past. If it's a DX station, help him out- he may have been using a manager years ago, to reduce his postage expenses. Now you're writing him direct, asking for a card- include some postage money (at least some IRC's) so he doesn't have a real good reason not to help you- oh yeah- also a self-addressed envelope (not SASE, but SAE). I did this with about 20 countries when I got back on, and I got cards FROM EVERY ONE- in fact, I got some of the nicest letters back, welcoming me back on the air. It was fun. One thing- make sure, to the best of your ability, that you have ALL the QSO info correct (dates, times, freqs, etc.)- if he has to go through a large number of logs to find the QSO, he'll be less likely to help you.

The only bad news is trying to find a U.S. station who has changed his callsign- I have not found a good way to do this- the FCC computer doesn't hold callsign change info for very long, I guess, and they're not very cooperative. Sigh.

Well, this has been long, but I hope somewhat helpful. Good luck in your detective work.

73 Dave KD5RO/2

1691. Re: 'tenna help please?

Newsgroup: rec.ham-radio
Date: 1990-03-16 20:57:36 UTC
From: dvh@cci632.UUCP
Message-ID: <35152@cci632.UUCP>
Source record: 12796

In article <7686@b11.ingr.com>, herbster@b11.ingr.com (Joe Herbster) writes:
>
> Yet another request for info please....
>
> I am putting up a used (got a DEAL) TA-33 tri-band beam but did not
> get any paperwork with it. I am looking for any information on the
> assembly instructions, element spacing, etc. I hate to work in the
> dark. This is a Mosley TA-33M three element 14' boom for 10/15/20.
>
> Thanks very much, de km4jn

How about a phone call to Mosley? their number is (314)994-7872. I'm sure they will supply you with a set of assembly instructions for little or no money, especially since the antenna is still in current production.

This isn't a flame, but I think any info you might get regarding assembly over the net, without having a picture to look at, would probably be difficult to follow and could well result in the best looking dummy load in your neighborhood.

Hope this helps.

73 Dave KD5RO/2

1692. Public Domain programs, how get?

Newsgroup: rec.ham-radio
Date: 1990-03-17 01:28:18 UTC
From: Jim.Heil@linkit.linkit.wd5efc.ampr.org
Message-ID: <106.26024922@linkit.linkit.wd5efc.ampr.org>
Source record: 12788

Bob, you mention the public domain files in comp.sources.misc. How does
one get a file from that? Being a new comer, these wonderful hints
aren't available without asking many questions to even more people.
Thanks for the help in advance.
Also, is there a file that explains the inner workings of this system in
lay men terms?
Jim Heil
KB5AWM @ KA5KTH
PRODIGY: GTMS56A

--
Jim Heil - via FidoNet node 1:106/7873
UUCP: ...!splut!jantor!linkit!Jim.Heil
serviced via UFGATE 1.0

1693. Re: two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-17 02:12:00 UTC
From: miker@porkface2.WV.TEK.COM
Message-ID: <6486@orca.wv.tek.com>
Source record: 12797

The Yaesu Duplexer contains a low pass filter and a high pass filter.
5 airwound inductors and 5 caps. Can build one for less than a buck.
One radio on two antennas doesn't require much isolation. Be more
careful when using two radios on one antenna.

1694. Re: DAK radio update?

Newsgroup: rec.ham-radio
Date: 1990-03-17 04:27:53 UTC
From: jliu@pender.ee.upenn.edu
Message-ID: <21797@netnews.upenn.edu>
Source record: 12798
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I called DAK the other day to order that little shortwave radio, and they told me the radios won't be available for delivery until April 7th. As soon as I get it, I'll post an evaluation.


```
-------------------------------------------------------------------------
|z
John C. Liu |
| * <- me!
Electrical Engineering Dept |
University of Pennsylvania |
Philadelphia, PA 19104 |_____________________Y
/
Inet: jliu@pender.ee.upenn.edu /
/
/x
```

1695. QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-17 08:01:43 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9003170801.AA10106@ucbvax.Berkeley.EDU>
Source record: 12799

I N T E R O F F I C E M E M O R A N D U M

Date: 16-Mar-1990 08:34am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL)

Subject: QSL Cards

>I'd recommend W4MPY out of Monetta, South Carolina. He advertises
>in QST every month so you can get the address there. I have done
>business with them, and they produce a very nice card for a VERY
>reasonable rice. They can do customs or you can pick from a number
>of standard designs. They will also send you samples, pricing and
>an order form for the asking. Also, they rarely charge for extras
>such as logos or awards, which a lot of the others have a fee to include
>in your design. Give 'em a try- you won't be sorry, but if you are,
>they'll refund your money.

>I have no affiliation with QSLs by W4MPY other than as a satisfied
>customer.

>73 Dave KD5RO/2

Hear, hear! I've also used W4MPY and have the same feelings as Dave. Besides
being a mouthful on phone (and wrist-tiring on CW), WD6CQV/KH6 just doesn't
fit on the average QSL card, but W4MPY got it all on with room to spare, and
it looks good, too! Turnaround time was only about three weeks, even with
the shipping time between Hawaii and South Carolina.

Jeff Miller, WD6CQV/KH6 | "Just because I'm a Californian,
USAF MARS: AFA8JM | it doesn't mean I'm not an
Chief, Engineering Workload Control | American!"
1843 EIG/EIP | -- Agnes DiPesto,
Wheeler AFB, HI 96854-6348 | "Moonlighting"
Commercial: (808) 656-1226 |
AUTOVON: (315) 456-1226 |

Opinions? Me? On government time? Ya gotta be kidding!

1696. Anthropology 101

Newsgroup: rec.ham-radio
Date: 1990-03-17 13:54:35 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14788.260242D3@stjhmc.fidonet.org>
Source record: 12801

The following is forwarded on behalf of Michael Covington, whose system does not now permit him to do so himself.

Date: Thu, 15 Mar 90 00:41:14 EST
From: asuvax.eas.asu.edu!CORNELLC.cit.cornell.edu!MCOVINGT%UGA.UGA.EDU (Michael Covington)
Subject: Ham radio anthropology
To: Bryan Pfaffenberger <xb.p07@forsythe.stanford.edu>
Cc: Jim Grubs <jim.grubs@w8grt.fidonet.org>

I just saw your appeal for information about the social values of ham radio enthusiasts. I've been around ham radio, and reading about it, for perhaps 25 years though I've only been licensed for two years.

(1) Ham radio is definitely egalitarian. There are awards and other status symbols (especially the ascending classes of license), but most people take the attitude that anyone could attain these with suitable effort and inclination.

Hams generally _conceal_ their social status when on the air. Just today I was browsing through QST Magazine for 1949 and came across the following story, which is typical: An American sergeant who was a ham found himself in an isolated place in Europe without supplies. He called a ham in Germany and asked him to deliver a message to headquarters. The ham in Germany did better than that -- he turned out to be General LeMay and he sent out the shipment himself.

(Computer BBSes today have a similar ethic. I've several times found myself talking to 15-year-olds who blissfully assumed that everyone on the BBS was a 15-year-old. I only "pull rank" when necessary to end a long pointless dispute.)

The use of non-voice modes (Morse code and more recently RTTY and packet) enables hams to conceal their dialect, accent, etc. I've been told that through much of this century, black hams preferred Morse code because they could communicate with whites on equal terms.

(2) Sharing ethic: Yes, certainly. (In fact I have a hard time getting hams to realize that commercial computer software can't just be copied indiscriminately.) A typical ham would rather _give_ a piece of equipment to a young new licensee than _sell_ it for a good price. Sharing of information, sharing of equipment, and selling at low prices to other hams are standard practices.

(3) Social service ethic: Definitely! To get a ham license, we have to study Part 97 of the FCC Regulations, which define the purpose of ham radio -- it includes enhancing international goodwill, serving the public, and developing or disseminating technology. Ham radio is _not_ just a hobby.

Many hams enjoy doing many hours of public service work every year. We _all_ are available to be called on in emergencies. There's a general feeling that any ham who is not willing to do public service is not worthy of a license.

For example, the National Traffic System is a volunteer network that relays messages ("radiograms") for free. Right now it's just a hobby, but if there were ever a major telephone outage, it would swing into action as a valuable communication service. (Some of this happened when Hurricane Hugo disrupted communication in the Southeast.)

What's the main DIFFERENCE between ham radio and computing? I think there are two:

(a) Ham radio is ipso facto a community. You have to have people to talk to. Computing _can_ be pursued alone.

(b) Most computer hobbyists are trying, on some level, to make money with their computers. Lots of times, they do good, useful work. Sometimes, they write programs and give them away free with notices that "if you use this for more than a brief trial period, you must pay me $100" and then grumble that nobody pays the $100.

Among computerists I've sometimes found a money-grubbing attitude that is, by regulation, absent from ham radio. You _can't_ make money with ham radio (at least, not directly). It's forbidden by FCC regulations.

Michael A. Covington internet mcovingt@uga.uga.edu
Artificial Intelligence Programs bitnet MCOVINGT@UGA
Graduate Studies Research Center phone 404 542-0359
The University of Georgia fax 404 542-0349
Athens, Georgia 30602 bix, mci mail MCOVINGTON
U.S.A. packet radio N4TMI@WB4BSG

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1697. Six-meter beacon list (comment)

Newsgroup: rec.ham-radio
Date: 1990-03-17 15:00:34 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9003171500.AA22797@cmr.ncsl.nist.gov>
Source record: 12814

Thanks to KA1GD for posting the beacon list. I have a couple of comments.

J52US and 9L1US are the same fellow and rig. He is a 9L1US now-a-days.
Thus J52US should be deleted.

I think the Netherlands Antilles beacon,
PJ9B, is the one run by Chet, PJ9EE. Chet moved to Bonaire a couple of years ago and the beacon quit and was sent to him. Right now it is in my radio room in the process of being rebuilt (%$^*%**&^# Hamtronics). I'll get it back to him sooner or later. Its power is about 10 W, and will be on from Bonaire when reactivated.

It would be useful to note which beacons are A1 and which are F1. Most are A1, but FY7THF and '4OOJ are F1. 'THF sends SSSsssssooooooo slowly it is hard to copy.

73, Bob W3OTC

1698. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-17 17:50:32 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14795.26027982@stjhmc.fidonet.org>
Source record: 12802

> From: phil@ux1.cso.uiuc.edu
> > Well...
> > I think that the exams should have a lot more on good operating
> > practices and a lot less on widely varied technology. When we run
> > the hurricane watch net, our biggest problem isn't that someones
> > rig has a technical glitch - it's that the computer between some
> > of the operators' ears is defective. At least these people would
> > have had to memorize some questions such as:
>
> [examples deleted, go back and read them]
>
> > I would sure like to see a bunch of questions like this in the question
> > pool!
>
> Me, too!

Anybody for an oral exam plus an on-the-air 'practical'?

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1699. Re: Anthro 101

Newsgroup: rec.ham-radio
Date: 1990-03-17 17:50:39 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14796.26027983@stjhmc.fidonet.org>
Source record: 12803

> From: XB.P07@forsythe.stanford.edu (Bryan Pfaffenberger)
>
> Dear Anthro 101 people, thanks so much for your many responses! I
> learned a lot--and laughed a lot.

How 'bout a summary?

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1700. Emergency Preparedness Plans

Newsgroup: rec.ham-radio
Date: 1990-03-17 17:50:44 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14797.26027984@stjhmc.fidonet.org>
Source record: 12804

> From: jenkins@jpl-devvax.JPL.NASA.GOV (Steve Jenkins)
>
> I have volunteered to write a disaster preparedness plan for the JPL
>
> I would be very interested in seeing other such plans. If your
> club or team has one, please send a copy of it to me at

Try asking your friendly neighborhood USAF types for a peek at their Base Disaster Preparedness Plan. Talk about detailed....

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1701. Re: two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-17 17:50:49 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14798.26027986@stjhmc.fidonet.org>
Source record: 12807

> From: phil@ux1.cso.uiuc.edu
> > I own two j-pole antennas, one for 2 meters and on for 440 Mhz.
> > Does anyone know if there is a simple way to hook them up
> > to one feed line (i.e. present the appearance of
> > a 50 ohm, dual-band antenna to my dual-band transiever)?
>
> If your two antennas present an INFINITE impedence at the T point on
> the opposite frequency, then you can directly connect them. However
> this is very unlikely.

Especially since 440 is very nearly the third harmonic of 2 meters....

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1702. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-17 17:50:55 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14799.26027987@stjhmc.fidonet.org>
Source record: 12805

> From: phil@ux1.cso.uiuc.edu
>
> > Phil Howard says
>
> We agree on the definition, but we disagree on whether the current
> activity
> meets this definition. You say it does and I say it does not.
>
> I believe we should make it match the definition.

I think Part 97 should meet the service's minimum regulatory needs and leave
the social engineering out of it.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1703. Re: two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-17 17:51:02 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14800.26027989@stjhmc.fidonet.org>
Source record: 12806

> From: genem@hpindda.HP.COM (Gene Marshall)
>
> Depending upon the amount of work you do on 440, the answer is you
> need to do nothing. Using a 2-meter J-pole on 440 only results in an
> SWR of 1.8:1 or so! I couldn't believe it either until I verified it.
> That is about the same as a rubber duck if you were anywhere near
> a wall or something.
>
> If you operate a lot of 440, you may want to consider something else,
> but I thought you would be interested in that fact.

On 440 such an arrangement is endfire directive, i.e., upwards!

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1704. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-17 19:49:13 UTC
From: cjk4800@ultb.isc.rit.edu
Message-ID: <2491@ultb.isc.rit.edu>
Source record: 12811

>I disagree with the concept of making privileges a reward. This makes it
>something like a prize.

I have to agree there. Dolphins get rewarded for jumping through hoops.
Children get rewarded for behaving in the restaurant...Don't you think
WE could make the whole process more logical (and Dignified)?

>The exams SHOULD measure how capable we are of NOT abusing the privileges
>that we want to have.

The present system is a lot like taking a Physics class and being tested
on Music Theory. Knowing Physics may help you understand why note
combinations sound dissonent or consonent, but should you have to know
one, that you will probably never use, in order to do the other?

>Prizes are offered for doing things that may in fact NOT be related to the
>nature of the prize. We should not be doing this in ham radio. VHF/UHF
>privileges are unrelated to Morse Code for most people.

Thanks Phil. How many of you have ever run VHF or UHF CW? Not a heck
of a lot of fun compared to using the low bands, is it? Why require
code testing if nobody (or practically nobody) uses that mode in that
bandspace. Stop hideing behind the defense that "If we don't test code,
Ham Radio is going down the toilet like CB". If we keep insisting on
code testing, ham radio will go down the toilet. Let's concentrate on
training our hams on emergency procedures, operational courtesy, and the
like. Let's stop allowing hams to go years without learning how to
PROPERLY participate in a traffic net. Right now, it's pretty sad.

>--Phil Howard, KA9WGN--
><phil@ux1.cso.uiuc.edu>

Thanks Phil, I think we better set some real goals for Ham radio and
work toward achieving them. If CW is legitimately part of the plan,
fine. If it has truly become a relic, let's treat it as such.

Christopher J. Kohanek, Secretary
Rochester Institute of Technology ARC
Center for Imaging Science

Newsgroups: rec.ham-radio
Subject: Re: Effect of Sun/Heat on Reception
Summary:
Expires:
References: <1273@nsscb.UUCP>
Sender:
Reply-To: cjk4800@ultb.isc.rit.edu (C.J. Kohanek)

Followup-To:
Distribution:
Organization: Information Systems and Computing @ RIT, Rochester, New York
Keywords:

1705. Ham Publicity on TV (VK-style)

Newsgroup: rec.ham-radio
Date: 1990-03-17 21:24:16 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9003172124.AA23073@cmr.ncsl.nist.gov>
Source record: 12815

I just returned from a 10-day business trip to Texas and California
(I'll bet you noticed the reduced net traffic). On the "middle" weekend
I stopped by W3XO/5 (& XYL), who had returned the day before from three weeks
in VK and ZL. Among the several hours of 8mm video was a visit to VK2TVG.

Just by chance one of the Sydney hams suggested a visit to VK2TVG. Bill
had never heard of it, but was "game". It turns out that 'TVG is a ham-
operated TV station, "channel 35 plus", that is in the regular UHF TV region
and can be viewed by the general public on regular, unmodified TV sets.
The VKs had a 576-585 MHz ham band, and the ham TV repeaters and 'TVG have
been grandfathered, even though the band has been given to regular TV.

VK2TVG operates Wednesday, Friday, Saturday and Sunday evenings,
with programs (oops,"tests") about ham radio. There was a "test" about working
DX during Bill's visit. Wednesday carries new programs, the rest of the days
are repeats. It is in commercial-quality color, and originates from a ham's
KITCHEN!!!!! That end of the house overflows with switchers, VCRs, etc., etc.
While the power is only 100 W (they plan more), it is relayed by other hams.
It's an entirely volunteer operation that takes a crew of about 6-8 on duty
during "live" periods. The hams at the station asked Bill ('XO) if we
had operations like theirs here in the states.

When XO was later in ZL, he asked one of the leading ZL hams if he had heard
of VK2TVG. He had; in fact they had flown him over to VK to record an 8-hour
series of programs (oops, sorry) "tests".

'TVG is operated by the Gladeville (NSW) Amateur Radio Club.

An amazing operation.....

73, Bob W3OTC

1706. Re: Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-18 00:33:47 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <4116@kd4nc.UUCP>
Source record: 12812

In article <9003162057.AA03933@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>Most of the ideas presented so far approach a call for two classes of
>license: (1) Radio Operator (RO), and Technical Operator (TO).
>
>For both the TO and RO classes (commutatively applicable to ROTO), a
>comprehensive operating rules exam would have to be passed. It would
>be an open-book exam to encourage reading and studying about the radio
>service they are (or hope to be) licensed for. Such an exam would be
>required at annual intervals to maintain this encouragement.
>
> Finally, an actual operator run, with two VE's unknown to the
>testee evaluating would be administered. The operator would be required
>to ACTUALLY operate his equipment, in the presence of the evaluators, in
>each of the modes he intends to run. Successful demonstration would
>then be indicated by checking off the appropriate blocks on the license
>application.
>
> Notice that the dreaded letters, CW, will only
>appear at the Operator Evaluation Annual Test (OEAT), and then will apply
>only to those expecting to actually operate this mode.
>73,
>Dube Todd N5PDK :)

I know this posting was intended as a joke, but I like it. I especially like the annual OEAT as this could be a good way to get an honest count of licensees who are still alive and active. I expect the number to be much smaller than reported in the flawed QST reports. I also like the idea that you be tested only on the operating modes YOU consider relevant to your needs while retaining comprehensive regulatory and technical exams as appropriate depending on whether you are a RO or TO.

Annual retesting of simulated on the air behavior might even reduce the liddism on HF a little bit. I doubt it tho -(. Lids are a social phenomina that testing will be unlikely to uncover or discourage. By and large these people are not stupid. They will be model operators DURING the test. Lids are a reflection of society's failure to integrate these people into the socially accepted norms of behavior.

73 Gary KE4ZV

1707. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-18 01:39:44 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500456@ux1.cso.uiuc.edu>
Source record: 12810

> The RO license would be issued to anyone who could demonstrate proficiency
> in 1. Coming up with enough money to buy a rig, computer, peripherals,
> antenna, software, and tuner.
> 2. being able to locate the on-off switch and knowing which position is the
> "on" position.
> 3. Knowing the diference between a D-type connector and a PL-239.
> 4. The appropriate terminology to use on 2-meter FM (voice) and packet
> routing.

You leave out some important things:

People should have some understanding about radio interference, how to do
what they will do CORRECTLY (e.g. hook up coax and power), FCC regulations,
and safety.

Why should they need to know about connector types appropriate for HF when
we are planning to give them essentiallu UHF privileges?

> The TO license would require substantially the same technical knowledge as
> is now required, with the addition of a few questions regarding FCC type-
> acceptance and what types of equipment may be used in which radio services.

What the current requirements are, in terms of technically level, are the
MINIMUM that should be required for the least privilege. Anything less is
just CB (IMHO).

> In practice, a RO could not make any adjustments to equipment that would
> affect the frequency (other than the tuning knob(s)), the output power,
> or the modulation characteristics of the transmitter. But could use any

Sure SOUNDS like CB now!

> FCC type-accepted equipment that they could find a way to chain together
> to effect communication with other stations. The TO would not be under
> these restrictions and could modify, build, or make any adjustments to
> equipment that would not result in emitting a signal outside the limits
> placed on the service. This would, of course, include modifications or
> adjustments to RO equipment.

NO NO NO NO NO NO !!
NEVER NEVER NEVER !!

I do not want to start having the FCC type-accepting ham gear, even though
some hams can be using the non-type-accepted gear. It will just end up
raising the prices for everyone.

> For both the TO and RO classes (commutatively applicable to ROTO), a
> comprehensive operating rules exam would have to be passed. It would

> be an open-book exam to encourage reading and studying about the radio
> service they are (or hope to be) licensed for. Such an exam would be
> required at annual intervals to maintain this encouragement. It would
> cover such aspects as: (1) What the band limits are and why they are
> there. (2) What modes of operation are allowed on each band. (3) What
> to do when the frequency you want to use is occupied. (4) How to Call
> another station; and how to reply to a call. (5) when you need to ID
> your station and how it is to be done. (6) What is music and what is
> profanity (not a court definition, but a service definition). (7) How

What if two people disagree on it? Who'sto say who is right, without
codifying it into the rules, or hearing it in court?

> To Be Courteous and Considerate. (8) What the transmitter power limits
> are. Finally, an actual operator run, with two VE's unknown to the
> testee evaluating would be administered. The operator would be required
> to ACTUALLY operate his equipment, in the presence of the evaluators, in
> each of the modes he intends to run. Successful demonstration would
> then be indicated by checking off the appropriate blocks on the license
> application.

Not practical.

> This would do for a start. The Lawyers can add myriad details to each
> point as they see fit. Notice that the dreaded letters, CW, will only
> appear at the Operator Evaluation Annual Test (OEAT), and then will apply
> only to those expecting to actually operate this mode.
>
> To make sure that operators adhere to their license conditions, any operator
> found to be operating in a mode or manner inconsistent with his license would
> have his equipment seized and his zicense revoked for six months, or until his
> next annual renewal date, whichever is later. Such an operator would be placed
> in "Status Operator License Activity Revoked" category (SOLAR).

The FCC can do this already.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1708. two antennas - one feed line?

Newsgroup: rec.ham-radio
Date: 1990-03-18 02:15:57 UTC
From: faunt@CISCO.COM
Message-ID: <9003220804.AA06857@ucbvax.Berkeley.EDU>
Source record: 12808

Does anyone have information or a pointer to information on building
duplexers for multiband antennas/radios? Is it reasonble to try to
duplex 144/220/440 on the same cable? I have antenna that's good for
all of them, the Austin Suburban.
thanx, and 73, doug

1709. Re: Looking for General Instruments

Newsgroup: rec.ham-radio
Date: 1990-03-18 04:08:37 UTC
From: ritchie@hpldola.HP.COM
Message-ID: <12120034@hpldola.HP.COM>
Source record: 12809

```
>The IC division did an LBO, and is now called Microchip Technology.
>They are in Chandler, Arizona. Sorry, no number available - call
>information.
>--

602-963-7373
Dave
```

1710. Re: Anthropology 101

Newsgroup: rec.ham-radio
Date: 1990-03-18 06:10:25 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21031@bellcore.bellcore.com>
Source record: 12813

>[...] An American sergeant who was a ham found himself
>in an isolated place in Europe without supplies. He called a ham in Germany
>and asked him to deliver a message to headquarters. The ham in Germany did
>better than that -- he turned out to be General LeMay and he sent out the
>shipment himself.

I had forgotten that LeMay was/is a ham. From my online callbook:

Call: W6EZV
Class: General
Name: Curtis E Le May
Mail addr: 1046 Pescador Dr
Newport Beach CA 92660
Born: November 15, 1906 (age 83)

The name and year of birth matches the info about him in "The Making of the Atomic Bomb", so this is probably him. Does anybody know if he's still alive?

An interesting, if spooky character. The more I read about him, the more I'm convinced he was the inspiration for General Buck Turgidson (George C. Scott's character) in "Dr. Strangelove". On the other hand, from an incident documented in the PBS series "War and Peace in the Nuclear Age" in which he declared his intention to strike the USSR first if he saw the Russkies massing their planes (despite this not being US policy) perhaps he was the model for General Jack D. Ripper.

Barry Goldwater, Curtis LeMay... how come the hams who rise to prominent national positions always seem to be right wing extremists? :-) :-)

Phil

1711. Re: Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-18 07:49:51 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14813.2603410A@stjhmc.fidonet.org>
Source record: 12818

> From: dube@cpdvax.csc.ti.com (DUBE TODD)
>
> This discussion seems to be drifting back to "code vs no-code" via "new"
> ideas for licensing exams
>
> Most of the ideas presented so far approach a call for two classes of
> license: (1) Radio Operator (RO), and Technical Operator (TO).
>
> A person could have either a RO, a TO, or a ROTO (combination) license.

I vote for TORO. [:-)

Seriously, your ideas are very good - especially the on-the-air test on operating practices and CW proficiency. My only problem is, how do we certify VE qualifications? As we all know, those who already have licenses can't be presumed to know the gentlemanly rules of the road. Perhaps VEC's should be required to examine their VE's.
73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1712. Auto Reply from Watch_Mail for 15-MAR-1990 18:00 to 15-APR-1990 21:00

Newsgroup: rec.ham-radio
Date: 1990-03-18 14:40:05 UTC
From: regent: <>;
Message-ID: <9003181440.AA07822@decpa.pa.dec.com>
Source record: 12824

I will be out for an extended period. In my absense please
contact Paul (REGENT::)Nelson for items that will not wait
for my return.

Bob

1713. beginner questions

Newsgroup: rec.ham-radio
Date: 1990-03-18 16:13:18 UTC
From: pxgovind@wsuiar.uucp
Message-ID: <48.26036d4f@wsuiar.uucp>
Source record: 12817

Hi everybody,

I am a beginner to HAM and don't know where to start.
Are there books that would help me start?
Is there an exam that HAM users take (for acquiring license maybe)?
I am in Wichita KAnsas, Is here a group that I can get in touch with?
Please suggest a low cost equipment that would weather the trials of
a beginner!
Please e-mail me at

pxgovind@twsuvax (on the BITNET).

Thanks in advance g.prakash

1714. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-18 19:13:19 UTC
From: kchen@Apple.COM
Message-ID: <39587@apple.Apple.COM>
Source record: 12816

perry@hpfcdc.HP.COM (Perry Scott) writes:

>One of the problems with writing down characters while listening is just
>that - you can't do two dissimilar things at once.

Hmmm, I had that problem too when I was improving my code speed. I even went to trying to write with my left hand (I am usually right-handed) to decouple my ear-brain from my hand-brain (hoping that there was a left-lobe/right-lobe distinction). Nope, didn't work :-) :-).

What I did find to work (for me) was to, every now and then, when I reach a plateau, go to hardcopying with a keyboard - i.e., type rather than write. Now, I can't type 20 wpm either (I hunt-and-peck :-), so I couldn't completely keep up with a long string of message. But, a dozen minutes of this was enough to get the silly grey cells decoupled. And I find myself being able to hand-copy to the next plateau, where I go back to a keyboard for a few more minutes. Even so, it was not painless. It took me 5 months to go from about 2 wpm (I have been SWL'ing for 25 years and could recognize Morse characters) to 25 wpm.

And, of course, Farnsworth the thing. It helped me even when I was in the 15 wpm range (Farnsworthed to 20-25 wpm).

By the way, for those of you trying to find interesting source of messages, and live on the US coastal areas, the Coast Guard transmit weather messages in the LF/VLF region at about 18 wpm. Less boring than test tapes. Me? I wrote a program on an AT that keyed a pin on the printer port. I then used that to key an oscillator which fed the antenna spigot of a receiver. The source text that I fed the program were messages from rec.ham-radio (no kidding!), quite often the long ARRL bulletins.

NOW - here is an interesting one - I have been discussing this over lunch with an old friend who I am trying to prod to getting a Tech license. He is probably close to tone deaf, and his XYL and epsilon could copy better than him by just listening to him practice. It is like half a year now and he still cannot make 5 wpm. This OM needs help! :-) :-)

So, I suggested that he copies the dots and dashes down *verbatim* (hey, I think it *is* possible at 5 wpm) on the piece of paper they give you. Then, in the time they give you to answer the 10 questions, you translate the dots and dashes into Roman alphabets. I doubt they will ever give you credit for the "1-minute solid copy," but surely they have to pass you if you get 7 questions answered correctly, don't they? (My copy sheet for 20 wpm was pretty illegible, too, afterall :-)

OK, this is not in the spirit of the thing, but there simply are people out there who just *cannot* make 5 wpm. Any VE's out there want to

comment? Would you pass a guy who does this?

73,
Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

1715. G7 antenna note (for older models)

Newsgroup: rec.ham-radio
Date: 1990-03-18 19:54:53 UTC
From: rfc@briar.philips.com
Message-ID: <87406@philabs.Philips.Com>
Source record: 12821

Those of you in cold areas probably found out about this the hard way.
But if you live in warm areas, you may want to take a look at your antenna to
see if you are getting trapped water. Before corrosion gets you.

copied from packet (source unknown):
SUBJECT: - files\G7-ANT.MOD

IMPORTANT! YOUR G-7 WILL HAVE A PROBLEM IF IT WAS MFG. BEFORE 23 MAR
88. YOU MUST DRILL A DRAIN HOLE AT THE BOTTOM OF SECTION #5892 THAT IS
THE ALUMINIUM TUBING JUST ABOVE THE LOWER PHASING COIL. SPACE THE HOLE
AS THE ONE AT THE BOTTOM, JUST BELOW THE FIRST CLAMP. MY G-7 LASTED
ABOUT TWO MONTHS AS A REPEATER ANTENNA ON A MOUNTIAN TOP BEFORE THE
#5892 SECTION FILLED WITH WATER, FROZE, AND PUSHED THE PRESS FIT PIECE
AT THE BOTTOM OUT ABOUT A 1/2 IN. AND PUSHED THE #5891 SECTION WITH THE
REST OF THE ANT RIGHT OUT AND SOMEWHERE INTO THE WOODS. ...

1716. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-03-18 19:59:26 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003190802.AA01952@ucbvax.Berkeley.EDU>
Source record: 12825

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #665 -
Alouette 1
1 00424U 62B-A 1 90 73.87470828 .00000270 00000-0 31436-3 0 2647
2 00424 80.4604 19.0423 0023388 152.0723 208.1680 13.67308546369801
ATS 3
1 03029U 67111 A 90 64.89885483 -.00000074 00000-0 99999-4 0 3009
2 03029 13.0757 22.1104 0012712 199.1670 160.3195 1.00271851 81767
Cosmos 398
1 04966U 71 16 A 90 68.18445684 .00065491 16810-4 39072-3 0 6449
2 04966 51.5392 126.6538 2355073 321.1865 24.0893 10.87965544580721
Starlette
1 07646U 75010 A 90 64.82178846 -.00000032 00000-0 21979-4 0 145
2 07646 49.8256 206.3355 0206287 209.7069 149.1977 13.82132287761482
LAGEOS
1 08820U 76039 A 90 66.32425032 .00000003 00000-0 00000 0 0 235
2 08820 109.8640 320.2353 0044521 260.1302 99.4634 6.38664367 67430
GPS-0001
1 10684U 78020 A 90 67.21728405 .00000008 00000-0 99999-4 0 3437
2 10684 63.6734 92.6704 0115742 199.3661 160.3838 2.00557794 73821
GPS-0002
1 10893U 78 47 A 90 67.18712144 -.00000026 00000-0 00000 0 0 1010
2 10893 64.4293 333.5396 0162150 25.6464 335.1729 2.00548716 86642
SeaSat 1
1 10967U 78064 A 90 67.98131311 .00000926 00000-0 36472-3 0 2442
2 10967 108.0168 113.4159 0002020 250.2354 109.8683 14.35466640612078
GPS-0003
1 11054U 78093 A 90 62.00016521 -.00000025 00000-0 00000 0 0 1720
2 11054 63.9604 330.0294 0056442 117.7547 242.8600 2.00566312 83553
Nimbus 7
1 11080U 78098 A 90 65.25166867 .00000087 00000-0 10787-3 0 6351
2 11080 99.1975 332.4807 0008969 3.6499 356.4714 13.83402919573805
GPS-0004
1 11141U 78112 A 90 67.58104268 .00000008 00000-0 00000 0 0 2825
2 11141 63.6727 92.5856 0059399 316.7372 42.8719 2.00561776 82364
GPS-0005
1 11690U 80 11 A 90 65.22770174 .00000009 00000-0 00000 0 0 9164
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2 11690 64.1581 94.6710 0112140 203.9351 155.6043 2.00556588 88170
GPS-0006
1 11783U 80 32 A 90 67.53409866 -.00000025 00000-0 00000 0 0 567
2 11783 63.7651 329.4355 0148156 62.6631 298.8876 2.00573338 72301
GOES 5
1 12472U 81049 A 90 65.94865317 -.00000239 00000-0 99999-4 0 8297
2 12472 3.2180 77.1059 0002091 312.8500 47.4900 1.00252019 31224
DE 1
1 12624U 81 70 A 90 66.62614517 -.00000052 00000-0 -35883-3 0 3391
2 12624 89.0791 148.8357 6221663 316.0034 8.6777 3.51025771258551
SME
1 12887U 81100 A 90 67.10447644 .00031549 00000-0 71309-3 0 5102
2 12887 97.6535 108.9256 0003028 45.4518 314.6890 15.43116668465641
Salyut 7
1 13138U 82 33 A 90 67.93426969 .00032192 00000-0 46036-3 0 914
2 13138 51.6058 88.8635 0001148 72.3081 287.8294 15.55923033449201
Cosmos 1383
1 13301U 82 66 A 90 65.32761367 .00000164 00000-0 18019-3 0 5398
2 13301 82.9317 16.1527 0029158 83.1090 277.3379 13.67804892383615
LandSat 4
1 13367U 82 72 A 90 67.04870421 .00000166 00000-0 41735-4 0 2515
2 13367 98.1784 131.5081 0004200 82.2369 277.9309 14.57130626406578
IRAS
1 13777U 83 4 A 90 65.56088371 .00000496 00000-0 36906-3 0 7228
2 13777 99.0311 263.9114 0011706 312.4395 47.5776 13.98752674 32595
Cosmos 1447
1 13916U 83 21 A 90 65.08284417 .00000145 00000-0 14336-3 0 6771
2 13916 82.9443 88.2916 0040004 67.4775 293.0610 13.74013778348513
TDRS 1
1 13969U 83 26 B 90 61.95914084 -.00000206 00000-0 00000 0 0 9339
2 13969 4.2136 66.7158 0009218 271.1980 88.9221 1.00264241 92019
GOES 6
1 14050U 83 41 A 90 67.13751504 .00000117 00000-0 00000 0 0 926
2 14050 1.9800 79.4165 0004278 235.8146 125.1443 1.00252822 9250
OSCAR 10
1 14129U 83 58 B 90 67.77193390 -.00000019 00000-0 00000 0 0 4571
2 14129 25.9797 215.0637 5993697 124.8676 307.1795 2.05888417 22665
GPS-0008
1 14189U 83 72 A 90 66.63205714 .00000007 00000-0 99999-4 0 7121
2 14189 63.3087 91.0808 0142801 217.2621 141.8028 2.00559703 48721
LandSat 5
1 14780U 84 21 A 90 67.00665864 -.00000211 00000-0 -41974-4 0 673
2 14780 98.1324 128.6582 0003250 116.4163 243.7383 14.57147557319989
UoSat 2
1 14781U 84 21 B 90 67.70099511 .00002591 00000-0 49184-3 0 6241
2 14781 97.9635 123.5065 0012374 200.1464 159.9233 14.64991357321252
GPS-0009
1 15039U 84 59 A 90 72.67489918 .00000007 00000-0 00000 0 0 8393
2 15039 63.0429 89.9870 0017771 227.8378 132.0334 2.00558447 42125
Cosmos 1574
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1 15055U 84 62 A 90 72.61850925 .00000145 00000-0 14424-3 0 8302
2 15055 82.9600 132.7675 0025876 228.3441 131.5500 13.73332685286952
GPS-0010
1 15271U 84 97 A 90 70.57505390 -.00000025 00000-0 00000 0 0 7618
2 15271 63.2618 328.9690 0105296 325.2840 34.0918 2.00573175 39195
Cosmos 1602
1 15331U 84105 A 90 72.54458584 .00002403 00000-0 33296-3 0 1843
2 15331 82.5341 89.5195 0021238 287.5040 72.3843 14.77471425293965
NOAA 9
1 15427U 84123 A 90 72.21501669 .00000101 00000-0 65307-4 0 4908
2 15427 99.1649 69.8321 0014184 278.6761 81.2764 14.12468932270437
Cosmos 1686
1 16095U 85 86 A 90 72.94362067 .00026301 00000-0 37367-3 0 5181
2 16095 51.5956 63.8008 0001009 53.4819 306.6557 15.56207927251081
GPS-0011
1 16129U 85 93 A 90 70.73898186 .00000008 00000-0 00000 0 0 4240
2 16129 63.8464 91.0812 0120343 150.4914 210.2515 2.00560304 32405
Mir
1 16609U 86 17 A 90 72.92229058 .00041826 00000-0 50968-3 0 4637
2 16609 51.6167 90.4177 0015497 270.3600 89.6051 15.59930128233226
SPOT 1
1 16613U 86 19 A 90 72.24631007 .00000494 00000-0 24962-3 0 7948
2 16613 98.7084 148.0630 0001776 105.5008 254.6348 14.20054268 50310
Cosmos 1766
1 16881U 90 72.44050329 .00002510 00000-0 35156-3 0 8843
2 16881 82.5273 148.7772 0021484 306.3306 53.5881 14.77067009195016
EGP
1 16908U 86 61 A 90 53.55039819 -.00000025 00000-0 95708-4 0 1704
2 16908 50.0105 248.4193 0010798 262.7166 97.2451 12.44384952160583
NOAA 10
1 16969U 86 73 A 90 66.29076646 .00000433 00000-0 20698-3 0 3482
2 16969 98.6093 96.4779 0013387 202.5149 157.5442 14.23484507180112
MOS-1
1 17527U 87 18 A 90 73.02843321 -.00000021 00000-0 -28587-5 0 4320
2 17527 99.1166 146.7740 0000757 80.1041 280.0217 13.94869280155997
GOES 7
1 17561U 87 22 A 90 71.82628115 -.00000043 00000-0 99999-4 0 4340
2 17561 0.0519 155.7106 0005742 219.1509 345.1291 1.00271641 4457
Kvant-1
1 17845U 87 30 A 90 72.92225782 .00055033 00000-0 66808-3 0 211
2 17845 51.6141 90.4182 0015225 272.0543 87.6893 15.59912871169271
DMSP B5D2-3
1 18123U 87 53 A 90 71.32338122 .00000600 00000-0 33591-3 0 5018
2 18123 98.8206 263.2145 0014045 301.1363 58.8431 14.13903911140718
RS-10/11
1 18129U 87 54 A 90 73.00288190 .00000148 00000-0 15199-3 0 657
2 18129 82.9262 38.8410 0012708 29.5957 330.5894 13.72066857136390
Meteor 2-17
1 18820U 88 5 A 90 72.93418187 .00000128 00000-0 10573-3 0 2060
2 18820 82.5401 66.1794 0015120 231.6462 128.3338 13.84299522107008
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DMSP B5D2-4
1 18822U 88 6 A 90 71.34077944 .00000635 00000-0 30834-3 0 4167
2 18822 98.6618 312.3126 0006256 184.8194 175.2924 14.21306164109067
AO-13
1 19216U 88 51 B 90 65.26873556 -.00000096 00000-0 99999-4 0 797
2 19216 57.0490 165.7955 6906185 222.4549 56.2548 2.09701434 13247
OKEAN 1
1 19274U 88 56 A 90 73.00145741 .00001253 00000-0 17594-3 0 6741
2 19274 82.5127 246.8633 0023605 74.3435 286.0429 14.76474269 90879
NOAA 11
1 19531U 88 89 A 90 66.73355969 .00000406 00000-0 24457-3 0 2066
2 19531 98.9711 14.9948 0011086 206.2891 153.7723 14.11476742 74652
TDRS 2
1 19548U 88 91 B 90 64.02357395 .00000131 00000-0 99999-4 0 788
2 19548 0.0442 320.5204 0002112 9.9341 29.5234 1.00275488 4405
Cosmos 2001
1 19796U 89 11 A 90 71.99040466 -.00001087 00000-0 99999-4 0 3873
2 19796 63.0599 105.2000 7133950 319.8292 5.0644 2.00549726 7872
GPS BII-01
1 19802U 89 13 A 90 66.75585580 .00000016 00000-0 99999-4 0 723
2 19802 55.0710 201.4099 0059530 158.9588 201.2474 2.00561853 7716
Akebono
1 19822U 89 16 A 90 72.07856659 .00014790 00000-0 10022-2 0 4735
2 19822 75.1234 285.5270 4203606 282.7773 34.6296 7.06245682 26628
Meteor 2-18
1 19851U 89 18 A 90 72.66398642 .00000189 00000-0 16080-3 0 1574
2 19851 82.5266 304.5837 0012855 275.4726 84.4976 13.83946757 52355
TDRS 3
1 19883U 89 21 B 90 69.64675765 -.00000235 00000-0 99999-4 0 563
2 19883 0.0232 314.5889 0004005 351.6205 53.7193 1.00270360 2905
GPS BII-02
1 20061U 89 44 A 90 66.44052675 -.00000032 00000-0 00000 0 0 523
2 20061 54.7257 19.9569 0081882 172.9986 187.1067 2.00562492 5453
Nadezhda
1 20103U 89 50 A 90 72.23750835 .00000184 00000-0 18534-3 0 841
2 20103 82.9612 355.7260 0037272 308.3288 51.4517 13.73570119 34543
GPS BII-03
1 20185U 89 64 A 90 65.41293992 .00000016 00000-0 99999-4 0 472
2 20185 54.9439 202.3381 0027092 141.2282 218.9103 2.00563453 4007
Activnyi
1 20261U 89 80 A 90 72.85653503 .00001893 00000-0 59666-3 0 3359
2 20261 82.5941 289.0747 1259514 193.8007 162.5444 12.43324817 20748
Activnyi RB
1 20262U 89 80 C 90 72.06279998 .00000761 00000-0 23760-3 0 1442
2 20262 82.5918 289.5898 1260701 195.6460 160.1990 12.43006258 20643
Magion 2
1 20281U 89 80 B 90 72.92290942 .00001224 00000-0 38165-3 0 3509
2 20281 82.5931 288.9928 1259607 193.5916 162.8116 12.43492859 20759
GPS BII-04
1 20302U 89 85 A 90 72.12397375 -.00000029 00000-0 99999-4 0 422
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2 20302 54.7090 320.9835 0038329 315.9194 43.8289 2.00570896 2824
Meteor 3-3
1 20305U 89 86 A 90 72.64079261 -.00000014 00000-0 -49377-4 0 626
2 20305 82.5523 285.3968 0014947 206.0703 153.9675 13.15851517 18384
INTELSAT-6A
1 20315U 89 87 A 90 62.65793662 -.00000226 00000-0 99999-4 0 311
2 20315 0.0414 3.5726 0013733 254.5985 101.6503 1.00262829 1232
COBE
1 20322U 89 89 A 90 70.56445100 .00004464 00000-0 29770-2 0 574
2 20322 99.0214 81.8370 0006712 280.8682 79.1728 14.01462626 15814
Kvant-2
1 20335U 89 93 A 90 72.92228376 .00031103 00000-0 38153-3 0 1385
2 20335 51.6122 90.4248 0014588 273.8927 86.0042 15.59918899 16879
GPS BII-05
1 20361U 89 97 A 90 67.43005802 .00000016 00000-0 99999-4 0 187
2 20361 54.9514 144.3204 0064909 42.9382 317.6285 2.00576858 1707
Cosmos 2056
1 20432U 90 48.61316750 0.00000331 13772-3 0 216
2 20432 74.0360 264.2249 0024233 282.9758 76.8658 14.29717088 4288
1990 004B
1 20433U 90 51.16735862 0.00000442 17528-3 0 238
2 20433 74.0347 259.4384 0036366 290.2242 69.5000 14.31252170 4661
SPOT 2
1 20436U 90 5 A 90 69.88585449 .00000337 00000-0 17635-3 0 601
2 20436 98.7126 145.7333 0001307 118.6065 241.2811 14.20015779 6791
UO-14
1 20437U 90 5 B 90 70.19096833 .00000672 00000-0 28411-3 0 293
2 20437 98.7025 146.5666 0012179 79.9241 280.3339 14.28511338 6870
UO-15
1 20438U 90 5 C 90 71.24920963 .00000262 00000-0 12095-3 0 275
2 20438 98.7054 147.6188 0011238 76.7229 283.5213 14.28288785 7021
PACSAT
1 20439U 90 5 D 90 73.05948210 .00000561 00000-0 23924-3 0 288
2 20439 98.7141 149.4667 0012487 71.1801 289.0691 14.28612576 7281
DO-17
1 20440U 90 5 E 90 72.07779861 .00000648 00000-0 27371-3 0 191
2 20440 98.7151 148.4905 0012797 74.6309 285.6275 14.28647713 7149
WO-18
1 20441U 90 5 F 90 71.23347448 .00000610 00000-0 25817-3 0 171
2 20441 98.7112 147.6514 0013204 77.6317 282.6332 14.28757045 7028
LO-19
1 20442U 90 5 G 90 72.70171735 .00000324 00000-0 14436-3 0 266
2 20442 98.7076 149.1226 0013514 74.3482 285.9076 14.28824127 7236
Ariane RB
1 20443U 90 47.11760523 0.00000341 14765-3 0 239
2 20443 98.6136 123.3651 0012081 122.4540 237.7812 14.30158961 3572
1990 006A
1 20444U 90 53.94247100 0.00000268 25109-3 0 354
2 20444 62.8140 110.5001 7374630 288.1794 9.4138 2.00664213 632
1990 006C
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1 20446U 90 47.39633712 0.00000368 74758-3 0 283
2 20446 62.8305 111.3944 7323218 288.1118 9.7051 2.06386089 509
1990 005C
1 20450U 90 49.67030172 0.00181920 -19189-5 16565-2 0 439
2 20450 37.6783 240.9912 6005396 220.7886 73.8632 4.14286423 1022
GPS BII-06
1 20452U 90 8 A 90 62.65854411 -.00000001 00000-0 99999-4 0 229
2 20452 54.6380 260.3053 0035259 57.4095 302.9406 2.00567623 728
1990 008B
1 20453U 90 50.59057152 0.00005710 69074-3 0 264
2 20453 35.6431 123.9630 0591705 329.0175 27.6846 14.04532218 3619
Cosmos 2057
1 20457U 90 60.41396968 0.00615956 39350-4 26857-3 0 942
2 20457 62.8210 195.0039 0138628 118.4735 243.0622 16.03448844 5582
Cosmos 2058
1 20465U 90 52.05250576 0.00002655 40114-3 0 264
2 20465 82.5082 306.3255 0022850 201.4816 158.5500 14.73794878 3181
1990 010B
1 20466U 90 57.13960967 0.00001501 22415-3 0 174
2 20466 82.5064 301.6148 0022858 187.2711 172.8185 14.74059308 3927
PRC-26
1 20473U 90 11 A 90 71.25642786 -.00000262 00000-0 99999-4 0 366
2 20473 0.0912 295.7660 0000216 40.4684 23.7389 1.00268398 368
1990 011B
1 20474U 90 11 B 90 70.45931368 .00008564 00000-0 28596-2 0 191
2 20474 30.5413 293.8454 7260425 199.4213 103.2645 2.30231055 760
1990 012A
1 20476U 90 12 A 90 71.70450279 .00268139 16276-4 75305-3 0 1026
2 20476 65.8265 286.7895 1285784 133.0880 238.5288 13.26692660 4478
1990 012B
1 20477U 90 12 B 90 71.81006393 .00478087 17407-4 86754-3 0 1182
2 20477 65.8383 285.2297 1215139 132.0593 239.0520 13.46529432 4526
MOS-1B
1 20478U 90 13 A 90 72.90995807 .00000437 00000-0 35089-3 0 790
2 20478 99.1971 143.4985 0000645 74.0965 286.0284 13.94850762 4851
1990 013B
1 20479U 90 13 B 90 66.25543317 -.00000045 00000-0 -73232-4 0 191
2 20479 99.0518 131.9584 0540229 279.3893 74.6534 12.83148607 3675
FO-20
1 20480U 90 13 C 90 66.17820252 .00000052 00000-0 16645-3 0 178
2 20480 99.0526 131.8923 0540615 279.6136 74.4312 12.83116845 3664
1990 013D
1 20491U 90 13 D 90 69.21220998 -.00000290 00000-0 -52182-3 0 160
2 20491 99.0584 135.2415 0470129 263.1331 91.6103 13.02720413 3518
Soyuz TM-9
1 20494U 90 14 A 90 72.92228623 .00029875 00000-0 36682-3 0 445
2 20494 51.6161 90.4260 0014337 273.8648 86.0481 15.59920495 4794
1990 015A
1 20496U 90 15 A 90 71.62123170 .00006452 00000-0 41277-3 0 335
2 20496 43.1145 132.7081 0011743 125.3559 234.8389 15.09112125 3927
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1990 015B
1 20497U 90 15 B 90 70.88678115 .00011786 00000-0 36440-3 0 339
2 20497 43.1059 132.1649 0010531 67.2343 292.9618 15.33442415 3885
1990 015C
1 20498U 90 15 C 90 72.08764637 .00033495 00000-0 79706-3 0 365
2 20498 41.6374 121.4698 0040933 320.1533 39.6311 15.40079056 4089
Raduga 25
1 20499U 90 16 A 90 71.09395518 -.00000001 00000-0 99999-4 0 326
2 20499 1.4276 273.5220 0004805 106.6943 252.3363 1.00262693 253
1990 016D
1 20502U 90 16 D 90 65.10279796 .00000045 00000-0 99999-4 0 85
2 20502 1.4651 273.4213 0037357 63.1907 295.9207 1.00010387 218
1990 017A
1 20508U 90 17 A 90 66.22022375 -.00000008 00000-0 -15133-4 0 73
2 20508 82.9559 135.0949 0043053 269.7431 89.8811 13.73186398 1019
1990 017B
1 20509U 90 17 B 90 71.74498560 -.00013411 00000-0 -14193-1 0 131
2 20509 82.9565 131.0035 0037532 234.9671 124.7968 13.74427638 1775
1990 018A
1 20510U 90 73.29622142 0.00001938 29984-3 0 205
2 20510 82.5305 185.0672 0019266 218.3896 141.5957 14.72697103 2108
1990 018B
1 20511U 90 18 B 90 70.37228371 .00001350 00000-0 20657-3 0 102
2 20511 82.5288 187.7497 0018722 231.0643 128.8895 14.72974377 1672
Progress M3
1 20513U 90 20 A 90 71.89724065 .00054911 00000-0 66808-3 0 228
2 20513 51.6218 95.5812 0014786 264.4933 95.3885 15.59864480 1877
1990 020B
1 20514U 90 20 B 90 61.18142825 .25407542 60571-4 45544-3 0 88
2 20514 51.6137 149.3249 0007235 101.0427 259.2289 16.47208829 207
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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1717. UoSAT-OSCAR-14 & UoSAT-OSCAR-15 Status Report 15-Mar-90

Newsgroup: rec.ham-radio
Date: 1990-03-18 20:13:40 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <226@ka2qhd.UUCP>
Source record: 12826
Cross-posted to: rec.ham-radio,sci.space

UOSAT-OSCAR-14 and UOSAT-OSCAR-15 REPORT #007 15-Mar-90

** UoSAT-OSCAR-14 **

Attitude Control and Stabilization

Manueuvers prior to gravity gradient stabilization have taken somewhat longer than expected. The most recent delays were caused by the need to add digital filters to the attitude determination software to remove unwanted noise from the magnetometer readings. The filters have been installed, and a new version of the FORTH diary will be uploaded soon.

High Speed Downlink Tests

The UoSAT Command Station has been conducting limited experiments with the 9600 bits/second Frequency Shift Keyed (FSK) downlink on UO-14. These tests have been quite successful, doubling the highest digital link speed previously used on any OSCAR satellite (4800 bps is routinely used on UO-11).

Data transmitted during these tests has been either asynchronous telemetry from the Very Large Scale Integrated telemetry system or continuous streams of 1 bits (no data at all). The "stuck ones" tests are very useful because of the scramblers in the modulator and demodulator. The 1's are scrambled and transmitted as pseudorandom data over the RF link. The groundstation demodulators then lock onto this data, descramble it, and reproduce the continuous 1's. Any 0's in the demodulated output data stream are caused by bit errors on the communication link, and the link bit error rate (BER) can be calculated from the frequency of such transitions.

BER tests are to be scheduled into the DIARY in aid of those trying to test their FSK receive system. The first scheduled tests were scheduled for the morning passes over the East Coast of the US on 15 March.

- de G0/K8KA.

** UoSAT-OSCAR-15 **

The team at Stanford has succeeded in detecting local oscillator (LO) leakage from the UO-15 command receiver. The weak signals were first detected on March 10 and then again on March 11. Roy Long, leading the Stanford Research Institute team on the recovery attempt, said that there is no dbt that the signal comes from UoSAT-15. It is weaker than the corresponding signal on UoSAT-14, as expected from prelaunch measurements.

Each UoSAT carries three receivers: a fixed-frequency command receiver and two communications receivers with switchable frequency. Efforts will now concen-
trate on monitoring one of the switchable frequency receivers. If one of

these receivers is heard, commands will then be sent to change the receiver frequency, which should cause a corresponding change in the LO frequency. Observation of changed LO frequency will confirm that the satellite's command system is basically healthy.

The work at Stanford is very time consuming, requiring azimuth and elevation control of the huge Stanford 150 diameter dish to within tight limits. Data are collected for only a few seconds, followed by hours of post-processing.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

1718. Re: QSL's for QSO's from the 60's

Newsgroup: rec.ham-radio
Date: 1990-03-18 22:32:05 UTC
From: winter@Apple.COM
Message-ID: <39590@apple.Apple.COM>
Source record: 12819

In article <35151@cci632.UUCP> dvh@cci632.UUCP (David Hallidy) writes:
>The only bad news is trying to find a U.S. station who has changed
>his callsign- I have not found a good way to do this- the FCC
>computer doesn't hold callsign change info for very long, I guess,
>and they're not very cooperative. Sigh.

Don't give up the ship quite so quickly on these. With the excellent
new search capabilities that Devon has built into the marvin callsign
server, you can look up someone by last *and* first name. If he or she
is still licensed, that ought to do the trick.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1719. ARRL Letter 27-Feb-90

Newsgroup: rec.ham-radio
Date: 1990-03-19 00:13:51 UTC
From: gws@n8emr.UUCP
Message-ID: <1459@n8emr.UUCP>
Source record: 12822

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
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FCC RELEASES TEXT OF NPRM FOR CODELESS LICENSE

In its release dated February 16, the FCC detailed its rationale behind several issues regarding its newly proposed Communicator Class of amateur license. The FCC sees Communicator as the class of license which most newcomers into the hobby would elect to qualify for. This premise was used as the basis for its proposed elimination of the Novice Class license. Since FCC also proposes a comprehensive 60 question written test for the Communicator, they contend that the Communicator Class will also take the place of the Technician Class for future licensees.

Under the FCC proposal, "a Communicator Class licensee who passes, or otherwise receives credit for a telegraphy examination, would be authorized the additional privileges of the Technician Class." FCC intends to further simplify its documentation process by permitting Volunteer Examiners to issue a Certificate of Successful Completion of Examination (CSCE) as proof of a Communicator's code proficiency instead of formally upgrading them to Technician. The upgraded Communicator would sign their call followed by the identifier "/AC" and it appears that they would do so indefinitely or at least until they upgraded to General Class or higher. Volunteer Examiners would be permitted to issue a CSCE to Novices successfully passing the Communicator written exam. Under the proposal, VECs would provide listings to the FCC of the Communicators with the Morse code endorsement. Finally, the FCC proposes that all examinations be administered by Volunteer Examiners saying that the VECs provide more credible results than does the two examiner system now in use for Novice examinations.

The deadline for filing comments with FCC is August 6, 1990. Between now and the July 20-21 meeting of the ARRL Board, the Directors are looking forward to hearing from as many members as possible to assist them in determining the League's response. The full text of FCC's codeless proposal will appear in the April 1990 issue of QST.

FCC ISSUED CALL SIGN UPDATE

The following is a list of most recently issued FCC call signs (February 1).

DIST GRP"A" GRP"B" GRP"C" GRP"D"
Extra Advanced Tech/Gen Novice

0 WZ0N KF0HR N0LMJ KB0FVV
1 WC1W KC1TG N1HID KA1VCU
2 WV2T KE2RK N2KGM KB2JID
3 NY3G KD3QX N3HUR KA3VSO
4 AB4TE KN4DY N4XZO KC4OMH
5 AA5QF KI5CH N5PYD KB5LPN
6 AA6TX KK6GE N6XUD KC6ILF
7 AA7DH KF7ZZ N7OFE KB7JQL
8 WY8Z KF8EB N8LUR KB8JAQ
9 WO9B KE9UN N9JGE KB9DZH
Guam KH2M AH2CF KH2EI WH2AMK
Hawaii *** AH6KG NH6VV WH6CGO
Alaska *** AL7LU NL7TJ WL7BXA
USVI NP2F KP2BS NP2DO WP2AGZ
P.R. *** KP4QK WP4XK WP4ISQ

*** indicates that all 2 x 1 call signs have been assigned in those areas.

The N-prefixed Group C (1X3) call# signs blocks for the fourth and sixth call districts have nearly all been assigned. After N4ZZZ and N6ZZZ have been issued, FCC will begin assigning calls from the Group D (2X3) call sign block.

NEWS FROM THE ARRL DXCC DESK

Walvis Bay (ZS9) was added to the ARRL DXCC Countries List by unanimous vote of the ARRL Awards Committee on February 22. Walvis Bay is an enclave of the Republic of South Africa, surrounded by territory of Namibia. DXCC credit will be given for contacts on or after September 1, 1977. QSL cards may be submitted for DXCC credit on or after June 1, 1990.

The 5 Band DXCC Award is now endorsable for 17 and 12 meters, in addition to 160, 6 and 2 meters. These endorsements are available only for those who have already qualified for 5BDXCC on the basic 80, 40, 20, 15 and 10 meter bands. Send an SASE to ARRL Hq for the endorsement application form.

FCC SHUTS DOWN UNLICENSED BROADCASTER

Working together, the FCC Baltimore and Detroit Field Offices located and shut down an unlicensed West Virginia pirate broadcast station on January 30. Mark R. Leavitt was fined $1000 for illegally operating on 3.820 MHz in the 75 meter amateur band.

Unauthorized operation of a radio transmitter is a violation of Section 301 of the Communications Act. Sanctions may include fines from $10,000 to $100,000 and/or imprisonment for up to one year.
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ARRL COMMENTS IN FCC WARC-92 INQUIRY

The ARRL has filed its comments in response to an FCC inquiry in general docket 89-554. FCC sought information to assist in addressing the allocation issues likely to be raised at the 1992 ITU World Administrative Radio Conference. In its introduction, ARRL said that it recognizes the

significance of the Inquiry and... "stands ready to participate fully in the process leading to the US position at WARC-92."

A primary concern for amateurs at the upcoming WARC is the issues that deal with spectrum allocations for HF Broadcasting. FCC asked for comments on the projected needs of the HF broadcasting service. The League responded saying, "There have been dramatic changes in the world since HFBC-87 [WARC for the Planning of the HF Bands Allocated to the Broadcasting Service. Second Session. 1987].. These changes are relevant to the projected needs for additional HF broadcasting service allocations." Some of these "dramatic" changes include: a significant reduction in jamming; easing of restrictions in certain countries which formerly discouraged pluralistic views in their countries; and increasing delivery of information and other material to target audiences by new communications technologies. The FCC also asked whether HF Broadcasting allocations have to be exclusive and, if so, should these allocations be regional or worldwide. To this the ARRL responded, "The HF broadcasting service uses high power transmitters and directional antenna arrays to deliver high field intensities capable of overcoming the insensitivity of inexpensive receivers with built in antennas. In contrast, the amateur... service uses lower transmitter power and more sensitive receiving systems. As a result of these disparate power levels, it is difficult for any other service to share allocations with the broadcasting service.

"... The amateur service in Region 2... has a requirement for access to 500 kHz of spectrum in the vicinity of 3500-4000 kHz because of the great reliance that is placed on use of this band for emergency communications networks. The requirement for access to 300 kHz of spectrum in the vicinity of 7 MHz is equally great, and is growing because of the diversity of modes of emission now being employed by amateurs. Interference from broadcasters is a limiting factor at 3900-4000 kHz and 7100-7300 kHz. As severe as this interference can be, amateurs do make effective use of these allocations... and often can find narrow frequency gaps between broadcasting stations where communications can be conducted even in the presence of interference. Loss of access to any part of these allocations would deal a severe blow to amateur disaster communications capabilities in Region 2. Those capabilities are now substantially lacking in Regions 1 and 3 in the absence of an adequate 7 MHz amateur allocation."

Commenting on other questions regarding frequency allocations affecting amateur bands in the UHF and SHF regions, ARRL noted "There are three amateur service bands within the 0.5-3 GHz range of interest for expansion of mobile-satellite and [other services], namely 902-928, 1240-1300 and 2300-2310/2390-2450 MHz." The League commented that the none of these bands are suitable for additional sharing as they are already being shared by Industrial, Scientific, Medical (ISM) and government radiolocation services, and at intervals throughout the remaining spectrum to 300 GHz.

With regards to proposed new space services above 20 GHz, the League commented that the needs of the amateur and amateur satellite services should not be overlooked when allocations are make for new services.

Currently, there are amateur allocations at 24-24.05 GHz on a primary basis and at 24.05-24.25 GHz on a secondary basis with radiolocation services.

The ARRL also commented.."Should the agenda for the conference permit, the US should as a matter of policy pursue the opportunity to effect increased allocations to the amateur services..." including: a new shared allocation with a bandwidth of 50-100 kHz in the vicinity of 5 MHz; an expansion of the amateur allocations at 10, 18 and 24 MHz; and a 50 kHz expansion of the allocation near 14.350 MHz. In addition the League requested that the amateur service allocation in Region 2 at 7.1- 7.3 MHz now subject to harmful interference from high power broadcast stations, be to the amateur service worldwide. ARRL said that it would be ready to provide further justification at an appropriate time.

In its concluding comments, the ARRL said "In 1988, the United States Congress adopted... the Federal Communications Authorization Act of 1988. Among other things, this law stated the sense of Congress that... Government agencies shall take into account the valuable contributions made by amateur radio operators when considering actions affecting the Amateur Radio Service... this legislation made it clear that the intention of Congress... was to urge government agencies that have such jurisdiction to avoid actions which would reduce amateur service frequency allocations. The League urges that this same goal should be adopted by the Commission in its preparatory efforts for WARC-92."

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FCC STARTS WHEELS TURNING ON ARRL "PART 97 CLEANUP PETITION"

The FCC has assigned file number RM-7243 to the League's petition of November 14, 1989, to revise certain sections of Part 97 of the rules governing the Amateur Radio Service, better known as the "Part 97 cleanup petition." The purpose of this petition is to request the FCC to consider certain changes that they did not deal with in PR Docket No. 88-139, the major Part 97 rewrite which became effective on September 1, 1989.

The FCC's stated purpose of the 88-138 proceeding was "reorganization and deregulation of Part 97." Reorganization amounted to changing the order of the subparts and sections, which had become patchwork. The deregulation goal could be measured by the number of pages eliminated from the rules; of course, there was hope for some simplification as well. In its comments to the FCC concerning their proposed rewrite, the League made numerous recommendations, which took the form of a complete new draft. The FCC's Report and Order contained many of the League's recommendations, decided that others were substantive changes and beyond the scope of Docket 88-139, but left the door open for changes under a new proceeding. That's when the ARRL Ad Hoc Part 97 Rewrite Committee was called back into service to draft a cleanup petition.

In its petition, the League asked the Commission for a number of substantive changes. One was to ease restrictions on transmission of third-party traffic when operating under automatic control on frequencies

above 50 MHz, which presently allows such operation only when using AX.25; this would eliminate the nee for a control operator to be on duty whenever a voice repeater is used for a traffic net. The petition made a strong appeal to the FCC to amend section 97.121, which presently permits the Field Operations Bureau to restrict an amateur station operation, and entitle the amateur to a hearing in accordance with the section 316 of the Communications Act. The League again asked for relief from "the amplifier ban," which posed frequency and minimum drive power restrictions on commercial ampliiers because of illegal CB use. The present restrictions deprive amateurs from the opportunity to purchase amplifiers for the 24- and 28-MHz bands. The League feels that the restriction in section 97.515(c) that "no person may be a VE if that person's amateur station license or amateur operator license has ever been revoked or suspended" is overly harsh and that a person should be considered eligible to service as a VE ten years after such termination. The ARRL reiterated its request to permit amateurs to retransmit Department of Commerce time signals, weather and propagation forecasts.

As for cleanup, the League asked for definitions to be added for ASCII, AMTOR and Baudot codes, digipeater (to distinguish it from a voice repeater), emergency communications and tactical call signs. Technical improvements in the definitions of bandwidth and spurious emissions were also sought. The League also asked the Commission to add space telecommand, space telemetry, telecomand and telemetry, and to bring them into agreement with Part 2 of the rules. Additional amendments in some sections were recommended to reflect the definitional changes. The League recommended that the rules be amended to require at least four persons to constitute a club, as opposed to the present two persons. The cleanup petition requested flexibility in use of radio apparatus aboard a ship or aircraft; current rules require separate radio equipment for amateur operation, except that a common antenna may be used. The petition asked that the requiremnt that bulletin or code practice stations, for which material compensation is not prohibited (example: W1AW), transmit on all MF/HF bands be reduced to six MF/HF bands.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1720. RTTY DX Notes, 3/16/90

Newsgroup: rec.ham-radio
Date: 1990-03-19 00:18:18 UTC
From: gws@n8emr.UUCP
Message-ID: <1460@n8emr.UUCP>
Source record: 12823

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB ALL @ RTTYDX $RTDX1603
RTTY DX Notes, 1of3, 3/16/90

RTTY DX Notes for Weekending 16th March 1990.
Part 1 of 3.
BID: $RTDX1603

One wonders at times about some of the DXpeditions that explode on the
DX world, and promise QSL cards immediately on receipt of green stamps.
And there the matter seems to come to a halt. Take for instance JT0DX
and the operation of September last year. When, if ever, are the cards
to appear? Maybe they are still stuck in a printing press somewhere.

Our thanks this week go to I5FLN, JA1BLV, OD5NG, TG9VT, VE3JPC, VK2EG,
W1DA, W1UU, W0LHS and others. Thank you all for your help with these
notes.

Bandpass

Friday 9

TU2BB 14074 at 0020Z ARQ
6Y5EW 14074 at 0025Z ARQ
LY2WW 14090 at 0235Z QSL
ZP5DN 14088 at 0245+
UI8FM 14086 at 0349Z
J28TY 14092 at 0520Z Note
HL1MK 14082 at 1800Z QSL
6W6JX 21088 at 0945Z
UC2IWR 28092 at 1436Z QSL
ES7FU 21086 at 1436Z QSL
UQ2HL 21088 at 1740Z
TR8AHO 21081 at 1750Z
HS1BV 21087 at 2010Z
JY9SR 14090 at 2210Z

Saturday 10

HH2BZ 14090 at 0005Z
JY9SR 14093 at 0340Z
UC2AIG 14090 at 0600Z
TJ1MW 14085 at 0655Z
```

XW8KPL 21088 at 0930Z
BZ4RDX 14079 at 1114Z ARQ
LY2WW 21094 at 1219Z
KE0YG/TF 28090 at 1408Z
VS6VC 21084 at 1421Z
ZS8MI 14086 at 1509Z
ZS9A 21064 at 1620Z
CU2CB 28085 at 1815Z QSL
JX9CAA 14084 at 1922Z
3X1SG 14084 at 2113Z QSL
FM5WP 14093 at 2220Z
5Z4TA 14092 at 2245Z

Continued in part 2.
/EX
SB ALL @ RTTYDX $RTDX1703
RTTY DX Notes, 2of3, 3/16/90
RTTY DX Notes for Weekending 16th March 1990.
Part 2 of 3.
BID: $RTDX1703

Sunday 11

ZP5DN 21085 at 0020Z
HL1SX 21090 at 0105Z
FM5WD 14091 at 0520Z
TJ1MW 14085 at 0700Z
KE0YG/TF 28091 at 1115Z
J28TY 28087 at 1302Z
UB5HQ 28090 at 1447Z QSL
9J2AL 28094 at 1710Z
LY1NYL 14085 at 1815Z
KP4YD 14089 at 2235Z
EA9MY 14089 at 2240Z
9M2GV 21074 at 2240Z ARQ

Monday 12

AH9AC 14090 at 0440Z
JY9SR 14093 at 0450Z
J28TY 28090 at 1245Z
UC1AWW 21090 at 1710Z
5H3NL 21086 at 1755Z
FM5WD 14089 at 2140Z
TI2YO 21092 at 2235Z QSL
9K2DS 14072 at 2300Z ARQ

Tuesday 13

LY1BYL 21088 at 1105Z
XX9SW 14083 at 1605Z
EA9JV 14083 at 1605Z Note

TU2BB 14091 at 2115Z

Wednesday 14

BY9GA 21093 at 0624Z QSL
RA9CQM 21085 at 1340Z
UA2WJ 14087 at 1655Z QSL
TA3B 14095 at 2150Z
SV5TS 14091 at 2355Z

Thursday

ZP5DL 14083 at 0010Z
SV5TS 14088 at 0250Z
9M2RI 14088 at 2030Z
HS1BV 14089 at 2045Z

QSL Information.

LY2WW may have a name change, but the QSL address is still the same as previously.

HL1MK QSL to Box 26 Ulsan, Korea.

CU2BB collects his cards from Box 171 9500, Punto Delgana, Azores.

UC2IWR QSLS via Box 57 Grodno, 230023, Byelorussia, USSR.

FM5WD will QSL via W3HNK.

TI2YO is via KU9Q.

3X1SG is via ON7GV.

JY9SR QSLS via W3FYT.

Continued in part 3.
/EX
SB ALL @ RTTYDX $RTDX1803
RTTY DX Notes, 3of3, 3/16/90

RTTY DX Notes for Weekending 16th March 1990.
Part 3 of 3.
BID: $RTDX1803

ZS8MI will QSL via ZS6PT.

UB4HQ will collect his cards from Box 701, Poltava, 314011. USSR.

BY9GA will QSL via Box 12, Lanzhow, China.

UA2WJ will QSL via Box 535, Kalingrad 326061. USSR.

Notes Of Interest.

J28TY has been reported on 3584 and 7035 KHz around 2000Z.

LY2WW has also been reported on 3583 KHz around 2200Z.

RL8PYL, Alex, will fly to Vietmam on 18th March on his way to Spratley. He will operate in Vietnam before and after the Spratley trip, which means that the Spratley deal may be delayed for a few days. Also check the available information regarding donations to Vietnam. There is still some doubt.

EA9JV reports that he cannot get any vacation in time for the SO1 and 7X trip, so his part of the operation will be delayed. More later.

The Sahara part of the trip by the Lynx group is still going to happen.

Lord Howe Island. Well, you can forget it for this trip. There will be no RTTY, oh shucks.

Aves Island. The Venezuelan Radio Club will operate from Aves Island on 11th to 15th April as YV0AA. They will use RTTY, AMTOR and packet. QSL to Venezuelian Radio Club, Box 2285, Caracas 1010-a Venezuela. Put the expedition call on the envelope.

Jarvis Island. A group will go to Jarvis Island April 13th to 23rd and operate under rule 3b of the DXCC criteria. QSL to Box 2368, Stanford, CA 94309-2368.

JA3PFZ reports that there is a plan to operate from XU and XZ in the near future. More later.

GL DE DX1.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA
/EX
SP KT7H @ N7HFZ.WA.USA.NA
3/16/90 test
This is Friday, 3/16/90.
Tad, these bulletins were changed from allus to rttydx
as per our email of last week.
/EX

1721. Re: VISIBLE diode lasers

Newsgroup: rec.ham-radio
Date: 1990-03-19 05:09:15 UTC
From: russell@oakhill.UUCP
Message-ID: <3106@peanut.oakhill.UUCP>
Source record: 12820

I have recently acquired a Product Guide from Toshiba covering
visible 670nm laser diodes. I expect they will be quite expense
for awhile. Their phone number is 714-455-2000. Part number is TOLD9200.

Does anyone know of a good primer for first time laser hackers?

1722. Re: Call for discussion - rec.arts.tv.catv

Newsgroup: rec.ham-radio
Date: 1990-03-19 12:29:44 UTC
From: C.Dennison@newcastle.ac.uk
Message-ID: <1990Mar19.122944.1969@newcastle.ac.uk>
Source record: 12687
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <9003160821.AA16281@ucbvax.Berkeley.EDU> wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
>>| catv = community access television (not "cable tv")
>>I think if you go back to ancient times, you will find that it stands
>>for "community ANTENNA television".

>Right. As opposed to "MATV" which is "Master-antenna television", when
>an apartment house or ^ other multiple-dwelling unit had their own
>antenna farm, distribution amps & splitters, and internal cabling to
>each unit.
> In the industry, "catv" is now used to refer to cable tv generically.
>If you are buying broadband LAN cable and splitters, say, you look at
>"catv catalogs" for that stuff.
> Anybody using the term to mean "community access" probably works in that
>activity, and such usage is limited in scope and would not be recognized
>in the general video industry. If THAT is what this proposed USENET
>newsgroup is to discuss, the name should be rec.arts.tv.community or
>something specific like that. (I thought of suggesting "rec.arts.tv.commun"
>but figured that would be interpreted as "communist tv"... :-)
>

Well I suggested a while ago the idead of 'rec.tv.cable' and it seems that there is a great deal of ambiguity as to what would be infered from the various group names. Instead of arguing about the name being used for cable TV or communinty access TV, why not have the following:

1) 'rec.tv.cable' : a discussion group for cable tv
2) 'rec.tv.community-access' : a discussion group for community access tv

This seems a pretty common sense solution to both parties - those that think the original group name should be for cable tv, and those that thought it should be for community access tv. Two groups for two different interests.

What does everybody else think?!

Chris

+ Computing Science Dept, University of Newcastle | All opinions expressed +
+ Newcastle upon Tyne, UK, NE1 7RU (091 265 2486) | are mine and mine alone! +
+ ARPA: C.Dennison@newcastle.ac.uk | Chris Dennison +
++

1723. Ham Radio article in Worcester Telegram

Newsgroup: rec.ham-radio
Date: 1990-03-19 13:20:57 UTC
From: dls@genrad.com
Message-ID: <34034@genrad.UUCP>
Source record: 12679

Just thought I should mention that Ham Radio is again getting some free advertising. Worcester Telegram published a large article in the Sunday, March 18, 1990 paper about a local radio club. Mostly, it discussed the Emergency Preparedness aspect of ham radio, but also discussed some of the more fun things, like DXing, etc. It was a pretty good article and even had a picture of a local ham at his shack.....only one bad comment..... they spelled one of the names wrong....it's Cayen, not Caen. Ah, well...

(PS, for those who don't know, Worcester is in Massachusetts)

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

1724. Re: beginner questions

Newsgroup: rec.ham-radio
Date: 1990-03-19 13:20:59 UTC
From: belsky@tacvax.mdcbbs.com
Message-ID: <614.2604dcbc@tacvax.mdcbbs.com>
Source record: 12689

In article <48.26036d4f@wsuiar.uucp>, pxgovind@wsuiar.uucp writes:
> Hi everybody,
>
> I am a beginner to HAM and don't know where to start.
> Are there books that would help me start?
> Is there an exam that HAM users take (for acquiring license maybe)?
> I am in Wichita KAnsas, Is here a group that I can get in touch with?
> Please suggest a low cost equipment that would weather the trials of
> a beginner!
> Please e-mail me at
>
> pxgovind@twsuvax (on the BITNET).
>
> Thanks in advance g.prakash

A good place to start is the ARRL (American Radio Relay League). I don't have the address handy but their phone # in Connecticut is (203) 666-1541. Tell them that you're interested in Ham radio and where you're located and they should be able to help you from there. Another place for books, etc. is the local Radio Shack. They don't always have info but they may be able to point you to some local hams. Good Luck

--

David Belsky - N6UDI
uucp!mdcbbs!belsky
McDonnell Douglas Systems Integration Co.

1725. Re: Anthropology 101

Newsgroup: rec.ham-radio
Date: 1990-03-19 14:09:12 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <14912.2604E93E@stjhmc.fidonet.org>
Source record: 12678

> From: karn@ka9q.bellcore.com (Phil Karn)
>
> >[...] An American sergeant who was a ham found himself
> >in an isolated place in Europe without supplies. He called a ham in Germany

> >and asked him to deliver a message to headquarters. The ham in Germany did
> >better than that -- he turned out to be General LeMay and he sent out the
> >shipment himself.
>
> I had forgotten that LeMay was/is a ham. From my online callbook:
>
> Call: W6EZV
> Class: General
> Name: Curtis E Le May
> Mail addr: 1046 Pescador Dr
> Newport Beach CA 92660
> Born: November 15, 1906 (age 83)
>
> The name and year of birth matches the info about him in "The Making of
> the
> Atomic Bomb", so this is probably him. Does anybody know if he's still
> alive?

Dunno, but that's him, all right.

>
> An interesting, if spooky character. The more I read about him, the more
> I'm
> convinced he was the inspiration for General Buck Turgidson (George C.
> Scott's character) in "Dr. Strangelove". On the other hand, from an
> incident
> documented in the PBS series "War and Peace in the Nuclear Age" in which
> he
> declared his intention to strike the USSR first if he saw the Russkies
> massing their planes (despite this not being US policy) perhaps he was
> the
> model for General Jack D. Ripper.

He was/is a real character, sure enough. The late Arthur Godfrey, K4LIB, who was a general in the USAF Reserve, was a friend of his. He told of a hunting trip he, LeMay, and others went on out west. They split up to cover more territory. Godfrey spotted a deer and fired. He missed. He fired again. He missed again. By this time the buck realized he was in no immediate danger from Godfrey and proceeded to calmly walk across the clearing, grazing as he went. Godfrey kept firing and missing, 6 or 8 shots all told. In disgust, Godfrey

gave up and went back to the place they had parked the Jeep. LeMay was there chewing on his cigar and breaking down his rifle. Without looking up he calmly asked "Well, Gen. Godfrey, did our boys take that hill?"

Art Collins had given LeMay a complete Collins SSB station for his home use and LeMay was so impressed by the effectiveness of SSB that he became instrumental in getting the Air Force to switch to SSB. Needless to say, this led to Collins selling the government million$ in KWM-2's and 30L's.

>
> Barry Goldwater, Curtis LeMay... how come the hams who rise to prominent
> national positions always seem to be right wing extremists? :-) :-)

Just lucky, I guess.

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1726. Re: QSL's for QSO's from the 60's

Newsgroup: rec.ham-radio
Date: 1990-03-19 14:52:29 UTC
From: trey@ut-emx.UUCP
Message-ID: <26403@ut-emx.UUCP>
Source record: 12677

> With KZ5 stations, you
> will have a problem, since those were military personnel stationed in
> the (then) U.S. Canal Zone. However, there are ways to track at least
> some of these folks down, assuming they're still alive and licensed.

Exactly. A friend of mine tracked down a KZ5 card by looking him up in an old KZ5-era callbook. Once you have the guy's name, you can look him up in a sorted-by-lastname-callbook or use one of these callsign-servers on the internet. If he has a current USA ticket, you've got him! These listings also include birth date. So if your KZ5-blah-blah is named Robert Smith, you can probably eliminate any Robert Smiths who were born after 1960, unless your Robert Smith was a military dependent kid ham.

This method is good for tracking down any US amateur who was hamming overseas at one time, but it is particularly good for KZ5's who were mostly US people.

Oh. And one last comment. This method is not limited to US hams -- it's just easier with US hams. For instance, if you are tracking down a card from Angola, go look in an old callbook and find the guy's name. Then go look at the Portugal listings (exhaustive search, yuck) in a current callbook. Then send the guy a letter and a QSL. Get the picture?

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

1727. Downloading from WSMR-Simtel20

Newsgroup: rec.ham-radio
Date: 1990-03-19 17:15:49 UTC
From: nmsei@nmsu.edu
Message-ID: <NMSEI.90Mar19101549@nambe.nmsu.edu>
Source record: 12681

As a novice user to networking in general, How do I get files from
WSMR-simtel? I have successfully connected as an anonymous FTP user,
but I am unable to acces the pd1 disk. Any suggestions?

--
Paul A. Hutchinson N5PCJ Solar Research Engineer
Internet: nmsei@nmsu.edu Bitnet: swres001@nmsu.bitnet
UUCP: ucbvax!nmsu.edu!nmsei US Mail: BOX 3SOL,NMSU, Las Cruces NM 88003
Phone: (505) 646-1049 FAX: (505) 646-3841

Remember: Photons are Phorever!!!

1728. Italy gets permission to operate on 50 MHz

Newsgroup: rec.ham-radio
Date: 1990-03-19 18:09:57 UTC
From: reisert@victim.enet.dec.com
Message-ID: <9003191809.AA23802@decwrl.dec.com>
Source record: 12680

From Gian Moda, I7SWX 19-MAR-1990 03:18

**** ITALY ON 50 MHz ****

The Italian PTT has released to italian hams the 50MHz band, after long work of A.R.I. and a positive ok by the Italian Ministry of Defence, with a doc.n. 11422 dated 6 march 1990, but with the following conditions :

- Frequency : 50,157.5 MHz +/- 6,250 Hz with a total band of 12,5 KHz
- Maximum RF Output Power : 10 W
- Service : Secondary (this band is used by Army services)
- Authorization : Following a request to the PTT Authority by single operator or group of operators (only full privilage licencees)
- Time-period : 1 year with possible renewal.
- Modes : A1A (CW but no modulated telegraphy) and J3E (Single Side Band but only upper band : USB)
- Absolute frequency limits : 50,151.250 MHz and 50,163.750 MHz
- It is forbidden the activity of beacons, FM emission or other modes (Packet and others).

It is the beginning for italian hams but we must be very careful not to go "outside" of the PTT guidelines to avoid any possible negative reaction for the renewal and possible extension of band.

Soon (time to get the authorization) several italian call-sign will be heard on 50 MHz. Please spread the NEWS.

73 de I7SWX - Gian MODA (one of those that requested the special permit).

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

1729. New British Callsign Scheme

Newsgroup: rec.ham-radio
Date: 1990-03-19 18:28:51 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9003191828.AA26436@cmr.ncsl.nist.gov>
Source record: 12695

NEW CALLSIGN SERIES FOR BRITISH HAMS
(Extracted from March 1990 Radio Communications)

....
At present all UK callsigns begin with the letter G. However, both the present Class A (with code) series, G+0+3 letters, and the Class B (no code) series, G+7+3 letters, are rapidly running out. ("5" will be issued for Class B when the "7"s have run out.)
The Dept of Trade and Industry (DTI) plan to go to callsigns beginning with the letter "M" for ALL new licences of both classes when EITHER the present Class A or Class B series runs out.
In the M series, the number will indicate the UK country, and a letter will indicate the licence class, ie: 2=England, 3=Scotland,4=Wales,5=GI,6=GD, 7=GJ, 8=Guernsey, 1,9,10=spare.
Calls will be like MA2AAA, which would be MA3AAA if the station moved to Scotland. The MB prefix will be used for special events, and MC for clubs.
MA and MD-MJ will be Class A, MK-MZ for Class B.
The new Novice versions of the Class A and B licences will use the prefix "2" instead of "M", ie 2A2AAA or 2K3AAA, etc.
The DTI are proposing to allow certain club stations to send greetings (third-party) messages. This will be indicated by present G
club prefixes being changed to GX for clubs having this privilege, and GM to GS, GW to GC, etc. Note that use of the new call is only mandatory for periods during which greetings messages are being sent.
.... etc ....

Who said that the American callsign scheme is complicated ??????

73, Bob W3OTC

1730. Re: Australian ATV

Newsgroup: rec.ham-radio
Date: 1990-03-19 18:31:50 UTC
From: davet@tsdiag.ccur.com
Message-ID: <752@tsdiag.ccur.com>
Source record: 12693

What a coincidence that this subject is being kicked around just now! I'm planning to do something similar around here. I plan on putting an ATV transmitter on a local tall building (I live VERY close to the beach) so that I can watch the ships go by :-). I'm also planning on using 427.25 as the video carrier so that I can receive these pictures on channel 58 on my cable ready TV (and VCR) without the need for a converter. Right now I plan on trying out the KPA5-E 1 watt transmitter. This should give me reasonable picture quality without QRM'ing anyone else. I also want to have an onboard touch tone (tm) decoder so that I can turn the xmitter on/off, pan left/right/up/down, zoom in/out, etc. If you're interested in where I live (to see if you can receive this) look at my ICBM coordinates in my .sig - they're correct. If there's any local interest from the local hams, I may try and boost the transmitter power so that others could receive it. Any help from experienced ATV'ers is more than welcome - so are suggestions from the peanut gallery.

--

David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

1731. Sony Air 8 Mods

Newsgroup: rec.ham-radio
Date: 1990-03-19 20:12:00 UTC
From: JWJ2047@TAMVENUS.BITNET
Message-ID: <9003200810.AA28443@ucbvax.Berkeley.EDU>
Source record: 12696

Howdy!
I have a Sony Air 8 receiver and am wondering if anyone out there
has any information on mods for increased frequency coverage especially on in th
e 174 and up and in the shortwave areas. There was one time that I was able
to tune wwv @ 5 MHz due to an error resulting from a low battery but is
there another way that is readily accessable.

Thanking you in Advance

Joe Jurecka - N5PYK
JWJ2047@TAMVENUS

1732. Re: BIT RATE SPEEDS - WORLD RECORDS ??

Newsgroup: rec.ham-radio
Date: 1990-03-19 20:43:46 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <9386@shlump.nac.dec.com>
Source record: 12685

In article <9003160819.AA16137@ucbvax.Berkeley.EDU>,
RHAREL%FAB8@SC.INTEL.COM ("RICHARD HAREL CAL.LAB INTEL") writes...
>Can anyone give me some feedback as to what speeds data transfer is
>achieving these days over:
>a. Conventional Telephone lines

Given a 30 dB S/N ratio and 2.6 kHz usable bandwidth, Shannon says you get about 26000 bps LIMIT (theoretical, not achievable) of modem technology. Contemporary voiceband dial-up modems (V.32) get 9600 bps but send and receive over the same wire. Private line modems go up to 19200 bps. Not bad. Compare that to your average TNC.

>b. Leased data lines

Telco will sell you a DS3 circuit at 44.7 Mbps. Over glass, of course. Copper typically goes to 1.544 Mbps (US) or 2.048 Mbps (Europe).

>c. RF (mainly microwave)

Northern Telecom has announced a radio (using 512QAM modulation, not simple stuff) running at 4 or 11 GHz with a bit rate of about 310 Mbps. I think the channel bandwidth is about 70 MHz, maybe smaller. Compare that to your average TNC! With 16PSK, though, 3 bits/Hz is common.

>Is anyone doing some experiments out there digitizing voice and then
>transferring it at high speeds via RF ???

RF is inherently an analog medium; digital radio is quite practical but tends to cost a bit to get started in, plus eats fair dinkum bandwidth. The telcos use quite a bit of it. Digital cellular radio is also coming; hams are as usual on the trailing edge of the technology. (But hey, we make great keyers!)

It's probably not legal for hams here in Gringonia, since the ARRL went ape-chara a decade or so ago when the FCC said they'd rather regulate bandwidth than emission types. The ARRL said, basically, "SPARK FOREVER" and so you can't just run any narrow mode on the ham bands here in W/K/N land if you want to stay legal.
fred k1io

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388
I speak for me. Sharing requires permission.

1733. Anthropology 101

Newsgroup: rec.ham-radio
Date: 1990-03-19 20:57:54 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003192059.AA25965@ti.com>
Source record: 12699

Phil Karn asks "how come the hams who rise to prominent national positions always seem to be right wing extremists?"

Maybe all those folk in the middle prefer them to left-wing extremists :)

General LeMay put together the most awesome air strike force ever known. For more than 40 years this force, the Strategic Air Command, has managed to conduct thousands of operations involving nuclear weapons without ONCE ever having a serious mishap. Under LeMay's guidance, the most knowledgeable highly disciplined, and competent military force ever assembled has been THE most effective deterrent to global warefare. The B36 bomber was the first global bomber. Its very existence provided the psychological reason to think twice about any subsequent (to Pearl Harbor) attack on the U.S. When the B36 became to low and slow, there followed the B47 and B52. The B58, first supersonic hi-altitude bomber was "un-defendable" during its day and so, also, was an effective deterrent.

Except for the B52, which was used in the Viet Nam war, NONE of these ever fired (excuse me) dropped a weapon in anger. I believe that this stands in obvious testimony of his dream (yes, "right wing extremists" have dreams of peace too). It is no accident that the sign (humorously portrayed in Dr. Strangelove) "PEACE IS OUR PROFESSION" stands proudly at the entrance to every SAC base. Class dismissed.....

Dube Todd N5PDK

1734. Visiting

Newsgroup: rec.ham-radio
Date: 1990-03-19 21:21:17 UTC
From: hoenig@osage.csc.ti.com
Message-ID: <115490@ti-csl.csc.ti.com>
Source record: 12688

I will be visiting the Boston area between 3/31 and 4/8/90, and would like any information on where to go/what to do/who(m) to see while there. I'll have my Kenwood TH-75 with me, so any good info concerning repeaters to monitor would be appreciated. I don't know anybody in that part of the country, and I'm certain I'll find the same friendly people I find here, on the Amateur bands.

Looking forward to meeting some of y'all (that's Texican for "youse guys").

Mike Hoenig, N5LTL
Have Ticket, Will QSO

1735. Re: Forgiving the League for Incentive Licensing

Newsgroup: rec.ham-radio
Date: 1990-03-19 22:48:53 UTC
From: tjw@unix.cis.pitt.edu
Message-ID: <22959@unix.cis.pitt.edu>
Source record: 12686

In article <4063@kd4nc.UUCP> ke4zv@kd4nc.UUCP (Gary Coffman) writes:
>I found other things to occupy my limited spare time than amateur
>radio after I was told I had to take two more tests to get BACK what I
>had already earned.

You know, I've heard my mother gripe about the same thing! Seems that
W3WKD had better things to do (like raising 2 kids) than increase her
code speed. She holds the Advanced class, but feels cheated!

She still maintains that her "Class A" license was the tops and that she
finished the test 1/2 hour ahead of W3WJK,(her husband, my dad) who
got the alphabetically-early call due to the "first-in/last-out"
phenomenon of stacking your test in the examiner's in-basket!

She also likes to complain that she had to draw the circuits on the test
NOT just pick multiple choice.

Yea, I'm not sure what gripes her more: Insentive licensing or my Dad's
call. ;-)

73s de WA3VQJ
--
INTERNET: tjw@unix.cis.pitt.edu BITNET: TJW@PITTVMS CC-NET: 33802::tjw
UUCP: {decwrl!decvax!idis, allegra, bellcore}!pitt!unix.cis.pitt.edu!tjw
And if dreams could come true, I'd still be there with you,
On the banks of cold waters at the close of the day. - Craig Johnson

1736. Re: Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-19 23:09:32 UTC
From: rusty@cadnetix.COM
Message-ID: <11781@cadnetix.COM>
Source record: 12691

In article <4116@kd4nc.UUCP> ke4zv@kd4nc.UUCP (Gary Coffman) writes:
>
>.... Lids are a reflection of society's failure to integrate
>these people into the socially accepted norms of behavior.
>
Lets just say that not everybody agrees with that conclusion, but
I do agree pretty much with everything else Gary said about testing
not being able to weed out those who would intentionally be lids.

(Anyone wishing to further discuss what causes lids (society, human
nature, 'sin', nothing, whatever), lets take that one to email. If
enough people want it, maybe we can set up a mailing list? Nah, there
won't be that many... In any case, replies concerning the causes
of lids PLEASE VIA EMAIL, I suggest everyone ignore any posted flames
about it...)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1737. Re: FAIR INTERNATIONAL DX CONTEST

Newsgroup: rec.ham-radio
Date: 1990-03-19 23:23:15 UTC
From: rusty@cadnetix.COM
Message-ID: <11782@cadnetix.COM>
Source record: 12698

In article <594.25FFD914@weyr.FIDONET.ORG> katz@weyr.FIDONET.ORG (sylvan katz) writes:
>[NOTE: Message modified, 15 Mar 90 11:47:54]
>I have had a number of replies and suggestion about how to create a fair DX contest.
>However most of these have been through private mail. Maybe if we could open up this
>discussion for all to see we might be able to generate enuff ideas to get the
>momentum to have one of the large ARS organizations pay attention and actually
>formally sponsor a "FAIR INTERNATIONAL DX CONTEST" which anyone in any location
>with any equipment would have a shot at winning. Let's not forget that there is
>no doubt that unless

<article partially eaten here>

> operator is competent and competitive no matter the location or equipment there
> will be no chance of winning. All suggestions and discussion welcome.
>
>73's & GUD DX - VE5ZX (Syl)
>
>--
>Sylvan Katz Ham: VE5ZX
>203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
>Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
>Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
>(306) 934-3168

Well, I took the liberty of re-posting the entire article since I understand that
news articles with very long lines can get truncated. I hope nobody minds!

Anyway, I'll drop in my $.02 worth...

First, to Sylvan: How about posting a summary of what you have gotten so far?

I wonder about having a 'negative multiplier' for the more power you run, or other
factors which increase your ability to make contacts? Not something which will
totally negate the improvements, but which will at least level out the playing
field a bit! Either that or limit total power to 200 watts. Why put novices
and techs at a disadvantage? (Is that part of the reason for the 'novice
roundup' contest (is that the name?), to give novices and techs someone
to talk to?) That way, skill will play a little bigger part.

I don't suppose 'official observers' (:-) would work as a means of watching for
those who do not id? How about allowing people involved to send in a list
of those who were not obeying the rules (whatever they may be), and then using
some kind of filter (minimum number of complaints, whatever) to weed out the
false reports?

Well, enough stream-of-consciousness rambling for now, lets have somebody who
knows what they are talking about post something USEFUL!!!!! :-)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1738. last saturday! Wow!

Newsgroup: rec.ham-radio
Date: 1990-03-20 00:24:17 UTC
From: rusty@cadnetix.COM
Message-ID: <11785@cadnetix.COM>
Source record: 12692

Well, if you were not on HF last weekend, you really missed out!

As 'usual' (or at least, as 'usual' as I can make things be), I was on at the 'usual' time trying to do the un-net. Well, let me tell you, when I heard DZ's and ML's and all that good stuff calling CQ, I'm afraid I never got around to calling cq for the unnet, my apologies (I even heard one 'rare DX' person calling CQ and NOT GETTING ANSWERED!!!!! Too bad he could not copy me when I replied - he could tell I was there and that was it...)

Anyway, I logged 2 German stations, and one Lithuanian on 10 meters last saturday! My first European station!!!!

Anyway, if you've got an HF rig, and you weren't on last Saturday, well, you really missed out.

(All this with about 100 watts into a 5/8 wave groundplane mounted about 30 feet off the ground! ON SSB!)

(Editors note: please excuse my excitement, but I never thought I'd ever work "real dx" until I upgraded and had 'real power', or switched to CW, or a 'real antenna', or .....)

(Claimer: editor == me) :-)

Which reminds me - I had an email message a while back which said that I should not work HF SSB because it would ruin my upgrading. Not so! Making contacts on HF only makes me fear the time when 10m becomes a local-only band... No way do I want to be a Tech when the sunspots change! This is too much fun!

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1739. Re: Bad operators and dangerous DXing

Newsgroup: rec.ham-radio
Date: 1990-03-20 04:36:06 UTC
From: tjw@unix.cis.pitt.edu
Message-ID: <22970@unix.cis.pitt.edu>
Source record: 12690

In article <25612@ut-emx.UUCP> trey@ut-emx.UUCP (Trey Garlough) writes:
>> that made the incident stand out is that she was carrying a loaded rifle,
>> had it pointed at my chest from four feet away, threatened to shoot up the
>> station, and threatened to kill us unless we went off the air.

>I *hate* it when that happens. :-)

Yea, me too. Spoils your whole day!

When I was a kid, a neighbor came over and started screaming at my mom
about how my dad was tearing up his TV reception. She tried to explain
that my dad wasn't even home, but he wouldn't listen. He just kept
screaming -- until dad pulled into the driveway! One embarrased
neighbor! Turns out that his other neighbor was fixing up the basement
with a powersaw.

Terry
--
INTERNET: tjw@unix.cis.pitt.edu BITNET: TJW@PITTVMS CC-NET: 33802::tjw
UUCP: {decwrl!decvax!idis, allegra, bellcore}!pitt!unix.cis.pitt.edu!tjw
And if dreams could come true, I'd still be there with you,
On the banks of cold waters at the close of the day. - Craig Johnson

1740. LeMay

Newsgroup: rec.ham-radio
Date: 1990-03-20 05:00:39 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21093@bellcore.bellcore.com>
Source record: 12697

In article <14912.2604E93E@stjhmc.fidonet.org> Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:
>Art Collins had given LeMay a complete Collins SSB station for his home use and
>LeMay was so impressed by the effectiveness of SSB that he became instrumental
>in getting the Air Force to switch to SSB. Needless to say, this led to Collins
>selling the government million$ in KWM-2's and 30L's.

That clinches it, Turgidson == LeMay. From Dr. Strangelove:

General Turgidson:
"If you'll recall, sir, one of the provisions of Plan R provides that once the, uh, go code is received, the normal SSB radios in the aircraft are switched into a special code device which I believe is designated as CRM-114..."

I'm still waiting for a CRM-114 to show up at the Dayton fleamarket. I've seen the B-52s in the Puma Air Museum (Tucson AZ) and the Air Force Museum (Dayton OH) but unfortunately they seem to have been gutted of all their electronics. :-)

As far as LeMay goes, read this quote from p280 in "War and Peace in the Nuclear Age" (ISBN 0-394-56217-8). In all seriousness, it's one of the most chilling things I have ever read.

"In September 1957, LeMay briefed two visiting members of Eisenhower's Gaither Committee: Robert C. Sprague, an electronics manufacturer who had also served on the Killian panel, and Jerome Weisner, who became Kennedy's science adviser and later president of MIT. Sprague noted a wall chart showing the response time of SAC's bombers; it seemed to suggest that none of them would get off the ground by the time Soviet bombers were picked up by the early warning network in Canada. Sprague and Wiesner each recalls LeMay affirming that view but adding: 'I will know from my own intelligence whether or not the Russians are massing their planes...for a massive attack against the United States.' And he said, 'If I come to that conclusion, I'm going to knock the shit out of them before they get off the ground.'"

"'General, that isn't national policy,' Sprague remembers saying. 'You know that.' LeMay, he says, replied, 'No, it's not national policy, but it's my policy.'"

I submit this as further evidence that having passed a code test doesn't necessarily make one more likely to accept government rules and regulations. :-)

Phil

1741. Re: NPRM 90-55 - No test code

Newsgroup: rec.ham-radio
Date: 1990-03-20 06:55:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90032010271489@masnet.uucp>
Source record: 12682

%domestic HF privileges. The international code test requirement does
%not apply to domestic communications. Two simple solutions come to
%my mind:
%
% 1. give the Communicator class all the present Novice/Technician HF
% privileges, but restricted to domestic communications only.
%
% 2. require Communicator class applicants to pass the General class
% written exam, and give them all General class privileges,
% but restricted to only domestic communications on HF.
%
%I prefer option 2, but option 1 is the least we can do, as I see it.

Sure, how do you police it? Remember that CB was supposed to be
"domestic communication only" and "line of sight" only. Now you can
hear just as good DX on 11 metres as you can on 20!

Just a personal opinion but if children of 7 years of age, and people
of 75 years of age can learn International code at 10 wpm (the current
Canadian requirement for HF priviledges) then I don't see how anyone
can not learn it at 5 wpm! A lot of the trouble is that people just
don't want to be told you *have* to do something. Just an opinion.

BTW, I am not an objector to a no-code intro level licence, there is a
VHF only n0-code going into effect here next September and I think it
will be a benefit to the hobby but I can see all sorts of problems with
a no-code HF licence.

73, Dean VE1CBF

~ EZ-Reader 1.21 ~ If you can't convince them, confuse them.....
~ QNet 2.04: :NANet: MUI Sydney, N.S. Cape Breton Regional (902) 564-5022

1742. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-20 06:55:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90032010271511@masnet.uucp>
Source record: 12683

To: jneher@tenorman.Sun.COM (Jonathan Neher X62863)

S6Does anybody have a recommendation for a qsl card
S6maker? I just got my ticket and have already started
S6receiving some from others so I guess I need to get some
S6soon. I've seen some little adds in the magazines, but
S6I'm looking for personal recommendations.

Well, for price/quality/value I'd go with W4MPY's cards. The quality
is good, the price is reasonable. The quality/price ratio is also good
for K2RPZ Print. There is also an excellent printer in the UK but with
the cost of the pound and shipping it isn't worth it any more.

Personally, I use my local printer. I looked through my cards and
found a reasonable design, took it to him and he made up a proof
before printing it and the cost was better than anything I could mail
order.

Hope it helps!

73, Dean VE1CBF

~ EZ-Reader 1.21 ~ Expenditures rise to meet income.....
~ QNet 2.04: :NANet: MUI Sydney, N.S. Cape Breton Regional (902) 564-5022

1743. Re: Morse code trainer for pc

Newsgroup: rec.ham-radio
Date: 1990-03-20 06:55:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90032010271439@masnet.uucp>
Source record: 12684

To: XB.P07@forsythe.stanford.edu (Bryan Pfaffenberger)
Subj: Ham Operator Profile

Bryan,

Interesting as I did something similar during my undergrad work in social psychology.

>a) What are the distinctive social values of ham radio people? Do
>they tend to prefer hierarchical or egalitarian group structures?

Generally, groups within the hobby (clubs etc) are egalitarian structures. There is a minor heirarchy in the sense that those in the hobby longer tend to find themselves in a "mentor" capacity on occasion. Special groups such as those involved directly in emergency public service work have a more heirarchical structure but this is more of a necessity imposed by function than desire (although like any group of people hams are not immune from the desire to be boss <grin>).

>b) How to ham radio people relate to technology? Is there a
>sharing ethic like one finds in computer user's groups?

Many computer users groups started as groups of ham operators. The local commodore group is a public spinoff of the local radio club's user group - the first in our area. The sharing ethic is very evident in the hobby in general. Many advances in technology in the past and in the present have come from hams, either through their hobby or their jobs. Many are engineers, technicians and technologists. Many are involved in aerospace and have had a major impact on sattelite research.

>c) What are the ideals of social service that ham radio people
>espouse? Is involvement with the technology supposed to serve some
>greater good than just amusing oneself with a fascinating and
>rewarding hobby?

This question will elicit many responses. The old premise underlying the hobby was one of providing experimentation and developement in radio related fields and in providing a trained and knowledgeable cadre of radio operators in times of emergency. While much of the experimentation has been diluted for many hams there are many more who enjoy developing new applications and uses for the technology available. Most operators are willing to help out in emergencies and public service and many go out of their way to do so.

>Sorry for the naivete of these questions! But that's what makes
>good anthropology--you're brave enough to ask dumb questions. Will
>appreciate all responses.

Not naive at all for those not involved with the hobby. Most of us
love to sit and talk be it about ham radio or anything else and you
are likely to get many responses of varying nature.

The above opinions are those of myself and many friends I have met
both personally and on the air over the years. There are differing
opinions on some points, especially whether or not we serve some
greater good, but this is the nature of man.

>"To the degree that he masters his tools, he invests the world with
>his meaning; to the degree that he is mastered by his tools, the
>shape of the tool determines his own self-image." Ivan Illich

It could be said the above applies to ham radio operators, a very apt
quote Bryan.

Hope to chat on the air someday.

73(Best Wishes), Dean VE1CBF

Wm. Dean Milner
CEO, Phoenix DataComm
dean.milner@canremote.uucp
CIS 73757,2627

~ EZ-Reader 1.21 ~ Variables won't, constants aren't.....
~ QNet 2.04: :NANet: MUI Sydney, N.S. Cape Breton Regional (902) 564-5022

1744. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-20 07:03:56 UTC
From: Jim.Grubs@f1.n234.z1.fidonet.org
Message-ID: <15023.26068A4A@stjhmc.fidonet.org>
Source record: 12710

> From: phil@ux1.cso.uiuc.edu
>
> I do not want to start having the FCC type-accepting ham gear, even though
> some hams can be using the non-type-accepted gear. It will just end up
> raising the prices for everyone.

We traded messages earlier on HAMLICEN about type-acceptance and the Canadian plan. If I understand the latter correctly, it does not require type-acceptance, just commercial manufacture. That's not radically different from the present de facto situation. The Canadian plan just makes it de jure. And "commercial manufacture" could be extrapolated to include kits.

73 de Jim Grubs, W8GRT

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!234!1!Jim.Grubs
Internet: Jim.Grubs@f1.n234.z1.fidonet.org

1745. German Amateur Radio

Newsgroup: rec.ham-radio
Date: 1990-03-20 07:46:23 UTC
From: kjh@pollux.usc.edu
Message-ID: <23586@usc.edu>
Source record: 12694

After the inevitable German (re-) unification, what will happen to German Amateur radio?

I am curious about how callsigns will be handled? Will amateurs in the GDR want FRG callsigns to hide that they are in the East? Will they want to keep their GDR callsigns? What about new callsigns; how will they be allocated?

How will the licensing structures be affected? (What exactly are the licensing structures currently?) Will an entirely new licensing structure be set up, or will the existing structures somehow be merged?

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

1746. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-20 08:19:08 UTC
From: tenney@well.sf.ca.us
Message-ID: <16772@well.sf.ca.us>
Source record: 12703

A quick comment:
I strongly suggest starting out learning the code at 20+ wpm. It is
so much easier to go from 0 up, then to improve late (IMHO). Remember,
that you can always test multiple times throughout your learning
getting 5, or 13 along the way. I find the learning process is a part of
the problem, so keep going while you're psyched up to learn. That applies
to theory as well. Go for an extra whether you need it or not, it's
easier to do it while you're studying anyway.
Glenn
AA6ER

1747. Wanted: HR-2B manual/schematics

Newsgroup: rec.ham-radio
Date: 1990-03-20 10:39:16 UTC
From: look@uicsrd.csrd.uiuc.edu
Message-ID: <54900009@uicsrd.csrd.uiuc.edu>
Source record: 12702

I just bought *CHEAP* a Regency HR-2B 2m radio. I would like a copy of the schematic and/or manual. I will pay for copying and postage. Please respond by email first. Thanks,

Steve Look KA9SZW
look@uicsrd.csrd.uiuc.edu

1748. VE Schedule for NE?

Newsgroup: rec.ham-radio
Date: 1990-03-20 13:10:00 UTC
From: dls@genrad.com
Message-ID: <34085@genrad.UUCP>
Source record: 12704

Ok, I give up. I'll cry uncle. I've been totally unable to get packet radio to stay up long enough from my QTH to gather in an article which I could really use. I promised the Novice class that meets each Wednesday evening (today is Tuesday) that I'd bring in the VE schedule for New England to the next class, so that they will know who to contact if they wish to upgrade from Novice....

That was two weeks ago when I made the promise. Since then, I've been trying to get onto packet and get the list....I even know the article number on the Bulletin Board WA1PHY (out of Bedford, Mass.): it's 5224. BUT, my rig seems to be totally unreliable. While I can connect to it (via a digipeater in Fitchburg, Mass.), I can sometimes get the banner, and I can sometimes see SOME of the mail that is sitting there for me to read (I know there are at least four packet mail for me.....but I can't read them....), I never get the prompt. It always times out before then.

Meanwhile, I still need the VE Schedule for New England (ie, Central Mass and Southern New Hampshire). Is there some kind soul out there who can get this data off the packet radio and email it to me instead? (At least email is reliable.....:-(

Thanks in advance.

Frustrated packet user (ps, I can successfully connect and receive CAP packets in Wakefield....why can't I receive HAM packets in Bedford????????)

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

1749. Re: LeMay

Newsgroup: rec.ham-radio
Date: 1990-03-20 14:50:33 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <39028@iuvax.cs.indiana.edu>
Source record: 12705

Phil Karn writes:
>In article <14912.2604E93E@stjhmc.fidonet.org>
>Jim.Grubs@f1.n234.z1.fidonet.org (Jim Grubs) writes:
>>Art Collins had given LeMay a complete Collins SSB station for his
>>home use and LeMay was so impressed by the effectiveness of SSB that
>>he became instrumental in getting the Air Force to switch to SSB.
>>Needless to say, this led to Collins selling the government million$
>>in KWM-2's and 30L's.

>That clinches it, Turgidson == LeMay. From Dr. Strangelove:

>General Turgidson:
>"If you'll recall, sir, one of the provisions of Plan R provides that
>once the, uh, go code is received, the normal SSB radios in the
>aircraft are switched into a special code device which I believe is
>designated as CRM-114..."

>I'm still waiting for a CRM-114 to show up at the Dayton
>fleamarket. I've seen the B-52s in the Puma Air Museum (Tucson
>AZ) and the Air Force Museum (Dayton OH) but unfortunately they
>seem to have been gutted of all their electronics. :-)

You'll have to beat me to it!! A friend who was in the USAF says it's
a real device, and the control head (shown in the movie) is not
classified. They have been seen on the surplus market, and Dayton is
probably a good place to look, what with Wright-Patterson AFB nearby.
CRM-114 isn't its real name; the CRM prefix would mean "air-
transportable radio maintenance." A "CRM-114" label appears among the
equipment in the first scene of _Back to the Future_. I named the
LORAN-C receiver in my car "CRM-114" and one of its waypoints is FGD135.

Maj. King Kong:
"To insure that the enemy cannot monitor voice transmission or
plant false transmission, the CRM-114 is to be switched into all
receiver circuits. The emergency base code prefix is to be set
on the dials of the CRM. This'll block any transmission other
than those preceded by a code prefix. Stand by to set code
prefix... Set code prefix... Lock code prefix... Test auto-
destruct circuit... Switch all receivers to CRM
discriminator...."

Sometimes I recite that while taxiing out to the runway in a
mighty Cessna 172 and setting the transponder. :^)

--

Frank W9MKV reid@gold.ucs.indiana.edu

1750. Laser Diodes

Newsgroup: rec.ham-radio
Date: 1990-03-20 17:22:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9003210803.AA11499@ucbvax.Berkeley.EDU>
Source record: 12700

From: UTKVX::BRUCEH 20-MAR-1990 12:20:03.08
To: Orig_To! wsmr-simtel20.army.mil, BRUCEH
CC:
Subj: Laser Diodes

Thanks to Dave for his reply. I've gotten a little more info. since my posting. There are several places to buy the visible laser diodes, but everyones prices are HIGH! The cheapest i've seen is $113.00! The following is a list of part numbers, manufacturers, etc.

Toshiba TOLD-9200 (price about $165.00)
Toshiba 9201 gain guided (price about $113.00)
Toshiba 9211 index guided (much better diode) price about $131.00

NEC NDL-3200 (i don't have any more info)

Marshal Electronics of Huntsville (205-881-9235) has the 9201 and 9211 in stock at the above prices. I don't know anymore about them except that they have the diodes!

From talking to people and reading, I have gathered that the diode itself needs to be used with some type of collimator to get what we think of as a beam of laser light. There are several companies that offer an entire assembly with battery pack, etc. for $300-$500. If anyone is interested in this, drop me some e-mail. These diodes look to be interesting and useful, but i'll wait until the price drops. Most all of them operate in the 670 nm range, but that is dropping towards the 620 range (where the standard HeNe laser operates, i think).

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

1751. anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-20 17:51:06 UTC
From: beale@sierra.Stanford.EDU
Message-ID: <579@sierra.stanford.edu>
Source record: 12706

A colleague of mine is interested in finding out about litz wire-
past and present manufacturers, performance data (specifically
attenuation versus frequency, eg from skin effect in an antenna
application), and from whom any might be available today.
I gather that Litz wire is a bundle of finely stranded wires with
each strand insulated from the others, thus having lower losses at
very high frequencies than solid wire with the same cross section,
assuming the skin depth is smaller than the radius of the wire.
I understand that this stuff was often used in low-loss inductors
and the circularly-wound indoor antennas found on early BC-band radio
receivers. It seems to be hard to find mention of it these days,
though, although the laws of physics haven't changed in 50 years and
whatever advantages it had then should still apply. Perhaps the
nuisance value of soldering all those little strands together was the
problem; I don't know.

Anyway, if you have a current source for the stuff, I'd appreciate
hearing from you! -- N8JUF beale@sierra.stanford.edu --

1752. Electromagnetic Fields

Newsgroup: rec.ham-radio
Date: 1990-03-20 18:12:00 UTC
From: Ed@ALDERAAN.SCRC.SYMBOLICS.COM
Message-ID: <19900320181206.0.ED@PEREGRINE.SCRC.Symbolics.COM>
Source record: 12701

Date: 20 Mar 90 15:56:34 GMT
From: epicb!david@uunet.uu.net (David Cook)

Ok all you electromagnetic fiends... read the book CURRENTS OF DEATH...

Date: 19 Mar 90 18:27:47 GMT
From: optilink!elliott@uunet.uu.net (Paul Elliott x225)

The June 12, 1989 issue of _New_Yorker_ began a series called
"Annals of Radiation", the first subtitled "The Hazards of Electromagnetic
Fields".

The New Yorker published a serialized version of the book. In other words,
these are the same material by the same author, Paul Brodeur.

The _New_Yorker_ is obviously not a prime scientific source, and I would like
to see a rebuttal or follow-up (perhaps in the later issues?... haven't seen
them).

There was a "rebuttal" in Forbes in about August or September. It
wasn't worth reading - it was just a flame.

Anyway, read them if you get the chance.

I agree that it's well worth reading. It's easy to either believe
it and get scared, or dismiss it as paranoid. It's much harder
(but more valuable) to read it analytically and discover what your own
prejudices are. I don't know of any other books on this material; one
could check out Brodeur's bibliography if one were sufficiently motivated.

I believe Brodeur also wrote the article in the New Yorker a few years ago
on the relationship between low-level microwave exposure and cataracts.
Again, the emphasis was on the "Oh, that can't possibly happen" attitude
of organizations like the Air Force.

1753. ARRL file format for contest log submissions

Newsgroup: rec.ham-radio
Date: 1990-03-20 19:01:00 UTC
From: RJA%UTRC@UTRCGW.UTC.COM
Message-ID: <9003210804.AA11730@ucbvax.Berkeley.EDU>
Source record: 12729

ARRL FILE FORMAT FOR CONTEST LOG SUBMISSIONS

Rich Assarabowski K1CC
Chairman, ARRL Contest Advisory Committee

The ARRL Contest Advisory Committee has adopted a set of guidelines
for submitting log entries on diskette. A suggested ASCII file format was
initially proposed by the CAC and the ARRL Contest Branch at the beginning
of this year. It was distributed within the CAC and among contest
software developers for comment. Considerable discussion took place
regarding the merits of binary vs. ASCII files, with software developers
tending to support binary file formats. The feeling of the CAC was that
although binary files are indeed more efficient, they would be more difficult
to generate for the average user. This would tend to discourage rather
than encourage submissions on diskette. An ASCII file format was therefore
adopted for submitting logs in diskette in lieu of paper logs. Since the
ARRL Contest Branch uses binary file formats in its log processing software,
it will convert the submitted ASCII files into its own binary format. However,
the Contest Branch has agreed to work with any software developer who wishes to
generate a binary output which could be directly read in by the ARRL
log checking software. Several software developers (K1EA, KY1H and K8CC)
have already agreed to produce an ARRL binary format option within their
programs and will be providing this option in future releases of their
software. Contest logs can be submitted in ARRL binary format from those
developers who provide this option. Software developers can contact the
ARRL Contest Branch for details.

The ARRL Contest Branch for some time now has been working on a set
of computer programs for contest log processing. The objective of this
effort is to improve the log checking capability and the accuracy of
results, and at the same time to reduce the time involved in processing,
scoring and verifying submitted logs, both paper and disk-based. It must
be strongly emphasized that paper logs will be scrutinized at least as
carefully as computer-generated logs (if not more so!). Log submissions
not adhering to these guidelines will still be accepted (such as logs
duped post-contest without any time, band or exchange information),
however, they must be accompanied by a paper log containing the required
QSO data.

The guidelines below were revised a number of times and are the
result of considerable thought and discussion. We originally developed a
fixed-field ASCII file format with very strict requirements regarding data
sequence, justification and field definitions. However, we subsequently
relaxed these requirements, in order to make it simpler and less
error-prone, without too much additional effort on the part of the Contest

Branch. Any contest logging program should be able to produce an ASCII output following these guidelines without much difficulty. Almost all commercial database and spreadsheet software provides an ASCII output file option.

We have initially decided to limit the log submissions to IBM PC or compatible (MS-DOS) disks. If there is enough demand in the future for other computers (Commodore, Apple, etc.), the ARRL Contest Branch will consider accepting those as well. It is also possible to submit logs to the ARRL Contest Branch via modem, preferably for smaller logs and for those who cannot create an MS-DOS disk. The ARRL bulletin board is available 24 hours and is currently on line. The telephone number is (203) 665-0090, using 300, 1200 or 2400 baud (No parity, 8 bits, 1 stop bit). Please follow the same file format as for disk submissions, and be sure to send in your paper summary sheet via the mail.

Finally, the CQ Contest Committee has agreed to accept the ARRL ASCII format as a standard as well, and will encourage submissions in that format. Other formats will be accepted but must be accompanied by a paper log. The ARRL Contest Branch will be working with the CQ Committee in maintaining a unique call sign database and in sharing their log checking methodologies.

SUGGESTED STANDARD FILE FORMAT FOR SUBMISSION
OF ARRL CONTEST LOG DATA

1. All files must be in standard ASCII format.

2. All files must be on an MS-DOS formatted disk, 3.5 inch (720K or 1.44 MB) or 5 1/4" (360K or 1.2 MB).

3. A diskette label should clearly indicate the call used, contest name, entry class and date of the contest.

4. The log file must consist of one line of data per QSO, without headers, footers, page breaks or other non-ASCII characters.

5. All QSO data must appear in each line, aligned by column, and must include the following:

BAND - Wavelength for HF (10,15,20,...) and frequency for VHF
MODE - PH, CW, RTTY, etc.
DATE - In MM/DD/YY or DD/MM/YY format
TIME - 4-digit UTC (without colons)
CALL - Call sign of station worked (allow 15 columns)
SENT - Complete exchange sent
RECEIVED - Complete exchange received
MULTS - Indication of multipliers, either a symbol, sequential number of multiplier or section/prefix/zone, etc.
POINTS - ALL unclaimed QSO's must be "0" points
STATION - Entries in the multi-operator, two-transmitter (Multi-2) class in the ARRL International DX Contest or any contest in which two different station logs are merged must

indicate which transmitter made which QSO's.

6. The log data file name shall consist of the call sign and the extension ".LOG", for example, K1CC.LOG.

7. State abbreviations must be standard US Postal Service two-letter abbreviations, ARRL section abbreviations must be those appearing on the ARRL summary sheet for that particular contest.

8. A paper summary sheet is required of all logs, either an official ARRL summary sheet or a close facsimile with a signed contest participation disclaimer.

8. All diskettes become the property of the ARRL and are not returnable.

1754. DXCC Country List

Newsgroup: rec.ham-radio
Date: 1990-03-20 19:28:25 UTC
From: wmb@ulysses.att.com
Message-ID: <12705@ulysses.att.com>
Source record: 12709

The current ARRL DXCC country list follows. Changes from the
previous posting (2/89) include the addition of several new
countries (T33, ZS9, 3D2 (Conway)), prefix changes (KC6 -> V6,
KX6 -> V7, UA1 -> 4K2, UP -> LY, UQ -> YL, UR -> ES, ZS2 -> ZS8,
3D6 -> 3DA) and other minor modifications.

Much of the information was provided by Ron McConnell, W2IOL.

The colon-separated fields are:

1. primary amateur prefix ("*" suffix for deleted countries)
2. country name
3. continent
4. ITU zone(s)
5. CQ zone(s)
6. time zone (hours from UTC)
7. latitude
8. longitude
9. ITU prefix allocation(s) ("~" suffix for unofficial)
10. other amateur prefixes

Please mail corrections and suggestions to me.

Bill Brelsford, K2DI
AT&T, Basking Ridge NJ
Uucp: att!joplin!wmb
Internet: wmb@joplin.att.com
Bitnet: wmb%joplin@att.arpa

A2:Botswana:Af:57:38:+2:25S:26E:A2,8O
A3:Tonga:Oc:62:32:+13:21S:175W:A3
A4:Oman:As:39:21:+4:24N:59E:A4
A5:Bhutan:As:41:22:+5.5:27N:90E:A5
A6:United Arab Emirates:As:39:21:+4:24N:54E:A6
A7:Qatar:As:39:21:+4:25N:52E:A7
A9:Bahrain:As:39:21:+4:26N:51E:A9
AC3*:Sikkim:As:41:22:+5.5:27N:89E
AC4*:Tibet:As:41:23:+6:30N:92E
AP:Pakistan:As:41:21:+5:34N:73E:AP-AS,6P-6S
BV:Taiwan:As:44:24:+8:25N:122E
BY:China:As:33,42,43,44:23,24:+8:40N:116E:BA-BZ,XS,3H-3U
C2:Nauru:Oc:65:31:+11.5:0S:167E:C2
C3:Andorra:Eu:27:14:+1:43N:2E:C3
C5:The Gambia:Af:46:35:+0:13N:17W:C5
C6:Bahamas:NA:11:08:-5:25N:77W:C6
C9:Mozambique:Af:53:37:+2:26S:33E:C8-C9

C9*:Manchuria:As:33:24:+8.5:46N:127E
CE:Chile:SA:14,16:12:-4:33S:71W:CA-CE,XQ-XR,3G
CE9:Antarctica:An:67,69,70,71,72,73,74:12,13,29,30,32,38,39:+0:90S:0W::AT0,DP0,FT_Y,KC4,LU
_Z,OR4,VK0,VP8,Y8,ZL5,ZS7,ZX0,3Y,4K1,8J1
CE0A:Easter Is:SA:63:12:-7:27S:109W
CE0X:San Felix:SA:14:12:-5:26S:80W
CE0Z:Juan Fernandez:SA:14:12:-4:34S:79W
CN:Morocco:Af:37:33:+0:34N:7W:CN,5C-5G
CN2*:Tangier:Af:37:33:+0:36N:8W
CO:Cuba:NA:11:08:-5:23N:82W:CL,CM,CO,T4
CP:Bolivia:SA:12,14:10:-4:17S:68W:CP
CR8*:Damao, Diu:As:41:22:+5.5:21N:71E
CR8*:Goa:As:41:22:+5.5:16N:74E
CR8*:Portuguese Timor:Oc:54:28:+8:9S:126E
CT:Portugal:Eu:37:14:+1:39N:9W:CQ-CU,XX
CT3:Madeira Is:Af:36:33:-1:33N:17W
CU:Azores:Eu:36:14:-1:38N:26W::CT2
CX:Uruguay:SA:14:13:-3:35S:56W:CV-CX
CY9:St Paul Is:NA:09:05:-5:47N:60W
CY0:Sable Is:NA:09:05:-5:44N:60W
D2:Angola:Af:52:36:+1:9S:13E:D2-D3
D4:Cape Verde:Af:46:35:-2:15N:23W:D4
D6:Comoros:Af:53:39:+3:12S:43E:D6
DL:West Germany:Eu:28:14:+1:52N:7E:DA-DR
DL*:Germany:Eu:28:14:+1:52N:7E::DA-DM
DU:Philippines:Oc:50:27:+8:15N:121E:DU-DZ,4D-4I
EA:Spain:Eu:37:14:+1:40N:4W:AM-AO,EA-EH
EA6:Balearic Is:Eu:37:14:+1:38N:3E
EA8:Canary Is:Af:36:33:+0:28N:15W
EA9:Ceuta & Melilla:Af:37:33:+1:36N:5W
EA9*:Ifni:Af:37:33:+0:29N:10W
EI:Ireland:Eu:27:14:+0:53N:6W:EI-EJ
EL:Liberia:Af:46:35:-0.75:6N:11W:A8,D5,EL,5L-5M,6Z
EP:Iran:As:40:21:+3.5:36N:51E:EP-EQ,9B-9D
ES:Estonia:Eu:29:15:+3:59N:25E::UR
ET:Ethiopia:Af:48:37:+3:9N:39E:ET,9E-9F
ET2*:Eritrea:Af:48:37:+3:15N:39E
F:France:Eu:27:14:+1:49N:2E:FA-FZ,HW-HY,TH,TK,TM,TO-TQ,TV-TX
FF*:French W Africa:Af:46:35:+0:15N:18W
FG:Guadeloupe:NA:11:08:-4:16N:62W
FH:Mayotte:Af:53:39:+3:13S:45E
FH*:Comoros:Af:53:39:+3:12S:43E::FB8
FI8*:Fr Indo China:As:49:26:+7:11N:107E
FK:New Caledonia:Oc:56:32:+11:22S:167E
FM:Martinique:NA:11:08:-4:15N:61W
FN8*:French India:As:41:22:+5.5:12N:80E
FO:Clipperton Is:NA:10:07:-7:10N:109W
FO:French Polynesia:Oc:63:32:-10:18S:150W
FP:St Pierre & Miquelon:NA:09:05:-4:47N:56W
FQ8*:Fr Equatorial Africa:Af:47,52:36:+1:5N:18E

FR:Glorioso Is:Af:53:39:+3:12S:47E
FR:Juan de Nova, Europa:Af:53:39:+3:17N:43E
FR:Reunion:Af:53:39:+4:21S:55E
FR:Tromelin:Af:53:39:+4:16S:54E
FS:St Martin:NA:11:08:-4:18N:63W::FG,FJ
FT_W:Crozet:Af:68:39:+3:46S:52E
FT_X:Kerguelen Is:Af:68:39:+5:50S:70E
FT_Z:Amsterdam & St Paul Is:Af:68:39:+5:38S:78E
FW:Wallis & Futuna Is:Oc:62:32:-10.5:14S:172W
FY:French Guiana:SA:12:09:-4:5N:52W
G:England:Eu:27:14:+0:52N:0W:GA-GZ,MA-MZ,VP-VS,ZB-ZJ,ZN-ZO,ZQ,2A-2Z
GD:Isle of Man:Eu:27:14:+0:54N:4W
GI:No Ireland:Eu:27:14:+0:55N:6W
GJ:Jersey:Eu:27:14:+0:49N:2W
GM:Scotland:Eu:27:14:+0:57N:2W
GU:Guernsey:Eu:27:14:+0:49N:3W
GW:Wales:Eu:27:14:+0:52N:3W
H4:Solomon Is:Oc:51:28:+11:9S:160E:H4
HA:Hungary:Eu:28:15:+1:48N:19E:HA,HG
HB:Switzerland:Eu:28:14:+1:47N:7E:HB,HE
HB0:Liechtenstein:Eu:28:14:+1:47N:10E
HC:Ecuador:SA:12:10:-5:0N:79W:HC-HD
HC8:Galapagos Is:SA:12:10:-5:1S:90W
HH:Haiti:NA:11:08:-5:19N:72W:HH,4V
HI:Dominican Rep:NA:11:08:-5:18N:70W:HI
HK:Colombia:SA:12:09:-5:5N:74W:HJ-HK,5J-5K
HK0:Malpelo Is:SA:12:09:-5:4N:82W
HK0:San Andres & Providencia:NA:11:07:-6:13N:82W
HK0*:Bajo Nuevo:NA:11:08:-5:16N:79W
HK0*:Serrana Bnk, Roncador Cay:NA:11:07:-5:14N:80W::KP3,KS4
HL:Korea:As:44:25:+9:38N:127E:DS-DT,D7-D9,HL-HM,P5-P9,6K-6N
HP:Panama:NA:11:07:-5:9N:80W:HO-HP,H3,H8-H9,3E-3F
HR:Honduras:NA:11:07:-6:14N:87W:HQ-HR
HS:Thailand:As:49:26:+6:14N:101E:HS
HV:Vatican:Eu:28:15:+1:42N:13E:HV
HZ:Saudi Arabia:As:39:21:+3:25N:47E:HZ,7Z,8Z
I:Italy:Eu:28:15:+1:42N:12E:IA-IZ
I1*:Trieste:Eu:28:15:+1:46N:14E
I5*:Ital Somaliland:Af:48:37:+3:2N:46E
IS:Sardinia:Eu:28:15:+1:39N:9E
J2:Djibouti:Af:48:37:+3:12N:43E:J2
J3:Grenada:NA:11:08:-4:12N:62W:J3
J5:Guinea-Bissau:Af:46:35:-1:12N:16W:J5
J6:St Lucia:NA:11:08:-4:14N:61W:J6
J7:Dominica:NA:11:08:-4:15N:61W:J7
J8:St Vincent:NA:11:08:-4:13N:61W:J8
JA:Japan:As:45:25:+9:36N:140E:JA-JS,7J-7N,8J-8N:KA1
JD:Minami Torishima:Oc:45/90:27:+10:24N:154E::KA1
JD:Ogasawara:As:45:27:+10:28N:142E::KA1
JD1*:Okino Tori-shima:As:45:27:+10:30N:140E::7J1

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JT:Mongolia:As:32,33:23:+7.5:48N:107E:JT-JV
JW:Svalbard:Eu:18:40:+1:78N:16E
JX:Jan Mayen:Eu:18:40:-1:71N:9W
JY:Jordan:As:39:20:+2:32N:36E:JY
JZ0*:Neth New Guinea:Oc:51:28:+10:10S:147E
K:United States:NA:06,07,08:03,04,05:-5:39N:77W:AA-AL,KA-KZ,NA-NZ,WA-WZ
KC6:Belau:Oc:64:27:+10:7N:134E
KG4:Guantanamo Bay:NA:11:08:-5:20N:75W
KH1:Baker & Howland Is:Oc:61:31:-12:0N:176W
KH2:Guam:Oc:64:27:+10:13N:145E
KH3:Johnston Is:Oc:61:31:-11:17N:170W
KH4:Midway Is:Oc:61:31:-11:28N:177W
KH5:Palmyra, Jarvis Is:Oc:61:31:-11:6N:162W
KH5K:Kingman Reef:Oc:61:31:-11:6N:162W
KH6:Hawaii:Oc:61:31:-10:21N:158W
KH7:Kure Is:Oc:61:31:-11:29N:178W
KH8:Am Samoa:Oc:62:32:-11:14S:171W
KH9:Wake Is:Oc:65:31:+12:19N:167E
KH0:Mariana Is:Oc:64:27:+10:15N:146E
KL7:Alaska:NA:01,02:01:-8:58N:134W
KP1:Navassa Is:NA:11:08:-5:18N:75W
KP2:Virgin Is:NA:11:08:-4:18N:65W
KP4:Puerto Rico:NA:11:08:-4:18N:66W
KP5:Desecheo Is:NA:11:08:-4:18N:68W
KR6*:Okinawa (Ryukyu):As:45:25:+8:26N:128E::KR8,JR6,KA6
KS4*:Swan Is:NA:11:07:-6:17N:84W
KZ5*:Canal Zone:NA:11:07:-5:9N:80W
LA:Norway:Eu:18:14:+1:60N:11E:JW-JX,LA-LN,3Y
LU:Argentina:SA:14,16:13:-3:35S:58W:AY-AZ,LO-LW,L2-L9
LX:Luxembourg:Eu:27:14:+1:50N:6E:LX
LY:Lithuania:Eu:29:15:+3:55N:25E::UP
LZ:Bulgaria:Eu:28:20:+2:43N:23E:LZ
OA:Peru:SA:12:10:-5:12S:78W:OA-OC,4T
OD:Lebanon:As:39:20:+2:34N:36E:OD
OE:Austria:Eu:28:15:+1:48N:16E:OE
OH:Finland:Eu:18:15:+2:60N:25E:OF-OJ
OH0:Aland Is:Eu:18:15:+2:60N:20E
OJ0:Market Reef:Eu:18:15:+2:60N:19E
OK:Czechoslovakia:Eu:28:15:+1:50N:15E:OK-OM
ON:Belgium:Eu:27:14:+1:51N:4E:ON-OT
OX:Greenland:NA:05,75:40:-3:64N:52W::XP
OY:Faroe Is:Eu:18:14:+0:62N:7W
OZ:Denmark:Eu:18:14:+1:56N:13E:OU-OZ,XP,5P-5Q
P2:Papua New Guinea:Oc:51:28:+10:10S:147E:P2
P2*:Papua Terr:Oc:51:28:+10:10S:147E::VK9
P2*:Terr New Guinea:Oc:51:28:+10:10S:147E::VK9
P4:Aruba:SA:11:09:-4.5:13N:70W:P4
PA:Netherlands:Eu:27:14:+1:52N:5E:PA-PI
PJ2:Neth Antilles:SA:11:09:-4.5:12N:69W:PJ:PJ4,PJ9
PJ5:St Maarten, Saba, St Eus:NA:11:08:-4:18N:63W::PJ6-8
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PK1*:Java:Oc:54:28:+7.5:6S:107E::PK23
PK4*:Sumatra:Oc:54:28:+7:1S:100E
PK5*:Netherlands Borneo:Oc:54:28:+8:3S:115E
PK6*:Celebe & Molucca Is:Oc:54:28:+8:5S:119E
PY:Brazil:SA:12,13,15:11:-3:16S:48W:PP-PY,ZV-ZZ
PY0:Fernando de Noronha:SA:13:11:-2:4S:32W
PY0:St Peter & St Paul Rocks:SA:13:11:-2:0N:29W
PY0:Trindade & Martin Vaz Is:SA:15:11:-2:21S:29W
PZ:Surinam:SA:12:09:-3.5:6N:55W:PZ
S2:Bangladesh:As:41:22:+6:24N:90E:S2-S3
S7:Seychelles:Af:53:39:+4:5S:55E:S7
S9:Sao Tome & Principe:Af:47:36:+0:0N:7E:S9
S0:Western Sahara:Af:37:33:+0:27N:13W:S0~
SM:Sweden:Eu:18:14:+1:59N:18E:SA-SM,7S,8S
SP:Poland:Eu:28:15:+1:52N:21E:HF,SN-SR,3Z
ST:Sudan:Af:48:34:+2:16N:33E:SSN-SSZ,ST,6T-6U
ST0:Southern Sudan:Af:48:34:+2:5N:32E
SU:Egypt:Af:38:34:+2:31N:31E:SSA-SSM,SU,6A-6B
SV:Greece:Eu:28:20:+2:38N:24E:J4,SV-SZ
SV5:Dodecanese:Eu:28:20:+2:36N:28E
SV9:Crete:Eu:28:20:+2:36N:24E
SY:Mt Athos:Eu:28:20:+2:40N:24E::SV1/A
T2:Tuvalu:Oc:65:31:+12:9S:179E:T2
T31:Central Kiribati:Oc:62:31:+12:4S:171W:T3
T32:East Kiribati:Oc:61,63:31:+12:2N:158W
T33:Banaba:Oc:65:31:+11.5:1S:170E
T30:West Kiribati:Oc:65:31:+12:1S:173E
T5:Somali:Af:48:37:+3:2N:46E:T5,6O
T7:San Marino:Eu:28:15:+1:44N:12E:T7
TA:Turkey:As,Eu:39:20:+2:40N:33E:TA-TC,YM
TF:Iceland:Eu:17:40:-1:64N:22W:TF
TG:Guatemala:NA:11:07:-6:16N:92W:TD,TG
TI:Costa Rica:NA:11:07:-6:10N:84W:TE,TI
TI9:Cocos Is:NA:11:07:-6:6N:87W
TJ:Cameroon:Af:47:36:+1:4N:12E:TJ
TK:Corsica:Eu:28:15:+1:42N:9E
TL:Central African Rep:Af:47:36:+1:5N:19E:TL
TN:Congo:Af:52:36:+1:4S:15E:TN
TR:Gabon:Af:52:36:+1:1N:10E:TR
TT:Chad:Af:47:36:+1:12N:15E:TT
TU:Ivory Coast:Af:46:35:+0:5N:4W:TU
TY:Benin:Af:46:35:+0:6N:3E:TY
TZ:Mali:Af:46:35:+0:13N:8W:TZ
UA1:Russia (European):Eu:19,20,29,30:16:+3:56N:37E:EK,EM-EO,ER-ES,EX-EZ,LY,RA-RZ,UA-UZ,YL,
4J-4L:UA346,UN,UV,UW,UZ
UA2:Kaliningrad:Eu:29:15:+3:55N:21E::UZ2
UA9:Russia (Asiatic):As:20,21,22,23,24,25,26,30,31,32,33,34,35,75:16,17,18,19,23:+7:52N:10
4E::UA0,UN,UV,UW,UZ
UB:Ukraine:Eu:29:16:+3:50N:30E::UT,UY
UC:Byelorussia:Eu:29:16:+3:54N:28E:EU-EW

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UD:Azerbaijan:As:29:21:+4:40N:50E
UF:Georgia:As:29:21:+4:42N:45E
UG:Armenia:As:29:21:+4:40N:45E
UH:Turkmenistan:As:30:17:+5:38N:58E
UI:Uzbekistan:As:30:17:+6:41N:69E
UJ:Tadzhikistan:As:30:17:+6:39N:69E
UL:Kazakhstan:As:29,30,31:17:+5.5:43N:77E
UM:Kirghizia:As:30,31:17:+6:43N:75E
UN1*:Karelo-Finnish Rep:Eu:19:16:+3:64N:32E
UO:Moldavia:Eu:29:16:+3:47N:29E
V2:Antigua, Barbuda:NA:11:08:-4:17N:62W:V2
V3:Belize:NA:11:07:-5.5:17N:89W:V3
V4:St Kitts, Nevis:NA:11:08:-4:17N:63W:V4
V6:Micronesia:Oc:65:27:+11:7N:158E:V6:KC6
V7:Marshall Is:Oc:65:31:+12:7N:171E:V7:KX6
V8:Brunei:Oc:54:28:+8:5N:115E:V8
VE:Canada:NA:02,03,04,09,75:01,02,03,04,05:-5:45N:76W:CF-CK,CY-CZ,VA-VG,VO,VX-VY,XJ-XO
VK:Australia:Oc:55,58,59:29,30:+10:35S:149E:AX,VH-VN,VZ
VK9L:Lord Howe Is:Oc:60:30:+10:31S:159E
VK9N:Norfolk Is:Oc:60:32:+11.5:29S:168E
VK9X:Christmas Is:Oc:54:29:+7:10S:106E
VK9Y:Cocos-Keeling Is:Oc:54:29:+6.5:12S:97E
VK9Z:Mellish Reef:Oc:55:30:+10:17S:156E
VK9Z:Willis Is:Oc:55:30:+10:16S:150E
VK0:Heard Is:Af:68:39:+5:53S:73E
VK0:Macquarie Is:Oc:60:30:+11:54S:159E
VO*:Newfoundland, Labrador:NA:09:02,05:-3.5:48N:53W
VP2E:Anguilla:NA:11:08:-4:18N:63W
VP2M:Montserrat:NA:11:08:-4:17N:62W
VP2V:Br Virgin Is:NA:11:08:-4:18N:65W
VP5:Turks & Caicos Is:NA:11:08:-5:22N:72W
VP8:Falkland Is:SA:16:13:-4:52S:58W
VP8:So Georgia Is:SA:73:13:-1.5:54S:37W::LU_Z
VP8:So Orkney Is:SA:73:13:-3:61S:45W::LU_Z
VP8:So Sandwich Is:SA:73:13:-3:59S:27W::LU_Z
VP8:So Shetland Is:SA:73:13:-4:62S:59W::LU_Z,CE9,HF0,4K1
VP9:Bermuda:NA:11:05:-4:32N:65W
VQ1*:Zanzibar:Af:53:37:+3:7S:39E::5H1
VQ6*:British Somaliland:Af:48:37:+3:2N:46E
VQ9:Chagos:Af:41:39:+5:7S:72E
VQ9*:Aldabra:Af:53:39:+4:9S:46E
VQ9*:Desroches:Af:53:39:+4:6S:55E
VQ9*:Farquhar:Af:53:39:+4:10S:51E
VR6:Pitcairn Is:Oc:63:32:-8.5:25S:130W
VS2*:Malaya:As:54:28:+7.5:3N:102E::9M2
VS4*:Sarawak:Oc:54:28:+8:2N:110E
VS6:Hong Kong:As:44:24:+8:22N:114E
VS9H*:Kuria Muria Is:As:39:21:+4:18N:56E
VU:India:As:41:22:+5.5:29N:77E:AT-AW,VT-VW,8T-8Y
VU7:Andaman & Nicobar Is:As:49:26:+5.5:12N:93E
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VU7:Laccadive Is:As:41:22:+5.5:11N:73E
XE:Mexico:NA:10:06:-6:20N:99W:XA-XI,4A-4C,6D-6J
XF4:Revilla Gigedo:NA:10:06:-7:18N:113W
XT:Burkina Faso:Af:46:35:+0:12N:2W:XT
XU:Cambodia:As:49:26:+8:12N:105E:XU
XW:Laos:As:49:26:+7:20N:102E:XW
XX9:Macao:As:44:24:+8:22N:114E
XZ:Myanmar (Burma):As:49:26:+6.5:17N:96E:XY-XZ
Y2:East Germany:Eu:28:14:+1:53N:13E:Y2-Y9
YA:Afghanistan:As:40:21:+4.5:35N:69E:T6,YA
YB:Indonesia:Oc:51,54:28:+7.5:6S:107E:JZ,PK-PO,YB-YH,7A-7I,8A-8I
YI:Iraq:As:39:21:+3:32N:45E:HN,YI
YJ:Vanuatu:Oc:56:32:+11:18S:168E:YJ
YK:Syria:As:39:20:+2:34N:36E:YK,6C
YL:Latvia:Eu:29:15:+3:57N:24E::UQ
YN:Nicaragua:NA:11:07:-6:12N:87W:HT,H6-H7,YN
YO:Romania:Eu:28:20:+2:45N:26E:YO-YR
YS:El Salvador:NA:11:07:-6:14N:89W:HU,YS
YU:Yugoslavia:Eu:28:15:+1:45N:20E:YT-YU,YZ,4N-4O
YV:Venezuela:SA:12:09:-4:10N:67W:YV-YY,4M
YV0:Aves Is:NA:11:08:-4:16N:64W
Z2:Zimbabwe:Af:53:38:+2:18S:31E:Z2
ZA:Albania:Eu:28:15:+1:41N:20E:ZA
ZB:Gibraltar:Eu:37:14:+1:37N:5W
ZC:Cyprus SBA:As:39:20:+2:36N:33E
ZC5*:Br North Borneo:Oc:54:28:+8:6N:116E
ZC6*:Palestine:As:39:20:+2:32N:35E::4X1
ZD4*:Gold Coast, Togoland:Af:46:35:+0:5N:0W
ZD7:St Helena:Af:66:36:+0:16S:6W
ZD8:Ascension Is:Af:66:36:-1:8S:14W
ZD9:Tristan da Cunha & Gough Is:Af:66:38:-1:37S:12W
ZF:Cayman Is:NA:11:08:-5:19N:81W
ZK1:No Cook Is:Oc:62:32:-10.5:10S:161W
ZK1:So Cook Is:Oc:63:32:-10.5:22S:158W
ZK2:Niue:Oc:62:32:-11:19S:170W
ZK3:Tokelau Is:Oc:62:31:-12:9S:171W
ZL:New Zealand:Oc:60:32:+12:41S:175E:ZK-ZM
ZL7:Chatham Is:Oc:60:32:+12.75:44S:177W
ZL8:Kermadec Is:Oc:60:32:+12:29S:178W
ZL9:Auckland, Campbell Is:Oc:60:32:+12:51S:166E
ZP:Paraguay:SA:14:11:-4:26S:57W:ZP
ZS:So Africa:Af:57:38:+2:26S:28E:H5,S4,S8,V9,ZR-ZU
ZS3:Namibia:Af:57:38:+2:22S:17E
ZS8:Pr Edward & Marion Is:Af:57:38:+3:47S:38E
ZS9:Walvis Bay:Af:57:38:+2:23S:15E
1A0:SMO Malta:Eu:28:15:+1:42N:13E:1A~
1M*:Minerva Reef:Oc:62:32:-12:24S:179W
1S:Spratly Is:As:50:26:+7:9N:112E:1S~
3A:Monaco:Eu:27:14:+1:44N:8E:3A
3B6:Agalega & St Brandon:Af:53:39:+4:10S:57E::3B7

3B8:Mauritius:Af:53:39:+4:20S:58E:3B
3B9:Rodriguez Is:Af:53:39:+4:20S:63E
3C:Equatorial Guinea:Af:47:36:-1:4N:9E:3C
3C0:Pagalu:Af:52:36:-1:1S:6E
3D2:Conway Reef:Oc:56:32:+12:22S:175E
3D2:Fiji Is:Oc:56:32:+12:18S:178E:3DN-3DZ
3D2:Rotuma:Oc:56:32:+12:13S:177E
3DA:Swaziland:Af:57:38:+2:26S:31E:3DA-3DM:3D6
3V:Tunisia:Af:37:33:+1:37N:10E:TS,3V
3W:Vietnam:As:49:26:+7:11N:107E:XV,3W
3X:Guinea:Af:46:35:+0:10N:14W:3X
3Y:Bouvet:Af:67:38:+0:54S:3E
3Y:Peter I:An:72:12:-6:69S:91W
4J1:Malyj Vysotskij Is:Eu:29:16:+3:61N:29E
4K2:Franz Josef Land:Eu:75:40:+3:81N:48E::UA1
4S:Sri Lanka:As:41:22:+5.5:7N:80E:4P-4S
4U:ITU Geneva:Eu:28:14:+1:46N:6E
4U:UN HQ:NA:08:05:-5:41N:74W:4U
4W:Yemen:As:39:21:+3:15N:44E:4W
4X:Israel:As:39:20:+2:32N:35E:4X,4Z
5A:Libya:Af:38:34:+2:33N:13E:5A
5B:Cyprus:As:39:20:+3:35N:33E:C4,H2,P3,5B
5H:Tanzania:Af:53:37:+3:7S:39E:5H-5I
5N:Nigeria:Af:46:35:+1:6N:3E:5N-5O
5R:Madagascar:Af:53:39:+3:19S:48E:5R-5S,6X
5T:Mauritania:Af:46:35:-1:18N:16W:5T
5U:Niger:Af:46:35:+1:14N:2W:5U
5V:Togo:Af:46:35:+0:6N:1E:5V
5W:Western Samoa:Oc:62:32:-11:14S:172W:5W
5X:Uganda:Af:48:37:+3:0N:33E:5X
5Z:Kenya:Af:48:37:+3:2S:37E:5Y-5Z
6W:Senegal:Af:46:35:+0:15N:18W:6V-6W
6Y:Jamaica:NA:11:08:-5:18N:77W:6Y
7O:PDR Yemen:As:39:21:+3:13N:45E:7O
7O*:Kamaran Is:As:39:21:+3:15N:43E::VS9K
7P:Lesotho:Af:57:38:+2:29S:27E:7P
7Q:Malawi:Af:53:37:+2:14S:34E:7Q
7X:Algeria:Af:37:33:+0:37N:3E:7R,7T-7Y
8P:Barbados:NA:11:08:-4:13N:60W:8P
8Q:Maldive Is:As,Af:41:22:+5:4N:73E:8Q
8R:Guyana:SA:12:09:-3.75:6N:58W:8R
8Z4*:S Arabia/Iraq NZ:As:39:21:+3:29N:46E
8Z5*:Kuwait/S Arabia NZ:As:39:21:+3:29N:48E::9K3
9G:Ghana:Af:46:35:+0:5N:0W:9G
9H:Malta:Eu:28:15:+1:36N:15E:9H
9J:Zambia:Af:53:36:+2:15S:28E:9I-9J
9K:Kuwait:As:39:21:+3:29N:48E:9K
9L:Sierra Leone:Af:46:35:+0:9N:13W:9L
9M2:West Malaysia:As:54:28:+7.5:3N:102E::9M4
9M6:East Malaysia:Oc:54:28:+8:2N:110E:9M,9W:9M8

```
9N:Nepal:As:42:22:+5.5:28N:85E:9N
9Q:Zaire:Af:52:36:+1:4S:15E:9O-9T
9S4*:Saar:Eu:28:14:+1:49N:7E
9U:Burundi:Af:52:36:+3:3S:29E:9U
9U5*:Ruanda-Urundi:Af:52:36:+3:3S:30E
9V:Singapore:As:54:28:+7.5:1N:104E:S6,9V
9X:Rwanda:Af:52:36:+3:2S:30E:9X
9Y:Trinidad & Tobago:SA:11:09:-4:11N:62W:9Y-9Z
~~:Abu Ail, Jabal at Tair:As:39:21:+2:14N:43E::J2/A
~~*:Blenheim Reef:Af:41:39:+5:7S:72E
~~*:Geyser Reef:Af:53:39:+3:12S:46E
```

1755. Re: Anthropology 101

Newsgroup: rec.ham-radio
Date: 1990-03-20 20:58:03 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003210804.AA11806@ucbvax.Berkeley.EDU>
Source record: 12730

> I had forgotten that LeMay was/is a ham. From my online callbook:
>
> Call: W6EZV
> Class: General <-------HOW APPROPRIATE!
> Name: Curtis E Le May

Now THERE'S someone who should never get an Extra or Advanced!
:-) :-) :-) :-) :-) :-) :-)

1756. Re: Electromagnetic Fields

Newsgroup: rec.ham-radio
Date: 1990-03-20 22:36:30 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840030@hpl-opus.HP.COM>
Source record: 12713

There is a multi-article issue devoted to "Killing Fields"
of "Electronics and Wireless World". (A British electronics mag.)

Either Jan., or Feb.

Covers all the bases including a bibliography.

George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ

1757. High-end HF transcievers

Newsgroup: rec.ham-radio
Date: 1990-03-21 00:10:45 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2648@wyse.wyse.com>
Source record: 12711

Hello folks,

I would be interested to hearing from anyone who has purchased one of the
below radios. Please EMAIL comments to me and I will post a summary of
all comments.

I would like to limit the HF transcievers to the very high end of each
company:

ICOM IC-765
ICOM IC-781
Kenwood TS-950SD
Kenwood TS-940
Yeasu FT-1000 & /D
Yeasu FT-767GX

Thanks in advance....

DE KJ6NN
Phil

1758. Re: Downloading from WSMR-Simtel20

Newsgroup: rec.ham-radio
Date: 1990-03-21 00:37:04 UTC
From: GMoretti@massey.ac.nz
Message-ID: <606@massey.ac.nz>
Source record: 12712

>>> Re unable to find SIMTEL20s pd1 disk

The procedure I use (and it works :-) is:

ftp 26.2.0.74 - connect to SIMTEL20

user anonymous - Now inside FTP
yourname - in reply to the password prompt

dir - (or ls) this will show you the files
at the top level.

cd pd1:<msdos.hamradio> - change to the HAMRADIO directory on pd1

dir - see what's there
- there's a file called 00-index.txt
which is an ascii file of one line descriptions

get 00-index.txt - ignore the semicolons and the numbers after
the filenames (probably version numbers)
THIS IS AN ASCII transfer (default mode),
OK 'cause it's text

tenex - Tell simtel to transfer BINARY files
DON'T use the BINARY command - it appears to work
but a 128K file expanded to 178K. Use binary
when transferring from UNIX/VMS machines.

get sm309.arc - get SUPERMORSE - it's an ARC file, must be in
TENEX mode.

get xxx.arc - the mode stays in TENEX until you give the ASCII
command.

quit - close connection & exit ftp

If the your path is a bit slow, type HASH before doing any GETs, it will print
a # after each 1000 or so character, just to let you know how it's going.

As I remember, there's some intro documentation at the top level.

Hope this helps,

Giovanni ZL2BOI
--

GIOVANNI MORETTI, Consultant	EMail: G.Moretti@massey.ac.nz
Computer Centre, Massey University	Ph 64 63 69099 x8398, FAX 64 63 505607
Palmerston North, New Zealand	QUITTERS NEVER WIN, WINNERS NEVER QUIT

1759. Re: DAYTON!

Newsgroup: rec.ham-radio
Date: 1990-03-21 01:40:03 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500458@ux1.cso.uiuc.edu>
Source record: 12714

How about renaming it the NETWORKING SUITE?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1760. Re: Forgiving the League for Incentive

Newsgroup: rec.ham-radio
Date: 1990-03-21 01:40:13 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500457@ux1.cso.uiuc.edu>
Source record: 12715

> > From: phil@ux1.cso.uiuc.edu
> >
> > I do not want to start having the FCC type-accepting ham gear, even though
> > some hams can be using the non-type-accepted gear. It will just end up
> > raising the prices for everyone.
>
> We traded messages earlier on HAMLICEN about type-acceptance and the Canadian
> plan. If I understand the latter correctly, it does not require type-
> acceptance, just commercial manufacture. That's not radically different from
> the present de facto situation. The Canadian plan just makes it de jure. And
> "commercial manufacture" could be extrapolated to include kits.

My response was directed at someone who posted an idea to actually have a lower class of "ham" using type-accepted equipment. They actually used the terrible phrase "type-accepted".

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1761. Re: last saturday! Wow!

Newsgroup: rec.ham-radio
Date: 1990-03-21 03:11:20 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Mar21.031120.20185@NCoast.ORG>
Source record: 12733

As quoted from <11785@cadnetix.COM> by rusty@cadnetix.COM (Rusty Carruth):
+---------------
| Which reminds me - I had an email message a while back which said that
| I should not work HF SSB because it would ruin my upgrading. Not so!
| Making contacts on HF only makes me fear the time when 10m becomes a
| local-only band... No way do I want to be a Tech when the sunspots
| change! This is too much fun!
+---------------

That tears it: I'm going for my ticket this weekend, in hopes of being on the
air before things fade out too much!

++Brandon
--
Brandon S. Allbery (human), allbery@NCoast.ORG (Inet), BALLBERY (MCI Mail)
ALLBERY (Delphi), uunet!cwjcc.cwru.edu!ncoast!allbery (UUCP), B.ALLBERY (GEnie)
BrandonA (A-Online) ("...and a partridge in a pear tree!" ;-)

1762. Address of Wyman Research

Newsgroup: rec.ham-radio
Date: 1990-03-21 04:50:42 UTC
From: lawrence@smcnet.UUCP
Message-ID: <726@smcnet.UUCP>
Source record: 12717

Does anyone have the address of Wyman Research. They are the manufacturers of amateur television exciters. While you are looking though your files, think of any comments that you might have on their products. Any response would be greatly appreciated.

73's
--

Lawrence Roney - Santa Monica College Telecommunications Department
KC6HQR 1900 Pico Blvd., Santa Monica, CA 90405-1628
Mail: uunet!ucla-cs!smcnet!lawrence or ...!csun!smcnet!lawrence

1763. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-21 04:54:19 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880136@hpfcdc.HP.COM>
Source record: 12707

Re: This OM needs help !

This guy might be one of those people who simply cannot learn code. I've seen it before.

While I'm not a VE, the guys I've taken tests from wouldn't mind the verbatim dot-dash copy and translation. I suggest that the OM write it down like this: |...| This takes less horizontal space on the paper, so less time is spent on the carraige-return. Also, if the OM understands binary trees, that is a good way to memorize Morse Code. In this scheme, 0=dit, 1=dah. Make up a balanced btree, assigning dits and dahs, then create a silly saying to remember the tree.

E T
I A N M
S U R W D K G O
H V F * L * P J B X C Y Z Q * *

Something like "Extra Terrestrials In A New Mexico Sun Use Running Water (for) DrinKinG Or HaVing Fun."

You get the idea. Good luck to your friend, and condolences to the family. :-)

Perry

1764. Re: Forgiving the League for Incentive Licensing

Newsgroup: rec.ham-radio
Date: 1990-03-21 05:05:38 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880137@hpfcdc.HP.COM>
Source record: 12708

>A person could have either a RO, a TO, or a ROTO (combination) license.

...and if you were really enthusiastic, you would be a ROTO-rooter !

I liked the procedural questions. They should be included in the
pool. One response that was missed on the AZ emergency:

E) All of the above, then turn on the linear.

Perry/KF0CA

1765. Re: VE Schedule for NE?

Newsgroup: rec.ham-radio
Date: 1990-03-21 06:36:52 UTC
From: w1gsl@athena.mit.edu
Message-ID: <1990Mar21.063652.10871@athena.mit.edu>
Source record: 12724

In article <34085@genrad.UUCP> dls@genrad.com (Diana L. Syriac) writes:
>
>
>Meanwhile, I still need the VE Schedule for New England (ie, Central Mass and
>Southern New Hampshire). Is there some kind soul out there who can get this
>data off the packet radio and email it to me instead? (At least email is
>reliable.....:-(
>

I don't have the sked for all NE but

Exams for all class of Amateur License are given every month at MIT in
Cambridge MA.

They are given on the Wednesday evening before the last Wed. of every
month at 7:30 PM in Room 1-150. Walk ins are acepted as long as room is available.
Bring a photo copy of your present license if any, 2 forms of photo ID,
$4.95 in cash, and a completed form 610 (available from the FCC in
Quency MA) For more info contact Nick at 617 253 3776.

MIT's entrance is located at 77 Mass Ave and posters should lead the way
to room 1-150. Ample free parking is available in the evenings.

73 Steve F
W1GSL

1766. Re: NPRM 90-55 - No test code

Newsgroup: rec.ham-radio
Date: 1990-03-21 06:58:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500459@ux1.cso.uiuc.edu>
Source record: 12732

> Just a personal opinion but if children of 7 years of age, and people
> of 75 years of age can learn International code at 10 wpm (the current
> Canadian requirement for HF priviledges) then I don't see how anyone
> can not learn it at 5 wpm! A lot of the trouble is that people just
> don't want to be told you *have* to do something. Just an opinion.

Here is an example of statements which are truthful, but by virtue of
their incompleteness, can be misleading.

The statement about people of 7 and 75 learning code is not complete.
There is no evidence that this capability is existant in 100% of the
population at 7, 75, or anywhere in between. Sure, many people at these
extreme ages can and do learn code. It is a safe assumption that many,
and quite possibly many more, people in between can and do learn code.
No one can truthfully say that everyone can learn code.

The opinion that people don't want to learn what they are told to learn
is also not complete. While some may not want to just for that very reason
alone, many others do not want to IN CONJUNCTION with the fact that they
know that learning code is not going to help them in what they happen to
be interested in doing. Some people don't like being told that they have
to learn something they know they are not going to use and will do them no
good. This does not apply to everyone, because not everyone falls into the
category of "will not be using code"; but some people are in this category.

Further, because hams have (and certainly at least in the past this has
been MOST hams) wanted everyone to pass a code test to "get in", the
"outsiders" who were interested in other things looked upon the hams, and
the amateur radio service itself, as having an "attitude problem".
Probably everyone has an attitude "problem", but some of us are just not
making much of an effort to get along with those who have a DIFFERENT
attitude problem.

> BTW, I am not an objector to a no-code intro level licence, there is a
> VHF only n0-code going into effect here next September and I think it
> will be a benefit to the hobby but I can see all sorts of problems with
> a no-code HF licence.
>
> 73, Dean VE1CBF

From my understanding, the Canadian restructuring does not involve any
no-code HF license class. Unless and until such a thing is proposed,
you should not have too much to worry about. In fact, something very
close to the Canadian system is being discussed by some as a possible
structure for the United States (it even has the correct number of
classes for the FCC computer system).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1767. Satelite data link info WANTED

Newsgroup: rec.ham-radio
Date: 1990-03-21 07:04:32 UTC
From: w1gsl@athena.mit.edu
Message-ID: <1990Mar21.070432.11914@athena.mit.edu>
Source record: 12725

I am looking to set up a data link, probably full duplex, between a high altitude ultra long duration atmospheric research aircraft and a ground station.

On the order of 4800 bits per second of data is to be transfered. Both telemetry and control is being communicated so the transfer must be real time. (well almost)

Over most of the proposed flight paths any number of synchronous comm sats would be visible to both aircraft and the ground control.

** What is the availability of low bandwidth transponder channnels, who rents them out, how much do they cost?

** Who makes the "ground" stations? Light weight and an omni directional nontracking antenna for the aircraft would be a big plus.

** What are the coverage areas of the satellite receivers? Are their footprints only aimed at land areas?

Thanks in advance.

****
Steve Finberg
PO Box 82 MIT BR, Cambridge MA 02139
617-258-3754
w1gsl@athena.mit.edu
W1GSL voice on W1XM/R 449.725 PL 2A
****

1768. Anthropology 101

Newsgroup: rec.ham-radio
Date: 1990-03-21 08:04:47 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9003210804.AA11731@ucbvax.Berkeley.EDU>
Source record: 12728

I N T E R O F F I C E M E M O R A N D U M

Date: 20-Mar-1990 10:02am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL)

Subject: Anthropology 101

>Phil Karn asks "how come the hams who rise to prominent national positions
>always seem to be right wing extremists?"

>Maybe all those folk in the middle prefer them to left-wing extremists :)

Right! When I get up there, I'll be sure to remember y'all :-).

>General LeMay put together the most awesome air strike force ever known.
>For more than 40 years this force, the Strategic Air Command, has managed
>to conduct thousands of operations involving nuclear weapons without ONCE
>ever having a serious mishap. Under LeMay's guidance, the most knowledgeable
>highly disciplined, and competent military force ever assembled has been
>THE most effective deterrent to global warefare. The B36 bomber was the
>first global bomber. Its very existence provided the psychological reason
>to think twice about any subsequent (to Pearl Harbor) attack on the U.S.
>When the B36 became to low and slow, there followed the B47 and B52. The
>B58, first supersonic hi-altitude bomber was "un-defendable" during its day
>and so, also, was an effective deterrent.

Thanks! You said it more eloquently than I ever could. Unfortunately, you
did leave out the incident where they dropped a couple of unarmed (obviously)
H-bombs either on Spain or just off the coast back in the late 60's (details
escape me at the moment, please don't flame). To this day, that's one of the
big reasons the Spanish don't like our bases there.

>Except for the B52, which was used in the Viet Nam war, NONE of these ever
>fired (excuse me) dropped a weapon in anger. I believe that this stands
>in obvious testimony of his dream (yes, "right wing extremists" have dreams
>of peace too). It is no accident that the sign (humorously portrayed in
>Dr. Strangelove) "PEACE IS OUR PROFESSION" stands proudly at the entrance
>to every SAC base. Class dismissed........

>Dube Todd N5PDK

We sometimes used the "Peace is our Profession" motto on the Griffiss AFB
(416 BMW (H) (SAC)) club repeater (WA2ZXS) whenever we'd manually ID the

thing (e.g., one of the club members would grab the local mike of the repeater and blurt it out, usually during club meetings).

See, I knew I could get this post around to ham radio eventually :-).

Jeff Miller, WD6CQV/KH6 | "Just because I'm a Californian,
USAF MARS: AFA8JM | it doesn't mean I'm not an
Chief, Engineering Workload Control | American!"
1843 EIG/EIP | -- Agnes DiPesto,
Wheeler AFB, HI 96854-6348 | "Moonlighting"
Commercial: (808) 656-1226 |
AUTOVON: (315) 456-1226 |

Opinions? Me? On government time? Ya gotta be kidding!

1769. Re: Anthropology 101

Newsgroup: rec.ham-radio
Date: 1990-03-21 08:32:22 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21136@bellcore.bellcore.com>
Source record: 12734

In article <9003192059.AA25965@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>General LeMay put together the most awesome air strike force ever known.
>For more than 40 years this force, the Strategic Air Command, has managed
>to conduct thousands of operations involving nuclear weapons without ONCE
>ever having a serious mishap.

Uh, I wouldn't be so definite. In the back of the fascinating book "US Nuclear Weapons" by Chuck Hansen (1988, Orion Books, ISBN 0-517-56740-7) is a list of "Broken Arrow" incidents (accidents involving nuclear weapons). Hansen described 32 in the period 1950-1980. Most of the accidents involved aircraft, including the famous incident off the coast of Spain in 1966 when a B-52 carrying four MK28RI bombs (with rated yields as high as 1.45 megatons each) collided with a tanker during an in-flight refueling operation. The bombs in this particular case were recovered. But if the descriptions of some of the other incidents can be believed, there is more than one nuclear weapon sitting on the ocean floor, waiting to be discovered someday. (Sounds like an idea for a novel...)

The author added a footnote explaining that other, additional accidents still remain classified. One can only wonder what THEY involved.

I can highly recommend this book to anyone with an interest in the history of nuclear weapons. It's not a literary epic like Rhodes' "The Making of the Atomic Bomb", but he picks up where Rhodes left off (the development of thermonuclear weapons). The book contains a LOT of technical details, including those the government tried to keep a magazine from publishing in 1979.

By the way (just to relate this somehow to ham radio) if you are going to Dayton this year, consider going a day early and spending a day at the US Air Force Museum at Wright Patterson Air Force Base. Scattered among the many airplanes are quite a few nuclear weapons (okay, weapon *cases*) including Little Boy and Fat Man. Somehow, seeing them "in the flesh" made the arms race and the potential of nuclear war suddenly seem a lot less abstract to me.

Phil

1770. reaching Jeff Miller

Newsgroup: rec.ham-radio
Date: 1990-03-21 12:41:43 UTC
From: ginsburg@samsung.com
Message-ID: <9003211341.AA22677@imposter>
Source record: 12716

Is this the appropriate address with which to reach Jeff Miller,
WD6CQV/KH6?

--

Scott Ginsburg WA2CJT Voice: 508-685-7200 FAX: 508-685-4940
Samsung Software America Internet: ginsburg@samsung.com
Andover, MA

1771. Global Positioning System status report on WWV/WWVH

Newsgroup: rec.ham-radio
Date: 1990-03-21 13:40:35 UTC
From: LANG@UNB.CA
Message-ID: <ID6323.D900321.T094036.LANG@UNB.CA>
Source record: 12718

Yesterday WWV (and presumably) WWVH began broadcasting reports on the status of the Global Positioning System. The WWV broadcast is at 14 minutes past the hour and is repeated during the following minute. The Omega navigation system status report continues to be broadcast at 16 minutes past the hour. Although I have not heard it yet, I imagine that the GPS report on WWVH is given at 45 and 46 minutes past the hour just before the Omega report at 47 minutes past. Can someone confirm this?

By the way, WWV was predicting a major geomagnetic storm for today. Anyone notice any effects on SW?

==========
Richard B. Langley BITnet: LANG@UNB.CA or SE@UNB.CA
Geodetic Research Laboratory Phone: (506) 453-5142
Dept. of Surveying Engineering Telex: 014-46202
University of New Brunswick FAX: (506) 453-4943
Fredericton, N.B., Canada E3B 5A3
==========

1772. Modem tax on phone lines.

Newsgroup: rec.ham-radio
Date: 1990-03-21 14:09:00 UTC
From: PLB@PSUARCH.BITNET
Message-ID: <9003220921.AA10239@ucbvax.Berkeley.EDU>
Source record: 12719

It just came to my attention that the FCC is considering an
additional tax for modem use of telephone lines...
Does anybody have any information/comments/suggestions...?
This is my first posting, so please forgive if inappropriate.

Pier L. Bandini, Dept of Architecture, Penn State University.
PLB@PSUARCH.bitnet

1773. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-21 14:17:39 UTC
From: rusty@cadnetix.COM
Message-ID: <11800@cadnetix.COM>
Source record: 12720

In article <132888@sun.Eng.Sun.COM> jneher@tenorman.Sun.COM (Jonathan Neher X62863) writes:
>Does anybody have a recommendation for a qsl card
>maker?

I got mine from a place in Texas... Lets see, 'The best printshop in Texas'? Anyway, the expression 'He is a ham' definately has two meanings with them :-).

My major reasons for choosing them were: they were pretty fast, and pretty cheap. They had some real nice-looking cards, but my card budget is not where I would like it... In any case, I'm relatively satisfied, except that I felt that the printing was not quite as dark as I had expected. Not bad, but not quite as thick on the printing as I had expected from the samples. (but that may be because of my choice of colors...) Bottom line - cheap, pretty fast delivery, not bad quality. If thats what you are looking for, you might want to check them out. If I've got the name wrong, and you cannot find a print shop in Texas with a cute name by looking through QST, email me and I'll look it up.

73 de rusty

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1774. Re: anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-21 15:09:33 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003220915.AA09845@ucbvax.Berkeley.EDU>
Source record: 12721

Actually, Litz wire is probably more commonly available now than it was a couple decades back. There has been a LOT of interest in it in audiophile circles. Many of the high-priced interconnects are made with Litz wire, and many audiophile equipment-builders use it for internal wiring of components or modifications to factory gear.

Unfortunately, it doesn't seem to be easily located. I'm sure that's why you posted the query. I just checked 4 of the major electronic-distributor thick catalogs and couldn't find "Litz wire" or ("Litz" listed under the "wire" or "cable" categories) in their indices. I bet these people DO sell the stuff; it just is listed under some other name or terminology.

Somewhere around the house I have a catalog with a batch of samples of Litz wire from some vendor; if I find it I will post the source. I suggest you post a copy of your inquiry on the USENET "audio" group, if you have USENET access, or mail a query to "info-high-audio@csd4.csd.uwm.edu" (the high-end audio mailing list); there are audio-gear builders there who might have info on current Litz wire sources at their fingertips.

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

1775. DUAL-BANDER QUESTIONS/SUGGESTIONS ??

Newsgroup: rec.ham-radio
Date: 1990-03-21 15:40:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9003220921.AA10311@ucbvax.Berkeley.EDU>
Source record: 12722

1. Anyone know a MOD for expanding the Kenwood TH-75 Dual-Band Handy beyond 455 Mhz ?? Presently the MOD I made on it allows me Tx Rx from about 395 Mhz. I'd rather have the High UHF range.

2. I had an Icom 3210A but sold it because it couldn't do cross-band repeating with an offset. I'd appreciate feedback from readers as to what they suggest. Seems like the price of two separate xcvrs isn't too far off what some of they "Dual-Banders" are going for.

Feedback is welcomed and appreciated

1776. Re: Re: NPRM 90-55 - No test code

Newsgroup: rec.ham-radio
Date: 1990-03-21 15:47:18 UTC
From: labelle@hpl-opus.HP.COM
Message-ID: <64840032@hpl-opus.HP.COM>
Source record: 12735

> Dean VE1CBF writes:
> Just a personal opinion but if children of 7 years of age, and people
> of 75 years of age can learn International code at 10 wpm.......

>...... and I think it
> will be a benefit to the hobby but I can see all sorts of problems with
> a no-code HF licence.

When ham radio began, CW is ALL THERE WAS. It made some sense then
to require proficiency in CW to "get on the air".
CW, now, is just a novely mode - with the exception of truly
week signal communications. Therefore there is no reason why
proficiency in CW should be a requirement to obtain a ham
license; considering that many people never use it again, and it
is just an unwarranted stumbling block to many technically
inclined persons who could and would "advance the state of the art"
in the many other areas of radio communications - Frequency
compaction, Microwaves, Software.. etc. These things didn't even
exist when ham radio began. We are losing the benefit of
their contributions by maintaining an archaic, hand-eye coordination
skill, as a requirement for gaining access to a, now, multi-faceted
technical hobby. Computers and bulletin boards are where all the
modern day potential hams practice a hobby, now.

I maintain that to use the airwaves, and gain access to this
great hobby, there should be only a few requirements. The individual
should be aware of the rules and frequency allocations. They should
have enough technical knowledge to properly operate their equipment
and be able to solve interference problems if they arise. Maybe a
sound introduction to curteous operation would also be in order -
and that's it.

Let's open up the hobby so more people can take advantage of the
opportunities and by so doing, increase the strength of amateur
radio and increase public technical knowledge.

George La Belle uucp: hplabs!hpl-opus!labelle
Hewlett Packard Labs smtp: labelle@hpl-opus
P.O. Box 10490 arpanet: labelle%hpl-opus@hp-sde.hp.com
Palo Alto, Ca. 94303 hpdesk: GEORGE LABELLE /HP1900/UX
phone (415) 857-4679
ham WB6YZZ

1777. Re: VE Schedule for NE?

Newsgroup: rec.ham-radio
Date: 1990-03-21 15:55:38 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003220915.AA09887@ucbvax.Berkeley.EDU>
Source record: 12723

>Bring a photo copy of your present license if any, 2 forms of photo ID,
^^^^^^^^^^^^^^^^^^^

This is off the original subject by far, but the above caught my eye.
Does the average person these days *have* 2 photo IDs?
-
I guess all drivers licenses these days have photos; at least mine does (Missouri). But the only other photo ID I have is my workplace badge. That's because it is a military organization. I know many of my friends who work in other fields, such as teachers and assorted private industry jobs, have no such badges issued to them. Do most school/college ID cards now have photos? (They didn't when I went to school in the '60's.)

I'm guessing many non-drivers may not have *any* photo ID. I guess you can always go to one of those outfits that sells photo-ID cards, but they are of course worthless as real ID.

Does this requirement cause any problems? Anybody else out there have comments on the issue of photo-ID?

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

1778. Re: Australian ATV

Newsgroup: rec.ham-radio
Date: 1990-03-21 16:34:42 UTC
From: johnh@hpubvwa.HP.COM
Message-ID: <2880007@hpubvwa.HP.COM>
Source record: 12726

It is possible to get LPTV licenses in the US (translator stations use this license) and use a commercial channel.

John Hays, KD7UW

1779. "Currents of Death" - Followup

Newsgroup: rec.ham-radio
Date: 1990-03-21 17:00:17 UTC
From: john@anasaz.UUCP
Message-ID: <1478@anasaz.UUCP>
Source record: 12727
Cross-posted to: sci.med,sci.electronics,rec.ham-radio

I recently posted a request for information about the effects of ELF electromagnetic fields on health. This was triggered by a cancer cluster in Santa Barbara, CA and Paul Brodeur's book "Currents of Death." I got surprisingly few responses, but they were quite useful, so I thought I would post them for the net.

First, a summary. Currents of Death is a very sensational book by Paul Brodeur which alleges serious health effects from low frequency, low level electromagnetic fields, such as caused by power distribution or CRT sweep circuitry. I was basically very skeptical because of the tone of the book, and the difficulty of explaining biological effects of signals that are way below the thermal noise level in tissue.

One poster referred me to a book review in the April, '90 Scientific American. This review (4 pages long) gives a very good introduction to the controversy. It also refers to an OTA document (which I plan to order) for more information. The gist of the review is that the book does a disservice due to its sensationalism, but that there is enough evidence of biological effects that more research and some prudent concern is warranted.

I also received a call from Abraham Liboff, one of the researchers mentioned in the book. He said that he and others have done a lot of research which shows biological effects of ELF (extremely low frequency) magnetic fields. His research is in the area of ion transport. He has seen "profound effects" in some experiments. He said that there is as yet no good theory as to the mechanism of the effects - a "delicious scientific problem" is how he termed it. Basically the problem is that the effects of the low level magnetic fields are very small compared to thermal effects (kT noise) and thus its hard to come up with a mechanism that will allow the magnetic field to have a net effect. He did mention another researcher (sorry, didn't write down the name) who has done stochastic modelling under those conditions that did show some net effect. He also stated that he felt that higher frequency signals would probably not cause problems (due to their great attenuation when penetrating the body), and that small electric fields would have no effect. This is not surprising, since the body is a pretty good conductor, making it hard for these fields to be concentrated to a high gradient, and cells naturally have very high gradient fields across the membrane. One exception to this is high frequency fields amplitude modulated at an ELF frequency. My thanks to Dr. Liboff for his concern and his time.

It's interesting to note that Brodeur also wrote "The Microwaving of
America", which was a scare book of the seventies claiming that
low level microwaves were causing a big problem.

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

1780. Re: Electromagnetic Fields

Newsgroup: rec.ham-radio
Date: 1990-03-21 17:38:05 UTC
From: pierson@cimnet.dec.com
Message-ID: <972@ryn.esg.dec.com>
Source record: 12736

Another source on this is:
Biological Effects of Power Frequency Electric And Magnetic Fields.
US Government Printing Office
$4.75
Stock Number 052-003-01152-2

This reports on some experiments in detail, and provides an _extensive_
bibliography. It was prepared by researchers at Carnegie-Mellon, under
contract to the Office of Technology Assessment (which is an arm of Congress,
I think....). Government Printing Office bookstores can be found in many
cities (they also sell FCC rules...8)>>)

thanks
dave pierson |the facts, as accurately as i can manage
Digital Equipment Corporation |the opinions, my own
600 Nickerson Rd
Marlboro, Mass
01752 pierson@cimnet.enet.dec.com
"He has read everything, and, to his credit, written nothing." A J Raffles

1781. Re: anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-21 18:32:27 UTC
From: mikew@hpsad.HP.COM
Message-ID: <1530041@hpsad.HP.COM>
Source record: 12737

> From: beale@sierra.Stanford.EDU (John P. Beale):
>
> A colleague of mine is interested in finding out about litz wire-

> I gather that Litz wire is a bundle of finely stranded wires with
> each strand insulated from the others, thus having lower losses at
> very high frequencies than solid wire with the same cross section,
> assuming the skin depth is smaller than the radius of the wire.

Yes, that's the stuff. In fact the losses due to skin effect
resistance will be lower than for solid wire even if the skin depth is
not smaller than the wire radius., although the benefit might be
diminished in the extreme case. (operating frequency --> DC)

> I understand that this stuff was often used in low-loss inductors
> and the circularly-wound indoor antennas found on early BC-band radio
> receivers.

Well, it is still very popular in switching power supply design, where
high currents and high frequency (10s and 100s of kHz) exist together.
Litz wire is used in the windings of transformers and chokes where
long pieces of wire are needed to carry high current with low
resistive losses. Another technique commonly used is to wind a
winding with thin copper strap. This, like litz wire, has a high
surface area-to-volume ratio, and also has the benefit of a
self-inductance which is lower than litz wire.

> It seems to be hard to find mention of it these days,
> though, although the laws of physics haven't changed in 50 years and
> whatever advantages it had then should still apply. Perhaps the
> nuisance value of soldering all those little strands together was the
> problem; I don't know.

It's actually very easy to solder: one dips the end into a solder pot
which melts away the insulation and tins the wire simultaneously.
>
> Anyway, if you have a current source for the stuff, I'd appreciate
> hearing from you! -- N8JUF beale@sierra.stanford.edu --

I have a list of half a dozen manufacturers if that's what you're
looking for...email me if you'd like it.

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsadmjw.hp.com

mikew%hpsad@hp-sde.sde.hp.com

Hewlett-Packard Co. Volunteer firefighter/EMT
Signal Analysis Div. Penngrove Fire Prot. Dist.
1212 Valley House Dr. Penngrove, CA
Rohnert Park, CA 94928
(707)794-4454
****

1782. QSL routes needed

Newsgroup: rec.ham-radio
Date: 1990-03-21 18:47:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9003220921.AA10277@ucbvax.Berkeley.EDU>
Source record: 12731

Can anyone provide QSL route info for:

TI10E (Costa Rica - 10th district?)
ZK1XC (So. Cooks. The ZK1X... calls are recycled frequently.
I need the current (3/90) addr, not the 1989 addr in
W6GO's list).

Also, can any of you DX mavens tell me whether a 1961 contact
with KG1FR (Sondrestormfjord ARC) qualifies for DXCC credit for
Greenland? The ARRL's current DXCC country list shows only OX
as Greenland. KG1 was used for US forces in Greenland in the
60's.

1783. Re: anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-21 19:02:38 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230015@hpfcdj.HP.COM>
Source record: 12740

> I gather that Litz wire is a bundle of finely stranded wires with
>each strand insulated from the others, thus having lower losses at
>very high frequencies than solid wire with the same cross section,
>assuming the skin depth is smaller than the radius of the wire.

Absolutely correct, with the extra note that true Litz wire will have braided strands (as opposed to the simple twisting of normal stranded wire) so that each strand follows the same average path. I believe that this is an attempt to hold down the self-inductance that a simple helical path would give.

I don't have a source handy, although any of the major wire manufacturers probably make it. It IS still in use - look, for example, at the deflection yokes on various very-high-resolution monitors.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

1784. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-21 20:56:38 UTC
From: dalyb@godzilla.UUCP
Message-ID: <4955247a.1423f@godzilla.UUCP>
Source record: 12739
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <16508@orstcs.CS.ORST.EDU>, liud@guille.ECE.ORST.EDU (Don Liu) writes:
> In article <3034@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
> >I have noticed (for some time now) a sweeping carrier
> >passing through the HF bands. It appears both in the
> >amateur HF bands and other HF frequencies as well.
>
> >Anybody have any explanations?
> >Thanks in advance,
>
> These are the SPREAD SPECTRUM communication signals. There are
> usually two modulating signals. One is the useful signal which
>
Spread spectrum signals would not be received as a "continuously" sweeping carrier, as the original article mentions. There are two types of spread spectrum -- frequency hopping, ans pseudo-random noise. In frequency hopping, the carrier is "hopped" over many frequencies, not a continuous sweeping. In PN, the bandwidth of the signal is spread and requires special detection circuits -- not something that would be picked up be your everyday SW receiver.

My quess is the continuous sweeping is some sort of OTH backscatter radar.

73's.

--
Brian K. Daly WB7OML @ AG Communication Systems, Phoenix, Arizona
UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att}!gtephx!dalyb
Phone: (602) 582-7644 FAX: (602) 582-7111
~

1785. Namibia

Newsgroup: rec.ham-radio
Date: 1990-03-21 21:45:43 UTC
From: oo7@ut-emx.UUCP
Message-ID: <26599@ut-emx.UUCP>
Source record: 12738

Namibia's independence is being celebrated on the air at the moment.
Listen for V51NAM (Victory 51 NAMibia) and give them a call to help
celebrate. I've heard them on 10 and 20 ssb - in fact there were 2 or
3 stations on 20m at the same time with this call. I don't have the QSL
route, but they were asking that you get the op's name and put it on your
card so that they can figure out which station you worked. (Namibia used
to be ZS3, and was counted separately from ZS1 et al for DXCC purposes, so
the main change for DXers is the new prefix, if you are into such things).

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

1786. Re: anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-21 21:58:04 UTC
From: markz@ssc.UUCP
Message-ID: <571@ssc.UUCP>
Source record: 12744

In article <579@sierra.stanford.edu>, beale@sierra.Stanford.EDU (John P. Beale) writes:
>
> A colleague of mine is interested in finding out about litz wire-
> past and present manufacturers, performance data (specifically
> attenuation versus frequency, eg from skin effect in an antenna
> application), and from whom any might be available today.
> I gather that Litz wire is a bundle of finely stranded wires with
> each strand insulated from the others, thus having lower losses at
> very high frequencies than solid wire with the same cross section,
> assuming the skin depth is smaller than the radius of the wire.

From "Optimum Wire Size for RF Coils", Charles J. Michaels, W7XC,
QEX number 66, August 1987

"For those interested in the low frequency experimental band at 160-190
Khz, Litz wire can be used to increase Q. For most amateurs, however, Litz
wire is of no advantage; its effect disappears at frequencies above about
0.8 Mhz."

markz@ssc.uucp

1787. Litz wire.

Newsgroup: rec.ham-radio
Date: 1990-03-21 22:43:00 UTC
From: bob%50781.decnet@wpafb-ams1.af.mil
Message-ID: <9003220922.AA10350@ucbvax.Berkeley.EDU>
Source record: 12741

I don't know about Litz wire but if you really get desperate, look in the Thomas Register. Any larget library should have it. Call 'em up and ask for a distributor in your area.

Bob N5GNA

P.S. Re: Phone tax on modems.

Please don't start that again.

1788. Re: BOOKS

Newsgroup: rec.ham-radio
Date: 1990-03-22 02:53:00 UTC
From: robert.bonenfant@canremote.uucp
Message-ID: <90032122263545@masnet.uucp>
Source record: 12743

HI TO ALL

Can anyone tell me the address for the mag. called "THE SECRECT
C.B.", i known i'm in the ham conf. but Who better to ask about these
types of books. anyway i'm interested in this in knowning the address or
a book store in the toronto area that would care this type of mag.

Thanks
Robert Bonenfant
---
* Via ProDoor 3.1R

1789. re: Licensing in Alberta (specificly in Calgary).

Newsgroup: rec.ham-radio
Date: 1990-03-22 04:51:04 UTC
From: Ken.Crowston@weyr.FIDONET.ORG
Message-ID: <608.2608872F@weyr.FIDONET.ORG>
Source record: 12742

Re: Ham Licence Canada (Calgary)

Try looking up Communications Canada in the phone book under Government of Canada. If there is no office in Calgary, there should be one in Edmonton.

If all else fails - call information and ask for the nearest Communications Canada office. That should get you started in the right direction.

Good luck and 73's - hope to meet you on the air soon.

VE5KEN - Ken, Saskatoon, Saskatchewan

--
Ken Crowston - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Ken.Crowston
Internet: Ken.Crowston@weyr.FIDONET.ORG
Standard Disclaimers Apply...

1790. Amateur Rules in France, Germany, Spain, Italy & Austria

Newsgroup: rec.ham-radio
Date: 1990-03-22 08:38:48 UTC
From: mrapple@quack.UUCP
Message-ID: <5212@quack.UUCP>
Source record: 12747

I'm visiting Europe this Summer and am going to take my 2M HT with
me. I have sent away for reciprocal permits for France, Germany,
and Spain, and will also obtain permits in Italy and Austria.
I have already received the French permit. My next question concerns
operating procedures & rules.

Could anyone familiar with rules and/or customs in any of these
countries please send me some basic guidelines and/or differences
from the way things are done in KNW land? I'd hate to get my permit
pulled simply because I was an ugly American. :-) I speak bueno
turisto Spanisho, but can't speak a word of French, German or
Italian to save my life. I'm hoping I can use IPA to give my callsign
(e.g. Foxtrot slant November Six Quebec Quebec Quebec) and find some
English speaking repeaters out and about. I've checked and I can train
my rig to do 12.5kHz stepping, but I don't have any tone burst, and
I understand PLs aren't used over there.

Thanks in advance for any European operating advice.
--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
---------------------------------+---------------------------------
quack!mrapple@uop.edu ! (frying pan) This is school.
...pacbell!sactoh0!quack!mrapple ! (egg) This is your brain.
N6QQQ (145.75 - TCP/IP soon) ! <<sizzle>> This is your brain in school.

1791. Re: Modem tax on phone lines.

Newsgroup: rec.ham-radio
Date: 1990-03-22 15:17:29 UTC
From: rfc@briar.philips.com
Message-ID: <88010@philabs.Philips.Com>
Source record: 12756

In article <9003220921.AA10239@ucbvax.Berkeley.EDU> PLB@PSUARCH.BITNET ("P Bandini, PSU Arch Dept, 814/863-0062") writes:
>It just came to my attention that the FCC is considering an
>additional tax for modem use of telephone lines...

This got mentioned a few months ago. This appears to be a dead issue; the FCC canned this idea. (At least according to traffic on the Net several months ago). This rumor surfaces every few months, but I think it can be safely ignored.

73 de WA2ISE

1792. Bearcat 100XLT experience

Newsgroup: rec.ham-radio
Date: 1990-03-22 16:40:09 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9003230850.AA00775@ucbvax.Berkeley.EDU>
Source record: 12757

I have owned a Bearcat 100XLT for about four years. They are terrific scanners for general purpose monitoring. Mine has traveled with me on storm chases as well as doing daily duty as a police/fire monitor.

The battery life is very good. Mine generally gets 6 hours of continuous usage monitoring high volume channels. I am still using the original battery that was shipped with the unit.

I do have a problem with IM at my location. I don't really blame the scanner for all of it since I am extremely close (less than 1/2 mile straight line) to two of the transmitters. I can't really compare this radio to others since it's the first scanner I have had for any length of time.

Highly recommended.

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

1793. Re: Anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-22 16:59:31 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003221758.AA04085@ti.com>
Source record: 12758

In "Reference Data For Radio Engineers" (1977, Howard W. Sams), under the heading "Audio Filter Reactors (Coils) it states:

"Audio filter reactors.....are inductances that have the following qualities: (A) High quality factor (Q); and (B) Stable inductance with variations in frequency, operating level, and temperature.....(deleted discussion of distributed capacitance)....Rw (representing the copper losses in the winding) is made up of the dc resistance of the wire and the eddy-current losses generated in the winding. This eddy-current loss can be minimized athigh frequencies by dividing the wire into many small wires. This type of wire is called Litz wire." Notice that the term "high frequencies" is used in the AUDIO context, not the overall frequency spectrum.

This book is certainly not the "last word" on the subject, but since I don't see much widespread use of Litz wire in RF coils, my gues is that its advantage over solid wire is minimal (or at least not cost-effective).

There's no mention of the use of this wire anywhere else in the book.

Dube Todd, N5PDK

1794. Re: Modem tax on phone lines.

Newsgroup: rec.ham-radio
Date: 1990-03-22 17:27:00 UTC
From: stevedak@cpe.UUCP
Message-ID: <37400010@cpe>
Source record: 12749

>It just came to my attention that the FCC is considering an
>additional tax for modem use of telephone lines...
>Does anybody have any information/comments/suggestions...?
>This is my first posting, so please forgive if inappropriate.

>Pier L. Bandini, Dept of Architecture, Penn State University.

I don't know anything about this specific proposal, but I am aware that
Southwestern Bell attempted the same thing two or three years ago.
The idea got shot down because it was argued that modem users were receiving
the same quality of service that everyone else was. Therefore, it was
not fair to single them out for additional charges. Appearantly they were
trying to find new sources of revenue to make up for the fact that they were
no longer being subsidised by A.T.&T.

Steve Dakin wq5n

1795. Re: VE Schedule for NE?

Newsgroup: rec.ham-radio
Date: 1990-03-22 18:19:46 UTC
From: look@uicsrd.csrd.uiuc.edu
Message-ID: <1990Mar22.181946.2006@ux1.cso.uiuc.edu>
Source record: 12745

In article <9003220915.AA09887@ucbvax.Berkeley.EDU> wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
>>Bring a photo copy of your present license if any, 2 forms of photo ID,
> ^^^^^^^^^^^^^^^^^^^
>This is off the original subject by far, but the above caught my eye.
>Does the average person these days *have* 2 photo IDs?
> -
>Does this requirement cause any problems? Anybody else out there have
>comments on the issue of photo-ID?
>
>Regards, Will
>wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

I recommend getting a Firearm Owner's Identification Card. Here in Illinois it is a photo ID that is very easy to get. You pick up the form at any place that sells guns, get a Photomat picture of yourself and a check for $5 and send it in. They put the picture on the card with the info and laminate the works. Also good for writing checks and they ask for DL and a credit card. I just give them the FOIC instead of letting them write down my credit card numbers all over the place.

Steve

1796. Re: DUAL-BANDER QUESTIONS/SUGGESTIONS ??

Newsgroup: rec.ham-radio
Date: 1990-03-22 19:06:36 UTC
From: hoenig@osage.csc.ti.com
Message-ID: <116002@ti-csl.csc.ti.com>
Source record: 12748

In article <9003220921.AA10311@ucbvax.Berkeley.EDU> RHAREL%FAB8@SC.INTEL.COM ("RICHARD HAREL CAL.LAB INTEL") writes:
>1. Anyone know a MOD for expanding the Kenwood TH-75 Dual-Band Handy
> beyond 455 Mhz ?? Presently the MOD I made on it allows me Tx Rx
> from about 395 Mhz. I'd rather have the High UHF range.

Richard: I have a TH-75, modified, but it doesn't transmit at 395 MHz. The mod I made was simply to remove the green wire inside the front of the unit. This merely expanded the receive bandwidth on both bands, as well as allowing xmit for the full 420-450 MHz.

Pray tell, good sir, what is the modification you performed? Also, what freq's did it open up to you? (Gosh! I'm just *full* of questions today!) Are you aware of a mod which allows cross-band repeater operation for the TH-75?

Thanks (as "they" say) in advance,
Mike N5LTL

1797. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-22 19:19:59 UTC
From: stankus@portia.Stanford.EDU
Message-ID: <10455@portia.Stanford.EDU>
Source record: 12746

The QSL card printer in TEXAS is the Little Printshop. It is in Pflugerville, TX (Just a hair north of Austin). I don't have the address here at work, but can get it for you from home. I've met the guy that runs the place back when I lived in Austin. He's a real nice guy.

John J. Stankus, N5PEE Department of Chemistry
stankus@portia.stanford.edu Stanford University

1798. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-03-22 19:54:42 UTC
From: ray@cs.rochester.edu
Message-ID: <1990Mar22.195442.21552@cs.rochester.edu>
Source record: 12750

In article <10198@cbmvax.commodore.com> schein@cbmvax (Dan Schein - Guest) writes:
>In article <34689@cci632.UUCP> rkd@cci632.UUCP (Ray Downes) writes:
>>Randall J. Davis writes:
>>
>>Ok, now I'm confused (easily so I guess). I just received one of these
>>(BC200XLT) via Grove. It makes my PRO34 look and feel very wimpy - how
>>much are PRO34's worth on the used market? Grove included instructions
>
> GULP.... I just sent a check for $175 to buy a used PRO34 last
> week. Now that I hear about your 200XLT im not feeling all that well.
>
> Sneakers
>
>--
> ___
> Dan "Sneakers" Schein //// Quote:
> Guest of Commodore //// Those who worked the hardest
> International Ltd. ___ //// are the last to surrender.
> \\\\//// -= Gary Ward =-
> \\\///
> sneakers%heimat@commodore.com (or) uunet!cbmvax!heimat!sneakers

This is a great price for the PRO34. Read on:

I own a PRO34 and am quite happy with it. I believe it is every bit as
good as any other scanner in this price range including Bearcat.
There are two things that Bearcat has done better than the PRO34. One is that
it scans at twice the speed and two, it has a better audio output.

The things I like about the PRO34 that the Bearcat doesn't have:

You don't have to use a battery pack like in the Bearcat. You can use
nicads or regular batteries, which means when you need batteries, you can
shop around for cheap nicads or cheap alkaline types instead of having to
pay Bearcat for an expense battery pack. The nicades I am presently using in
my PRO cost me about six dollars total.

I believe there is more information presented on the PRO LCD readout than in the
Bearcat.

And I don't believe the Bearcat has two buttons on top for scan and manual like
the PRO does. This is real handy for one hand operation and you don't have
to fumble for the keys or look at what you are doing to go back and forth from
manual to scan.

And finally, I believe the search features on the PRO are superior to the Bearcat. You can do an automatic scan up or down from a programmed frequency. Does the Bearcat have 10 auxillary memories for storing search frequencies like the PRO does?

All in all, they are both great scanners for the money.
Of course I bought my PRO on sale for $229 dollars. And when I don't pay what I think is too high a price for something I simply enjoy it more.

ray

1799. Re: anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-22 21:45:00 UTC
From: john@frog.UUCP
Message-ID: <13222@frog.UUCP>
Source record: 12752

In article <579@sierra.stanford.edu>, beale@sierra.Stanford.EDU (John P. Beale) writes:
> A colleague of mine is interested in finding out about litz wire...
> I gather that Litz wire is a bundle of finely stranded wires with each
> strand insulated from the others, thus having lower losses at very high
> frequencies than solid wire with the same cross section, assuming the skin
> depth is smaller than the radius of the wire.
> I understand that this stuff was often used in low-loss inductors and the
> circularly-wound indoor antennas found on early BC-band radio receivers.

I don't know much about the material itself, but you can still find it on
many transistor radio loop antennas (at least, several transistor radios I've
torn apart recently have them).

> Anyway, if you have a current source for the stuff, I'd appreciate
> hearing from you!

Once source is Amidon Associates, 12033 Otsego St., N. Hollywood CA 91607, who
wanted $0.05/ft for 8/42, 8/44 and 10/44 Litz wire as of July '89 (the most
recent price list I have).

--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

1800. A51JS

Newsgroup: rec.ham-radio
Date: 1990-03-22 23:58:08 UTC
From: sawyer@twg.com
Message-ID: <271@gollum.twg.com>
Source record: 12751

In the latest issue of the "DX Bulletin", which just arrived in my mailbox today (March 22), there is a copy of a letter given to Jim Smith by the PTT in Bhutan. To get right to the heart of the matter, they told him to bring $50,000 for a fee when he came to pick up his A51JS license. As I'm sure many of you know, A51JS is on the air now. This is the first time that A5 has been active since the early 80's. That's great news, but the issue of the $50,000 is not. Since Jim is making an appeal for help in footing the bill, I can only presume he caved in to this outrageous demand.

So now comes the question. Presuming for the moment that you will agree with me that we do not want to encourage third world countries to extort the international amateur community into paying ransom for licenses, we are left with the choice of whether we respond to Jim's request for assistance here. If we do send in contributions, then we have helped Jim to simply pass it along and the next guy looking for a day in the sun will know that cost is not an issue. For that reason, I think a point needs to be made with THIS one that the amateur community simply will not be pressured into paying big bribes. Contributions to DXpeditions which help to defray travel and equipment costs help keep the DX community going. There are plenty of opportunities (e.g. YASME) where we can offer this kind of direct support. That isn't what's going on with A51JS, though.

AA6KX

1801. Second Annual Open House at WPI / W1YK

Newsgroup: rec.ham-radio
Date: 1990-03-23 01:25:45 UTC
From: jwhitson@WPI.WPI.EDU
Message-ID: <9003230125.AA23397@wpi.wpi.edu>
Source record: 12759

On April 7, 1990, at Worcester Polytechnic Institute
in Worcester, Massachusetts, the WPI Wireless Association
will be holding The Second Annual Open House in its Ham Shack.
It will run from 10:00 AM to 4:00 PM. We will be working
on many bands (160m - 10m, 2m, 440MHz, as propagation permits),
and in many modes. The Club Station, W1YK, is excellently
situated on the roof of Salisbury Laboratories, which is one
of the buildings on the top of a large hill where WPI is located.

The WPI Wireless Association, founded in 1909, is the oldest college
radio club in the United States. Originally 1YK, the station and
club has enjoyed a wide variety of equipment and opportunites, including
a 440 MHz repeater and a satellite tranciever station.

Come and help us celebrate our 81st Anniversary!

For more information, send mail to me (see signature), or any of the
people you hear working as W1YK.

---------- If at first you don't succeed, so much for skydiving ---------
John Whitson: Internet: jwhitson@wpi.wpi.edu Bitnet: jwhitson@wpi.bitnet
73's from KB2GNC/1 UUCP: uunet!wpi.wpi.edu!jwhitson
---------- Anything with this tag on it is purely my own opinion ---------

Directions to WPI follow:

From East or West:
Get on to I-90, the Massachusetts Turnpike. Travel until you
get to the intersection of I-290 and I-395. This is about
50 minutes West of Boston and 50 minutes East of Springfield,
and also one exit East of the I-84 intersection at Sturbridge.
Exit and follow the signs for I-290 East to Worcester, Auburn, and
Marlborough. This is done by staying completely to the left after the
toll plaza.

From the South:
(Connecticut). Get onto I-395 and proceed North. At Auburn and
the intersection of I-395 and I-90, the highway you are on will
change to be I-290.

From the South, East, West:
Proceed East on I-290 until Exit 17. This is Rte 9, also
known as Belmont Street. Exit I-290 and at the light, make a left.
Stay in the middle-or-right lane, and proceed straight through the
next two lights. You will see the Courthouse on the left and the
Worcester Memorial Auditorium on the right. Proceed up the Hill.

From North:
Get onto I-495 going West or South. Proceed until Exit 24,
the intersection with I-290. Get onto I-290 and continue
West until Exit 18, which is Rte 9, also known as Belmont
Street. This exit is right after two large merges, so you
will have to cross 4 lanes of traffic quickly. Exit, and
at the light make a right. Follow the road until you intersect
with Rte 9, also known as Belmont Street or Highland Street.
This is a *big* intersection. Make a Right onto Highland Street
and proceed up the hill between the Courthouse and the Auditorium.

From in Worcester:
At the top of the hill is a pair of lights. Proceed through both.
about 1/2 mile down the road there is another light, with a Store-24
on the corner. This is West St. Make a right here and proceed.
The stopsign marks the edge of WPI. Proceed straight accross, and
park in the parking lot to the left at the top of the hill. At the
very top of the hill, on the right, on West Street, is Salisbury
Laboratories (you can see the antenna arrays for miles). Follow the
signs.

1802. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-03-23 02:44:21 UTC
From: schein@cbmvax.commodore.com
Message-ID: <10319@cbmvax.commodore.com>
Source record: 12754

In article <1990Mar22.195442.21552@cs.rochester.edu> ray@cs.rochester.edu (Ray Frank) writes:
>In article <10198@cbmvax.commodore.com> schein@cbmvax (Dan Schein - Guest) writes:
>>
>> GULP.... I just sent a check for $175 to buy a used PRO34 last
>> week. Now that I hear about your 200XLT im not feeling all that well.
>
>This is a great price for the PRO34. Read on:
>
>I own a PRO34 and am quite happy with it. I believe it is every bit as
>good as any other scanner in this price range including Bearcat.
>There are two things that Bearcat has done better than the PRO34. One is that
>it scans at twice the speed and two, it has a better audio output.
>
Now that I have received my PRO34 and had chance to use it, let me say the $175 was a great price this piece of equipment. I have done the 800mhz mod to restore full 800mhz coverage. The audio is not a real problem for me as I play it through a home made speaker/descrambler (so I can monitor the local police) that has a built in amp. Your are right that the scan speed needs a bit of help and im hoping soneone out there may know of such a mod. (If so please E-Mail it to me)

Bottom line, im feeling a-ok now that the PRO34 is here!

Sneakers
--
___
Dan "Sneakers" Schein //// Quote:
Guest of Commodore //// Those who worked the hardest
International Ltd. ___ //// are the last to surrender.
\\\\//// -= Gary Ward =-
\\\///
sneakers%heimat@commodore.com (or) uunet!cbmvax!heimat!sneakers

1803. Re: anyone know about "litz wire"?

Newsgroup: rec.ham-radio
Date: 1990-03-23 04:46:39 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <3660@ubbs-nh.MV.COM>
Source record: 12762

In article <579@sierra.stanford.edu> beale@sierra.UUCP (John P. Beale) writes:
>
> A colleague of mine is interested in finding out about litz wire-
>past and present manufacturers, performance data (specifically
>attenuation versus frequency, eg from skin effect in an antenna
>application), and from whom any might be available today.

Its available from RADIOKIT in Londonderry, NH 603 437-2722. Last time
I was over there I saw an sign on the wall announcing its availability
and since I had never heard of it before inquired about it.

I have no idea about types, pricing etc., but give him a call.

Noel
KC1RB
--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

1804. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-03-23 07:51:18 UTC
From: kjh@pollux.usc.edu
Message-ID: <23642@usc.edu>
Source record: 12755

In article <10319@cbmvax.commodore.com> schein@cbmvax (Dan Schein - Guest) writes:
> problem for me as I play it through a home made speaker/descrambler (so
> I can monitor the local police) that has a built in amp.

Please post details of your descrambler circuit? How is the scrambling done? What does the signal look like in the frequency domain? In the time domain? How do you descramble it? What circuit do you use? How does it work? Almost everybody wants to know. Thanks.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

1805. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-23 12:14:10 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500462@ux1.cso.uiuc.edu>
Source record: 12760

[Warning: turn on the A/C now, flames contained herein]

> > E T
> > I A N M
> > S U R W D K G O
> > H V F * L * P J B X C Y Z Q * *
>
> This is not a way to "learn" the code. You don't know the code unless
> you can copy it by ear. This is only a way to "cheat"; while it doesn't
> violate the letter of the law, it certainly violates the spirit of the
> law. You can probably get up to 20+ wpm this way, but you will never be
> able to copy in real time!
>
> I object to this method, (not only because it violates the spirit of the
^^^^^^
I assert there is no concensus on this issue. If your belief is different
than mine (and I am sure it is) then I am correct in my assertion.

> law, but also) because it removes the usefulness of the CW requirement.
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
We also certain disagree here. More on this below.

> If you really learned CW, you could use in on the air. By using this
> method, you will be incapable of using CW. This situation is analagous
^^^^^^^^^^^^^^^^^^^^
What is the purpose of a CW test? To cause people to be capable of using
CW? If so, it is not working because I, and a very large number of hams
are presently incapable of learning CW, and we did not even need a clever
method of doing it. I am sure the vast majority of Technician class hams
cannot operate CW now, and large numbers of even extras cannot.

> to somebody who memorizes the answers to the technical/legal questions,
> without even knowing what the questions were. Such a person can pass
> the test, but all of the useful technical/legal information is not
> available to them to draw on because they didn't learn it! I don't
> think any of you no code folks would approve of somebody using this kind
> of method to subvert the useful technical/legal written test(s);
> likewise you shouldn't approve of this method to subvert the useful CW
> requirement.

If we agreed that the CW test was useful, we would not approve of this method.
Many people feel that the CW test serves no useful purpose. It does not
succeed in any stated purposes, including the one you seem to be stating,
that it is to get people to be able to operate CW.

I personally agree that this method will not result in learning CW properly to be able to operate it. But if it helps get a new ham into the hobby and service that would otherwise have not been able to, and if this guy is one who will be contributing, such as in areas of packet radio, them I am all for this method or any other that gets the job (of passing the test) done.

To all those who have no interest in CW, the first thought on their mind is "why do I have to take this stupid test". After they realize the test is not going away the second thought they have on their mind is "how am I going to pass this test". Note that they do NOT think "how am I going to learn CW". A few people just go off in disgust thinking "those stupid hams, all they want is to pound brass, work DX countries, collect QSL cards and certificate, and they think that is all there is" when what they were interested in was experimenting with the technical sides of radio, and these are the people who could be the INNOVATION back into ham radio that are being scared off by useless code requirements.

Since it is the case that LEARNING CW serves no useful purpose to those who have no interest in operating CW, the only logical approach they would have to the "CW test problem" is how to PASS it, get around it, or whatever.

You, sir, seem to be objecting to the fact that people do not have your attitude about CW that it is something worth learning and using. You will just have to accept it as a fact of life that lots of people have NO INTEREST WHATSOEVER IN OPERATING CW for whatever reason (and there are various reasons). If you cannot accept that, then I would have to think of you as one of those people who wants everyone to be all alike, and just like you, of course.

The present theory exams are already not serving their intended purpose. I have spoken with many hams who have an extra class exam and could not design a radio with the ARRL handbook in front of them. Of course, today, not everyone needs to design radios, but not everyone needs to know CW, either.

One needs to know CW in order to operate CW. When the CW test was first being given, all radio operation was CW, so there was a one-to-one relationship between learning to operate CW and learning anything else about radio. Remember, the test back then was a SENDING test. It was not designed to keep out the riff-raff, but rather to keep out anyone who just didn't yet know the code (or the CORRECT code, as the case probably was at the time) As soon as phone came along, the test should have been abandoned at that time, or else used to grant privileges to operate CW. Since few hams operated only phone at that time anyway, there was not that much pressure to delete it.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1806. Modem Tax

Newsgroup: rec.ham-radio
Date: 1990-03-23 12:16:49 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9003231216.AA26597@bunny.gte.com>
Source record: 12753

Don't count on the modem "tax" idea dying (sp?) out. The fact that the TELCOs can fit more than one voice conversation onto a 64 Kbs channel, but can only fit one modem session per channel means that effectively they are "losing" money on modem use. Combine this with the explosive growth in the use of FAXs (modems) and I think you will see the TELCOs developing innovative types of signal recognition to differentiate between high density and low density use of baseband channels.

1807. Re: QSL Cards

Newsgroup: rec.ham-radio
Date: 1990-03-23 13:52:00 UTC
From: barkeyp@silver.ucs.indiana.edu
Message-ID: <39410@iuvax.cs.indiana.edu>
Source record: 12761

I have fond memories of the Little Print shop. Back in the days when
you waited for six or more weeks to find out whether or not you
passed a license exam, and what your call was, the advertising brochure
for the Little Print Shop told you the answer to both questions -- quite
a few days in advance of the Federal Government getting around to
tell you.

-- Pat Barkey
WA8YVR

1808. Re: "Currents of Death" - Followup

Newsgroup: rec.ham-radio
Date: 1990-03-23 14:54:17 UTC
From: pierson@cimnet.dec.com
Message-ID: <979@ryn.esg.dec.com>
Source record: 12776
Cross-posted to: sci.med,sci.electronics,rec.ham-radio

In article <1478@anasaz.UUCP>, john@anasaz.UUCP (John Moore) writes...
(in part)
>It's interesting to note that Brodeur also wrote "The Microwaving of
>America", which was a scare book of the seventies claiming that
>low level microwaves were causing a big problem.
I think that's "The ZAPPING of America". Has anyone systematically
checked Brodeur's concerns in ZAPPING against the state of knowledge,
20 year later???

thanks
dave pierson |the facts, as accurately as i can manage.
Digital Equipment Corporation |the opinions, my own.
600 Nickerson Rd
Marlboro, Mass
01752 pierson@cimnet.enet.dec.com

"He has read everything, and, to his credit, written nothing." A J Raffles

1809. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-23 17:26:04 UTC
From: kawai@csli.Stanford.EDU
Message-ID: <12815@csli.Stanford.EDU>
Source record: 12767

N2HHR (mark hilliard) inquires:

>Is the MFJ product line as bad as he claims?

I just bought an MFJ "econo keyer", a small electronic keyer that sells for just under $50. Has a Curtis chip in it, and the circuitry is identical to the keyer that sits on top of the Bencher iambic paddle. (Incidentally, the keyer that goes on top of the Bencher costs more, and in my taste, is uglier, so I didn't buy it, although I use Bencher.)

This keyer suffers from RF feedback. When I run my rig (an IC-720) at more than 50 watts, "0" becomes "2" (that is, _____ becomes ..___) - a most ingeneous feature, nicely complementing my poor sending skills! I plan to fix it today, by sanding off the paint inside the box, and giving it the same ground potential as the transceiver.

As for other products, I don't have first-hand experience.

I have heard more than one person comment on his experiences with My Friend's Junk. My problems are fixable, so that's okay. If you're looking for a product that will work flawlessly from the moment you buy it, MFJ may not be the right choice. But I don't know for sure. Some people are quite satisfied with what they got. For example, I have heard conflicting reports on the MFJ-1278 multimode TNC. A friend likes it, another person hates it - I'll never buy it. Somebody had an antenna tuner that worked - I'd either build my own, or buy another manufacturer's (like the AEA 300 watt tuner).

---------- stanford university + sri international
--- Goh Kawai --- arpanet/junet: kawai@csli.stanford.edu
---------- compuserve: 76056,1726 radio: n6uok

1810. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-23 17:37:58 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2649@wyse.wyse.com>
Source record: 12768

In article <118@gizzmo.UUCP> mark@gizzmo.UUCP (mark hilliard) writes:
>
>For the past several days I have been listining to 10 meters while driving to
>and from work. Every day without fail there is a fellow on (ve31bb or v31bb)
>who has the loudest signal that I have EVER heard (he must be pumping 1kw)
>talking or trying to get people to talk about poor MFJ product quality and
>design. He is claiming all kinds of problems from MFJ on products and support.
>The number of people joining in is astounding! Is this possible? Is the
>MFJ product line as bad as he claims? If so, why is the league promoting
>it? I have not bought any MFJ products, and I would be scared to now.
>

Take this BOZOs comments with a grain of salt... This "Gentleman" keeps
IRCs and Cash sent to him when people try to QSL with him. I caught him
on several contests and he has told me twice that he would QSL if I sent him
a card. I did better than this... I sent him my QSL card, 3 IRCs and a
Self address envelope. I have never recieved a card back (this is over 1 year).

I recieved a card from V31DX two days ago after only one month... And this Ham
said he was sorry for taking so long... One month is pretty good!!!!

Now as for the comments about MFJ gear... I have owned a MFJ-1274 for 3 years
and it has never failed me... It has been left on for 24 hours a day for about
the last year.... What a great TNC!

As with any company I am sure that some products are not fantastic...
But I have been very happy with what they sell...

DE KJ6NN
Phil

1811. Re: Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-23 17:48:40 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003231820.AA29999@ti.com>
Source record: 12636

Phil Howard's reply to a proposed method for learning CW included the statement: "...I, and a very large number of hams are presently incapable of learning CW...."

What on earth is this?? I see a KA9WGN on Phil's signature, so he has either learned CW (thereby completely disproving his point), or he somehow obtained his call without passing the code test. NO! There are no hams who have obtained their tickets under existing rules who are INCAPABLE of learning the code.

There are some good arguments for no-code, but the human mind's incapability to learn is not one of them, as any study of the psychology of learning will show. CW is nothing other than a set of symbols, much as writing, or the spoken word. If one is capable of learning a language, or to read, then one certainly CAPABLE of learning CW. I submit also, that if one can learn to type, one can learn CW. I hate to see the concept of learning MOTIVATION confused with learning ABILITY.

But onward to another point: Let's say that the CW requirement had been dropped in 1929. I submit that there would have been in the intervening years a number of attempts to reduce or eliminate the technical requirements for a license. I submit that MOST of the arguments that have been presented in opposition to the CW requirement could JUST AS EASILY be applied to any other entrance requirement, including examinations. Just plug in your favorite hang-up in place of "CW" in all the preceding arguments and see how it comes out.

Thanks,
Dube Todd, N5PDK

1812. A51JS

Newsgroup: rec.ham-radio
Date: 1990-03-23 17:50:15 UTC
From: sawyer@twg.com
Message-ID: <283@gollum.twg.com>
Source record: 12632

Oops. There is a major error in my posting about Bhutan extorting a license fee before granting the A51JS license. It seems the amount was $5K and not $50K. That's -10 db, so please reduce the level of outrage reflected from S9 to S7.
AA6KX

1813. Re: Electromagnetic Fields

Newsgroup: rec.ham-radio
Date: 1990-03-23 19:00:26 UTC
From: john@anasaz.UUCP
Message-ID: <1485@anasaz.UUCP>
Source record: 12771

In article <972@ryn.esg.dec.com> pierson@cimnet.dec.com writes:
]Another source on this is:
] Biological Effects of Power Frequency Electric And Magnetic Fields.
] US Government Printing Office
] $4.75
] Stock Number 052-003-01152-2
Out of Stock and Not Available (unless they decide to
reprint it). Per LA GPO 3/23/90. Sigh :-(

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

1814. re: A51JS

Newsgroup: rec.ham-radio
Date: 1990-03-23 19:15:57 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <612.260A8F50@weyr.FIDONET.ORG>
Source record: 12775

I fully agree with you. Amateur radio is just that amateur radio ... It is done for enjoyment and experimentattion. Paying $50 g's to get a licence for a dx call is not only unreasonable but it is indicative of poor judgement as a ham. If the gentleman feels he needs that kind of attention I say let him pay the bill himself.

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1815. Re: "Currents of Death" - Followup

Newsgroup: rec.ham-radio
Date: 1990-03-23 19:18:00 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250135@hpnmdla.HP.COM>
Source record: 12629

I believe Paul Brodeur's potboiler on the biological effects of microwaves was called "The Zapping of America".

Al N1AL

1816. Phil Karn (was Re: Anthropology 101)

Newsgroup: rec.ham-radio
Date: 1990-03-23 19:36:41 UTC
From: rusty@cadnetix.COM
Message-ID: <11844@cadnetix.COM>
Source record: 12634

In article <21136@bellcore.bellcore.com> karn@ka9q.bellcore.com (Phil Karn) writes:
>
>Phil

Ok, all you non-ARRL members who want to see what Phil looks like in the flesh, go grab the most recent issue of QST. Phil is shown sitting next to a sun 3 (/50? cannot tell, the picture is B/W :-)), along with a nice article about him.

:-)

Seriously, I did enjoy the article. I hope that some people take the bait and join the highspeed packet development effort.

(I wonder if we should try to get packet bbs and usenet mail addresses included in such articles next time? I've considered putting my email address on my QSL card.)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

1817. Radio Phone Salesmen LIE!

Newsgroup: rec.ham-radio
Date: 1990-03-23 19:39:20 UTC
From: flash@lopez.UUCP
Message-ID: <1221@lopez.UUCP>
Source record: 12763
Cross-posted to: rec.ham-radio,rec.radio.shortwave

We all know about the Cellular Phone Industry. We all know about the insidious ECPA. This article is related to these topics, but not exactly.

Cellular is NOT the only mobile phone technology, as I am sure you are aware. In many communities, the older 152 mhz band phones still operate. In addition to this band, there is an 800 MHZ cellular smell-alike system called SMR (smurr) which uses EXACTLY the same trunking technology, but on a slightly different band. My community recently (last month) became the recipient of this technology. While scanning the 800 mhz region on my UNMODIFIED PRO-2005, I found several frequencies with a new strange BUZZING digital signal. Within a few days, I started hearing test conversations on other frequencies in the range. I knew it was technicians, and I assumed it was SOME kind of new service, possibly business related. Imagine my surprise when I began to hear telephone conversations, with very clean crisp audio (Much better than the 152 mhz system, which over the years has gotten muddy and distorted)...

Then newspaper and radio ads began appearing for a WONDERFUL NEW telephone system. The name of this wonderful new system is something like "PRIVACY PLUS" a name that makes it sound even more wonderful than cellular.

Soon more and more activity was noted, and our local scanner SIG began discussing the new phone system, made by MOTOROLA. The technology is exactly the same as CELLULAR, just a different band plan. A band plan that is NOT eliminated from ANY scanner on the market. No diodes to clip, the signals are there for the monitoring.

Now it is my understanding that the ECPA forbids monitoring of all such mobile phone calls, except for determining the source of interference. Thus I guess by regularly scanning an authorized portion of spectrum, and being totally unaware of the existance of this service, we became unwilling radio criminals.

Well I decided I wanted to know more about the system, so I called the company selling it. I asked for information, the more technical the better. I received a coverage map and a price list in the mail. Then I received a sales call, where someone offered to bring a unit to my home and demonstrate it. I declined the offer, but said I was interested in the system, and wanted to know more about it. The salesperson knew very little about the technology except to say that it was the same thing as cellular, only "on our own frequencies". I then asked my key question:

"What about privacy? You call your system "Privacy Plus", does this mean it is secure, maybe even better than cellular?

"Oh YES, our system is very secure!"

"But what about shortwave listeners or ham operators, don't they have police scanners or something that would allow them to listen to my conversations?"

"No, this is not possible, you see our tower sends out a signal every ten seconds, and that makes it impossible for anyone to evesdrop on your communication. PRIVACY PLUS is just what the name implies"

I wanted to SHOUT at her that at that very moment, my unmodified scanner was picking up one of the salesmen doing a demo for some other unsuspecting customer. Instead, I just asked to be kept on their mailing list. She said she would call me again in June...

I believe that the sales people are NOT to blame here. They just want to sell the equipment, and they either make assumptions, or their bosses have convinced them that the name PRIVACY PLUS is more than just a silly meaningless trademark.

The same sales tactics are used to market CORDLESS PHONES, that have a PRIVACY button which does nothing but change frequency. Yet everyone I know who has a cordless phone thinks that it is a PHONE.

For those who MONITOR the 46.61-46.97 band, I do not have to tell you that people who use these things have no idea how far their signal travels. I live in a small town, and with a good outside antenna, that band is CONSTANTLY filled with activity, and some of the most AMAZING conversations one could ever hear.

I hear two different interpretations of the ECPA regarding the 46/49 mhz band, and perhaps someone out with more knowledge can set the record straight. In a recent POPCOM, Tom Kneitel said it is illegal to monitor the "Pedestal" (or base unit) portion of the signal, but the 49 mhz part was OK to listen to. I think this is nit picking. Cordless phones have NO license, and they have a nearly hidden notice stating they may not be totally private. I also understand that court cases have upheld the fact that these units have no guarantee of privacy, and people get busted for making drug deals on their cordless phones.

Has anyone read Kneitel's book on Telephone Monitoring?

And is there anything we can do to get these sales people to stop lying to their customers about PRIVACY PLUS and the PRIVACY BUTTON and other deceptive mind balm?

--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

1818. HF work, VE3JF, DSP, etc.

Newsgroup: rec.ham-radio
Date: 1990-03-23 19:47:12 UTC
From: mac@idacrd.UUCP
Message-ID: <648@idacrd.UUCP>
Source record: 12770
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Howdy:

I (FINALLY) got my copy of QEX today (not their fault, I waited until the last possible second to renew just like always) and read McClarnon's (VE3JF) article, "More Ideas for a Robust HF Packet Signal Design". I have just a couple of comments:

HIP HIP HURRAY. HIP HIP HURRAY. Sanity at last. Barry just moved to the top of the list to test DSP modems built by yours truly for HF.

If you want to read a couple of sane articles about HF, I suggest you get a copy of the March 1990, QEX and his earlier article in QEX in December 1987. A relevant article is done by Allan Kaplan, W1AEL, and is a nice thought provoking piece, even though I came to the same conclusions Barry did. You may find Kaplan's article in the November 1989 issue of QEX. It appears that QEX is providing a useful forum for discussion of HF modems/protocols. I will describe my work there in order to fulfill a (two year old) promise to Rinaldo. What Barry describes as his `ideal modem', one which does multiple bits/baud and the baud rate is 75 baud, is exactly what I have done and the first report was given at DATASPACE 1989, last July in Guildford, University of Surrey, England. There were few details and now that I have actual `tnc hardware/software' to hook it to, the testing should proceed at an accelerated pace.

At the moment, I am really busy adding satellite modems, and other `required' modems (Why do I need to add THIRTY different tone pairs for a single HF FSK modem?). I'm also hacking a modified duobinary partial response at 4800 baud (a sane approach to going faster with existing FM radios, No DC and no excess bandwidth), and other goodies (all the usual HF WEFAX, AMTOR etc.)

I hope to see many of you hams at Dayton and to show you all of the wonderful toys during either my packet or satellite talk.

Once again, I recommend Barry's work/papers highly.

Bob N4HY
--

```
------------------------------------------------------------------------------
My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
------------------------------------------------------------------------------
```

1819. The BEST scanner antenna!

Newsgroup: rec.ham-radio
Date: 1990-03-23 19:59:41 UTC
From: flash@lopez.UUCP
Message-ID: <1222@lopez.UUCP>
Source record: 12764
Cross-posted to: rec.ham-radio,rec.radio.shortwave

This is posted to rec.ham-radio AND rec.radio.shortwave. SAY YES to rec.radio.scanners, eh?

A year or so ago, I decided I wanted a GREAT scanner antenna. Wide coverage, and the ability to pick up weak signals, since I live in the boonies...

Everyone suggested I get a discone... And after the prices were examined, I thought that $100 or so was a lot to pay for a twinky little antenna with unity gain. Thus I decided to build one. Thanks to USENET I collected all sorts of plans, diagrams, etc. Being lazy, it soon became winter and my plans were put on hibernation.

Now spring begins to rear its head, and my thoughts again began to turn to better signals.

In the meantime, I had done a lot of reading about scanner antennas, and found out that one of the equipment reviewers in one of the magazines uses the MOTOROLA MONITENNA Model #5094 as his STANDARD by which to judge all others. No other antenna has yet beaten it, said the reviewer.

Then I got my BOB GROVE catalogue, and in it, Bob says: "The best Outdoor Scanner Antenna made is the MOTOROLA MONITENNA MODEL #5094" However GROVE does not sell it. They said it is just too big for storage and shipping, but if a person wanted the BEST, they should get THIS one, from a Scanner Dealer or TV shop.

That convinced me that it must be good, and I am forever thankful to Bob Grove Enterprises, even though the only thing I have ever gotten from them is Monitoring Times (One of the best if not THE best SWL/Scanner/monitor magazines of all time)...

Finding a dealer to sell me the antenna was a bit of a challenge, but finally a local CB dealer said he would order it. He got three of them in, and they sure come in a BIG box, which is very OXY to try and get home in a compact car, let me tell you.

There were just one pleasant surprise after another with the antenna though. The first good news was the price. My dealer only wanted $40 for it. I figured there must be a mistake, but that was HIS price (The guy is not out to get rich, and runs his shop more as a hobby). The next surprise was that the antenna requires NO assembly. It opens up like an umbrella. Everything snaps into place. BINGO. The antenna comes with 65 feet of coax already attached, AND a motorola plug soldered in place. (I had to get a convertor to use it with my

PRO-2005)...

But the best news of all is that it WORKS. This antenna has GAIN on the most popular scanner bands, and I began to pick up things I had NEVER heard before even with other outdoor antennas.

This antenna does not claim to have the wide flat coverage of a discone, but I am able to hear things very well outside of the bands that it says it covers. EVEN the FM broadcast band was hopping with new stations. The MILITARY air band works great, and I am also able to hear Canadian Commercial aircraft. ALSO I finally heard a transmission on 123.45, the pilot to pilot chat channel. Since we have only one commercial flight a day out of our podunk airport, this one had to be way off in the wild blue... I can now hear a mobile phone tower 60 miles away, and the coast guard from over 100 miles away on channel marine channel 22.

Cordless Phones? HA! They are stacked three and four deep and that band is NEVER quiet.

Would I recommend this antenna? YOU BET YOUR PLL I do... The other two that the store ordered went like hotcakes, and he ordered three more.

There is one of those three left, and it is MINE. My second MOTOROLA MONITENNA Model # 5094 goes up 40 feet SUNDAY....

Talk to your local CB or SCANNER store. Get your local monitoring group in on the deal. Have your CORDLESS PHONE MONITOR SIG order them bulk!

This is one fine antenna....

(I do not work for Motorola, or any other electronics wholesale or retail firm, I am a computer consultant, and the radio hobby is what I do to stay sane)

--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

1820. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-23 20:21:02 UTC
From: winter@Apple.COM
Message-ID: <39779@apple.Apple.COM>
Source record: 12769

In article <12815@csli.Stanford.EDU> kawai@csli.Stanford.EDU (goh kawai - n6uok) writes:
>N2HHR (mark hilliard) inquires:
>
>>Is the MFJ product line as bad as he claims?
>
>I have heard more than one person comment on his experiences with My
>Friend's Junk. My problems are fixable, so that's okay. If you're
>looking for a product that will work flawlessly from the moment you
>buy it, MFJ may not be the right choice. But I don't know for sure.
>Some people are quite satisfied with what they got.

I didn't say anything the first time this subject cropped up a few
weeks ago because my experience with MFJ products is limited. But I've
been using the same MFJ 901 tuner for six years now to tune my aluminum
porch awning, and it's been fine. (When I had the carport hooked up, I
had another 901 on it.)

True, I only run 100 watts into them. But anything that can bring an
awning's SWR down to 1:1 on everything from 10 to 80m is okey-dokey
in my book.

Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1821. Litz wire

Newsgroup: rec.ham-radio
Date: 1990-03-23 20:25:26 UTC
From: charlie@oakhill.UUCP
Message-ID: <3133@radio.oakhill.UUCP>
Source record: 12774

Litz.....hmm Lizt...didn't he write Hungarian Rhapsody??? ;-)

-C.T.

1822. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-23 21:09:30 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <7531@jpl-devvax.JPL.NASA.GOV>
Source record: 12773

In article <118@gizzmo.UUCP> mark@gizzmo.UUCP (mark hilliard) writes:
>
>For the past several days I have been listining to 10 meters while driving to
>and from work. Every day without fail there is a fellow on (ve31bb or v31bb)
>who has the loudest signal that I have EVER heard (he must be pumping 1kw)
>talking or trying to get people to talk about poor MFJ product quality and
>design. He is claiming all kinds of problems from MFJ on products and support.
>The number of people joining in is astounding! Is this possible? Is the
>MFJ product line as bad as he claims? If so, why is the league promoting
>it? I have not bought any MFJ products, and I would be scared to now.
>
>I dont agree with his method of attracting attention to his cause on 10 meters.
>Once or twice on the air is ok, but he is out of hand. He even calls for
>contacts on the MFJ net now. I think that the way he is going about this
>is bordering on political and is in fact gone past a technical discussion.
>
>Any comments on MFJ or this fellows means of getting support?
>
>He was on 28.307 yesterday and 28.258 the day before around 10:30 am est and
>3:30 pm est.
>
>Mark Hilliard
>N2HHR
>rutgers!rochester!kodak!gizzmo!mark

MFJ, like so many other little companies that today are the source of
so much amateur stuff, has its share of problems. But it is generally
acceptable stuff. I have half a dozen MFJ 1270s and 1274s, and one 1278
and they have generally worked flawlessly for several years. Our club has
several MFJ antenna tuners; these are fine.
The crank on 10? He's a bozo. A lid. Ignore him, turn
off the two-way and turn on the broadcast band rig. But mainly ignore
him. But so long as rif raft 'round him, he's got a captive audience.

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73 - Jon
--
Jon "What a GREAT guy" Adams, NW6H | "Amateur Radio isn't Everything;
JTA@hydra.jpl.nasa.gov | It's the ONLY thing..."
These are just OPINIONS, ok?!? | - Some Really Famous Person
"Railroading, however, is pretty important, too..." - ARFP

1823. A51JS Bhutan

Newsgroup: rec.ham-radio
Date: 1990-03-23 21:14:56 UTC
From: oo7@ut-emx.UUCP
Message-ID: <26771@ut-emx.UUCP>
Source record: 12772

sawyer@twg.com (Bruce B. Sawyer) reports:

>>In the latest issue of the "DX Bulletin", which just arrived in my mailbox
>>today (March 22), there is a copy of a letter given to Jim Smith by the
>>PTT in Bhutan. To get right to the heart of the matter, they told him to
>>bring $50,000 for a fee when he came to pick up his A51JS license. As I'm
>>sure many of you know, A51JS is on the air now. This is the first time that A5
>>has been active since the early 80's. That's great news, but the issue of the
>>$50,000 is not. Since Jim is making an appeal for help in footing the bill, I
>>can only presume he caved in to this outrageous demand.

[rest deleted]

Both QRZ-DX and The DX Bulletin say the fee is $5,000 and not 50,000.
This is apparently based on the "standard tourist" rate of $200 per day
for a 25-day stay. If Jim Smith were touring around, looking at whatever
it is that Bhutan has to offer, I suppose it might cost him that much, but
since all he's doing is sitting in one place playing with the radio, I guess
they decided they should relieve him of this much money for the privilege
of doing so.

If things go well, this will work out at a few cents per QSO, and can
probably be covered by contributions he receives with the cards people
send him. You can argue that even $5000 (or $500 or $5) is too much to
pay for the privilege of operating from Bhutan, but it's not quite as bad
as 50K.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

1824. RE: V31BB

Newsgroup: rec.ham-radio
Date: 1990-03-23 23:07:10 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <19801@ea.ecn.purdue.edu>
Source record: 12628

>>From: mark@gizzmo.UUCP (mark hilliard)
>Every day without fail there is a fellow on (ve31bb or v31bb)
>who has the loudest signal that I have EVER heard (he must be pumping 1kw)
>talking or trying to get people to talk about poor MFJ product quality and
>design. He is claiming all kinds of problems from MFJ on products and support.
>The number of people joining in is astounding! Is this possible? Is the
>MFJ product line as bad as he claims? If so, why is the league promoting
I have heard him and listened with upraised eyebrow on many, many
occasions. First off, I have heard him say that anyone who runs
under 250 watts is an "insect" whodeserves to be squashed by
the 1KW flyswatter. Me and my barefoot Uniden HR2510 (which has
worked from Indiana to Japan, Cuba, Mexico, etc.etc. take
exception to his "pro" ham attitude.

>I dont agree with his method of attracting attention to his cause on 10 meters.
Nor, it seems, does the Belize equivalent of the FCC. I heard him
whining one day that somebody at MFJ had gotten these folks on
him, who promptly told him to "cool it". He launched into a
diatribe about how Belize must have been worried about having
its foreign aid cut off and so on or maybe MFJ just bought
them off, so on and so on. He acted that day more like a
whipped puppy than his usual obnoxious self.

>Any comments on MFJ or this fellows means of getting support?
Yes. I think he acts like a real jerk. Sure, I'd love to have
a QSL card from Belize, but since his royal behindness deigns
to not lower himself to QSO with "insects", I can get nice QSL's
elsewhere, thank you.

I don't know about MFJ quality, not ever having owned any.
However, I *do* think that discussing the quality of ham
equipment on the ham bands is acceptable. I *don't* think
that V31BB'S diatribes against MFJ are acceptable. This goes
far beyond a simple discussion of quality and sounds more
like a personal vendetta. If I was running MFJ and had
to put up with this, I'd try to find a way to sue him
and force him to either "put up" evidence to back up
his slander or "shut up". (you know, "put up or shut up"?)

It is people like V31BB that give Amateur Radio a bad rap.

Duane Mantick
WB9OMC, a "25 watts on 10-meters" insect (according to V31BB, anyway)

1825. Litz wire

Newsgroup: rec.ham-radio
Date: 1990-03-23 23:21:37 UTC
From: oo7@ut-emx.UUCP
Message-ID: <26780@ut-emx.UUCP>
Source record: 12627

charlie@oakhill.UUCP (Charlie Thompson) comments:

Litz.....hmm Lizt...didn't he write Hungarian Rhapsody??? ;-)

-C.T.

Nah, that was what we call a Liszt Operation.

(exits left to escape rotten fruit and veg)

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

1826. Re: A51JS

Newsgroup: rec.ham-radio
Date: 1990-03-24 00:32:14 UTC
From: davidn@tekigm2.MEN.TEK.COM
Message-ID: <8692@tekigm2.MEN.TEK.COM>
Source record: 12630

In article <612.260A8F50@weyr.FIDONET.ORG>, katz@weyr.FIDONET.ORG (sylvan katz) writes:
> I fully agree with you. Amateur radio is just that amateur radio ...
> It is done for enjoyment and experimentation. Paying $50 g's to get a
> licence for a dx call is not only unreasonable but it is indicative of poor
> judgement as a ham. If the gentleman fe> els he needs that kind of
> attention I say let him pay the bill himself.

I agree, but since the $50,000 figure is pretty unbelievable, one might conclude that accepting this story as reported is "indicative of poor judgement as a ham". :-) Seriously though, knowing Jim Smith, I would be very surpised if this story is accurate.

David, AB9O

1827. Re: Modem tax on phone lines.

Newsgroup: rec.ham-radio
Date: 1990-03-24 00:32:26 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Mar24.003226.20159@NCoast.ORG>
Source record: 12631

As quoted from <9003220921.AA10239@ucbvax.Berkeley.EDU> by PLB@PSUARCH.BITNET ("P Bandini, PSU Arch Dept, 814/863-0062"):

```
+---------------
| It just came to my attention that the FCC is considering an
| additional tax for modem use of telephone lines...
+---------------
```

Sigh. This issue has been dead for *two* *years*. The FCC has recently for the Nth time denied that it is again under consideration. (See article in comp.dcom.telecom by William S. Degnan for details.)

There is no modem use and/or data tax under consideration.

++Brandon
--
Brandon S. Allbery (human), allbery@NCoast.ORG (Inet), BALLBERY (MCI Mail)
ALLBERY (Delphi), uunet!cwjcc.cwru.edu!ncoast!allbery (UUCP), B.ALLBERY (GEnie)
BrandonA (A-Online) ("...and a partridge in a pear tree!" ;-)

1828. PRO2005 scanner mod file

Newsgroup: rec.ham-radio
Date: 1990-03-24 02:59:39 UTC
From: rfc@briar.philips.com
Message-ID: <88560@philabs.Philips.Com>
Source record: 12765
Cross-posted to: rec.ham-radio,rec.radio.shortwave

copied from packet:
PRO-2005 mod

1. Unplug the radio
2. Remove the screws and take off the top cover.
3. Look for D502 on the inside right hand-side of the front panel.
(No need to unsolder the silver plate protecting the vertical board!)
4. Simply cut the diode and reverse the process.
5. You now have complete cellular band coverage!!

Of course, according to the EPCA law, you are not allowed to listen to
these freqs.
The mod works for me. Proceed at your own risk de KB2BBW.

73 and enjoy!! de K-B-2-Big-Bad-Wolf (Woof! Woof!) @ WA2SNA.NJ

Standard disclaimer: I haven't tried this, proceed at your own
risk. WA2ISE

1829. Wanted! STORNO Repeater Manuals

Newsgroup: rec.ham-radio
Date: 1990-03-24 03:36:43 UTC
From: 31002_1650@uwovax.uwo.ca
Message-ID: <5476.260aa4fb@uwovax.uwo.ca>
Source record: 12633

I have a STORNO model CQF662 10 watt UHF repeater that I am putting into service on 70 cm. I am in DIRE need of a documentation set for this box and will pay any and all costs incurred by somebody who has a manual and will photocopy it and snailmail it to me.

Your help would save lotz and lotz of aspirin...

Anthony Varga VE3ZAV
(519) 681 1650 Home
(519) 452 6367 Work

Call anytime...73

1830. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-24 03:45:10 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <13759@cbnewse.ATT.COM>
Source record: 12635

In article <118@gizzmo.UUCP>, mark@gizzmo.UUCP (mark hilliard) writes:

> ...Is MFJ product line as bad as he claims?

To be charitable, many MFJ ham products seemed to be kind of junky,
but they did fill a need for low cost ham accessories that Heath
and other companies stubbornly refused to fill.

I had to fix at least one bad solder joint in 3 of the 4 MFJ
products I own. Some of the hand wiring was deplorable, including
insulation melted on the wires. IMHO, MFJ low power antenna tuners
looked kind of raunchy, too.

I generally like their electronic keyers. The MFJ products which use
PC boards appear better quality than their antenna switches and tuners.
--
==
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

1831. Re: Bearcat 200XLT Mod

Newsgroup: rec.ham-radio
Date: 1990-03-24 04:10:14 UTC
From: schein@cbmvax.commodore.com
Message-ID: <10332@cbmvax.commodore.com>
Source record: 12766

In article <23642@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>In article <10319@cbmvax.commodore.com> schein@cbmvax (Dan Schein - Guest) writes:
>> problem for me as I play it through a home made speaker/descrambler (so
>> I can monitor the local police) that has a built in amp.
>
>Please post details of your descrambler circuit? How is the scrambling
>done? What does the signal look like in the frequency domain? In the
>time domain? How do you descramble it? What circuit do you use? How
>does it work? Almost everybody wants to know. Thanks.
>

Our local police use what is commonly called "PHASE INVERSION" and sounds like someone w/marbles in their mouth. Being the bottom of the ladder in 'secure' communications it can actually be recorded scrambled and later descrambled when played back. Anyway - ill have to look and see if the design is still laying around here. If I can find it in my piles of papers ill post it.

Sneakers
--

___
Dan "Sneakers" Schein //// Quote:
Guest of Commodore //// Those who worked the hardest
International Ltd. ___ //// are the last to surrender.
\\\\//// -= Gary Ward =-
\\\///
sneakers%heimat@commodore.com (or) uunet!cbmvax!heimat!sneakers

1832. Re: A51JS

Newsgroup: rec.ham-radio
Date: 1990-03-24 08:16:40 UTC
From: tad@ssc.UUCP
Message-ID: <577@ssc.UUCP>
Source record: 12645

In his posting about the current DXpedition to Bhutan, AA6KX claims that the Bhutan government is "extorting" $50,000.00 from VK9NS to get a license to operate there, and that his allegation is supported by the current issue of The DX Bulletin.

Both the current issue of The DX Bulletin and QRZ DX say that he was told to "bring $5,000" to enter the country, NOT "pay $50,000 for a license."

Please get your facts straight before broadcasting something like this to the world. Not only does the DX Bulletin plainly say 5,000, not 50,000, but neither publication says anything about "extortion" or this even being a fee to get a ham license!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

1833. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-24 10:40:15 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500464@ux1.cso.uiuc.edu>
Source record: 12643

> Warning: more flames about CW, and the folks who REFUSE to learn it.

Like ME... I PASSED the test and REFUSE to LEARN code (for the time being).

> In article <30500462@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
> >If we agreed that the CW test was useful . . .
> >"why do I have to take this stupid test". . . .
> >"how am I going to pass this test". Note that they do NOT think
> >"how am I going to learn CW". . . .
> >Since it is the case that LEARNING CW serves no useful purpose to those who
> >have no interest in operating CW . . .
> >
> >--Phil Howard, KA9WGN--
> ><phil@ux1.cso.uiuc.edu>

BTW, the context of these quotes are a generalization of the people I
know who have expressed interest in ham radio and a disinterest in code.
It does NOT include those who express an interest in code.

> You sound just like many freshman engineering students complaining about
> having to learn calculus, or take freshman English. You don't yet have
> the broad educational background or the experience to understand what is
> good for you, and so you complain about things you don't understand and
> don't like. Fortunately, most freshman engineering students figure out
> by their senior year that calculus is useful, and hopefully when they
> get out on the job in the real world and have to write [gasp!], they
> figure out that even freshman english might have been useful.

I happen to know that calculus and freshman English are not only useful
but very critical. In fact, I would push for sophomore and junior level
technical writing classes, and mandatory 2 years of linear algebra for
engineering majors. Far too many engineering graduates cannot write a
technical paper or even a decent resume. Far too many engineering
graduates don't know applicable fields of math beyond calculus and
differential equations. But I guess you probably agree with this anyway.

However, you have made one SERIOUS ERROR: you assume that code is good
for everyone who is a ham. This is ABSOLUTELY FALSE!

Knowing code is good for anyone who wants to operate code.

> Note: this is not a personal flame; if you also hold these attitudes
> about CW please consider yourself flamed also.

And of course my flames are not personal either, but are to be spread to
all those people who think everyone needs to learn an obsolete communcations
mode they are not interested in (but I'm not against people learning it for

whatever reasons they choose to).

I guess this whole issue is boiling down to:
PRO CODE vs PRO CHOICE

PRO CODE people want to force their opinions and belief systems on others.
PRO CHOICE people want to let individuals choose for themselves whether or not they will operate CW modes, and those who want to can learn it.

> I do not want to start a war. Unfortunately, I'm sure I just
> did. Please, only reply if you have rational logical comments (pro or
> con). Don't flame me or this newsgroup with no-content messages.

There is plenty of content here. Basically it is telling you about areas you misunderstand, like the fact that NO ANALOGY exists between something we agree about (freshman English and calculus are good for engineering students) and something that we do not agree about (knowing Morse Code is good for hams who don't want to use it).

How about reducing the subject to just the part that we disagree about: whether or not Morse Code is good for people who don't want to use it.

> >What is the purpose of a CW test? To cause people to be capable of using
> >CW? If so, it is not working because I, and a very large number of hams
> >are presently incapable of learning CW
>
> The CW requirement/test DID serve the purpose of causing many hams
> (including myself) to really learn the code and thus have a useful
> skill. If only you would drop your defeatist attitude, you too could
> learn CW in short order. I put forth that the only reason people

I know I can learn CW, and actually I plan to after, and ONLY AFTER, the no code issue is overwith. I will remain a Tech until then.

> "can't" learn the code is self-imposed impediments. What this country
> needs is a few more ambitious people determined to conquer the
> (perceived) obstacles and be _WINNERS_!

Very few people can't learn code. But we are not talking about these people. The vast majority of people can learn code and I will say that just as you would. We don't disagree with that, so your arguments are wasting time. Let's argue about what we disagree on.

You got ONE thing right back at the beginning of your posting where you referred to people who "REFUSE" to learn code, as opposed to people who "CAN'T" learn code.

I passed the 5 WPM exam by memorizing the code table well enough to mentally look it up fast enough to get enough of the test transmission to be able to squeak through the test. My copy was only 30% but I managed to get enough of the right stuff to get 9 out of 10 questions right.

Now, did I "learn" code? Definitely not.

Do I plan to "learn" code sometime in the future? Well, I must admit that I plan to, but only because I happen to think that CW might really be a fun mode to operate. I was bored stiff with it at 5 WPM but I think it might be more fun at 30 WPM. Someday I will give that a try.

But not everyone shares my feelings nor yours.

But for all those people who do not share my curiosity and interest in code, I would not wish upon them the waste of time they have to go through to EITHER learn something they won't use, or memorize something they won't be able to use that way.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1834. FCC FY 1991 Budget Request

Newsgroup: rec.ham-radio
Date: 1990-03-24 16:36:23 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9003241636.AA13728@cmr.ncsl.nist.gov>
Source record: 12637

Extracted from "Broadcasting", Mar 19, 1990

Work toward a standard for the broadcast of high-definition television will get a big boost - if the FCC gets all that it asks for in its proposed $118 million budget for fiscal 1991.
....
According to a breakout of the budget request, the FCC has allocated $300,000 for outside studies on HDTV and $50,000 for new lab equipment for HDTV work by the (FCC) Office of Engineering and Technology (OET).
The balance of the additional (HDTV) funds would go toward the hiring of six full-time employees devoted to HDTV - one attorney and two engineers in the Mass Media Bureau and three engineers in OET.
....
The FCC's proposed budget for 1991 is $10.5 million more than it has to work with during the current fiscal year.
....

* Further confirming Sikes's reputation as an enforcement-minded chairman, *
* 13 [new employees] would be involved in enforcement in one office or *
* another: ..... , an attorney to effect its amateur radio compliance *
* program, an attorney for rule-makings in land mobile and private radio, *
* and two technicians and three engineers for the Field Operations *
* Bureau (FOB).

The FOB's facilities would also give a facelift. Some $326,000 is slated for new equipment for the Bureau, $110,000 for new vehicles, and $100,000 for miscellaneous repairs to various field facilities.
Sikes told the congressmen that he would like the FOB to take a more active role in enforcing FCC rules. Right now, he said, the FOB, because of its limited resources, acts only after it receives a complaint.
....
Even though the request represents a 9.7% increase over fiscal 1990, Sikes made it clear that it falls short of what the agency needs to keep up with the dynamic telecommunications industry. Revenues from the "communications and information" sector doubled in the 1980's, he said. "At the same time, however, the FCC's budget actually shrunk by nearly one-third in terms of actual spending power," he said. "The FCC will...embark upon this last decade of the 20th Century with 20% less in revenue and human resources than it enjoyed in 1981."
....
----
* My emphasis *

1835. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-24 19:16:38 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Mar24.191638.21024@Neon.Stanford.EDU>
Source record: 12646

In article <12815@csli.Stanford.EDU> kawai@csli.Stanford.EDU (goh kawai - n6uok) writes:
>Some people are quite satisfied with what they got. For example, I
>have heard conflicting reports on the MFJ-1278 multimode TNC. A
>friend likes it, another person hates it - I'll never buy it.

Being the friend who likes it, I'll stand by the claim. The 1278 does
generate some RFI -- unless you ground it, as per the directions. Aside
from that, it's heads above the rest...as long as you have the current ROM
and board revision (according to QST, the previous rev was pretty bad).
I wasn't too impressed by the software for the mac, especially since the
version for the PC is so much better. But, having other facilites, this
doesn't bother me. What would bother me would be to have hf packet
performance that's as bad as the other MMDCs, or not having grayscale on
my FAX.

Most digital devices require at least some modification for the shack
environment, even those destined for the ham market.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

1836. IC-2SAT TX/RX mod

Newsgroup: rec.ham-radio
Date: 1990-03-24 20:00:22 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9003242000.AA07879@tecnet1.jcte.jcs.mil>
Source record: 12638

I read a posting a few weeks ago where a gentleman was interested in any mods for the IC-2SAT that extended transmit or receive frequency range. I didn't pay much attention to it then, but when the XYL got one for me as a birthday present... that attitude changed markedly! :-)

Well, I gathered up all I could find on the issue and broke out the soldering iron and took apart the radio that was less that one day old. (OH NO Mr. Bill!!!!)

Here's the straight scoop and I HAVE tried this but you still proceed at your own risk (in case you were so foolish as to not know that :-)

Take the battery cover off the bottom and remove the two screws.
Remove two screws directly behind PTT button.
Remove one screw where handy-carry strap goes.

Gently pull on the front half of the radio and the radio will split apart but don't pull TOO far because the front half of the radio is still attached to the back half with that flexible plastic film wiring stuff. Fold front half to the right and lay it down.

WARNING: The battery//cover release button can now pop out and a little itsy-bitsy tiny spring can take off for parts unknown. (Ask me how I know this... I spent 2 HOURS looking for that little sucker!) Pull the button out of the case NOW and watch out for that blasted little spring!

All work is done on the circuit board inside the FRONT half of the radio (the part that you just pulled off).

EXTENDED RECEIVE:

Look along the RIGHT side of the circuit board and about halfway down the right side you will see a tiny circuit board that is mounted VERTICALLY on it, aligned from top to bottom. Look at the TOP of this little tiny board and you will see a normal diode (D-9) that is vertically mounted on the vertical board. Sounds confusing, but you can't miss it, it's right on the top end of the board.

Cut this diode. Don't try to unsolder it... CUT IT. Take my word on it.

WARNING: Don't pull the diode away from the board and leave it hanging. When you put the radio back together it is a very close fit and if you short the diode, the radio won't work. The PLL stays unlocked but no damage will occur. (yeah, I did that too :-)

If you stop right here and reassemble the radio, you will now have extended RECEIVE capability after you reset the radio according to the instructions in the manual on the first page. And it REALLY is extended. My PLL was

still locked up down around 88 Mhz and actually received FM broadcast stations although it obviously sounded BAD! :-) The radio freq. read-out now will go all the way up past 1 GHz, but that's just the dial read-out, check the Channel Indicator and when it goes to a "U" for "Unlocked" you can keep an eye on PLL performance, however I was amazed at where the PLL was locking up and the fact that it was actually receiving (albeit poorly) across a very very wide range. Yes, of course the sensitivity is way down the further you wander from the 144-148 design frequency range but it still is pretty impressive, and the new freqs. can be stored in memory and scanned.

EXTENDED TRANSMIT:

Look for the big IC directly in the middle of the main board on the front cover (IC-1 40608). Go to the bottom right corner of it. Move your eyes slightly to the right and you will see three chip resisters in a row. Just to the right of THOSE you will see three silk screened dots that are bracketed by a rectangle of white ink lines where a factory diode package would have gone. The "dots" form a triangle with one at the top and two at the bottom. Install a diode (1N914 or equivalent) with the cathode on the TOP dot and the anode on the bottom left dot.

This will give you extended transmit from about 138-163 or so.

But if you believe that trying to get a diode in there (without shorting out a lot of stuff) is impossible, (and you are very close to being correct) then FORGET this approach. Instead get Icom's diode DA (# 1750000160) and install IT in the same place.

I tried using the 1N914, and it was a TOUGH job. It worked but looked horrible and was in imminent danger of falling off. I tried it out, verified that it worked... and pulled it right out. I have the diode DA pack on order now and will do it right when it gets here. I would politely suggest that you forget trying to use the 1N914 unless you have a micro-miniature repair facility at hand. (I did and still didn't like it).

To avoid hate mail .... I have to remind you that it is illegal to transmit on the air with this radio out of the Amateur Bands unless a legitimate emergency exists. (Type acceptance and all that.)

However if you (like me) plan on using it for a quick and dirty sig-gen into a dummy load, then it is the cat's meow!

Mark Bitterlich WA3JPY
mgb@tecnet1.jcte.jcs.mil

1837. Re: Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-24 20:14:32 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Mar24.201432.22307@Neon.Stanford.EDU>
Source record: 12647

In article <9003231820.AA29999@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
> I submit that MOST of the arguments that have been presented in
>opposition to the CW requirement could JUST AS EASILY be applied to any other
>entrance requirement, including examinations. Just plug in your favorite
>hang-up in place of "CW" in all the preceding arguments and see how it comes
>out.

Obviously untrue. While you can operate an hf station without knowledge of
CW, you can't do so reliably (if at all) without some knowledege of technical
detail or regulations.

NEXT!

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

1838. Re: Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-24 23:23:35 UTC
From: chartnes@bbn.com
Message-ID: <54050@bbn.COM>
Source record: 12648

Hello All,

I am only a reader of this newsgroup for the most part. I have
sent personal responses to some of the articles I have read, but the
Increasing CW speed, no CW, next best thing to CB radio with technically
minded people articles are quite frankly 90% of what I see now.

I dont believe that the net was intended for the purpose of training
debate teams but it is quickly heading that way.

In the future I believe that there will be a no code class if
for no other reason than the fact that human nature makes us use our
minds to figure a short cut method to attain our desired results. Someone
will get it pushed through one way or the other.

I learned the code. I can still use it. I seldom use it. I dont
think it is a barrier that cannot be overcome by even the dumbest of us
idiots (Paul Flaherty's name for whom ever lights his flame). I do believe
that some dont want to be bothered by something so trivial as code and these
are the ones who will push it into a no code class sooner or later.

I think we should start another net. We can call it:

REC.HAM-RADIO.DEBATE
This way those of us who wish to read these debate team training
articles can and the net can be freed up for technical questions and not
opinions and critical analysis of every word in an opinion.

Of course I am expressing my opinion which is not worth a hill
of straight keys to the next guy, but as a future practice I'll just
not read this type of article as I am sure Paul will inform me
that I done have to if I dont like them. I'll just save all of you
out there the time of writing the response.

Thanks for the time. Hope everyone has a nice day in the Ham Radio
World.

TGOB
CLARK HARTNESS
WD5GDA

****** IF THE PHONETICS FIT WEAR THEM******

1839. Re: Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-24 23:47:01 UTC
From: brian@ucsd.Edu
Message-ID: <12706@ucsd.Edu>
Source record: 12639

In article <54050@bbn.COM> chartnes@vax.bbn.com (Clark Hartness) writes
a whole bunch of pollyanna-ish sweetness and light followed by
> I think we should start another net. We can call it:
> REC.HAM-RADIO.DEBATE
> This way those of us who wish to read these debate team training
>articles can and the net can be freed up for technical questions and not
>opinions and critical analysis of every word in an opinion.

Sorry, Clark, we won't shut up and go away. If you're uncomfortable
with what you hear, the fault lies in yourself. No-code is a valid
subject for debate: we supporters believe passionately that we have the
very best interests of ham radio at heart. I don't think you do; I
think you just want to be left alone and not have your irrational
beliefs challenged because it makes you uncomfortable - no doubt
because you realize that your position is not supported by the evidence.

CW is dying, and the only regret I have about that is that those who
support it as a mandatory requirement aren't dying with it.
- Brian

1840. Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-25 00:20:23 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9003250020.AA12799@tecnet1.jcte.jcs.mil>
Source record: 12640

In article <9003231820.AA29999@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD)
> I submit that MOST of the arguments that have been presented in
>opposition to the CW requirement could JUST AS EASILY be applied to any other
>entrance requirement, including examinations. Just plug in your favorite
>hang-up in place of "CW" in all the preceding arguments and see how it comes
>out.

shelby!neon!bodega.stanford.edu!paulf@decwrl.dec.com (Paul Flaherty) replies:
>Obviously untrue. While you can operate an hf station without knowledge of
>CW, you can't do so reliably (if at all) without some knowledge of technical
>detail or regulations.

While pretty much trying to stay out of this worn out discussion, I really have to say that I agree with Dube Todd 100% on the point that he has made in his posting. There are some good arguments for no-code, but some of the ones read on here lately are pretty poor and Dube is right on line with his comments as far as I am concerned.

Paul, your comments about not being able to reliably operate modern HF rigs "reliably (if at all) without some knowledge of technical detail or regulations" is a joke. Many... I say again ... MANY MANY ... gosh darn it *MANY* CB operators are doing just the very thing that you are talking about AS WE SPEAK! You plug in the radio, you read a little bit of the manual... you hook up a mike and you turn it on! I am talking about amateur gear here Paul... there is nothing complicated about operating it now-a-days other than possibly keeping it on the right frequency, more on that line in a minute!

There are a LARGE degree of licensed amateur operators that also do this very same thing. They learn the regulations and the theory the way that Phil Howard says he learned CW. I.E. Just enough to get by and pass the test with absolutely no intention of trying to actually LEARN the stuff. After all they don't WANT to be "techies" they just want to TALK, and they see no need to spend hours and hours trying to understand what a Phase Locked Loop is or how it works. These people may perform tremendously in public service events but in some cases, putting a connector on a piece of coax is beyond them. I point as proof of that to the recent embarrassments we as ham operators suffered during the latest DX frenzy as well as personal experience.

Your comments are just not true Paul. This is not a flame at all, it is just an observation of the real world that says that about anybody that has the desire and the $$$ can make a HF rig work. And as you can see from my above paragraph, the same argument that some have been using to condemn CW applies just as well to all other portions of the test.

I like a no-code license... I don't like doing away with Novice and Tech.
to get a "Communicator Class", but if that is what it takes... well ok.
One of my worries is that before too much longer, the theory test will be
the next thing to go for EXACTLY the reasons that Dube pointed out.

Mark Bitterlich WA3JPY
mgb@tecnet1.jcte.jcs.mil

1841. CODE vs NO-CODE

Newsgroup: rec.ham-radio
Date: 1990-03-25 00:39:21 UTC
From: jgrubs@w8grt.nstar.com
Message-ID: <a1ckg1w161w@w8grt.nstar.com>
Source record: 12641

Let's drop the argument. Code can be useful. Code can be fun for those who like it. Big deal! That does not by itself make it necessary to require testing on code proficiency on VHF only licenses. Noone is going to change anyone else's mind on those points.

But NPRM 90-55 is up for consideration and comment. It seems almost 100% certain to be approved. Let us therefore limit our arguing to the more constructive issues of how best to implement no-code. Pax?

1842. * SpaceNews 26-Mar-90 *

Newsgroup: rec.ham-radio
Date: 1990-03-25 02:14:51 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <240@ka2qhd.UUCP>
Source record: 12642
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0326

=========
SpaceNews
=========

MONDAY MARCH 26, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on USENET and Amateur Packet Radio. It is available for UNLIMITED worldwide distribution.

* MUSES-A NEWS *
================
Hiten (MUSES-A) made the first lunar swingby at 05h04m09s JST (UT+9h) on 19th at the distance 14,073km, 27 minutes earlier Hiten separated a lunar orbiter and its rocket put it in lunar orbit. The orbiter was named HAGOROMO, which means "angel's robe" in Japanese.

[Source: The Yomiuri Shimbun, March 19 evening edition]

* DOVE NEWS *
=============
N4HY reports that the crash of the DOVE computer which had caused the key-down condition has been brought under control. The DOVE transmitter was blocking the uplink command channel and the software crash was inhibiting the on/off cycling of the transmitter.

The solid key-down condition caused DOVE's batteries to discharge far enough that Dave, W5UN was able to send a special "hard reboot" reset command using his moonbounce (EME) antenna array in Texas.

Congratulations and thanks to W5UN and N4HY for their heroic rescue efforts.

[From: Tom, W3IWI via Amateur Packet Radio]

* AMATEUR RADIO ACTIVITY FROM MIR *
===================================
Soviet cosmonauts Anatoly Soloviev (U6MIR) and Alexander Balandin (U7MIR) began Amateur Radio operations from the MIR space station on March 9th, according to Leo, RA3AT.

Most activity is expected to occur on or near 145.500 MHz FM, with operations occuring after 18:00 UTC on weekdays and anytime on weekends.

QSL cards for this operation are available via UW3AX at P.O. Box 679, Moscow 107207, USSR (S.A.S.E. please).

* SHUTTLE NEWS *
==========
KSC SHUTTLE STATUS REPORT - THURSDAY, MARCH 22, 1990 - 11:30 a.m.

STS-31 - DISCOVERY (OV-103) - LAUNCH PAD 39-B

This morning, workers successfully completed loading hypergolic propellants into Discovery's onboard storage tanks and the pad has been opened for normal work. Monomethylhydrazine and nitrogen tetroxide propellants were loaded into the orbital maneuvering system and reaction control system storage tanks. Hydrazine was loaded into the orbiter's auxiliary power unit storage tanks and the boosters' hydraulic power unit storage tanks.

Today, engine technicians will inspect a teflon coated seal at the joint between the engine 2 low pressure fuel turbo pump and the orbiter main propulsion system. A leak was detected at this joint during the helium signature test. This is a 12-inch diameter line at the engine to orbiter interface.

STS-35 - COLUMBIA (OV-102) - OPF BAY 1

Electrical connections between Astro and the orbiter are continuing and testing will follow. Connections of the Broad Band X-ray Telescope are underway today. An engine flight readiness test was conducted yesterday. During this routine test, engine start is simulated, valves are cycled and sensors and transducers are calibrated.

This week, checks of the water spray boilers, Ku-band antenna testing and leak checks of the elevon cove seal area are underway. Thermal protection system operations are continuing around the S-band antenna and landing gear doors.

[From: Peter E. Yee @ NASA Ames Research Center, Moffett Field, CA]

* HAM RADIO INFO *
==========
Interested in learning more about the Amateur Radio Service? For information on licensing requirements and operating privileges, write:

The American Radio Relay League
225 Main Street
Newington, Connecticut 06111
U.S.A.

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Brookdale Community College

Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

1843. Re: VE Schedule for NE?

Newsgroup: rec.ham-radio
Date: 1990-03-25 03:07:00 UTC
From: michaelb@mikebat.UUCP
Message-ID: <314@mikebat.UUCP>
Source record: 12652

In article <9003220915.AA09887@ucbvax.Berkeley.EDU>, wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
> >Bring a photo copy of your present license if any, 2 forms of photo ID,
> ^^^^^^^^^^^^^^^^^^^
> This is off the original subject by far, but the above caught my eye.
> Does the average person these days *have* 2 photo IDs?

I usually use a driver's license and a US Passport when I need ID for something I'm prepared for. But I would wager that *most* Americans don't have a Passport. (They aren't very useful if you don't travel.)

> I'm guessing many non-drivers may not have *any* photo ID.

Every state I have lived in for the past 5 years or so has issued state ID cards to non-drivers. They usually cost a couple of bucks.

> Does this requirement cause any problems? Anybody else out there have
> comments on the issue of photo-ID?

The VECs at my last test checked to see I had the conformation slip for my test time and my driver's license. That was all. The FCC checked my conformation slip and that I had my own pencils for my commercial test. I could have had Nikoli Tesla take my test for me.

Michael
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb
Comment overheard at WARC 1992 -
"Let's just stick them on 200 millimeters and below."

1844. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-25 04:12:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500465@ux1.cso.uiuc.edu>
Source record: 12655

> Phil Howard's reply to a proposed method for learning CW included the
> statement: "...I, and a very large number of hams are presently incapable
> of learning CW...."
>
> What on earth is this?? I see a KA9WGN on Phil's signature, so he has either
> learned CW (thereby completely disproving his point), or he somehow obtained
> his call without passing the code test. NO! There are no hams who have
> obtained their tickets under existing rules who are INCAPABLE of learning the
> code.

I see you did not read AND ABSORB the posting I replied to. I did NOT LEARN
Morse Code, I memorized it enough to pass the exam. This kind of practice
is what Ken was complaining about. I was only trying to show that it is in
far more common practice than he realizes.

The incapability is based on the fact that the test is a 5 WPM test which
does lend itself to LEARNING Morse Code, but only to MEMORIZING it. To
really KNOW Morse Code, you will be able to copy in your head at speeds
well above 20 WPM. The incapability is not IN ME, but rather IN THE SYSTEM.
Sorry I did not make that clear.

You next commented that inability to learn should not be related to
motivation. Since you missed the point in comparing the two postings,
I won't count that useless argument against you.

> But onward to another point: Let's say that the CW requirement had been
> dropped in 1929. I submit that there would have been in the intervening years
> a number of attempts to reduce or eliminate the technical requirements for a
> license. I submit that MOST of the arguments that have been presented in
> opposition to the CW requirement could JUST AS EASILY be applied to any other
> entrance requirement, including examinations. Just plug in your favorite
> hang-up in place of "CW" in all the preceding arguments and see how it comes
> out.

If you submit that most of the arguments against a code test can be applied
to the real requirements (which are NOT necessarily what are actually being
tested today, BTW) then please post the specifics. I happen to believe there
are none, and /dev/null is my basis of proof.

So, what if the CW test had been dropped in 1929? I suspect the military
and the maritime services would probably have been LED by Amateur Radio into
phasing out CW in favor of new technologies instead of the current case where
THEY are leading US. CW would NOT have gone away, and I don't expect it to
even if EVERY class of license becomes no code.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1845. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-25 04:27:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500466@ux1.cso.uiuc.edu>
Source record: 12656

> In Fall 1988, the Hudson Division of ARRL surveyed its members on
> several issues, among them, should the League take the FCC to court
> over 220-222 MHz, how many owned computers, what was their favorite
> band (mine is the Rolling Stones), and what is their favorite mode.

If ARRL only surveys its members, that tells you information ONLY
about its membership. It certainly does NOT tell you much about
the ham radio population as a whole. The ham population is a
selected population in the first place, since it consist of the
union of two sets: those who think the code test is wonderful,
and those who, like me, said W.T.F. and went ahead and took the
stupid test (many of whom passed it without learning anything useful).
Further the ARRL membership, due to the alienation the ARRL has
caused to some in the past, does not represent the ham population;
and certainly one division does not.

One group of people who are left out altogether are those who could
and would make significant and important contributions to amateur
radio in all areas except increasing the number of DXCC-CW awards
given out. They are not members of the league and are not even
licensed due to their frustrations with those hams who would have
them become interested in only a narrow range of the hobby.

> By the way, regarding favorite bands, 30% chose 2 meters, 24% chose
> 20 meters, 12% chose 80 meters, 11% chose 15 meters, 8% chose 40 meters,
> 5% chose 10 meters, and 3% each chose 220 and 450 MHz.

Gee, that's close to the proportion of LIDS on the bands.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1846. Re: Electromagnetic Fields

Newsgroup: rec.ham-radio
Date: 1990-03-25 04:34:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500467@ux1.cso.uiuc.edu>
Source record: 12657

> The net result: hams will continue to put up antennas which maximize the
> radiation they (and their neighbors) recieve because the local laws
> demand a LOWER limit on antenna height. Public safety? Not on your
> life - it just makes a good excuse. If communities were really interested
> in public safety they would have a MINIMUM height requirement!

Hmmm, now that's a GOOD IDEA!!!

Seriously, the field strength in your neighbors house follows the inverse square law for distance given a constant lobe-angle parameter, which is not constant as the antenna goes higher; it further reduces the field strength. Even hams want less of their power being dissipated in the various bizarre radio receivers their neighbors have by other names.

> I'd like to see a study done where they control for the kind of antennas
> the hams had to use. Now THAT would be interesting! I would not be
> surprised if the relationship was increasing health problems with
> decreasing antenna height.

A simple field strength study might do fine in many cases as well. I know if I lived next door to a ham, I'd at least want out antennas at differing levels to avoid overloading each other.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1847. Re: last saturday! Wow!

Newsgroup: rec.ham-radio
Date: 1990-03-25 04:41:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90032502290110@masnet.uucp>
Source record: 12653

TO: rusty@cadnetix.COM (Rusty Carruth)

C6Anyway, I logged 2 German stations, and one Lithuanian on 10 meters
C6last saturday! My first European station!!!!

Congratulations!

C6(All this with about 100 watts into a 5/8 wave groundplane mounted
C6about 30 feet off the ground! ON SSB!)

I spent my first year on the air with a TenTec Argonaut and a ground
mounted vertical. While I missed a lot, you don't need power all the
time.

C6(Editors note: please excuse my excitement, but I never thought I'd
C6ever work "real dx" until I upgraded and had 'real power', or
C6switched to CW, or a 'real antenna', or .....)

You'de be suprised what moderate equipment can do. How about Easter
Island on 2 watts and a dipole? Or Minneapolis on 100 milliwats and a
1/4 wave whip?

C6Which reminds me - I had an email message a while back which said that
C6I should not work HF SSB because it would ruin my upgrading. Not so!
C6Making contacts on HF only makes me fear the time when 10m becomes a
C6local-only band... No way do I want to be a Tech when the sunspots
C6change! This is too much fun!

Well, if you do it exclusively your code speed suffers from lack of
practice but don't give it up. Sideband techniques take some practice
too.

Enjoy!

73, Dean VE1CBF
---
dean.milner@canremote.uucp

~ EZ-Reader 1.21 ~ p Canadian Amateur Radio Station VE1CBF p
~ QNet 2.04: :NANet: MUI Sydney, N.S. Cape Breton Regional (902) 564-5022

1848. Re: Ham Radio article in Worc

Newsgroup: rec.ham-radio
Date: 1990-03-25 04:41:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90032502290082@masnet.uucp>
Source record: 12654

TO: dls@genrad.com (Diana L. Syriac)
Subj: Ham Radio in Worcester

%(PS, for those who don't know, Worcester is in Massachusetts)

Hi Diane, would you know K1TDN, Frank from West Boyleston, just
outside Worcester?

73, Dean VE1CBF

dean.milner@canremote.uucp

~ EZ-Reader 1.21 ~ A fail safe circuit will destroy others......
~ QNet 2.04: :NANet: MUI Sydney, N.S. Cape Breton Regional (902) 564-5022

1849. Re: CODE vs NO-CODE

Newsgroup: rec.ham-radio
Date: 1990-03-25 04:42:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500468@ux1.cso.uiuc.edu>
Source record: 12658

> Let's drop the argument. Code can be useful. Code can be fun for those who
> like it. Big deal! That does not by itself make it necessary to require
> testing on code proficiency on VHF only licenses. Noone is going to change
> anyone else's mind on those points.

Which side are you addressing? (I think I know)

> But NPRM 90-55 is up for consideration and comment. It seems almost 100%
> certain to be approved. Let us therefore limit our arguing to the more
> constructive issues of how best to implement no-code. Pax?

Are you so certain? Without exception, every person I know who is in
favor of a no code license is against the particular way that 90-55
proposes to do it. Fortunately the regulatory process does allow for
changes to be introduced between the Notice of Proposed Rulemaking and
the Final Notice of Rulemaking without having to start the process all
over again. This is why comments rather than mere votes can be filed
on the matter.

I have already come up with NINE alternatives to the 90-55 proposal, and
plan to include them all in my comments. I also suspect that 90-55 will
exceed even 87-14 in the total volume of comment filings.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1850. Re: Wanted! STORNO Repeater Manuals

Newsgroup: rec.ham-radio
Date: 1990-03-25 05:59:58 UTC
From: julian@bongo.UUCP
Message-ID: <120@bongo.UUCP>
Source record: 12644

In article <5476.260aa4fb@uwovax.uwo.ca>, 31002_1650@uwovax.uwo.ca writes:
> I have a STORNO model CQF662 10 watt UHF repeater that I am putting into
> service on 70 cm. I am in DIRE need of a documentation set for this
> box and will pay any and all costs incurred by somebody who has a manual
> and will photocopy it and snailmail it to me.
>
Sometime in the early seventies, STORNO was bought by General Electric.
So you may find that some GE repair shops may have STORNO Docs. GE sold
STORNO a few years ago when they decided they could make more money by
shuffling money (banking) than by making stuff.

STORNO is a Danish company. They made some excellent gear, including
the walkie-talkies used by the London Bobbies. STORNO used to be a
subsidiary of STOR NOrdisk Telegraf (Great Northern Telegraph GNT). Yup
the people that made those Morse code punched tape machines.

If you have trouble getting STORNO docs from a GE shop, you could
write to a Danish Ham that used to work for STORNO and may still have
contacts there:

Willy Sachse OZ5WF
Hyttehusvej 7
2300 Copenhagen S
Denmark

Send him 73s from OZ9IY

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

1851. Re: VE Schedule for NE?

Newsgroup: rec.ham-radio
Date: 1990-03-25 12:39:42 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21293@bellcore.bellcore.com>
Source record: 12659

In article <314@mikebat.UUCP> michaelb@mikebat.UUCP (Michael R. Batchelor) writes:
>But I would wager that *most* Americans don't have a Passport.
>(They aren't very useful if you don't travel.)

I'd urge anyone with even the remotest chance of traveling out of the country to get a passport. Believe me, they're a *lot* easier to get when you're not in a hurry. They're not that expensive, they do come in handy as a very credible form of ID, and even when traveling to countries like Canada where they're not strictly required, they're nice to have.

Phil

1852. Re: HF work, VE3JF, DSP, etc.

Newsgroup: rec.ham-radio
Date: 1990-03-25 20:28:50 UTC
From: michaelb@mikebat.UUCP
Message-ID: <316@mikebat.UUCP>
Source record: 12649

> If you want to read a couple of sane articles about HF, I suggest you
> get a copy of the March 1990, QEX and his earlier article in QEX in
> December 1987.

I'm afraid HF packet is a dead issue with me. I'm not qualified to operate that mode. It doesn't seem to matter that I am responsible for all of the digital communications where I work, or that I am duly licensed to operate our HF tranmitters. The problem is that, because I have never been one bit interested in code, I'm obviously too stupid to understand HF packet.

But if I were to wind up in a prison camp and forced to brush up on my code through the heating pipes, I'm sure I could win the Nobel prize for all of the advances I made in digital communications theory while locked up.

Michael Stick in the Mud.
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb
Comment overheard at WARC 1992 -
"Let's just stick them on 200 millimeters and below."

1853. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-25 21:15:29 UTC
From: paulf@bodega.stanford.edu
Message-ID: <1990Mar25.211529.518@Neon.Stanford.EDU>
Source record: 12666

In article <9003250020.AA12799@tecnet1.jcte.jcs.mil> mgb@TECNET1.JCTE.JCS.MIL writes:
>Paul, your comments about not being able to reliably operate modern HF rigs
>"reliably (if at all) without some knowledge of technical detail or
>regulations" is a joke. Many... I say again ... MANY MANY ... gosh darn it
>*MANY* CB operators are doing just the very thing that you are talking
>about AS WE SPEAK! You plug in the radio, you read a little bit of the
>manual... you hook up a mike and you turn it on! I am talking about amateur
>gear here Paul... there is nothing complicated about operating it now-a-days
>other than possibly keeping it on the right frequency, more on that line in
>a minute!

Yes, but the CB operators aren't doing so reliably. Ask a CB op about MUF.
At least, most hams know enough to listen to WWV to catch the propagation
bulletins, and to understand what they mean. Most hams also know what band
to be on at about what time to work into a particular part of the world.
Most hams build their own antennas, and know enough to look at the SWR meter
now and then to make sure that the antenna system is radiating. Most hams
know something about RFI and TVI, and how to get rid of it (now there's
something our appliance ops don't know!).

Personally, I'd like to see the written exam changed to make the regs part
tougher. But as it is, most hams again know the rules and follow them.

There's a big difference between the so - called appliance operators, and
a decent HF operator (and an experimenter). Hams generally qualify as
decent HF ops, since they do know at least a little about how the system
works. Clearly, most hams are not experimenters, but to belittle them
because they don't build their own hardware is unfair.

--
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

1854. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-03-25 22:04:24 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9003260803.AA13170@ucbvax.Berkeley.EDU>
Source record: 12650

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #668 -
Alouette 1
1 00424U 62B-A 1 90 73.87470828 .00000270 00000-0 31436-3 0 2647
2 00424 80.4604 19.0423 0023388 152.0723 208.1680 13.67308546369801
ATS 3
1 03029U 67111 A 90 79.85882834 -.00000074 00000-0 99999-4 0 3075
2 03029 13.0940 21.9728 0012181 203.2249 156.7363 1.00272360 81918
Cosmos 398
1 04966U 71 16 A 90 68.18445684 .00065491 16810-4 39072-3 0 6449
2 04966 51.5392 126.6538 2355073 321.1865 24.0893 10.87965544580721
Starlette
1 07646U 75010 A 90 79.35466968 .00000024 00000-0 66758-4 0 182
2 07646 49.8262 149.0019 0205982 257.7547 100.0210 13.82133620763495
LAGEOS
1 08820U 76039 A 90 78.38176892 .00000003 00000-0 00000 0 0 309
2 08820 109.8591 324.3701 0044563 257.3691 102.2109 6.38664565 68208
GPS-0001
1 10684U 78020 A 90 77.68784765 .00000008 00000-0 99999-4 0 3485
2 10684 63.6815 92.3590 0116293 199.3719 160.2247 2.00557707 74038
GPS-0002
1 10893U 78 47 A 90 73.17078769 -.00000026 00000-0 00000 0 0 1036
2 10893 64.4256 333.3552 0162365 25.6294 335.2117 2.00548470 86764
SeaSat 1
1 10967U 78064 A 90 77.59813655 .00000541 00000-0 23124-3 0 2485
2 10967 108.0173 133.2511 0002243 266.8960 93.1955 14.35476162613459
GPS-0003
1 11054U 78093 A 90 75.96190378 -.00000025 00000-0 00000 0 0 1801
2 11054 63.9599 329.5957 0096202 113.5573 247.5098 2.00566525 83836
Nimbus 7
1 11080U 78098 A 90 79.64417161 .00000099 00000-0 11973-3 0 6367
2 11080 99.2002 346.5520 0008828 324.6704 35.3873 13.83406562575791
GPS-0004
1 11141U 78112 A 90 79.04881093 .00000008 00000-0 00000 0 0 2894
2 11141 63.6711 92.2136 0060239 316.5742 42.9995 2.00561499 82593
GPS-0005
1 11690U 80 11 A 90 77.19437481 .00000009 00000-0 00000 0 0 9197
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2 11690 64.1558 94.3068 0112239 204.0429 155.4971 2.00556820 88418
GPS-0006
1 11783U 80 32 A 90 76.00975566 -.00000025 00000-0 00000 0 0 643
2 11783 63.7598 329.1720 0148599 60.3103 301.2195 2.00574004 72476
GOES 5
1 12472U 90 71.93348874 -.00000238 10000-3 0 8311
2 12472 3.2318 77.0356 0001692 278.7734 81.6533 1.00250216 31286
DE 1
1 12624U 81 70 A 90 66.62614517 -.00000052 00000-0 -35883-3 0 3391
2 12624 89.0791 148.8357 6221663 316.0034 8.6777 3.51025771258551
SME
1 12887U 81100 A 90 67.10447644 .00031549 00000-0 71309-3 0 5102
2 12887 97.6535 108.9256 0003028 45.4518 314.6890 15.43116668465641
Salyut 7
1 13138U 82 33 A 90 67.93426969 .00032192 00000-0 46036-3 0 914
2 13138 51.6058 88.8635 0001148 72.3081 287.8294 15.55923033449201
Cosmos 1383
1 13301U 82 66 A 90 65.32761367 .00000164 00000-0 18019-3 0 5398
2 13301 82.9317 16.1527 0029158 83.1090 277.3379 13.67804892383615
LandSat 4
1 13367U 82 72 A 90 67.04870421 .00000166 00000-0 41735-4 0 2515
2 13367 98.1784 131.5081 0004200 82.2369 277.9309 14.57130626406578
IRAS
1 13777U 83 4 A 90 65.56088371 .00000496 00000-0 36906-3 0 7228
2 13777 99.0311 263.9114 0011706 312.4395 47.5776 13.98752674 32595
Cosmos 1447
1 13916U 83 21 A 90 65.08284417 .00000145 00000-0 14336-3 0 6771
2 13916 82.9443 88.2916 0040004 67.4775 293.0610 13.74013778348513
TDRS 1
1 13969U 83 26 B 90 61.95914084 -.00000206 00000-0 00000 0 0 9339
2 13969 4.2136 66.7158 0009218 271.1980 88.9221 1.00264241 92019
GOES 6
1 14050U 90 71.12660558 0.00000118 0 933
2 14050 1.9892 79.3267 0003494 227.7789 133.0144 1.00254400 9299
OSCAR 10
1 14129U 90 68.74264847 0.00000003 0 4617
2 14129 25.9300 215.0017 5989800 124.9115 306.3941 2.05880919 22682
GPS-0008
1 14189U 90 71.11948686 0.00000007 10000-3 0 7148
2 14189 63.3143 90.9379 0143134 217.3195 141.7316 2.00559363 48813
LandSat 5
1 14780U 84 21 A 90 67.00665864 -.00000211 00000-0 -41974-4 0 673
2 14780 98.1324 128.6582 0003250 116.4163 243.7383 14.57147557319989
UoSat 2
1 14781U 90 71.66244532 0.00002146 40880-3 0 6273
2 14781 97.9616 127.3367 0012021 189.5757 170.5138 14.65001989321833
GPS-0009
1 15039U 84 59 A 90 78.15940157 .00000007 00000-0 00000 0 0 8478
2 15039 63.0641 89.8794 0020218 238.3121 121.5494 2.00562451 42230
Cosmos 1574
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1 15055U 84 62 A 90 72.61850925 .00000145 00000-0 14424-3 0 8302
2 15055 82.9600 132.7675 0025876 228.3441 131.5500 13.73332685286952
GPS-0010
1 15271U 84 97 A 90 78.05360568 -.00000025 00000-0 00000 0 0 7648
2 15271 63.2622 328.7136 0105581 325.6815 33.6960 2.00573533 39343
Cosmos 1602
1 15331U 84105 A 90 73.08638360 .00002391 00000-0 33125-3 0 1853
2 15331 82.5341 89.0178 0021191 285.6176 74.2684 14.77473821294044
NOAA 9
1 15427U 84123 A 90 84.46978693 .00000313 00000-0 19010-3 0 4918
2 15427 99.1653 82.3610 0014211 245.2102 114.7360 14.12478703272166
Cosmos 1686
1 16095U 85 86 A 90 79.17187242 .00026690 00000-0 37367-3 0 5229
2 16095 51.6080 32.6237 0002203 78.9504 281.3110 15.56598670252058
GPS-0011
1 16129U 85 93 A 90 79.21517630 .00000008 00000-0 00000 0 0 4312
2 16129 63.8394 90.7774 0120800 150.5602 210.1666 2.00560173 32571
Mir
1 16609U 86 17 A 90 79.77702527 .00039873 00000-0 48418-3 0 4809
2 16609 51.6183 55.9340 0013680 299.4666 60.5353 15.60075972234298
SPOT 1
1 16613U 86 19 A 90 79.99700442 .00000812 00000-0 39943-3 0 8060
2 16613 98.7065 155.6898 0001928 95.8016 264.3374 14.20024376 51414
Cosmos 1766
1 16881U 90 79.48574059 .00002313 00000-0 32345-3 0 8898
2 16881 82.5264 142.2482 0020722 281.4591 78.4312 14.77096460196059
EGP
1 16908U 86 61 A 90 53.55039819 -.00000025 00000-0 95708-4 0 1704
2 16908 50.0105 248.4193 0010798 262.7166 97.2451 12.44384952160583
NOAA 10
1 16969U 86 73 A 90 84.49579323 .00000417 00000-0 19989-3 0 3511
2 16969 98.6088 114.2888 0013389 149.1379 211.0684 14.23501530182706
MOS-1
1 17527U 87 18 A 90 78.69512452 .00000332 00000-0 27200-3 0 4418
2 17527 99.1144 152.3724 0000813 81.7904 278.3365 13.94871161156789
GOES 7
1 17561U 87 22 A 90 78.80707674 -.00000044 00000-0 99999-4 0 4423
2 17561 0.0431 134.6329 0001233 283.7415 301.6279 1.00273045 4528
Kvant-1
1 17845U 87 30 A 90 79.13646512 .00023056 00000-0 28369-3 0 264
2 17845 51.6210 59.1671 0015034 302.3804 57.6998 15.60009465170248
DMSP B5D2-3
1 18123U 87 53 A 90 84.48573833 .00000399 00000-0 22976-3 0 5042
2 18123 98.8198 276.1995 0013831 263.4595 96.4263 14.13914123142577
RS-10/11
1 18129U 87 54 A 90 78.90969315 .00000006 00000-0 -14712-6 0 732
2 18129 82.9277 34.4778 0012369 14.2565 345.8919 13.72067507137205
Meteor 2-17
1 18820U 88 5 A 90 72.93418187 .00000128 00000-0 10573-3 0 2060
2 18820 82.5401 66.1794 0015120 231.6462 128.3338 13.84299522107008
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DMSP B5D2-4
1 18822U 88 6 A 90 84.43471016 .00000449 00000-0 22287-3 0 4198
2 18822 98.6616 325.1549 0006346 145.9341 214.2980 14.21317476110929
AO-13
1 19216U 88 51 B 90 76.23511618 -.00000102 00000-0 99999-4 0 815
2 19216 57.0320 164.1337 6913866 223.1742 55.0039 2.09702208 13470
OKEAN 1
1 19274U 88 56 A 90 78.89743749 .00002814 00000-0 39940-3 0 6827
2 19274 82.5150 241.3963 0023362 56.6267 303.7385 14.76499575 91749
Meteor 3-2
1 19336U 88 64 A 90 78.76572039 .00000391 00000-0 99999-3 0 3907
2 19336 82.5206 340.6703 0020883 172.1104 188.0275 13.16882776 79182
NOAA 11
1 19531U 88 89 A 90 84.45522188 .00000498 00000-0 29544-3 0 2090
2 19531 98.9729 32.7085 0011655 155.4534 204.7086 14.11496625 77151
TDRS 2
1 19548U 88 91 B 90 74.99319464 .00000131 00000-0 99999-4 0 791
2 19548 0.0442 320.2121 0001671 29.5760 10.1478 1.00278011 4515
Cosmos 2001
1 19796U 89 11 A 90 78.97132257 -.00001112 00000-0 99999-4 0 4003
2 19796 63.0675 104.2939 7130572 319.8470 5.0822 2.00536364 8011
GPS BII-01
1 19802U 89 13 A 90 66.75585580 .00000016 00000-0 99999-4 0 723
2 19802 55.0710 201.4099 0059530 158.9588 201.2474 2.00561853 7716
Akebono
1 19822U 89 16 A 90 77.88402264 .00015853 00000-0 10680-2 0 4829
2 19822 75.1110 282.7203 4202822 279.1241 36.9635 7.06435063 27037
Meteor 2-18
1 19851U 89 18 A 90 72.66398642 .00000189 00000-0 16080-3 0 1574
2 19851 82.5266 304.5837 0012855 275.4726 84.4976 13.83946757 52355
TDRS 3
1 19883U 89 21 B 90 73.63596307 -.00000234 00000-0 99999-4 0 571
2 19883 0.0121 142.7301 0004020 162.5881 54.6626 1.00271148 2948
GPS BII-02
1 20061U 89 44 A 90 66.44052675 -.00000032 00000-0 00000 0 0 523
2 20061 54.7257 19.9569 0081882 172.9986 187.1067 2.00562492 5453
Nadezhda
1 20103U 89 50 A 90 72.23750835 .00000184 00000-0 18534-3 0 841
2 20103 82.9612 355.7260 0037272 308.3288 51.4517 13.73570119 34543
GPS BII-03
1 20185U 89 64 A 90 75.38457247 .00000016 00000-0 99999-4 0 485
2 20185 54.9343 201.9435 0026540 144.7984 215.3611 2.00562771 4209
Activnyi
1 20261U 89 80 A 90 79.77784481 .00002282 00000-0 71869-3 0 3472
2 20261 82.5924 284.6801 1259703 178.1621 182.4784 12.43353010 21600
Activnyi RB
1 20262U 89 80 C 90 78.01992352 .00000685 00000-0 21242-3 0 1469
2 20262 82.5909 285.8065 1261441 182.1882 177.3360 12.43012981 21382
Magion 2
1 20281U 89 80 B 90 79.76280952 .00003234 00000-0 10137-2 0 3611
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2 20281 82.5915 284.6483 1259789 178.1342 182.4766 12.43523376 21606
GPS BII-04
1 20302U 89 85 A 90 75.11538053 -.00000029 00000-0 99999-4 0 435
2 20302 54.6905 320.8556 0038614 316.0546 43.6853 2.00569799 2888
Meteor 3-3
1 20305U 89 86 A 90 79.63613997 .00000119 00000-0 29722-3 0 650
2 20305 82.5466 280.4560 0014774 187.6112 172.4694 13.15854405 19309
INTELSAT-6A
1 20315U 89 87 A 90 62.65793662 -.00000226 00000-0 99999-4 0 311
2 20315 0.0414 3.5726 0013733 254.5985 101.6503 1.00262829 1232
COBE
1 20322U 89 89 A 90 77.06110006 .00004409 00000-0 29373-2 0 590
2 20322 99.0212 88.2583 0006598 261.3835 98.6579 14.01519657 16723
Kvant-2
1 20335U 89 93 A 90 79.13648166 .00011623 00000-0 14669-3 0 1446
2 20335 51.6246 59.1722 0013120 300.5064 59.6549 15.59992808 17844
GPS BII-05
1 20361U 89 97 A 90 67.43005802 .00000016 00000-0 99999-4 0 187
2 20361 54.9514 144.3204 0064909 42.9382 317.6285 2.00576858 1707
SPOT 2
1 20436U 90 5 A 90 78.69355217 .00000305 00000-0 16071-3 0 684
2 20436 98.7144 154.4090 0000872 106.0857 254.0465 14.20024451 8048
UO-14
1 20437U 90 5 B 90 78.24586989 .00000498 00000-0 21448-3 0 348
2 20437 98.6996 154.6013 0012407 56.9858 303.2476 14.28516088 8028
UO-15
1 20438U 90 5 C 90 78.73616677 .00000398 00000-0 17448-3 0 299
2 20438 98.7037 155.0898 0011744 56.7469 303.4873 14.28515561 8096
PACSAT
1 20439U 90 5 D 90 76.14114470 .00000495 00000-0 21297-3 0 292
2 20439 98.7135 152.5428 0012657 62.8474 297.4010 14.28614577 7726
DO-17
1 20440U 90 5 E 90 80.06189741 .00000466 00000-0 20175-3 0 217
2 20440 98.7134 156.4601 0012820 52.6944 307.5414 14.28653096 8286
WO-18
1 20441U 90 5 F 90 79.07690227 .00000425 00000-0 18473-3 0 193
2 20441 98.7101 155.4814 0013305 55.9153 304.3282 14.28761841 8144
LO-19
1 20442U 90 5 G 90 72.70171735 .00000324 00000-0 14436-3 0 266
2 20442 98.7076 149.1226 0013514 74.3482 285.9076 14.28824127 7236
1990 006A
1 20444U 90 53.94247100 0.00000268 25109-3 0 354
2 20444 62.8140 110.5001 7374630 288.1794 9.4138 2.00664213 632
GPS BII-06
1 20452U 90 8 A 90 62.65854411 -.00000001 00000-0 99999-4 0 229
2 20452 54.6380 260.3053 0035259 57.4095 302.9406 2.00567623 728
Cosmos 2057
1 20457U 90 60.41396968 0.00615956 39350-4 26857-3 0 942
2 20457 62.8210 195.0039 0138628 118.4735 243.0622 16.03448844 5582
Cosmos 2058
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1 20465U 90 52.05250576 0.00002655 40114-3 0 264
2 20465 82.5082 306.3255 0022850 201.4816 158.5500 14.73794878 3181
1990 010B
1 20466U 90 57.13960967 0.00001501 22415-3 0 174
2 20466 82.5064 301.6148 0022858 187.2711 172.8185 14.74059308 3927
PRC-26
1 20473U 90 11 A 90 71.25642786 -.00000262 00000-0 99999-4 0 366
2 20473 0.0912 295.7660 0000216 40.4684 23.7389 1.00268398 368
1990 011B
1 20474U 90 11 B 90 70.45931368 .00008564 00000-0 28596-2 0 191
2 20474 30.5413 293.8454 7260425 199.4213 103.2645 2.30231055 760
1990 012A
1 20476U 90 12 A 90 71.70450279 .00268139 16276-4 75305-3 0 1026
2 20476 65.8265 286.7895 1285784 133.0880 238.5288 13.26692660 4478
1990 012B
1 20477U 90 12 B 90 71.81006393 .00478087 17407-4 86754-3 0 1182
2 20477 65.8383 285.2297 1215139 132.0593 239.0520 13.46529432 4526
MOS-1B
1 20478U 90 13 A 90 79.79613752 .00000099 00000-0 87170-4 0 962
2 20478 99.1961 150.3618 0000360 89.1228 271.0237 13.94854791 5818
1990 013B
1 20479U 90 13 B 90 66.25543317 -.00000045 00000-0 -73232-4 0 191
2 20479 99.0518 131.9584 0540229 279.3893 74.6534 12.83148607 3675
FO-20
1 20480U 90 13 C 90 75.06715037 .00000071 00000-0 20945-3 0 180
2 20480 99.0524 139.1142 0540508 259.3934 94.5869 12.83118672 4805
1990 013D
1 20491U 90 13 D 90 69.21220998 -.00000290 00000-0 -52182-3 0 160
2 20491 99.0584 135.2415 0470129 263.1331 91.6103 13.02720413 3518
Soyuz TM-9
1 20494U 90 14 A 90 79.13646312 .00029977 00000-0 36682-3 0 492
2 20494 51.6166 59.1584 0013976 296.6972 63.3793 15.60014077 5765
1990 015A
1 20496U 90 72.61405566 0.00006039 38701-3 0 341
2 20496 43.1160 127.2684 0012138 129.2385 230.9548 15.09120691 4079
1990 015B
1 20497U 90 72.51517909 0.00010921 33808-3 0 355
2 20497 43.1034 122.8931 0010853 90.0585 270.1507 15.33471906 4138
1990 015C
1 20498U 90 15 C 90 80.06250407 .00046598 00000-0 10887-2 0 437
2 20498 41.6386 74.5130 0034671 16.5092 343.7903 15.40758832 5318
Raduga 25
1 20499U 90 16 A 90 78.07668019 .00000000 00000-0 99999-4 0 384
2 20499 1.4113 273.7681 0004939 107.5571 251.7202 1.00264225 327
1990 016D
1 20502U 90 16 D 90 65.10279796 .00000045 00000-0 99999-4 0 85
2 20502 1.4651 273.4213 0037357 63.1907 295.9207 1.00010387 218
1990 017A
1 20508U 90 76.27550478 0.00000081 79884-4 0 95
2 20508 82.9541 127.6822 0043042 241.0282 118.6561 13.73188186 2394
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1990 017B
1 20509U 90 17 B 90 79.68004784 -.00001463 00000-0 -15480-2 0 251
2 20509 82.9534 125.1439 0040455 208.8144 151.0786 13.74418024 2867
1990 018A
1 20510U 90 79.47908232 .00003828 00000-0 59497-3 0 289
2 20510 82.5292 179.3807 0019853 197.5705 162.4819 14.72734480 3018
1990 018B
1 20511U 90 73.42920542 0.00000754 11381-3 0 124
2 20511 82.5292 184.9370 0018623 221.2889 138.6910 14.72975480 2123
Progress M3
1 20513U 90 20 A 90 79.13649118 .00004288 00000-0 54972-4 0 297
2 20513 51.6255 59.1698 0012854 299.1088 61.1207 15.59992282 3004
INTELSAT-6
1 20523U 90 21 A 90 79.74672716 .00055997 00000-0 65311-3 0 220
2 20523 28.3398 127.2442 0019073 107.6372 252.6483 15.59976225 983
1990 021B
1 20524U 90 21 B 90 79.74309048 .01171768 -34460-4 24553-3 0 249
2 20524 28.6024 125.5314 0105079 153.1897 207.4604 16.16234515 1002
1990 022A
1 20525U 90 22 A 90 79.75701731 .00017323 00000-0 28842-3 0 166
2 20525 65.0282 58.0383 0009691 268.2828 91.6731 15.52102051 950
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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1855. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-25 22:23:08 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21296@bellcore.bellcore.com>
Source record: 12667

In article <9003231820.AA29999@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD)
> I submit that MOST of the arguments that have been presented in
>opposition to the CW requirement could JUST AS EASILY be applied to any other
>entrance requirement, including examinations. Just plug in your favorite
>hang-up in place of "CW" in all the preceding arguments and see how it comes
>out.

In my opinion, the popularity of this argument shows that American amateur radio is in serious trouble.

The only way your argument has even a tiny bit of truth is if your view of amateur radio consists purely of appliance-style operation. But if the intent of a license exam is to see whether an applicant is capable of furthering the basis and purpose of the amateur service (as opposed to merely chewing the rag and collecting QSL cards), then there is a world of difference between the CW and technical requirements.

There are many ways you could further all of the reasons amateur radio exists without ever using (or knowing) the code. The same is definitely NOT true of the technical and regulatory knowledge one is required to have to become a ham.

In response to your likely rejoinder ("But wait! What about people who are interested only in public service?") I would say two things. First, the amount of public service traffic carried by CW is nil; the action is on the voice and packet nets. Second, although "public service" is a motherhood-and-apple-pie issue that moves many hams to heartfelt expressions of civic devotion (especially when battling tower ordinances or spectrum grabs), the cold, hard fact of the matter is that we're losing ground VERY rapidly to the competition, and I wouldn't bet the future of our service on it.

Our mainstay in the "public service" area for the past twenty years has been the FM repeater club whose members call in highway accidents and provide communications for the local March of Dimes Walkathon. In that twenty years, our technology has remained essentially unchanged. (Yes, we now have "pinball machine" computerized repeater controllers and synthesized HTs, but the basic "service model" of an FM repeater/autopatch is the same today as it was in 1970). But the outside world has changed: a lot of people without ham tickets are now just as capable as we are of calling the police (or each other) from their cars. In my area (NNJ/NYC) I can say that cell phone antennas outnumber every other kind of mobile two-way antenna by a *very* healthy margin. (One sign of this change: nobody asks me any more if my HT is a CB or if I'm a cop; they ask what kind of cell phone it is.)

I am not trying to attack amateur radio public service per se; it is certainly most worthwhile. It's entirely possible that our liberal

allocations vis a vis the rest of the world are due in part to our tradition of public service, something unheard of in many other countries.

My point is that public service is by no means sufficient to justify our service considering our stagnant technology and the much wider variety of alternatives now available to the public. If amateur radio is to survive, it will have to place far more emphasis on the other reasons it exists. In particular, amateur radio as a unique training ground for young people interested in electronics and communications (and possibly a career in the field) must become its single most important role. But if this is to have a ghost of a chance of happening, amateur radio is going to have to make some MAJOR changes. The no-code license is but the first step.

Phil

1856. No/Pro CW

Newsgroup: rec.ham-radio
Date: 1990-03-26 00:41:53 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9003260041.AA24302@tecnet1.jcte.jcs.mil>
Source record: 12651

I feel that I am not alone in expressing a general dissatisfaction in the way that the code and no code discussions are now headed. It seems that the way to win an issue now-a-days is to make the other person look as stupid as you can and to throw names back and forth at each other.

Even people that DARE to suggest that the discussion be toned down a little are "FLAMED". Various labels are generated on both sides and the issue has degraded into one of name calling. There has even been some innuendo that a PRO-CODE person is better off DEAD.

ISN'T THIS JUST A LITTLE BIT TOO MUCH?

It is my honest opinion (IMHO) that there are certain elements that are using this forum not to argue their points on the no/pro-code issue, but to show everyone how good they are at making other people look stupid. There is no effort in trying to understand the real meaning behind some-one else's points, rather there is an effort to take advantage of any little slip or mistake in what a person says in public in order to baste him (or her) over the charcoal pit of public humiliation.

Keep one thing in mind. No one that I have ever known LIKES to be made to look stupid in public. I for one ALWAYS sympathize with the person that is getting the tar beat out of him by some slick tongued devil, and I submit that the people that are doing this are causing more harm to their cause than they can possibly imagine.

So the thought then comes to mind.... Are they really using this type of behavior to PROMOTE their cause, or are they just trying to feel smug and self-content in the knowledge that they are the KING of FLAME-THROWING?

Notice that I have been careful in trying not to point a finger at any one faction. Keep this thought in mind when my little posting here comes under attack from one side or the other. The person that attacks what I have written here is the one that is guilty of what I have been saying.

Let's watch and see.

Mark Bitterlich WA3JPY Is it better to fight fire with fire
mgb@tecnet1.jcte.jcs.mil or to use a CO2 extinguisher?

1857. Phone Frequencies

Newsgroup: rec.ham-radio
Date: 1990-03-26 02:58:48 UTC
From: ormsby@ohstpy.mps.ohio-state.edu
Message-ID: <8143.260d3f19@ohstpy.mps.ohio-state.edu>
Source record: 12660

Can anyone tell me what are some characteristic frequencies that the following operate on:
1.)Cellular phones
2.)Cordless phones
I have monitored High Seas Ship/Shore, but have nevered monitored other phone calls below 30 Mhz.

1858. Re: CODE vs NO-CODE

Newsgroup: rec.ham-radio
Date: 1990-03-26 02:59:04 UTC
From: jgrubs@w8grt.nstar.com
Message-ID: <65Dmg1w161w@w8grt.nstar.com>
Source record: 12661

phil@ux1.cso.uiuc.edu writes:

>
> > Let's drop the argument. Code can be useful. Code can be fun for those who
> > like it. Big deal! That does not by itself make it necessary to require
> > testing on code proficiency on VHF only licenses. Noone is going to change
> > anyone else's mind on those points.
>
> Which side are you addressing? (I think I know)

You're correct!

>
> > But NPRM 90-55 is up for consideration and comment. It seems almost 100%
> > certain to be approved. Let us therefore limit our arguing to the more
> > constructive issues of how best to implement no-code. Pax?
>
> Are you so certain? Without exception, every person I know who is in
> favor of a no code license is against the particular way that 90-55
> proposes to do it. Fortunately the regulatory process does allow for
> changes to be introduced between the Notice of Proposed Rulemaking and
> the Final Notice of Rulemaking without having to start the process all
> over again. This is why comments rather than mere votes can be filed
> on the matter.

That's a better way of saying what I meant.

> I have already come up with NINE alternatives to the 90-55 proposal, and
> plan to include them all in my comments. I also suspect that 90-55 will
> exceed even 87-14 in the total volume of comment filings.

I plan to propose adoption of the Canadian Plan as is except for
modification of the homebrewing restrictions.

1859. RTTY DX Notes, 3/23/90

Newsgroup: rec.ham-radio
Date: 1990-03-26 03:14:19 UTC
From: gws@n8emr.UUCP
Message-ID: <1468@n8emr.UUCP>
Source record: 12662

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB ALL @ RTTYDX $RTDX2303
RTTY DX Notes, 1of3, 3/23/90

RTTY DX Notes for Weekending 23rd March 1990.
Part 1 of 3.
BID: $RTDX2303

It seems that this week will be the week for DXpeditions. They will
be appearing from some very exotic places, so keep the fingers
sharpened up and the screen alive at all times. Regarding the remarks
last week about the JT0DX cards, it seems that some German stations
have received theirs this week. While there is life there is hope.
ZS8MI cards of course are another matter. They will be issued when
the operator returns home to ZS6PT.

Our thanks this week go to I5FLN, JA1BLV, JG1NBD, KT7H, OD5NG, TG9VT,
VE3JPC, VK2EG, W2JGR, W5KSI, and the Tri-State DX Association VHF
packet cluster. Thank you all for the good DX reported.

Bandpass:

Friday 16:
JY9SR 14085 at 0203Z
UZ9CWA 14087 at 0730Z
OK1KKR/EA8 14074 at 0740Z FEC
5N3HL 21088 at 1505Z
UC2AIG 21089 at 1625Z
HS1BV 14087 at 1915Z
9X5/G0LLZ 14085 at 1940Z QSL
C31LHK 14079 at 1625Z

Saturday 17:
3X1SG 14087 at 0003Z
ZC4NC 14081 at 0400Z
ES7FU 7036 at 0415Z
EA8RA 14086 at 0506Z
UI8FM 14083 at 0525Z
RO4OR 14094 at 0529Z
UY5CJ 14099 at 0600Z
9Y4BU 14095 at 0655Z
TJ1MW 14082 at 0721Z
```

TR8JLD 21086 at 0846Z
TU1UI 28082 at 1102Z
HV3SJ 21082 at 1757Z
EA6LX 28078 at 1850Z
ZB2/HB9DCQ 21088 at 2025Z QSL
JY9SR 14093 at 2125Z
HI8BG 14086 at 2127Z

Continued in part 2.
/EX
SB ALL @ RTTYDX $RTDX2403
RTTY DX Notes, 2of3, 3/23/90

RTTY DX Notes for Weekending 23rd March 1990.
Part 2 of 3.
BID: $RTDX2403

Sunday 18:
TA3B 14083 at 0045Z
CU2CB 14095 at 0345Z
RL8PLY 14097 at 0348Z
RO5QO 14080 at 0545Z
VU2NBT 14089 at 0545Z QSL
YC0UVO 28083 at 1030Z
9M2AX 28086 at 1042Z
AP2NK 14068 at 1159Z QSL/ARQ
HC8VB 28094 at 1638Z
ZS4NC 14090 at 1945Z
9X5/G0LLZ 14087 at 2000Z
4U1ITU 14087 at 2200Z
ZB2/HB9DCQ 14090 at 2240Z

Monday 19:
4U1ITU 14095 at 0032Z
UA9YE 14090 at 0310Z
EA9JV 14086 at 0352Z
UO5OK 14088 at 0449Z
TR8JLD 21085 at 0724Z
9X5/G0LLZ 14085 at 1627Z
9H1JF 14090 at 2214Z

Tuesday 20:
UB4HQ 14087 at 0155Z
UO5OK 14091 at 0630Z
KH8/SM7PKK 14092 ay 0919Z
BY1SK 14067 at 0944Z ARQ
SV5TS 21090 at 1600Z
4A1KC 14073 at 1625Z ARQ
6Y5PK 21092 at 1845Z
TA3B 14088 at 2050Z

Wednesday 21:
PZ1BS 14083 at 0115Z
KH8/SM7PKK 14082 at 0415Z
AP2NK 21077 at 1238Z
FR5ZD 14075 at 1333Z ARQ
RO5QO 14088 at 2136Z
JY9SR 14091 at 2152Z
FM5WD 14086 at 2309Z

Thursday 22:
T32PG 14086 at 0525Z
KH8/SM7PKK 14081 at 0605Z
A51JS 14087 at 1339Z QSL

QSL Information:

9X4/G0LLZ will QSL via Box 81, Kagale, Rwanda.

VU2NBT QSL manager is WA4FVT.

ZB2/HB9DCQ will QSL via his home address.

KH8/SM7PKK will QSL to his home call.

Continued in part 3.
/EX
SB ALL @ RTTYDX $RTDX2503
RTTY DX Notes, 3of3, 3/23/90

RTTY DX Notes for Weekending 23rd March 1990.
Part 3 of 3.
BID: $RTDX2503

AP2NK is Nasir Hkhan, Box 1944, Islamabad, 4400, Pakistan.
A51JS (yes, it is Jim Smith) will QSL via VK9NS.

Notes Of Interest:

Well, as you can see from the DX notes, Jim Smith has arrived in Bhutan and is active. He will be there for about three weeks, then he hopes to go to S2 (Bangaladesh). More later.

There is a report that A61 (United Arab Emirates) should be on this week, for about 2/3 day operation.

Abu Ail A15 also should be active this week, according to DJ6JC who will also have DJ6SI and DK2WV to help fighting the DX and helping with the keys. This is possibly the last operation of this callsign, as the light house is being taken over by the Yemen authorities at the end of the month.

Mayanmar (Burma). It is reported that a Hungarian group will operate from there from 22nd March for 14 days.

March 29 also sees AA6HT and KC6XDP operating from V29 until 9th April.

April 11th to 15th will see Aves Island on the air, only digital modes.

April 11th to 23rd will see Jarvis Island activated. Send donnations to P.O. Box 2368, Stanford , CA 94309-2368.

Off again, on again, Spratley is on again sometime in April. They will operate from Vietnam before and after the Spratley operation, we hope.

Western Sahara. There will be no RTTY operation during this trip, sorry to say. Maybe later.

GL DE DX1 (VK2SG).

Relayed by Tad, KT7H @ N7HFZ.WA.USA.NA
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

1860. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-26 03:25:23 UTC
From: jgrubs@w8grt.nstar.com
Message-ID: <1cFmg2w161w@w8grt.nstar.com>
Source record: 12663

k2ph@cbnewsj.ATT.COM (The QRPer) writes:

> In article <1990Mar25.051932.2770@Neon.Stanford.EDU>, paulf@bodega.stanford.e
> > In article <4324@cbnewsj.ATT.COM> k2ph@cbnewsj.ATT.COM (The QRPer) writes:
>
> > 3. The only true way to determine it is by surveying the bands. It would
> > be interesting also to look at the logs the FCC collected before the
> > requirement was eliminated, although as I recall, there was also a
> > requirement to operate CW a certain number of hours.
> >
>
> I'm not sure which requirement you're talking about here. If it was
> the one that you had to operate a certain number of hours before
> renewing your license, there was never a requirement that any part of
> the operation had to be CW. You simply had to operate. As long as
> I've been licensed (23 years), there was never a requirement that you
> had to operate any particular mode--with the sole exception of
> Novices, of course.

I've been licensed 39 years this coming Friday. The original renewal
requirement then was you had to certify that you had operated x hours
(6 comes to mind) AND that you could still copy CW at the speed
required for granting your grade of license. In theory the FCC could
ask you to prove it. I never heard of anyone who was actually asked to
do so. As you said, the minimum on the air time did not have to be CW,
but of course the ARRL always thought it SHOULD be and so recommended.
[:-)

1861. Micrwave

Newsgroup: rec.ham-radio
Date: 1990-03-26 03:41:58 UTC
From: Brian.Crawford@p12.f15.n114.z1.fidonet.org
Message-ID: <15266.260D93E3@stjhmc.fidonet.org>
Source record: 12664

Are there any hams on the usergroup currently ACTIVE on 3 & 5 GHz Amateur Bands? Is there anyone ACTIVE on the amateur bands in between 10 & 47 GHz?

--
Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!15.12!Brian.Crawford
Internet: Brian.Crawford@p12.f15.n114.z1.fidonet.org

1862. Re: VE Schedule for NE?

Newsgroup: rec.ham-radio
Date: 1990-03-26 04:13:56 UTC
From: kjh@pollux.usc.edu
Message-ID: <23695@usc.edu>
Source record: 12665

In article <314@mikebat.UUCP> michaelb@mikebat.UUCP (Michael R. Batchelor) writes:
> Comment overheard at WARC 1992 -
> "Let's just stick them on 200 millimeters and below."

Actually, this wouldn't be too bad. 200 mm == 20 cm =~ 1.3 GHz. This would include everything higher in frequency than our current 23 cm band. Certainly, we would have a lot more bandwidth than we now have! I personally wouldn't miss the loss of the DC (HF) bands, but I would miss 432 MHz. Of course, I'm sure we could learn to use 1.3 GHz for coordination.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

1863. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-26 04:22:23 UTC
From: kjh@pollux.usc.edu
Message-ID: <23696@usc.edu>
Source record: 12668

In article <315@mikebat.UUCP> michaelb@mikebat.UUCP (Michael R. Batchelor) writes:
>At the risk of adding to the noise and being a stick in the mud myself,
>will someone PLEASE explain the *USEFULNESS* of the CW requirement to me.

Aurora can only be effectively utilized if CW is used.

During contests, I can do a CW contact in about 1/2 the time a voice
contact takes, and I never have to ask for a repeat.

Once, about 10 years ago, I copied a distress call from someone who went
down in an airplane, near Mansfield, OH. Since the signal was CW in a
phone band, it stood out like a sore thumb and attracted my attention
very quickly. I was able to help out these people by calling the local
FAA and giving them the details. A signal in any other mode would not
have attracted my attention (or anybody else's) like it did. (Note: it
was a very weak signal, and I doubt that it would have been copyable if
it wasn't CW.

The CW mode is very useful. I could go on, but I don't think you want
me to.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

1864. Re: Micrwave

Newsgroup: rec.ham-radio
Date: 1990-03-26 04:53:23 UTC
From: kjh@pollux.usc.edu
Message-ID: <23697@usc.edu>
Source record: 12669

In article <15266.260D93E3@stjhmc.fidonet.org> Brian.Crawford@p12.f15.n114.z1.fidonet.org (Brian Crawford) writes:
>Are there any hams on the usergroup currently ACTIVE on 3 & 5 GHz Amateur
>Bands? Is there anyone ACTIVE on the amateur bands in between 10 & 47 GHz?

I used to be very active on these bands, but I am temporarily off the air. I have quit my job and returned to school for a PhD. The lack of funds and (even more importantly) time has, and the desire for a PhD, has caused me to re-evaluate my priorities.

P.S. I wasn't on 47 GHz, but I was working on 76 GHz.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

1865. Backlogged AMSAT bulletins

Newsgroup: rec.ham-radio
Date: 1990-03-26 05:43:43 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21297@bellcore.bellcore.com>
Source record: 12670

Posted: Sat, Feb 24, 1990 9:49 PM GMT Msg: MGJA-4177-5105
From: CDUNCAN
To: is
CC: W1AW
Subj: ANS$055

SB ALL @ AMSAT $ANS-055.01
WO-18 TAKES EARTH PICTURES

HR AMSAT NEWS SERVICE BULLETIN 055.01 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 24, 1990
TO ALL RADIO AMATEURS BT

WEBERSAT-OSCAR-18 Successfully Takes Pictures Of Earth With Its CCD Camera

Chris Williams (WA3PSD) reports from the Weber State University (WSU) Ground Command Station in Ogden, UT that WO-18 took several excellent pictures from outer space this week with its onboard Charged Coupled Device (CCD) camera experiment. One picture of particular interest was of the Indian Ocean which, after color recovery by WEBERWARE 1.0 software, showed plenty of blue ocean and lots of clouds. Since it has been determined that the CCD camera is working well along with the rest of WO-18's satellite subsystems, officials at WSU's Center for Aerospace Studies (CAST) have declared WO-18 to be a major success. Two weeks ago, however, it was not definite weather the CCD was working properly since the first few pictures were either totally dark or completely white. After investigation, it was theorized that the camera lens was either pointing off to deep space or straight at the sun! Once the schedule for taking pictures was randomnized a bit, WO-18 finally was pointed at the earth when a picture was taken of the Himalayas. Since that first good picture on February 18th, WSU students have eagerly awaited each pass to see what new pictures of the earth will be seen. Chris reports that with each pass of WO-18, they are collecting about 100 Kbytes of data. They have now collected so much imaging data that they are running out of disk storage space.

Early in the week of March 13, WSU will be releasing its Beta test version of WEBERWARE 1.0 software for general use. This software will be available from the AMSAT Software Exchange as soon as it is released. Radio amateurs are encouraged to continue to collect imaging data from WO-18. Watch for more information about the release of WEBERWARE 1.0 in future AMSAT News Service (ANS) bulletins.

/EX
SB ALL @ AMSAT $ANS-055.02
MICROSAT UPDATE

HR AMSAT NEWS SERVICE BULLETIN 055.02 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 24, 1990
TO ALL RADIO AMATEURS BT

Week five at the AMSAT Satellite Factory (tm) finds the Engineering Team focusing their attention on investigations of the spinning motion of each satellite and the accompanying effects on solar cell illumination and temperature. All four satellites have some degree of wobble motion in addition to spin and magnetic lock. Jim White (WD0E) and a number of other volunteers have put forth considerable effort aiding W3GEY, N4HY, and NK6K in evaluating the telemetry from each satellite to characterize its various motions.

AO-16 seems to have the most wobble of all the MICROSATs. It currently has a rotational period of 690 seconds (which is fairly slow) and a wobble of about 45 degrees. LO-19 takes about 270 second/rev and has a wobble of about 20 degrees. DO-17 is the most stable of all the satellites with its 20 second rotational period and a wobble of about 12 degrees. Data on WO-18 is still being analyzed. Because WO-18 has two additional trays (a total of 7 electronic platforms) its spin characteristics are more complex and will require further study.

Because of the shortage of real estate and modest power budgets, none of the MICROSATs has an active attitude control system on board e.g., magnetorquing coils such as those used on AO-10, UO-11, AO-13, and UO-14. They do, however, have a set of bar magnets placed along each of the four corners of the spacecraft which will provide some alignment with the earth's magnetic field and will ultimately damp the wobbling motion. In addition, the 70 cm antenna elements on each satellite are painted black on one side and are silver coated on the other side. The purpose of painting only one side is to generate a slight rotational torque due to solar radiation on the MICROSAT to keep the satellites rotating. This solar torque drives each satellite in constant rotation and thus prevents one part of the spacecraft from becoming too hot or too cold.

Once it has been determined that each satellite's battery charging and temperature parameters have stabilized, preliminary operating schedules will be drafted and the satellites released for general use. Look to ANS for late breaking news on the commissioning of the MICROSATs.

/EX
SB ALL @ AMSAT $ANS-055.03
AO-13/AO-10 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 055.03 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 24, 1990
TO ALL RADIO AMATEURS BT

New AO-13 Transponder Schedule thru 09-May-90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205

Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 207.3 and BLAT = 2.3 for 05-Mar-90

From 21-Feb-90 to 21-Mar-90 there will be an OFF period from MA 20 to MA 90 due to solar eclipsing. The length of eclipses vary from 12 to 89 minutes. Only the Mode-S transponder and the Mode-B beacon will be on from MA 195 to MA 200.

AO-10 is currently experiencing solar eclipses during major portions of it orbit and until further notice its transponder is not available for use.

/EX
SB ALL @ AMSAT $ANS-055.04
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 055.04 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 24, 1990
TO ALL RADIO AMATEURS BT

New AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970. All nets in the current cycle occur on Saturday U.S. time.

Date Time Phs Mode NCS
UTC UTC

03-Mar-90 18:00 224 B WA4UPD (tentative)
11-Mar-90 04:30 120 B N5BF
17-Mar-90 13:30 215 B N5BF
25-Mar-90 04:00 200 B ??

/EX
SB ALL @ AMSAT $ANS-055.05
FO-20 PROGRESS REPORT

HR AMSAT NEWS SERVICE BULLETIN 055.05 FROM AMSAT HQ
SILVER SPRING, MD FEBRUARY 24, 1990
TO ALL RADIO AMATEURS BT

FO-20 Progress Report

The news this week from JARL is that FO-20's electrical power subsystem (EPS) is performing better than expected. With FO-20 having been on orbit for almost three weeks, the Mode JA and JD transponders have been operating simultaneously. In the case of Mode JD, there is the additional current drain caused by having 1 Mbyte of RAM memory also on line. JARL Ground Command Station operator JK1VXJ reports that with both transponders are operating and all the RAM memory banks are on line, the power used is only slightly more than the EPS system can deliver. He also says that when

FO-20 is in a full-sun condition, the EPS system can deliver the power necessary without any problem. Another interesting aspect to FO-20 life so far is the number of Single Event Upsets (SEU) or bit flips caused by high energy particles bombarding FO-20's RAM memory banks. The Error Detection and Correction (EDAC) circuitry has now recorded at least 3 to 5 bit flips due to this phenomenon. The EDAC circuitry can correct only one bit flip at a time per byte of memory.

From a Mode JD operation standpoint there is a problem that JK1VXJ would like to bring to the attention of all Mode JD users: a problem called "ZOMBI's." This term refers to stations that connect to FO-20's packet radio Mode JD mailbox system but do not send a disconnect before they have Loss of Signal (LOS). By typing the letter U when connected, JK1VXJ says he sees that there are still stations connected to the packet transponder. After a while, when the number of connected stations reaches 16, JK1VXJ says that even the Ground Command Station cannot connect! When operating Mode JD, please be sure you disconnect before LOS.

JK1VXJ reports that as of last weekend (17 February) he had reached the following milestones:

1. The BBS program written for FO-12 is now modified so that the CPU utilizes the full 4 RAM banks or 1 Mbyte total of memory. The modified BBS program was loaded to FO-20 during the February 17th weekend.

2. The ground based FO-20 software loader was also modified to improve its efficiency.

3. The ground based FO-20 engineering model is now operational and is serving as a test bed for "soon to be" loaded on-board software.

4. The Whole World Diary (WOD) function is added to BBS program and the program is being evaluated on the engineering model mentioned above. This "BBS with WOD" program will be loaded to FO-20 shortly.

/EX

Posted: Sun, Mar 4, 1990 10:53 PM GMT Msg: DGJA-4186-8900
From: DCOWDIN
To: IS
CC: W1AW
Subj: ANS-062 BULLETINS

SB ALL @ AMSAT $ANS-062.01
SA AMSAT BACAR ATV MISSION

HR AMSAT NEWS SERVICE BULLETIN 062.01 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

SA AMSAT Balloon Experiment To Carry Amateur TV Camera

SA AMSAT's BACAR (BAlloon Carrying Amateur Radio) mission 90/1 scheduled for March 10 will carry a black and white closed circuit television camera that

will be mounted in the flight package so that it faces towards the earth. The camera will drive a low power amplitude modulated video transmitter operating on channel 35 in the UHF television band. The output from the transmitter will provide a usable ground signal for distances up to 500 Km away from the package.

The most exciting portions of the mission will be the take off and landing as the pictures will contain most detail at these times. When the package is flying the picture on the ground will show large objects such as dams, major roads, mountains, valleys and heavily populated areas. The intention is to use a lens that will give ground coverage of some 10 Kilometers across from the altitude that the package is expected to reach.

All that will be necessary to pick up signals is a normal black and white television set tuned to channel 35 and equipped with a suitable antenna. SA AMSAT recently petitioned the South African licensing Authority for permission to use TV channel 35 as it will encourage youth groups and young amateurs who do not have sophisticated equipment to participate.

[ANS thanks SA AMSAT for this bulletin]

/EX
SB ALL @ AMSAT $ANS-062.02
MICROSAT UPDATE (PART 1)

HR AMSAT NEWS SERVICE BULLETIN 062.02 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

MICROSAT Status Report

The work accomplished during week six of the AMSAT Satellite Factory (tm) brings closer the time when the satellites are fully commissioned for general use. Chris Williams (WA3PSD) of Weber State University reports that WO-18 Photo-04 is another keeper. It was taken over the north coast of the Bay of Bengal. It is mostly clouds, but the right side of the screen has them thinned out a bit and some faint detail of land can be decerned (with a trained eye).

AO-16's S band beacon is being activated. If a number of key telemetry parameters are within specified windows, the beacon will be left on for a period of time.

It has been determined that the power module version of the +10V bus for DO-17 is reading faulty. The AMSAT Engineering team is in the process of recalibrating it. Jim (WA4ONG) has been "manually" charging the batteries on DO-17 to top them off in anticipation of activation of the voice transmission experiment on DOVE. Jim has managed to bring the TRUE battery voltage up almost 0.5 V in a short period of time. It is hoped that this next week will bring DO-17 closer to full commissioning.

/EX

SB ALL @ AMSAT $ANS-062.03
MICROSAT UPDATE (PART 2)

HR AMSAT NEWS SERVICE BULLETIN 062.03 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

MICROSAT Status Report, PART 2

The AO-16 and LO-19 digipeaters have been turned on for use. Ralph Wallio, W0RPK, reports that he was able to connect to himself thru LO-19. While he was doing the normal things one does when first starting in Packet Radio such as sending yourself "Hello" and "Test" packets he received a *** Connect request from N4HY. Ralph quickly disconnected himself from himself (no comments please) and reconnected to N4HY.

On the LSTAT telemetry line now there is a new item which has the form of "d:n"; "d:0" means the digipeater is off, "d:1" means the digipeater is on. Telemetry normally comes down one each 10 seconds. When a packet is being digipeated, the time interval becomes 30 seconds. This is a compromise between those people who are using the digpeat function and those people who are looking simply to to copy the telemetry. The AMSAT Engineering Teams asks to please check the downlink BEFORE you transmit. If telemetry is coming down each 10 seconds, then look at the LSTAT line. If d=0, DON'T TRANSMIT. If you see other digipeat activity, then the digipeater is on, and it is OK to transmit. You must specify the spacecraft callsign as a digipeater to get digipeated, e.g., PACSAT-1. This is because there are multiple spacecraft on a specific frequency. N4HY advises that AO-16 and LO-19 will be unavailable at a moments notice and without warning at times as the AMSAT Engineering team is still uploading code.

Initial use of the AO-16/LO-19 digipeater has found that an AO-13 style 10-13dbi gain antenna and 10 watts are all that are needed to access a MICROSAT AT THE HORIZON. More power is not required. Deviation of your transmitter should be set to 3kHz. Also, if you can track your uplink with a program, track in the smallest units you can. Some radios can track through the serial link in much smaller intervals than can be commanded thru the front panel. Set your program to generate the data in small intervals as well. Success has been shown (using 6 seconds (.1 minute)) intervals with QuickTrak and Kansas City Tracker.

/EX
SB ALL @ AMSAT $ANS-062.04
IT SATELLITE DATA BASE ANOMALY

HR AMSAT NEWS SERVICE BULLETIN 062.04 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

INSTATRACK Satellite Data Base Anomaly

Users of InstantTrack who acquired element sets soon after the new birds were launched should check MICROSAT and UOSAT data carefully. Until this past weekend the object names for several of the birds were incorrect. This was

the result of the mis-labeling that occurred at NORAD early on. Now that NORAD has corrected the labels, the element sets are correctly tagged with the proper satellite.

The mis-labling of our new satellites by NORAD has created a mixed identity problem for InstantTrack users. For example, prior to the correction, object 20437 was identified as UO15. Well, in fact, 20437 is really UO14. However, if you have loaded recent element sets into IT you will get a satellite selection menu entry of UO15 actually loaded with UO14 elements. This problem will most likely occur with UO14/UO15/AO-16.

InstantTrack loads satellite elements by looking at the OBJECT NUMBERS and matching them to the object numbers in its database. It assumes that when you load the new elements for object 123, you want it to replace the data you presently have there for object 123. InstantTrack makes a second assumption. It assumes that when you load new elements for an object already in he database, you want to KEEP THE OLD NAME for the object. The reason for this is simple. The same object often goes by many different names. EGAP vs Ajisai. AO-13 vs Oscar-13. UO-11 vs UOSAT-2, etc.

The correct present relationship between object name and object number has been published several places recently. All you need to do is look at the name and object number for each MICROSAT. If they don't match the published relationship, then EDIT THE NAME ONLY. InstantTrack will already have loaded the correct orbital elements with the correct object number.

/EX
SB ALL @ AMSAT $ANS-062.05
AO-13/AO-10 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 062.05 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 207.3 and BLAT = 2.3 for 05Mar90

The Mode-B beacon will be ON from MA 195 to MA 200. However from 21Feb90 to 21Mar90 there will be an OFF period from MA 20 to MA 90 due to solar eclipses affecting AO-13. The length of the eclipses vary from 12 to 89 minutes. Only the Mode-S transponder & the Mode-B beacon will be ON from MA 195 to MA 200.

AO-10 is currently experiencing solar eclipses during major portions of it orbit and until further notice its transponder is not available for use.

/EX
SB ALL @ AMSAT $ANS-062.06

UO-14 STATUS REPORT PART I

HR AMSAT NEWS SERVICE BULLETIN 062.06 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

UOSAT-OSCAR-14 Status Report #006 2-March-90, Part I

We apologize for the long delay between the last report and this one. The team at UoS has been very busy working toward the full commissioning of UO-14 and also trying all avenues toward the recovery of UO-15.

Firstly, happy birthday to UoSAT-OSCAR-11, now completing its 6th year in orbit! Congratulations to the international team which built this successful satellite.

UO-14 Attitude Control and Stabilization

UO-14 operations for the past month have concentrated on maneuvering the satellite into an attitude suitable for extension of the gravity gradient boom. On UO-9 and UO-11, these preliminary attitude control operations were conducted mostly under direct control of the Surrey Command Station, with only simple on-board computer programs. On UO-14, these operations are being conducted autonomously by the 1802 On Board Computer (OBC). This transfer from manual to automatic control has been made possible by extensive experimentation using UO-11, and development of complex autonomous attitude determination and control algorithms in the FORTH DIARY. These operations have been going well, if a bit slowly. University of Surrey's spacecraft attitude determination and control expert, Mr. Hodgart, has extensive lecturing and administrative commitments at the University, so software modifications and data analysis have sometimes been delayed.

In our last report, UO-14 was in a "flat spin", with the spin axis lying in the orbit plane, roughly north/south pointing. The first step was to slow this spin from 18 seconds to several minutes. Once the flat spin was slowed, controllers decided to impart some spin about the satellites Z axis. This is the normal spin motion for UoSAT satellites, and it distributes solar illumination evenly between all of the spacecraft's body mounted solar panels. This assures that no undesirable thermal gradients build up across the body of the satellite. Although control of Z axis spin is a regular part of UO-11 operations, it was found that spin control of a non-Earth-pointing UoSAT required some modifications to the OBC software. The desired Z spin rate was achieved during the last week in February.

After imparting spin about the Z-axis for proper thermal control, we wish to lock the Z axis to the Earth's magnetic field. Because of the alignment of the field, magnetic locking places the satellite in a favourable attitude for boom deployment as it makes descending passes over Guildford. Thus, once the satellite locked to the magnetic field, the boom will be deployed within range of the Command station, the magnetic lock software will be disabled, and the satellite should become gravity gradient stabilized. These operations are expected early next week (12 March).

/EX
SB ALL @ AMSAT $ANS-062.07
UO-14 STATUS REPORT PART II

HR AMSAT NEWS SERVICE BULLETIN 062.07 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

UO-14 Status Report #006 2-March-90, Part II

Data Formats

UO-14 continues to run the FORTH DIARY on the 1802 OBC, using data formats distributed just after launch. The development, publication and implementation of downlink data formats for OSCARs is a delicate business, especially early in a mission. We do not want to publish data formats if they are likely to change quickly, lest people waste their time implementing software which will later become useless. On the other hand, if we do not publish formats, you cannot listen to the satellites - and that's what they're there for!

In the next month, we will be changing operating regimes on UO-14, as the PACSAT Communications Experiment (PCE) is brought on line. Once this happens, asynchronous data formats (as used by the DIARY) will give way to synchronous, AX.25 packet formats.

As soon as possible, the PCE on UO-14, and the BBS systems on AO-16 and LO-19 will be brought on line for general amateur store-and-forward communications access. All three of these satellites will be running the same software, using the same protocols - developed jointly by UoSAT and AMSAT-NA. NK6K and G0/K8KA have already published a draft standard for a broadcast (e.g. bulletins and Whole-Orbit-Data) protocol. A final specification should be distributed soon, and early transmissions from the UO-15 PCE will use this protocol. Specification of the message-transfer protocol is well under way.

Thus, the stable state, which we expect to reach sometime this spring, is that UO-14, AO-16 and LO-19 bulletin boards will be accessable with the same groundstation protocol software. Broadcasts from these satellites (e.g. bulletins and Whole-Orbit Data) will also come down in a single standard data format. Until we reach this state, ground station software developers are advised to make their programs modular and be ready to revise!

Downlink Modulation

UO-15 is capable of transmitting either 1200 baud AFSK (as used on all previous UoSATs and currently transmited by UO-14), or 9600 bits/second FSK. Ultimately, the PCE on UO-15 will support only 9600 bps FSK. During the transition from DIARY operations to PCE operations, however, we will also be transmitting AX.25 packets at 1200 bits/second AFSK. Like DOVE, this should be copyable with a standard, unmodified, TNC.

[AMSAT News Service would like to thank G0/K8KA for this bulletin.]

/EX
SB ALL @ AMSAT $ANS-062.08

UO-15 STATUS REPORT

HR AMSAT NEWS SERVICE BULLETIN 062.08 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

UO-15 Status Report #006 2-March-90

Experiments are under way using a large (150ft) antenna at Stanford Research Institute (SRI) to attempt to detect very low level signals leaking from the UO-15's on-board uplink receiver local oscillators. If the spacecraft power systems are still functioning, then these signals should always be present since the receivers cannot be switched off. However, these leakage signals are deliberately minimized during the design of the satellite and so they are very weak (-60 dBm = one thousand, millionth of a watt or the equivalent to looking for a single Xmas tree light in Australia!). The experiments at Stanford are therefore very demanding: it will only be possible to extract the signals from the background noise using sophisticated off-line digital signal processing, and a one second error in antenna tracking time may miss the satellite altogether!

Fortunately, we have UO-14 working well, and this sister satellite can be used as a "reference" to determine whether it is in fact possible to detect these signals even if UO-15 is alive (UO-14 & 15 use identical systems). After much processing, SRI successfully detected the leakage signal from UO-14 on Feb. 26th at the expected levels, and attempts to listen for UO-15 have just commenced. It may still take several weeks before the results are conclusive, since great care has to be taken to remove all sources of error and uncertainty. If the leakage signals are detected from UoSAT-15, then further tests are planned which should allow us to trace the nature of the fault.

[AMSAT News Service would like to thank G3YJO for this bulletin.]

/EX
SB ALL @ AMSAT $ANS-062.09
AMSAT HF NET SCHEDULES

HR AMSAT NEWS SERVICE BULLETIN 062.09 FROM AMSAT HQ
SILVER SPRING, MD MARCH 3, 1990
TO ALL RADIO AMATEURS BT

Numerous Regularly Scheduled AMSAT HF Nets Provide Timely Information

With events occuring so quickly in the world of amateur radio satellites, the quickest place to find information about operational news on the OSCARs is one of the many weekly HF AMSAT Nets. The following is a schedule of the many AMSAT Nets each week:

DAY TIME FREQUENCY NCS COMMENT

Sunday 09:00 UTC 14.280 MHz ZS6AKV AMSAT-SA Net
Sunday 10:00 UTC 3.685 MHz VK5AGR AMSAT Australia
Sundays 19:00 UTC 14.282 MHz WD0HHU AMSAT International Net
Sundays 19:00 UTC 21.280 W8GQW Simulcasts On AO-13 when

in View On 145.955 Mode B
Sundays 23:00 UTC 18.155 MHz N4QQ Excellent DX Windows
Tuesday 9:00 P.M. EST 3.840 MHz W8GUS AMSAT East Coast Net
Tuesday 9:00 P.M. CST 3.840 MHz W0CY AMSAT Mid America Net
Tuesday 9:00 P.M. PST 3.840 MHz KI6QE AMSAT West Coast Net
Saturday 15:00 UTC 28.460 MHz WB2YGA AMSAT Beginner's Net
Saturday 10:00 UTC 14.280 MHz PA0DLO AMSAT European Net
Saturday 22:00 UTC 14.282 ZL1WN AMSAT South Pacific Net

/EX

Posted: Tue, Mar 6, 1990 4:33 AM GMT Msg: EGJA-4188-2261
From: JWHITE
To: is
CC: paclist
Subj: motion instalment 23b.24c.a1

TO: IS
CC: PACLIST

Further on motion...

Analysis of array currents has indicated that PACSAT-1 (AO-16) came out of its tumbling motion after separation spinning in the wrong direction. Because of the dynamics of the separation from the launch vehicle, there was a 50 - 50 chance of that happening with any of the microsats. Once it had locked into the magnetic field of the earth, about 10 days after launch, it began to slowly spin down from about a 10 minutes per revolution rate, to 30 minutes, to 1 hour, then on Feb 17th it essentially stopped all spinning motion for a couple of orbits, then began to turn in the opposite (correct) direction. As of March 3 it had spun back up to about 7 minutes per rev in the correct direction and will probably stabilize at that rate, which is the same speed at which LUSAT-1 (LO-10) is turning. A change in the telemetry gathering method will be necessary to determine if the wobbling motion, much like a top that is a bit out of balance, has been reduced from the 45 degrees measured in early February.

73 Jim White, WD0E

Posted: Sat, Mar 10, 1990 11:41 PM GMT Msg: HGJA-4192-8318
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$069

SB ALL @ AMSAT $ANS-069.01
WO-18 WEEKLY STATUS REPORT

HR AMSAT NEWS SERVICE BULLETIN 069.01 FROM AMSAT HQ
SILVER SPRING, MD MARCH 10, 1990
TO ALL RADIO AMATEURS BT

WEBERSAT-OSCAR-18 Picture Taking Continues; Weberware 1.0 Goes To Beta Test

WA3PSD reports that the Ground Command Station at Weber State University (WSU) is receiving pictures from space on a daily basis. This past week the best picture taken was of the coastline of British Columbia near Vancouver Island. Since Weberware 1.0 has the capability to recover the color in pictures from the imaging data stored in memory, the oceans show up with the proper hues as seen by the camera. Initially it was difficult for the WSU students to pin-point the area snapped by the camera, but checking with QUIKTRAK the time the lens shutter was opened, they determined that it was the coastline of British Columbia. The camera on WO-18 can only take a 170 square mile picture (when looking straight down), so at times one has to be very good at geography. Horizon sensor readings are being integrated into the picture taking software on-board WO-18. The horizon sensors can be interpreted to determine when the satellite is pointing at the earth. The software is being changed so that pictures will only be taken at those times. Hopefully, this will mean the end to pictures of deep space or the sun.

WO-18 may be heard on 437.100 MHz (+/- 10 KHz for doppler shift). The alternate frequency is 437.075 MHz.

WA3PSD is pleased to announce that the beta test version of the picture processing software, Weberware 1.0, will be sent out to a group of carefully choosen software testers next week who will perform intensive checks of the software. If no major bugs are discovered radio amateurs can expect to see Weberware 1.0 available from the AMSAT Software Exchange around the first week of April. WA3PSD wants to emphasis that the first priority at WSU is taking care of WO-18 -- after that, getting the image processing software finished is next. The students at WSU are working as quickly as possible to get this very complicated program into a user friendly state. Weberware 1.0 is designed to run on IBM AT clones equipped with EGA or VGA monitors.

Because of the instant popularity of WSU's efforts in the building the WEBERSAT MICROSAT, many grade school and high school students from the greater Ogden/Salt Lake City area are showing up at the Ground Command Station in the evenings to see what is involved in the care and feeding of an OSCAR satellite. The WSU students have enthusiastically embraced the job of explaining to all who enter the finer details of WO-18 and its many on-board scientific experiments. It is hoped that many of these young people will not only become interested in amateur radio but also start thinking about space.

All radio amateurs are encouraged to continue to save picture data from WO-18 and telemetry. If you would like to receive a beautiful QSL card from WSU, send your QSL card, a copy of WO-18 telementry and a s.a.s.e. to:

WA3PSD
Eng. Tech. Bldg., #236
Weber State University
Ogden, UT
84408-1805

/EX
SB ALL @ AMSAT $ANS-069.02
ORBITAL DATA MANAGER APPOINTED

HR AMSAT NEWS SERVICE BULLETIN 069.02 FROM AMSAT HQ
SILVER SPRING, MD MARCH 10, 1990
TO ALL RADIO AMATEURS BT

Operational Coordinator for Orbital Data Management Appointed

AMSAT-NA V. P. of Operations, Courtney Duncan, N5BF, announces the appointment of Dick Campbell, N3FKV, AMSAT Operational Coordinator for Orbital Data Management. Dick has already assumed his initial responsibility of collecting, reformatting, and releasing keplerian orbital data for satellites of interest to amateur radio operators on a weekly basis.

As AMSAT continues to progess into an era of tracking and utilizing over a dozen satellites (plus weather satellites), Dick will work to improve both our sources for this information, intermediate processing and checking, and our distribution networks to maximize the usefulness of the information for all involved.

Comments and suggestions should be forwarded to:

Dick Campbell, N3FKV
216 Coventry Drive
Lorena, Texas 76655

Dick does not currently live near a packet BBS so packet mail on the subject of AMSAT Orbital Data Management may be forwarded to him via N5BF @ WB6YMH.

/EX
SB ALL @ AMSAT $ANS-069.03
ORBIT DATA CHANGES CONSIDERED

HR AMSAT NEWS SERVICE BULLETIN 069.03 FROM AMSAT HQ
SILVER SPRING, MD MARCH 10, 1990
TO ALL RADIO AMATEURS BT

The number of satellites tracked and used by radio amateurs is more than doubling during 1990 and so are the demands on the distribution networks for orbital information. As a result, AMSAT-NA is interested in quantifying its user base and determining their requirements as plans are made to improve the system.

Already, many AMSAT and AMSAT related publications have gone from the familiar "AMSAT Standard" format to the more compact NASA "two line" format to save space. Consideration is also being given to changing to this format for packet radio distribution. For users of PC compatible computer systems with the popular Quiktrak, InstanTrak and Graftrak tracking programs, this poses no problem. These programs are able to make automatic updates of keplerian data from files captured during packet BBS or dial up BBS sessions. Older versions of these programs, programs for other types of computers, and software used in other parts of the world do not have these features, however, and AMSAT is interested in determining exactly what information and formats it should be providing

to its broad user base. Interested users are asked to answer the
following questions and respond to one of the addresses given below.

NAME _____

CALLSIGN _____

ADDRESS _____

What computers, calculators, or other tracking aids do you use for amateur
or weather satellite tracking?

What tracking programs do you use?

What type of orbital data do you use? (AMSAT sets, NASA two-line, equator
crossing time and longitude, other - please describe).

How often do you do orbital data updates?

How do you perform these updates? (Manually, tracking program utility)

How many and which satellites do you maintain in your database? How
many do you routinely use?

Where do you obtain your orbital data? (AMSAT Nets, Packet BBS, printed
publications, mail from NASA, other - please describe).

Please send replies to:

Dick Campbell, N3FKV
AMSAT-NA Operational Coordinator
for Orbital Data Management
216 Coventry Drive
Lorena, Texas 76655

Dick does not currently live near a packet BBS, packet mail responses should
be addressed to N5BF @ WB6YMH.

/EX
SB ALL @ AMSAT $ANS-069.04
SEARCH FOR UO-15 FAILURE MODE CONTINUES

HR AMSAT NEWS SERVICE BULLETIN 069.04 FROM AMSAT HQ
SILVER SPRING, MD MARCH 10, 1990
TO ALL RADIO AMATEURS BT

Volunteers at the Stanford Research Institute (SRI) have been working with the
University of Surrey (UoS) to try to determine what may be preventing UO-15
from downlinking telemetry. Martin Sweeting of the UoS reported that SRI is
making available a 150 foot dish and its sophisticated signal processing
equipment to determine if any of the sub-systems on UO-15 are still
operational. If you will remember, SRI has aided UoS in the past by using the
same dish to uplink a signal of "sufficient strength" to overcome the desensing
of UO-9's command receiver when its two meter transmitter was erroneously
turned on.

The signals SRI are trying to receive are the local oscillators on board UO-15. It has been calculated that the receive signal strength of UO-15's LOs are approximately -160 dBm (talk about small-signal work!). A trial run this week of receiving LO signals from the healthy UO-14 was deemed successful, although it required signal analyzers utilizing FFT techniques that provided a 1 Hz resolution bandwidth over a 5 KHz BW to discern the signals. SRI will now try to locate UO-15's LO signals over the next week and from the results of those efforts, the University of Surrey's engineering team will make a determination if it is possible to "pull the cork" on UO-15's transmitter.

/EX
SB ALL @ AMSAT $ANS-069.05
MICROSAT UPDATE

HR AMSAT NEWS SERVICE BULLETIN 069.05 FROM AMSAT HQ
SILVER SPRING, MD MARCH 10, 1990
TO ALL RADIO AMATEURS BT

Week seven at the AMSAT Satellite factory finds each satellite closer to full commissioning for general use. DO-17 continues to excite newcomers to the world of Amateur Satellites with its ease of telemetry reception. Anyone with a 2 meter FM receiver tuned to 146.825 MHz, a 1/4 wave ground plane antenna (there is no tracking required with this antenna!) and a standard TNC will be able to receive telemetry packets from DO-17. By listening from 8:00 am through 1:00 am and 7:00 pm through 12:00 am local time, you should be able to pick up a number of passes of DO-17. DO-17 transmits packets for about 2.5 minutes followed by an "off period" of about 30 seconds. As is the case with each of the Microsats, the telemetry offers 59 telemetry points and the AMSAT Software Exchange has available programs that translate the data points into more easily recognizable information (ie: battery voltage, solar cell current etc.).

AO-16 and LO-19 have been available for digipeating packets. Numerous stations have successfully connected to "DX" (as far as VHF-packet operations is concerned) via these two birds. The Store and Forward capabilities of AO-16 and LO-19 have yet to be enabled, pending further testing.

The modulation protocol on these two birds is as follows. The TNC must use an external 1200 baud PSK modem rather than the FSK modem that is standard on commercial TNCs. Approximately 100 watts EIRP FM is all that is required to access AO-16 or LO-19. Your downlink receiver must be set to USB or LSB. To digipeat through AO-16 you must use the address PACSAT-1. To digipeat through LO-19 you must use the address LUSAT-1. Below are listed the downlink and uplink frequencies of AO-16 and LO-19:

AO-16 Downlink 437.025 437.050 MHz
Uplink 145.90 145.92 145.94 145.96 MHz

LO-19 Downlink 437.150 437.125 MHz
Uplink 145.84 145.86 145.88 145.90 MHz

/EX

Posted: Sun, Mar 11, 1990 12:14 AM GMT Msg: FGJA-4192-8386
From: CDUNCAN
To: is
Subj: ORBS improvements

Next week, we plan to divide the OSCAR ORBS bulletin into digital
and analog, 6 satellites each (with FO-20 in both). This should
relieve some of the packet mail congestion by making smaller bulletins.

I assume that the problem is length of bulletins, not number of bulletins.

73, Courtney, N5BF

Posted: Sun, Mar 18, 1990 12:16 AM GMT Msg: DGJA-4198-8918
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$076

SB ALL @ AMSAT $ANS-076.01
UOSAT 14 & 15 STATUS REPORT

HR AMSAT NEWS SERVICE BULLETIN 076.01 FROM AMSAT HQ
SILVER SPRING, MD MARCH 17, 1990
TO ALL RADIO AMATEURS BT

UOSAT-OSCAR-14 and UOSAT-OSCAR-15 REPORT #007 15-Mar-90

** UoSAT-OSCAR-14 **

Attitude Control and Stabilization

Manueuvers prior to gravity gradient stabilization have taken somewhat longer
than expected. The most recent delays were caused by the need to add digital
filters to the attitude determination software to remove unwanted noise from
the magnetometer readings. The filters have been installed, and a new version
of the FORTH diary will be uploaded soon.

High Speed Downlink Tests

The UoSAT Command Station has been conducting limited experiments with the
9600 bits/second Frequency Shift Keyed (FSK) downlink on UO-14. These tests
have been quite successful, doubling the highest digital link speed previously
used on any OSCAR satellite (4800 bps is routinely used on UO-11).

Data transmitted during these tests has been either asynchronous telemetry
from the Very Large Scale Integrated telemetry system or continuous streams of
1 bits (no data at all). The "stuck ones" tests are very useful because of
the scramblers in the modulator and demodulator. The 1's are scrambled and
transmitted as pseudorandom data over the RF link. The groundstation
demodulators then lock onto this data, descramble it, and reproduce the
continuous 1's. Any 0's in the demodulated output data stream are caused by
bit errors on the communication link, and the link bit error rate (BER) can be
calculated from the frequency of such transitions.

BER tests are to be scheduled into the DIARY in aid of those trying to test their FSK receive systems. The first scheduled tests were scheduled for the morning passes over the East Coast of the US on 15 March.

- de G0/K8KA.

** UoSAT-OSCAR-15 **

The team at Stanford has succeeded in detecting local oscillator (LO) leakage from the UO-15 command receiver. The weak signals were first detected on March 10 and then again on March 11. Roy Long, leading the Stanford Research Institute team on the recovery attempt, said that there is no doubt that the signal comes from UoSAT-15. It is weaker than the corresponding signal on UoSAT-14, as expected from prelaunch measurements.

Each UoSAT carries three receivers: a fixed-frequency command receiver and two communications receivers with switchable frequency. Efforts will now concentrate on monitoring one of the switchable frequency receivers. If one of these receivers is heard, commands will then be sent to change the receiver frequency, which should cause a corresponding change in the LO frequency. Observation of changed LO frequency will confirm that the satellite's command system is basically healthy.

The work at Stanford is very time consuming, requiring azimuth and elevation control of the huge Stanford 150 diameter dish to within tight limits. Data are collected for only a few seconds, followed by hours of post-processing.

/EX
SB ALL @ AMSAT $ANS-076.02
DOVE-OSCAR-17 OBC CRASHES

HR AMSAT NEWS SERVICE BULLETIN 076.02 FROM AMSAT HQ
SILVER SPRING, MD MARCH 17, 1990
TO ALL RADIO AMATEURS BT

DOVE-OSCAR-17's On-board Computer (OBC) Experiences A Crash

On Wednesday March 14, reports were received that an On-Board Computer (OBC) crash had occurred on DOVE-1. Since then, only a continuous carrier with packet "flags" has been heard on the DO-17 downlink of 145.825 MHz. At the present time it has not been determined exactly how this computer anomaly occured. Attempts are being made to perform a reset of the DOVE-1 CPU.

At the present time the MICROSAT Engineering Team does not feel this condition poses any threat to the well-being of DO-17. After several command tests, the anomalous situation will be better understood. If a reset attempt is succesful, the S band transmitter will be commanded on and two meter transmissions will be suspended until after the next software upload is completed. Data reports from S band receiving stations will be crucial during the period following the reset. Stations equipped to receive 1200 bps PSK on 2400.1 - 2400.3 MHz should contact Courtney Duncan, N5BF, or Bruce Rahn, WB9ANQ via the AMSAT-NA Operations Net or AMSAT-NA Headquarters. Also, data reports from shortly before the CPU crash will be appreciated. For information on submitting reports, see the following ANS bulletin

concerning the Microsat Data Archive.

Stay tuned to AMSAT Nets and ANS bulletins for further updates.

/EX
SB ALL @ AMSAT $ANS-076.03
MICROSAT DATA ARCHIVE ESTABLISHED

HR AMSAT NEWS SERVICE BULLETIN 076.03 FROM AMSAT HQ
SILVER SPRING, MD MARCH 17, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Vice President for Operations, Courtney Duncan, N5BF, announces the appointment of Reid Bristor, WA4UPD, Technical Coordinator for Satellite Data Archiving.

Reid has set up a database using DEC computers and large, removable fixed disk drive systems and is now ready to begin receiving data for collating and storage. Microsat files collected in either KISS or ASCII mode are acceptable. File naming is not yet standardized so any convention is ok as long as submitters include a note explaining how their personal naming convention works. A standard format for file naming and file contents will be published soon after which all submissions must conform. At this time, all Microsat datafiles are welcome.

This archive will be used to keep records on the Microsat spacecraft over short and long term periods and to allow various spacecraft parameters and trends to be analyzed. Clearly, any such research will benefit from the most complete dataset possible, thus, it is very important that everyone with captured data send copies to Reid for inclusion in the master archive. Command and monitoring station operators are very dedicated individuals but they all have careers, families, and other responsibilities and have not been able to take data for every visibility of every satellite since launch. Also, each satellite is only visible a small percentage of the time from any given location. There is no single, complete collection of Microsat telemetry data; AMSAT is counting on the many amateur satellite users around the world who have been logging data for the last two months to begin this collection. There is a good chance that the data submitted by any individual is unique and therefore very important to the collection. Submissions are solicited from North and South America, Africa, Europe and Asia, Australia and Oceania, and any other locations for all times since the Microsat launch.

As the system developes, it will be expanded to include other amateur satellites besides the Microsats. Submission standards will be published and amateurs wishing access to the data for analysis and research will be accomodated.

Reid is prepared to take submissions by mail in any of the IBM-PC 5.25 or 3.5 inch disk formats, Commodore-64 1541, 1571, and 1581 formats, and DEC RX-50 and RX-01/2 formats (as used on the Rainbow 100 and PRO series DEC systems). Those with disks in Apple, MacIntosh, or any other formats not listed are asked to write to Reid at the address given

below to work out the details of data submission. Files may be compressed using PKARC. Direct, electronic submission of data may be instituted in the future if it is deemed practical.

Data diskettes, inquiries, comments, and other correspondence concerning the Microsat / Amateur Satellite Data Archive may be directed to:

Reid Bristor, WA4UPD @ N4JLR
4535 Deerwood Trail
Melbourne, Florida 32935

Reid also participates regularly in the Amsat-NA Operations Net on AO-13 and can be contacted there.

/EX
SB ALL @ AMSAT $ANS-076.04
AO-10 & 13 TRANSPONDER SCHEDULES

HR AMSAT NEWS SERVICE BULLETIN 076.04 FROM AMSAT HQ
SILVER SPRING, MD MARCH 17, 1990
TO ALL RADIO AMATEURS BT

AO-13 Transponder Schedule to 09May90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 207.4 and BLAT = 1.7 for 19Mar90

The Mode-B beacon will be ON from MA 195 to MA 200. However from 21Feb90 to 21Mar90 there will be an OFF period from MA 20 to MA 90 due to solar eclipses affecting AO-13. The length of the eclipses vary from 12 to 89 minutes. Only the Mode-S transponder & the Mode-B beacon will be ON from MA 195 to MA 200.

AO-10 is currently experiencing solar eclipses during major portions of it orbit and until further notice its transponder is not available for use.

/EX
SB ALL @ AMSAT $ANS-076.05
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 076.05 FROM AMSAT HQ
SILVER SPRING, MD MARCH 17, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970. All nets in the current cycle occur on Saturday U. S. time.

Date UTC Time Phs Mode NCS

25 Mar 90 0400 200 B WD0E/WA4UPD

01 Apr 90 0400 118 B N5BF
07 Apr 90 1300 212 B N5BF
15 Apr 90 0210 168 J/L N5BF
22 Apr 90 0400 127 B N5BF
28 Apr 90 1300 221 B N5BF

06 May 90 0145 168 J/L N5BF

/EX
SB ALL @ AMSAT $ANS-076.06
SA AMSAT BACAR MISSION 90/1 A HUGE SUCCESS

HR AMSAT NEWS SERVICE BULLETIN 076.06 FROM AMSAT HQ
SILVER SPRING, MD MARCH 17, 1990
TO ALL RADIO AMATEURS BT

BACAR mission 90/1 was a huge success. Three balloons carried BACAR (BAlloon Carrying Amateur Radio) to a height of nearly 50,000 feet above sea level in what can be described as a flawless mission.

BACAR was equipped with an RTTY telemetry unit providing information such as current altitude and rate of climb. The telemetry transmitter's output was in the 2 meter band. The camera used was a closed circuit monochrome CCD television camera fitted with an 8.5 mm lens. The camera had an automatic gain control circuit which compensated for the variation in light intensities. The video output from the camera was fed into a video transmitter operating on standard UHF channel 35 (583.250 MHz). The transmitter consisted of a crystal controlled oscillator on 48 MHz which was multiplied up to the output frequency. Modulation was applied to the driver and output stages which then drove a co-linear ground plane antenna. The output of the transmitter was 1.7 watts. BACAR was powered by common alkaline batteries.

With an expensive camera on board, special precautions were taken to ensure that BACAR would be recovered. A special release mechanism was used that automatically released BACAR from the balloons 90 minutes after launch. As a further safety precaution, a telecommand receiver was also built into the device.

The local weather bureau provided tracking support and other logistical assistance. The launch went off like clockwork and seconds after BACAR started to ascend, reports of good quality video were received. Later in the flight video reception was reported from as far as Pietersburg, a city over 300 km from the launch site. Reports and video tapes are still being received.

[ANS would like to thank SA-AMSAT for this information]

/EX

Posted: Sat, Mar 24, 1990 9:59 PM GMT Msg: JGJA-4205-2148
From: CDUNCAN
To: is

CC: w1aw
Subj: ANS$083

SB ALL @ AMSAT $ANS-083.01
WEBERWARE 1.0 IN BETA TESTING

HR AMSAT NEWS SERVICE BULLETIN 083.01 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

Weberware 1.0 Satellite Picture Processing S/W Released To Beta Testers

Chris Williams (WA3PSD) of Weber State University reports this week that a few selected radio amateurs will soon receive their Beta test copy of Weberware 1.0. Weberware 1.0 is designed to ta+-V5g3Bi]=KW-KVssq%9-5]m /EESW$V2mT(U)Wu*)' ~and generate a color picture on a EGA or VGA screen using a IBM PC or clone. The reviewers of this complex software package will be looking especially at its user friendliness. Also, they will be examining all its features and looking for any hidden software bugs which might be lurking in the background. While Chris emphasizes that testing Weberware 1.0 will be hard work, it should also provide a lot of excitement as it paints pictures of earth taken by the WO-18 CCD camera. Weberware 1.0 will run only on an IBM PC or clone with either a EGA or VGA CRT.

Assuming that no major problems are discovered by the Be

Posted: Sat, Mar 24, 1990 10:03 PM GMT Msg: CGJA-4205-2155
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$083

SB ALL @ AMSAT $ANS-083.01
WEBERWARE 1.0 IN BETA TESTING

HR AMSAT NEWS SERVICE BULLETIN 083.01 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

Weberware 1.0 Satellite Picture Processing S/W Released To Beta Testers

Chris Williams (WA3PSD) of Weber State University reports this week that a few selected radio amateurs will soon receive their Beta test copy of Weberware 1.0. Weberware 1.0 is designed to take image information downlinked from WEBERSAT-OSCAR-18 (WO-18) and generate a color picture on a EGA or VGA screen using a IBM PC or clone. The reviewers of this complex software package will be looking especially at its user friendliness. Also, they will be examining all its features and looking for any hidden software bugs which might be lurking in the background. While Chris emphasizes that testing Weberware 1.0 will be hard work, it should also provide a lot of excitement as it paints pictures of earth taken by the WO-18 CCD camera. Weberware 1.0 will run only on an IBM PC or clone with either a EGA or VGA CRT.

Assuming that no major problems are discovered by the Beta testers, radio amateurs can expect to see Weberware 1.0 available from the AMSAT Software Exchange during the last week of April.

/EX
SB ALL @ AMSAT $ANS-083.02
V51NAM DX STATION ON AO-13

HR AMSAT NEWS SERVICE BULLETIN 083.02 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

V51NAM On AO-13 From Namibia Until March 25th

Hans an de Groenendaal (ZS6AKV) reports that on March 20th Namibian radio amateurs will start to use their newly allocated callsigns as follows:

Old Prefix New Prefix

ZS3 Full License V51
ZR3 Restricted VHF License V50

As part of this change in call signs, special event station Z51NAM will be on AO-13 working as many stations as possible until March 25th. For those who make a contact with V51NAM and would like to QSL, send your QSL card to the:

South African Amateur Radio League
BOX 807
Houghton 2051, South Africa

The SARL will be handling all QSL's on behalf of the Namibian Amateur Radio Society. The President of the Namibian Amateur Radio Society is Derek Moore, ex ZS3DM.

[AMSAT News Service would like to thank ZS6AKV for this information.]

/EX
SB ALL @ AMSAT $ANS-083.03
MAC TLM PROGRAM AVAILABLE

HR AMSAT NEWS SERVICE BULLETIN 083.03 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

MACINTOSH MICROSAT Telemetry Decoding Program Now Available

Jim White (WD0E) reports that his TLMDCMac program is now available from the AMSAT Software Exchange. TLMDCMac is a Macintosh application that decodes telemetry (TLM) from any of the four AMSAT MICROSATs (AO-16, DO-17, WO-18, LO-19). It takes the values that are transmitted by the satellites and transforms them into "engineering values" that indicate how the spacecraft is operating, i.e., the RF power output of the transmitters, temperatures, current being generated from the solar arrays, etc. The telemetry data can be viewed live on the Mac screen during a MICROSAT pass by connection from your TNC to one of the Mac serial ports. You can also record the TLM and read it into TLMDCMac later. Recorded files must be in ASCII text (no KISS) and can

be from any source. The program displays the raw TLM data and the decoded values (in Amps, degrees C, etc.) in two separate resizable, movable windows on the Mac screen. Decoded values are displayed in logical groups. It can also, at the user's option, create three separate output files: The raw TLM, the decoded values in a tabular format (probably not available in V1.0), or the decoded values in the SYLK format. The latter can be read into most any spread sheet application for further analysis, charting, etc. Included with the program is a Parameter Converter application for updating the files of parameters used to decode the raw TLM, the parameter files themselves, and a set of EXCEL templates in which data can be pasted into for further analysis. A complete user guide and some sample TLM files are also included. A Mac 512E, Plus, SE, Mac II, or Mac Portable can be used. For further information about the availability of this program, contact the Software Exchange at (301) 589-6062.

/EX
SB ALL @ AMSAT $ANS-083.04
AO-13/AO-10 OPERATING SCHED

HR AMSAT NEWS SERVICE BULLETIN 083.04 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

AO-13 Operating Schedule Effective Until 09-MAY-90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 207.6 and BLAT = 1.1 for 02-Apr-90

The Mode-B beacon will be ON from MA 195 to MA 200. Only the Mode-S transponder & the Mode-B beacon will be ON from MA 195 to MA 200.

AO-10 is currently experiencing solar eclipses during major portions of it orbit and until further notice its transponder is not available for use.

/EX
SB ALL @ AMSAT $ANS-083.05
AO-13 OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 083.05 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950 MHz. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970 MHz. All nets in the current cycle occur on Saturday U.S. time.

Date UTC Time Phs Mode NCS

01 Apr 90 0400 118 B N5BF
07 Apr 90 1300 212 B N5BF
15 Apr 90 0210 168 J/L N5BF
22 Apr 90 0400 127 B N5BF
28 Apr 90 1300 221 B N5BF

06 May 90 0145 168 J/L N5BF

/EX
SB ALL @ AMSAT $ANS-083.06
DO-17 RECOVERED BY EME STATION

HR AMSAT NEWS SERVICE BULLETIN 083.06 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

W5UN's Big EME Station "Gets" DOVE's Attention!

On Saturday, 17-Mar-90 the AMSAT Engineering Team successfully reset the CPU on DO-17 and commanded the 2M transmitter off. Dave Blaschke (W5UN) is the owner of the world's largest privately owned 2 meter antenna and was teamed with Harold Price (NK6K) to overcome the desense problem (DO-17's command receiver is also in the 2M band and the constant "streaming" by the transmitter desensed the command receiver). Even with 32.5 dBi gain, and nearly 2 megawatts of EIRP, it took Dave and Harold several days of transmitting the reset sequence before they were successful.

Alberto Zagni (I2KBD) reported that the transmitter power was dropping significantly at the end of the eclipse portion of the orbit which indicated that the batteries were flattening out. Armed with this information, Bob McGwier (N4HY) strategized with W5UN as to the two best times to reset the spacecraft CPU and turn the transmitter off. The first was at the end of the eclipse period, when transmitter power would be at its lowest point. However, if it turned out that the battery voltage was too low to maintain the GASFET preamp in the receiver, then the next time to try was just as the transmitter power was falling off (soon after it left the sun and started the voltage descent in eclipse). The latter was the time which turned out to be successful.

Almost immediately following the reset, NK6K uploaded a new set of battery charging commands and transmitter state commands. Early the next morning, Bob commanded the S band transmitter on and the two meter transmitter off. Bill McCaa, K0RZ, successfully copied the S band beacon. The AMSAT Engineering Team is reviewing the events of the last week to determine the failure mode. Once they have completed their investigation, they will upload the operating system for DO-17 and continue its shakedown prior to commissioning. DO-17 is not expected to be fully commissioned until sometime in April.

/EX
SB ALL @ AMSAT $ANS-083.07
AMSAT SPACE SYMPOSIUM LOCATION

HR AMSAT NEWS SERVICE BULLETIN 083.07 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

Johnson Space Flight Center to Host 1990 AMSAT Symposium

AMSAT has announced that the 1990 AMSAT Space Symposium will be held at NASA's Johnson Space Center near Houston Texas. The dates for the weekend meeting which will be hosted by the Johnson Space Center Amateur Radio Club, W5RRR, are October 19, 20 and 21.

Registration will open on Friday afternoon at the nearby King's Inn, and tours of the Center will be possible only on Friday and Monday. The tour includes areas such as Mission Control, the Shuttle Mock-up facility as well as the "Zero-G" Tank, a massive swimming pool used to train mission specialists for Shuttle Extra Vehicular Activities (rubber rafts are not allowed and space suits not necessary).

The Symposium will take place on Saturday in the Visitor Center's Main Auditorium. It is sure to be a day packed with talks and presentations on various amateur satellite and related projects. The day will conclude with a Texas-style Bar-B-Que and the AMSAT Banquet.

Many details have still yet to be worked out, but if their schedules allow, Ron Parise (WA4SIR) Mission Specialist on the upcoming STS-35 mission and Ken Cameron (KB5AWP) the Shuttle Pilot on STS-37 will be in attendance. Ken's mission is presently scheduled to be launched approximately two weeks following the annual meeting, so he may have late inside infomration on how he plans to operate during his mission.

Mark your calendar (using a pen) and make plans to attend this year's AMSAT Symposium. This is the "Year of the Amateur Satellite" and if you haven't gotten involved in the Amateur Space program, this would be an excellent way to find out what it is really all about. This is sure to be one of the most exciting Symposiums ever.

/EX
SB ALL @ AMSAT $ANS-083.08
U6MIR/U7MIR OPERATIONS POSSIBLE

HR AMSAT NEWS SERVICE BULLETIN 083.08 FROM AMSAT HQ
SILVER SPRING, MD MARCH 24, 1990
TO ALL RADIO AMATEURS BT

MIR Space Station Amateur Radio Operations Expected To Resume

AMSAT has received information from reliable sources that Soviet cosmonauts Anatoly Soloviev (U6MIR) and Alexander Balandin (U7MIR) may have resumed amateur radio activity from MIR, the Soviet Space Station. They are reported to be transmitting in 2 meter band primarily on 145.50 but may also be found on 145.550 MHz. The most probable time of operation is after 18:00 UTC and any time on weekends.

It was reported that the new radio brought up by the new operators has broken down and that Anatoly and Alexander were using the old equipment left by U2MIR

and U4MIR. There are plans to replace the broken rig in the near future, possibly on an unmanned supply mission.

QSLs can be sent via bureau or direct to their QSL manager UW3AX at: P.O.Box 679, MOSCOW 107207, USSR. If you send a card direct, they request an IRC and a self-addressed envelope.

/EX

1866. Re: Micrwave

Newsgroup: rec.ham-radio
Date: 1990-03-26 05:45:08 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Mar26.054508.10321@Neon.Stanford.EDU>
Source record: 12671

In article <15266.260D93E3@stjhmc.fidonet.org> Brian.Crawford@p12.f15.n114.z1.fidonet.org (Brian Crawford) writes:

>Are there any hams on the usergroup currently ACTIVE on 3 & 5 GHz Amateur
>Bands? Is there anyone ACTIVE on the amateur bands in between 10 & 47 GHz?

There is an amateur telephone network on the 5 GHz band in the San Francisco Bay area. We have 4 spans up, with 1-3 T1 circuits per span.

There are some surplus doppler radar systems active on 10 GHz.

Marc Kaufman (kaufman@Neon.stanford.edu)

1867. Re: Phil Karn (was Re: Anthropology 101)

Newsgroup: rec.ham-radio
Date: 1990-03-26 08:35:18 UTC
From: winter@Apple.COM
Message-ID: <39826@apple.Apple.COM>
Source record: 12672

In article <11844@cadnetix.COM> rusty@cadnetix.COM (Rusty Carruth) writes:
>Ok, all you non-ARRL members who want to see what Phil looks like in the
>flesh, go grab the most recent issue of QST.

Or, if you'd prefer to *hear* him in the flesh, tune into the National Teleconference Radio Network on April 8th. Phil will be one of the participants in a discussion of the no-code license proposal.

Coming soon to a repeater near you.... (You'll have to ask around your own area to find out which repeater(s) will be carrying NTRN.)

Patty

p.s. Of course, the current QST picture doesn't show him in as *much* flesh as did my hot tub photo last July..... :-)
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

1868. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-26 12:31:11 UTC
From: jay@splut.conmicro.com
Message-ID: <MF3+7=A@splut.conmicro.com>
Source record: 12446

In article <30500464@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>I know I can learn CW, and actually I plan to after, and ONLY AFTER,
>the no code issue is overwith. I will remain a Tech until then.

"No, Mommy, I don't like broccoli! You can't make me eat it!"

The choice here is much like the one the 5-year-old faces: eat it or go
hungry.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
"I've never killed someone at the supper table, Mister LaForge."

1869. Re: Litz wire

Newsgroup: rec.ham-radio
Date: 1990-03-26 14:34:02 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <39676@iuvax.cs.indiana.edu>
Source record: 12450

>>charlie@oakhill.UUCP (Charlie Thompson) comments:
>>
>>Litz.....hmm Lizt...didn't he write Hungarian Rhapsody??? ;-)

> Nah, that was what we call a Liszt Operation.
> (exits left to escape rotten fruit and veg)
> --
>Derek Wills (AA5BT, G3NMX)

For real, Litz (as in wire) is short for _Litzendraht_. I don't speak
German or whatever language that is, so don't know if it's a proper
name or has other meaning.

--

Frank W9MKV reid@ucs.indiana.edu

1870. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-26 15:15:16 UTC
From: rbono@necis.UUCP
Message-ID: <1220@necis.UUCP>
Source record: 12452

In article <7880136@hpfcdc.HP.COM>, perry@hpfcdc.HP.COM (Perry Scott) writes:
> Re: This OM needs help !
>
[stuff deleted]
> verbatim dot-dash copy and translation. I suggest that the OM write
> it down like this: |...| This takes less horizontal space on the
> paper, so less time is spent on the carraige-return. Also, if the OM
> understands binary trees, that is a good way to memorize Morse Code.
> In this scheme, 0=dit, 1=dah. Make up a balanced btree, assigning
> dits and dahs, then create a silly saying to remember the tree.
>

[More deleted]

Maybe I missed something... But this sounds harder than learning
the traditional way (that is, hearing the sound pattern, and then writting
down the character for that sound pattern), and is also a useless skill!
At least CW is useful!

I teach Nervous (oops... Novice) classes, and occasionally get a
few very smart student who tries to beat the system... He usually falls behind
the rest once he realizes that his 'method' causes problems, and he can't copy
the code. Now he (or she) realizes (sp?) that all the time that was spent
studying with this new method could have been spent on learning the code.

What works best for my classes is the following:

Morse (from day one) is sent at a character speed of 18WPM, the spacing is
adjusted to provide for 5WPM (Note that the ARRL has now switched to this
method for the VE exams, and their practice tapes). I explain that one needs
to practice every day, and if one has the time, two to three 10-15 minute
sessions will do.

Those who follow this schedule can pass the Novice/Tech 5WPM exam in about
4 weeks... Those who can't devote this much time (some of us have jobs/family,
etc) take longer.

If you want to learn CW (Morse code), then spend a little time, you only need
to give it a chance.

By the way... the most important point that most people don't realize:

When you are trying to learn Morse code to pass an exam, you MUST write
each character as you hear it. Listening to a tape (or radio, computer, etc)
while you are doing something else won't hurt... but it DOES NOT SUBSTITUTE for
written practice. Many think they can listen to tapes while driving to/from
work. They get a surprize when they sit down for a written exam. They must

convert each character in their head, and then from their head to the fingers
to write the character.

If you can, you want the CW to go into you ears, and directly to your fingers
without passing through your brain, this is easier for some than others :-)!

I hope this helps.... It just takes a little practice, and it IS worth it!

(By the way.... I am FOR the no cw test required Amateur Radio operator
license class..... We need to INCLUDE people, not exclude them!)

Rich (NM1D)

--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

1871. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-26 16:23:03 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120111@hpcupt1.HP.COM>
Source record: 12673

I'll throw my few cents in. I own a MFJ tunner, one of the 949 series,
and an antenna bridge. They both work fine and do the job required.
I would say that the value is there for what I paid. The antenna
tunner certainly does not compare to a Nye-Johnson tunner or a Ten-Ten
tunner, but hey for the money it does the job fine and has an acceptable
quality level. Same goes for the antenna bridge. I have tunned up
several antennas with it without a problem and for the amount of use I
give it I can not complain about the performance. This V31BB character
apparently did not talk to MFJ. If he has a complaint about the product he
should at least give the manufacturer a chance to respond instead of taking
his complaints public. As I recall, several months ago a person on
this net was complaining about a speaker/mike. About a week later he
posted an apology, seemed MFJ found out about his problem and sent him
a new speaker/mike no questions asked. I would buy a MFJ product again
with out hesitation. They provide a good product at an affordable price.
73's
Jim, WA6SDM
jholly@hpcupt1.hp.com

1872. Req: QSO w/NV & ID on 15m CW

Newsgroup: rec.ham-radio
Date: 1990-03-26 17:34:32 UTC
From: genem@hpindda.HP.COM
Message-ID: <5120009@hpindda.HP.COM>
Source record: 12674

Ok, so I'm getting desperate...

For a year now, I've been trying to complete my 15 meter,
CW, W.A.S. award and only need a contact with Nevada and
Idaho. If anyone in this user group would be up for a sked,
I sure would appreciate a line. I will be glad to work
around your schedule. Please respond via email:
genem@hpindnu.hp.com, or on packet: AA6IY @ N6LDL

Many tnx es 73's

Gene - AA6IY

1873. QEX and other Ham mags.

Newsgroup: rec.ham-radio
Date: 1990-03-26 17:44:51 UTC
From: elliott@optilink.UUCP
Message-ID: <3290@optilink.UUCP>
Source record: 12675

I am considering renewing or starting subscriptions to various HAM magazines,
and would appreciate comments or suggestions.

My priority list goes something like this:

1) Technical content
2) Technical content
3) Technical content
4) Operating practice, band openings, etc
...
98) Contests
99) Silent Keys (unless I am listed; that would concern me :-(

QST, Ham Radio, and 73 Magazine are locally available, so I have a pretty
good idea of their content... how about QEX or others I may not be aware
of? Any good newsletters?

How about it, fellow hams?

... de wb6cxc <end of work>

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{pyramid,pixar,tekbspa}!optilink!elliott
"Sneak Attack by Soviet Bloc Not Forseen" -- The Atlanta Journal 4/4/79

1874. Code vs No-Code

Newsgroup: rec.ham-radio
Date: 1990-03-26 17:50:06 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003261758.AA23970@ti.com>
Source record: 12676

OK. Mark makes a good point. I promise not to mention it anymore.

73,
Dube Todd, N5PDK

1875. Re: Phone Frequencies

Newsgroup: rec.ham-radio
Date: 1990-03-26 19:30:32 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500472@ux1.cso.uiuc.edu>
Source record: 12455

> Can anyone tell me what are some characteristic frequencies that the following
> operate on:
> 1.)Cellular phones
> 2.)Cordless phones
> I have monitored High Seas Ship/Shore, but have nevered monitored other phone
> calls below 30 Mhz.

First cellular phones:

Base stations transmit on frequencies from 870.03 Mhz to 889.98 Mhz in
channel steps of 30 khz.

Mobile/portable stations transmit on frequences 45 Mhz lower.

Next cordless phones:

Frequency	Frequency	Source	Description
1.705	49.67	old cordless telephone	(ch 1)
1.735	49.845	old cordless telephone	(ch 2)
1.765	49.86	old cordless telephone	(ch 3)
1.795	49.77	old cordless telephone	(ch 4)
1.825	49.875	old cordless telephone	(ch 5)
46.61	49.67	fcc rule	Cordless telephone base/portable ch 1
46.63	49.845	fcc rule	Cordless telephone base/portable ch 2
46.67	49.86	fcc rule	Cordless telephone base/portable ch 3
46.71	49.77	fcc rule	Cordless telephone base/portable ch 4
46.73	49.875	fcc rule	Cordless telephone base/portable ch 5
46.77	49.83	fcc rule	Cordless telephone base/portable ch 6
46.83	49.89	fcc rule	Cordless telephone base/portable ch 7
46.87	49.93	fcc rule	Cordless telephone base/portable ch 8
46.93	49.99	fcc rule	Cordless telephone base/portable ch 9
46.97	49.97	fcc rule	Cordless telephone base/portable ch 10
49.83		fcc rule	Low power communication chan 1
49.845		fcc rule	Low power communication chan 2
49.86		fcc rule	Low power communication chan 3
49.875		fcc rule	Low power communication chan 4
49.89		fcc rule	Low power communication chan 5

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1876. Re: IC-2SAT TX/RX mod

Newsgroup: rec.ham-radio
Date: 1990-03-26 19:30:45 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500469@ux1.cso.uiuc.edu>
Source record: 12453

> To avoid hate mail .... I have to remind you that it is illegal to transmit
> on the air with this radio out of the Amateur Bands unless a legitimate
> emergency exists. (Type acceptance and all that.)
>
> However if you (like me) plan on using it for a quick and dirty sig-gen
> into a dummy load, then it is the cat's meow!

Or perhaps as a modulated signal source for a Transverter.

Or perhaps in the case of UHF, to cover the 420-440 Mhz part of the band
the Japanese forgot we even have (and they have 430-440 themselves).

Also I understand the IC-2SAT can receive on most of 902-928 Mhz, making
it possibly useful as a cross band transsceiver if someone were inclined
to make a repeater with 2m input and 33cm output.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1877. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-26 19:31:10 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500471@ux1.cso.uiuc.edu>
Source record: 12454

> Aurora can only be effectively utilized if CW is used.
>
> During contests, I can do a CW contact in about 1/2 the time a voice
> contact takes, and I never have to ask for a repeat.

OK, then we will not allow Communicators the privilege of working Aurora
or contests. How's that?

I'd far sooner ban contests than ban CW. I am not proposing either, but
would like to see contests restricted to a subband.

Really, most of the people who are sitting out of ham radio because of
our stinking attitudes don't give a whit about HF and shortwave and
working Bouvet Island. But you guys see those desires as not consistent
with being a ham and don't want them, nor their "techno-nerd" attitudes
that just might save ham radio so the rest of us who do want to work
CW and such can continue to do so through the next century or so, on
frequencies we legally have allocated.

> Once, about 10 years ago, I copied a distress call from someone who went
> down in an airplane, near Mansfield, OH. Since the signal was CW in a
> phone band, it stood out like a sore thumb and attracted my attention
> very quickly. I was able to help out these people by calling the local
> FAA and giving them the details. A signal in any other mode would not
> have attracted my attention (or anybody else's) like it did. (Note: it
> was a very weak signal, and I doubt that it would have been copyable if
> it wasn't CW.

So what?

I'd sure like to know why this guy was on a "phone band" (and I guess
you mean HF, you probably don't know there is a VHF :-) instead of one
of the standard distress frequencies (500 khz, 2182 khz, 3023 khz, 5680 khz,
8364 khz, 121.5 Mhz, 243 Mhz, etc.). Sure if his aeronautical comm gear
went out at the time and he HAPPENED to have a ham rig that survived with
power, OR better yet, BUILT AN EMEREGENCY RADIO that he could key on and
off with wire contacts, then I can see why he'd be there.

1: these things are rare and getting rarer.

2: the number of hams who do know CW are not going to drastically get
smaller as a result of the no-code license. Those who want to forget
code do so now. Those who want to never learn it also do so now.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1878. Re: Effect of Sun/Heat on Reception

Newsgroup: rec.ham-radio
Date: 1990-03-26 20:08:34 UTC
From: roskos@IDA.ORG
Message-ID: <1990Mar26.200834.15821@IDA.ORG>
Source record: 12427

nrg@nsscb.UUCP (G.Narotham Reddy) writes:

>I would like to know if Spring and Summer has any effect on reception.

I've found that in my experience, at least, it does -- in particular my winter reception of stations around 8-10 MHz is much better than in the summer. All winter I have been able to receive several US WEFAX stations very well which are now beginning to deteriorate in quality; if last summer was typical, it will stay that way all summer. I am guessing this has to do with the amount of time the upper atmosphere is exposed to solar radiation during the day, and/or the incident angle of the radiation being greater in the summer. But I don't know for sure.

--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

"if you want more information, please specify how much more information you want." --From a recent posting on the Kerberos mailing list

1879. Mods for IC02AT?

Newsgroup: rec.ham-radio
Date: 1990-03-26 21:19:34 UTC
From: gdelong@flhtp.uucp
Message-ID: <233@flhtp.uucp>
Source record: 12428

Can someone e-mail or post the mods for the IC02AT? I can't seem
to get the MODS database to respond.

Thanks and 73,
Gary

____
/ | | \ Gary Delong, N1BIP
| --|---| | flhtp!gdelong@decvax.dec.com decvax!flhtp!gdelong
___| |___/ GADCO, Inc.

1880. Re: Weather Fax. HELP!!!!!

Newsgroup: rec.ham-radio
Date: 1990-03-26 21:26:11 UTC
From: roskos@IDA.ORG
Message-ID: <1990Mar26.212611.16088@IDA.ORG>
Source record: 12429
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.radio.shortwave

lawrence@smcnet.UUCP (Lawrence Roney) writes:

>Our Earth Science Department purchased a Kenwood R-2000 HF receiver and an AldenElectronics
>9321 Weather Chart Recorder for reception of radio fax weather
>pictures.

Well, you have purchased a very wonderful piece of equipment. Clean all the mess off of it (I'm assuming you bought one of the FAA surplus models?), buy the maintenance manual for it, and look carefully at how it is constructed. This is how electronic things are built when maximizing profit through minimizing the production costs is not the primary goal. I think you could mount it on a truck and drive around with it running and it would still record. Well, probably not really, the loop electrode assembly would bounce around. It is really easy to maintain, too, and its principles of operation are both easy to understand, and somewhat amazing -- it's the first place I ever encountered a "sample and hold" circuit... since it is built in discrete components rather than on an IC, you can see how it works. It's fairly amazing the way it captures the voltage at the peaks of the AM carrier cycles on a small capacitor between two MOS FETs. The only problem is moving it... when I moved to a new location awhile back, the mover threatened to quit when they saw the equipment because they didn't want to carry it down the stairs, it's so heavy.

If you're buying the replacement parts (you have to replace the loop and blade electrodes regularly, plus other parts that occasionally wear out, and also buy the wet electrolytic paper for it) from someone other than Alden, write to the address that's on the chassis and ask for pricing information. You might ask for the original advertising information on the recorder, too... it's interesting how expensive the optional parts are, new. I'm not sure how much the recorders sell for, new, but Alden still sells them.

>Nonetheless we have never seen anything printed in the fax machine except
>black lines.

Yes, it only has an AM demodulator in there unless you have a special model. I posted detailed design information for an FM demodulator *specifically* for the Alden 9231 about a year ago, which you need to demodulate the FM subcarrier that is transmitted on HF. You can receive pictures from the polar satellites, and from the GOES Tap if your have that, directly with the 9231, though, since that's what its demodulator is for. One problem is that the 9231 emits RF interference fairly strongly on 137.4 and 137.62 MHz, as well as random noise from the

switching of the marking amp on and off. I wish it didn't since those are prime polar satellite frequencies, but I guess it passes the FCC emissions regulations, and it was actually made for use with leased wire services. I've never been able to figure out what causes the interference, but it comes from the master oscillator board, which runs at a much lower frequency. If you figure out how to reduce the RFI I'd be interested. One problem I found is that the signal input line goes directly past the power supply line to the marking amp (it's wrapped inside the same bundle of wires), which inductively picks up noise from the marking amplifier transistor turning on and off.

> -- Is there a better way to receive weather pictures with different
> gear? Is there a TNC and PC setup that might work better than
> the paper based fax unit?

Yes. The best I've found is the A&A Engineering demodulator using a PC with a VGA, about $120 or so. There are commercial programs such as the Elmer Schwittek MultiFax software package you can use to display output from the A&A demodulator on the PC. These give photographic quality images, compared to the good but limited-contrast and limited-resolution images of the 9231. The 9231 is best for recording weather maps rather than satellite pictures.

> -- What should the receiver bet set on? (AM, USB, LSB, CW)

For HF stations, set it on USB or LSB -- if you set it to the wrong sideband you will get a negative image and will know you need to use the other (also the recorder won't sync properly if you're using the wrong sideband).

For direct reception from the polar satellites, use FM, but you need a WEFAX receiver for that. Despite what people say, other kinds of receivers won't work very well... I've tried it. You get a picture but with a lot of noise and poor grey scale. The WEFAX receivers are relatively inexpensive compared to general-coverage receivers and scanners.

> -- Is a long wire good enough or do we need a beam or something?

Yes, a long wire is fine for HF. For VHF from the satellite, you need a circularly-polarized antenna such as the WEFAXTENNA from Vanguard.

>Any assistance or help would be greatly appreciated. Earth Science won't
>let me walk down their hall until I get this thing working.

I hope the above will be of some help.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

"if you want more information, please specify how much more information you want." --From a recent posting on the Kerberos mailing list

1881. The Belize Bum (V31BB)

Newsgroup: rec.ham-radio
Date: 1990-03-26 21:41:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9003270810.AA13572@ucbvax.Berkeley.EDU>
Source record: 12430

Noted in the latest W6GO QSL list:
V31BB - V31BB says he DOES NOT QSL; save your money

Heard during the WPX 'test last weekend:
V31BB - "Don't send me your stupid card. I don't want your
card. I don't want your stupid IRC's. I don't
want your money."

(However, he has never been known to return either IRCs or money.)

I can understand a DX station that is tired of the bother
and cost of QSLing, and just wants to work contests, or QSO.
But I have trouble figuring out why a station who has a
stated NO QSL policy frequently runs DXpedition-style ops
and builds pileups (You're 59. Next.) Why does he think
those stations want to work him...

Also heard from BB during the 'test: A very new ham with a
novice call called him, and instead of of just giving him a
quick 59 #nnn, added "You'er my first DX contact. I'm only
running a dipole and am thrilled you heard me." BB proceeded
to rake him over the coals for at least three minutes, for
wasting him (BB's) time with meaningless information, etc.
etc.

IMHO, this guy gets the Jerk of the Year award. His problem
is he is on a power trip. He gets his kicks from hearing
people scremaing for him in pileups and begging for QSLs.
Please don't add to his ego - next time you heard him on,
work someone else.

Also heard: Some DX club has built a rent-a-QTH in Belize,
so it should become real common. Wait and get your QSL from
a real ham.

1882. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-26 21:43:02 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <LYNDON.90Mar26144302@aurora.AthabascaU.CA>
Source record: 12431

In article <13759@cbnewse.ATT.COM> parnass@cbnewse.ATT.COM (Bob Parnass, AJ9S) writes:

IMHO, MFJ low power antenna tuners
looked kind of raunchy, too.

Having just bought a Versatuner II, I second the motion. The ground terminal tends to come loose without provocation (proving the SWR protection circuitry in my TS-680 works as documented), and the SWR/power meter tends to stick. When I went to adjust the meter I discovered that there is no adjustment screw for it, and even if there was, the damned meter is GLUED to the front panel! Mind you, Patty is right: it will tune anything in sight. (Well, I haven't tried it on the cat yet ...)
--
Lyndon Nerenberg CF6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA || lyndon@aucs.bitnet

1883. Re: NPRM 90-55 - No test code

Newsgroup: rec.ham-radio
Date: 1990-03-26 22:34:24 UTC
From: herbster@b11.ingr.com
Message-ID: <7722@b11.ingr.com>
Source record: 12432

In article <30500459@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> > Just a personal opinion but if children of 7 years of age, and people
> > of 75 years of age can learn International code at 10 wpm (the current
> > Canadian requirement for HF priviledges) then I don't see how anyone
> > can not learn it at 5 wpm! A lot of the trouble is that people just
> > don't want to be told you *have* to do something. Just an opinion.
I learned the code at 6 years old while still PRINTING in block
letters.....the theory was a bit difficult...BTW: I am NOT an
extraordinary youth, just ask my mother....

> The statement about people of 7 and 75 learning code is not complete.
> There is no evidence that this capability is existant in 100% of the
> population at 7, 75, or anywhere in between.
True, some folks have trouble learning to read and write....

> The opinion that people don't want to learn what they are told to learn
> is also not complete. While some may not want to just for that very reason
> alone, many others do not want to IN CONJUNCTION with the fact that they
> know that learning code is not going to help them in what they happen to
> be interested in doing. Some people don't like being told that they have
> to learn something they know they are not going to use and will do them no
> good.
SOME people have a severe lack of discipline....
I want to be an EE, so why should I waste time taking all this
English Lit and History?? Does that mean I have an attitude problem??
If we apply the no-code argument to this analogy, you will see what
I mean by lowering the standards being dangerous.

> Further, because hams have (and certainly at least in the past this has
> been MOST hams) wanted everyone to pass a code test to "get in", the
> "outsiders" who were interested in other things looked upon the hams, and
> the amateur radio service itself, as having an "attitude problem".
*** BLATANT GENERALIZATION ALERT *** Your opinion of what MOST hams
wanted is no more factual than the perceived view of code being the
big "boogie-man" to people getting into ham-radio. I never EVER heard
any ham say anything to the effect of using morse code as a "hazing"
or passing of rights. I have only heard this from 'outsiders' that
feel victimized for some reason. The only reason I ever wanted someone
to pass a code test was because it was required by law and I wished to
see them enjoy the same hobby I have enjoyed. Who in the heck ever
started the "good-ole-boys" or "Ham-fraternity" thing anyway. The
only thing an 'outsider' ever needed to do was ask a Ham how to get
started. It has been that simple for decades, and has been done
a million times.

> Probably everyone has an attitude "problem", but some of us are just not
> making much of an effort to get along with those who have a DIFFERENT
> attitude problem.
The only attitude I have a problem with is the one that thinks code
is "The big barrier" to ham-radio that "discriminates" against us.
> > BTW, I am not an objector to a no-code intro level licence, there is a
> > VHF only n0-code going into effect here next September and I think it
> > will be a benefit to the hobby but I can see all sorts of problems with
> > a no-code HF licence.
Amen.
> > 73, Dean VE1CBF es 73s es 88s OM

> From my understanding, the Canadian restructuring does not involve any
> no-code HF license class. Unless and until such a thing is proposed,
> you should not have too much to worry about. In fact, something very
> close to the Canadian system is being discussed by some as a possible
> structure for the United States (it even has the correct number of
> classes for the FCC computer system).

It'll fit on the computer.....what a justification for a license
system with today's technology :-|
> --Phil Howard, KA9WGN--
> <phil@ux1.cso.uiuc.edu>

In spite of my better judgement I have gotten caught up in this long
winded issue. On this note I will drop into the QRM and shut up.
I have no particular reason to oppose the no-code class, but this
bad feeling keeps nagging me. It is not that I want to keep all the
spectrum to myself and lock out the "fraternity", but wish to preserve
what is good and courteous (whats left) about my hobby. Ham radio has
been in my family since 1934 so alot of my "attitude" comes from the
way I was brought up and the old-fashioned ways of radio my grandfather
taught me. Old habits are hard to break, and old values are hard to
give up. It is time
to drop this whole thing cuz TIME will eventually prove one side right
or wrong. Unfortunately, if it was wrong, it will be impossible to
undo. Perhaps this is why the whole thing makes me nervous.

PRAYING THAT MY DOUBTS ARE UNFOUNDED..... es gratious big welcomes
to the new guys when they get here. The only thing to do now is be
a good example for the new ranks and enjoy the new contacts.

de km4jn :-) love them sun spots....

_·_· ·__ ··_· ___ ·_· · ···_ · ·_·

1884. Legalities...

Newsgroup: rec.ham-radio
Date: 1990-03-26 22:37:40 UTC
From: herbster@b11.ingr.com
Message-ID: <7723@b11.ingr.com>
Source record: 12433

Just an ethical question. I live in a very rural area and wish to
put a phone patch at my QTH. I was planning to do it cross-band
by using the TS-680S in the car to go to the house on 6m FM, and back
out on 2m. With the "links above 220MHz" rule, how is this classified
and is it legal?? Do want to be legal now you know.

tnx es 73 de km4jn

1885. Control program for TS440

Newsgroup: rec.ham-radio
Date: 1990-03-26 23:03:59 UTC
From: mark@brandy.UUCP
Message-ID: <185@brandy.UUCP>
Source record: 12434

Does any one out there have a UNIX based control program for the Kenwood TS440? I am running 386ix and would rather run a control program from UNIX rather than from VPIX.

Thanks
Mark Hilliard
N2HHR
rutgers!rochester!kodak!gizzmo!mark

1886. CW and the handicapped

Newsgroup: rec.ham-radio
Date: 1990-03-26 23:14:05 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003262314.AA27842@ti.com>
Source record: 12435

Here's one for the VE's: I have become acquainted with a physically handi-
capped individual who fairly recently obtained a Tech license (N5PSX). His
handicap is so severe that he is confined to a wheelchair, can't speak plainly,
and his hands are so knarled that he can't hold a pencil (or even "unbend" his
wrists). He uses a computer to send various phrases, but can, by a slow and
laborious process, punch in characters key-by-key- or on regular "brass". He
can copy 5 to 6 WPM by the "hunt-and-peck" method on a keyboard.

Problem is, he is technically and operationally capable of passing the General
and could pass the CW portion if he could copy down the characters fast enough.
"Head copy" is ruled out because few people can copy and remember a five-minute
conversation in their heads. I would like to know if anyone has had any
similar situation and if there is a provision whereby the 13WPM cam be waived
due to such a physical handicap. Please post your responses so others who may
have had (or may encounter) this situation will know how to proceed. Flame me
directly if you must, not via the bb.

Thanks in advance,
Dube Todd, N5PDK

1887. Yeasu FT-212 MODS

Newsgroup: rec.ham-radio
Date: 1990-03-26 23:37:05 UTC
From: fisher@hpfelg.HP.COM
Message-ID: <1820002@hpfelg.HP.COM>
Source record: 12436

Does anyone know the out-of-band mods for the
Yeasu FT-212?

1888. Re: CODE vs NO-CODE

Newsgroup: rec.ham-radio
Date: 1990-03-27 00:34:13 UTC
From: jay@splut.conmicro.com
Message-ID: <Q13++8B@splut.conmicro.com>
Source record: 12437

In article <a1ckg1w161w@w8grt.nstar.com> jgrubs@w8grt.nstar.com (Jim Grubs) writes:
>Let's drop the argument. Code can be useful. Code can be fun for those who
>like it. Big deal! That does not by itself make it necessary to require
>testing on code proficiency on VHF only licenses. Noone is going to change
>anyone else's mind on those points.
>
>But NPRM 90-55 is up for consideration and comment. It seems almost 100%
>certain to be approved. Let us therefore limit our arguing to the more
>constructive issues of how best to implement no-code. Pax?

Yes, we certainly appear to have no-code rammed down our collective throats. That does not mean that we should give up the fight, though. I intend to fight it with every byte of my hard disks and every pin in my printhead.

Yes, I agree that nobody is going to change anyone else's mind among the hard-core - which includes 95% of everyone who's posted a message on the group. The FCC's mind may be made up as well, just as it was on the 220 rape. If nothing else, though, I hope they'll get enough comments to know they've been in a fight.

To the guy who suggested a rec.ham-radio.debate group: it was suggested before, and that generated the HAMLICEN mailing list. It was taken over almost completely by the anti-code types, and while I continue to read it, I won't contribute to it - I can't afford to replaced a modem that's been flamed to a crisp.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
"I've never killed someone at the supper table, Mister LaForge."

1889. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-27 01:02:10 UTC
From: michaelb@mikebat.UUCP
Message-ID: <317@mikebat.UUCP>
Source record: 12438

In article <23696@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
> In article <315@mikebat.UUCP> I wrote:
> >At the risk of adding to the noise and being a stick in the mud myself,
> >will someone PLEASE explain the *USEFULNESS* of the CW requirement to me.
^^^^^^^^^^^
1> Aurora can only be effectively utilized if CW is used.
>
2> During contests, I can do a CW contact in about 1/2 the time a voice
> contact takes, and I never have to ask for a repeat.
>
3> Once, about 10 years ago, I copied a distress call from someone who went
> down in an airplane, near Mansfield, OH. Since the signal was CW in a
> phone band, it stood out like a sore thumb and attracted my attention
> very quickly. I was able to help out these people by calling the local
> FAA and giving them the details. A signal in any other mode would not
> have attracted my attention (or anybody else's) like it did. (Note: it
> was a very weak signal, and I doubt that it would have been copyable if
> it wasn't CW.
>
> The CW mode is very useful.
^^^^^^^^^^^^^^^^^^^^^^ aaaaaarrrrrrrrrrrgggggggggg!!!!!!!!
Ken has indeed given three instances where cw is very useful. I didn't
ask for instances where cw is useful. I ask for an explanation of the
usefulness of the cw *REQUIREMENT*. I will counter with the argument that
packet radio allows much more rapid dissemination of bulletins, therefore
every ham should be required to understand how to decode AX.25 headers.
RTTY contacts can be collected for a special endorsement on a WAS certificate,
therefore every ham should be required to regurgitate the BAUDOT code.
I could go on.

> .... I could go on, but I don't think you want
> me to.

Yes I do want you to go on. I am very open to being convinced that all
of the sweating I did to pass that stupid code test was useful. No one
has convinced me yet.

I will never argue that code isn't useful. I would never try to get rid
of code from the bands. I am saying that the code requirement keeps
qualified people OUT of ham radio without keeping LIDS out. If ham radio
was growing and staying on the leading edge of technology I probably
wouldn't be nearly so venomous. As it is, the code requirement for
a reasonable vhf and up license is no wiser than handling radium just
because Ms. Curie did the same.

Michael "But my call sign IS in my .sig"
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb
Comment overheard at WARC 1992 -
"Let's just stick them on 200 millimeters and below."

1890. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-27 01:32:28 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500473@ux1.cso.uiuc.edu>
Source record: 12439

> In article <30500464@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
> >I know I can learn CW, and actually I plan to after, and ONLY AFTER,
> >the no code issue is overwith. I will remain a Tech until then.
>
> "No, Mommy, I don't like broccoli! You can't make me eat it!"
>
> The choice here is much like the one the 5-year-old faces: eat it or go
> hungry.

I didn't like broccoli when I was 5 years old. I didn't even like it when
I was 15, but I DID NOT STARVE OR GO HUNGRY. Now I like broccoli.

It is human nature to not like something someone pushes you into.
But once you get to just see it for what it is, you might very well
find you do like it.

What code is NOT is the ideal communications emission.
What code *IS* is a lot of fun for a lot of people who CHOOSE to use it.

Let there be CHOICE and not force.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1891. Re: Implicatons of 90-55 - ATV

Newsgroup: rec.ham-radio
Date: 1990-03-27 01:32:47 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500474@ux1.cso.uiuc.edu>
Source record: 12440

> More grist for the 90-55 comment mill.

If you would like to discuss details of 90-55 and alternative ideas,
you might want to join in the HAMLICEN mailing list. To subscribe to it,
send the string:

"SUB HAMLICEN <firstname> <lastname> <callsign>"

substituting what is inside <> and sent it to this address:

listserv@vmd.cso.uiuc.edu

(UUCP users might need to use: uiucuxc!vmd!listserv)
(BITNET users might need to use: LISTSERV at UIUCVMD)

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1892. Azden 2m HT manual needed

Newsgroup: rec.ham-radio
Date: 1990-03-27 01:57:02 UTC
From: phr@acsdev.com
Message-ID: <PHR.90Mar27015702@acsdev.com>
Source record: 12441

I bought an Azden 2m HT (no model number but I believe they only made one model) at a hamfest and haven't yet figured out what all the buttons do. The person I bought it from told me he was going to snail-mail me an instruction book but evidently forgot about it (and I've forgotten his name). Does anyone have one they can xerox and send me? I will happily pay for postage, copying, and nuisance. Send e-mail and we can make arrangements. Thanks!

Paul Rubin WA2QYN/6

1893. Re: Global Positioning System status report on WWV/WWVH

Newsgroup: rec.ham-radio
Date: 1990-03-27 02:28:06 UTC
From: LANG@UNB.CA
Message-ID: <ID8076.D900326.T222807.LANG@UNB.CA>
Source record: 12442

>Yesterday WWV (and presumably) WWVH began broadcasting reports on the
>status of the Global Positioning System. The WWV broadcast is at
>14 minutes past the hour and is repeated during the following minute.
>The Omega navigation system status report continues to be broadcast at
>16 minutes past the hour. Although I have not heard it yet, I
>imagine that the GPS report on WWVH is given at 45 and 46 minutes past
>the hour just before the Omega report at 47 minutes past. Can someone
>confirm this?

To answer my own question:
I managed to catch WWVH one morning and can report that they carry the
GPS message at 43 minutes past the hour with a repeat at 44 minutes
past. This is followed at 45 minutes past with the solar activity /
geomagnetic field report, at 47 minutes past with the Omega navigation
system status report, and at 48 minutes through to 51 minutes past with
Pacific Ocean weather.

==
Richard B. Langley BITnet: LANG@UNB.CA or SE@UNB.CA
Geodetic Research Laboratory Phone: (506) 453-5142
Dept. of Surveying Engineering Telex: 014-46202
University of New Brunswick FAX: (506) 453-4943
Fredericton, N.B., Canada E3B 5A3
==

1894. Slow scan TV via the new Visitel Telephone devices

Newsgroup: rec.ham-radio
Date: 1990-03-27 03:15:48 UTC
From: johnk@gvgpsa.GVG.TEK.COM
Message-ID: <1423@gvgpsa.GVG.TEK.COM>
Source record: 12443

I bought a Visitel picture telephone a couple of months ago to stay
in visual contact with relatives. The thought occurred to me that
it could also be the "poor man's" method of slow scan TV on ham.

Questions:

* has anyone tried it?
* any complications?
* is it compatible with any mode of existing "regular" slow scan TV/ham
equipment?

For those not familiar, Mitsubishi, Sony and Panasonic are now selling
video phones which are equipped with a small camera and b/w monitor
that just plug into a modular jack and allow you to send stills
down a regular phone line. You look into the camera, see yourself
on the monitor, push a "freeze" button when you like what you see,
and then transmit the still shot down the phone line to another
compatible phone by pressing a "send" button.

It transmits audio tones. Transmission time is about 5 seconds.
You can't talk while the picture is being transmitted.

Fortunately, all three vendors have compatible transmission formats.

I've been trying to find someone else with a Visitel on the air on the
10 meter slow-scan net which meets Sundays from about 11AM-6PM Pacific
time on 28.680. Attempts to send a Visitel picture to other hams with
"regular" slow scan systems have failed; the equipment used by those
particular hams wasn't compatible, unfortunately.

Any comments? If you're interested, see you (hopefully "see" literally)
on 28.680 one of these Sunday afternoons.....

John Kirby

1895. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-27 04:03:17 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21333@bellcore.bellcore.com>
Source record: 12444

In article <MF3+7=A@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) whines:
>"No, Mommy, I don't like broccoli! You can't make me eat it!"
>
>The choice here is much like the one the 5-year-old faces: eat it or go
>hungry.

Or you can build a political base, get elected president, and then ban
it from the White House.

You had better hope I don't get any political ambitions... :-) :-)

Phil

1896. mc-60a mic.

Newsgroup: rec.ham-radio
Date: 1990-03-27 12:02:14 UTC
From: batchler@PICA.ARMY.MIL
Message-ID: <9003270702.aa19807@FSAC1.PICA.ARMY.MIL>
Source record: 12445

Dennis sri to post this on net, but didnt write down ur adr.
So do not through out that mc 60a its ok.
Idid the same thing (embarrassed my-self at the dealer), so try this.
Hook the coiled cord to rig and the base of stand.
Hook the short cord (this was the clew as to what was wrong) from base of stand to mic.
to the mic.
This thould do it the up/dwn buttons control the mem. select on my ts440s
dont know what thell do on ts530s 73 good luck
Laing Batchler
KB3TS
The Beat-Goes-On

1897. Re: CODE vs NO-CODE

Newsgroup: rec.ham-radio
Date: 1990-03-27 12:19:41 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500475@ux1.cso.uiuc.edu>
Source record: 12447

> > I have already come up with NINE alternatives to the 90-55 proposal, and
> > plan to include them all in my comments. I also suspect that 90-55 will
> > exceed even 87-14 in the total volume of comment filings.
>
> I plan to propose adoption of the Canadian Plan as is except for
> modification of the homebrewing restrictions.

That's one of the nine and in fact its the first one.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1898. Re: Code Saves the Day

Newsgroup: rec.ham-radio
Date: 1990-03-27 12:19:45 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500477@ux1.cso.uiuc.edu>
Source record: 12448

> In fact, they were able to compress about 10 sentences of messages into
> only 2 seconds of blinking lights between their periscopes. Amazing but
> true! The speed of the camera couldn't even catch this rate of Code
> because it looked on the screen like only two Code characters.

The magic of editing. The rest of the message is on the cutting room floor.

> Wow! What better reason to learn the Code? In fact, maybe we could even
> save the world even better if every submarine in the world had to be
> equipped with a ham.

In case you hadn't noticed, the time setting for HfRO was "just after Gorby
took power". Things have changed since then. Besides, ANYTHING is possible
in fiction. Ask Tom Clancey if HE can copy code.

> After seeing the movie, I wondered if there is some standard international
> type of "Q" signals that all submarine forces know...so they can
> communicate across language barriers just like in the movies. Anyone
> know?

I'm sure there are. And aside from the editing, I'm sure they used them.

Now that we have settled on shifting the code test over from ham radio to
submarine officer qualifications, maybe we can go on to more interesting
postings.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1899. Re: ICOM BP-7 Modifications

Newsgroup: rec.ham-radio
Date: 1990-03-27 12:20:46 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500476@ux1.cso.uiuc.edu>
Source record: 12449

> I'm upgrading a ICOM BP-7 battery pack using 600mAh cells. What components,
> if any, on the pc board should be changed to increase charging current from
> 40-45mA to approximately 60 mA?

An alternative is to increase the charging time. Sorry I can't make any specific part suggestions since I don't the details on the pack. I assume you will only be slow charging it. Given a 33% increase in capacity, at least a 33% charge time increase is called for (now 20 hours instead of 15) but how often to do you actually commit to charging the pack from dead in 15 hours and need it in less than, say, 24 hours?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1900. Operating in GB: Questions

Newsgroup: rec.ham-radio
Date: 1990-03-27 13:23:44 UTC
From: Michael_Edelman%Wayne-MTS@UM.CC.UMICH.EDU
Message-ID: <212602@Wayne-MTS>
Source record: 12451

Looks like I'll be spending at least a week- maybe two in Durham, England this July. Hopefully Digitrex will have shipped their QRP box sometime between now and then so that I can get in a little operating in my spare time. Along those lines:

--Can someone advise me of the proper steps to be taken to get a reciprocal operating permit?

--What's the 2-Meter situation in GB, and (hopefully) in the Durham area? Should I take my HT? How about 440?

--Any other hints? Perhaps we even have some Northumbrian hams in this list?

--mike ke8yy
michael_edelman%Wayne-MTS@um.cc.umich.edu
medelma@waynest1.bitnet

1901. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-27 14:41:28 UTC
From: dvh@cci632.UUCP
Message-ID: <35459@cci632.UUCP>
Source record: 12456

The League accepts for advertising, basically any company that it deems legitimate in its offering to the amateur market- that means, the company delivers what it says when it says for the price it says. This doesn't mean that the quality is superior to anything else it might be compared to, only that the representation of the product is accurate, per the advertisement. It appears that V31BB has a gripe with MFJ that either he could not resolve amicably with the folks there, or he didn't live up to his end of the warranty responsibilty, or he's just an ass (I suspect a combination of the above).

I used to work for Texas Towers as Sales/Service Manager, and we sold a lot of MFJ stuff. By and large, the quality was o.k., not Cadillac, but a reasonable buy. I would say the number of complaints about their stuff were no more or no less than any of the other brands we sold, including the Big Three. I will admit, however, that most of the complaints about MFJ stuff were towards the power-handling capabilities of their low-priced tuners. I never recommended the 300 Watt tuners where the Tx output exceeded 100 Watts, for that reason- the switches are a little cheesy. But, saying that, I also have to say that a lot of hams have no idea how to use a tuner- a large percentage of those returning tuners for repair/replacement admitted to adjusting the tuner with full power applied, a practice that is not recommended by ANY of the tuner mfrs. I have owned many pieces of MFJ equipment and have always been satisfied.

BTW, MFJ has a good warranty policy and generally won't give you any hassle about repairs or replacement, IF YOU OBEY THE RULES of their warranty statement.

'Nuff said, I'm off MY soapbox.

Dave KD5RO/2

1902. Re: Micrwave

Newsgroup: rec.ham-radio
Date: 1990-03-27 15:07:28 UTC
From: dvh@cci632.UUCP
Message-ID: <35461@cci632.UUCP>
Source record: 12457

In article <15266.260D93E3@stjhmc.fidonet.org>, Brian.Crawford@p12.f15.n114.z1.fidonet.org (Brian Crawford) writes:
>
> Are there any hams on the usergroup currently ACTIVE on 3 & 5 GHz Amateur
> Bands? Is there anyone ACTIVE on the amateur bands in between 10 & 47 GHz?
>
>
>
>
>
> --
> Uucp: ...{gatech,ames,rutgers}!ncar!asuvax!stjhmc!15.12!Brian.Crawford
> Internet: Brian.Crawford@p12.f15.n114.z1.fidonet.org

(Cut to scene of KD5RO/2 wildly waving his arms in the air to get your attention)

I'm active on ALL BANDS, from 1.8 MHz through 10.5 GHz, including 3456 and 5760. I was a part of the group which completed the first EME (moonbounce) QSO's on 3 and 5 Gig. I have both WBFM and NB (SSB/CW) equipment on 10 GHz, running 10 Watts out SSB/CW. There is quite a group of hams here in the Western New York area coming up on these bands- about five or six in our local club, others in the Buffalo and Toronto areas. Down in Pack-Rat Country (Philly) there are probably two dozen guys with stuff on these bands. Up in New England, there are several. The North Texas Microwave Society is a group devoted to these bands and have quite a group on the air up through 10 GHz. Same in the Denver area with the Front Range Microwave Society.

In large measure, the recent increase in activity on the bands above 1296 can be attributed to the work of guys like KK7B and WA8NLC with their designs of no-tune transverters for these bands, and the marketing skills and guts of W3HQT/1 (Down East Microwave), who sells these (and lots of other microwave oriented) products.

Hope this starts to answer your question- BTW, if you're interested in this stuff and want ideas on getting started, email me.

73 Dave KD5RO/2

Oh yeah, I almost forgot- 24 and 47 GHz are still a while away for me, there will be no one else to talk to locally and equipment is rather scarce (surplus at reasonable prices, anyway).

1903. Re: The Belize Bum (V31BB)

Newsgroup: rec.ham-radio
Date: 1990-03-27 16:13:05 UTC
From: reisert@tallis.enet.dec.com
Message-ID: <9003271613.AA29209@decwrl.dec.com>
Source record: 12458

In article <9003270810.AA13572@ucbvax.Berkeley.EDU>,
CSMSCST@OAC.UCLA.EDU (Chris Thomas) writes...

>Heard during the WPX 'test last weekend:
> V31BB - "Don't send me your stupid card. I don't want your
> card. I don't want your stupid IRC's. I don't
> want your money."

Heard in the WPX contest last weekend:

V31BB: How's my signal up there?
W#%%%: You're louder than KP2A.
V31BB: Really? Put a note on your QSL card about this and I'll buy you
a beer at the Stoffeurs [sp?] in Dayton.

>But I have trouble figuring out why a station who has a
>stated NO QSL policy frequently runs DXpedition-style ops
>and builds pileups (You're 59. Next.) Why does he think
>those stations want to work him...

Because he counts as a multiplier in the contest, and that's what we contesters want. Because sometimes it's a thrill to crack a pileup, no matter who's on the end of it. Because he's not the only V3 on the air (I worked V32SW this weekend, if you really need Belize). If you want QSLs, work JA stations.

>IMHO, this guy gets the Jerk of the Year award. His problem
>is he is on a power trip. He gets his kicks from hearing
>people screaming for him in pileups and begging for QSLs.
>Please don't add to his ego - next time you heard him on,
>work someone else.

And you add to the fever by writing this stuff. Now everyone wants to work Jim to see if he's really as bad as all the netters portray him to be. You're his publicity.

I'm not an advocate of the guy, but I'm not a detractor either. I've never had any trouble working him in any pileup, and frankly every time I've heard him he's been quite entertaining. What more could you want? :-)

jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital
Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

1904. Re: The Belize Bum (V31BB)

Newsgroup: rec.ham-radio
Date: 1990-03-27 17:18:50 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2652@wyse.wyse.com>
Source record: 12490

In article <9003270810.AA13572@ucbvax.Berkeley.EDU> CSMSCST@OAC.UCLA.EDU (Chris Thomas) writes:
>Noted in the latest W6GO QSL list:
> V31BB - V31BB says he DOES NOT QSL; save your money
>
>Heard during the WPX 'test last weekend:
> V31BB - "Don't send me your stupid card. I don't want your
> card. I don't want your stupid IRC's. I don't
> want your money."
>
>(However, he has never been known to return either IRCs or money.)
>
He told me to QSL direct and I did... TWICE for different contacts... He has never sent a QSL back, or the IRC's... A true $$#$%. I hope he chokes on the equipment that he buys with this IRC's and Greenstamps that he keeps.

>IMHO, this guy gets the Jerk of the Year award. His problem
>is he is on a power trip. He gets his kicks from hearing
>people screamaing for him in pileups and begging for QSLs.
>Please don't add to his ego - next time you heard him on,
>work someone else.
>
He gets my vote...
In this last contest (CQ WW WPX) I heard him on and DID NOT WORK him.. I will never work him on any band, any mode. If he calls me I will ignore him... I will not cause interferance to his operation (this lowers me to his level), But I will never work him!

>Also heard: Some DX club has built a rent-a-QTH in Belize,
>so it should become real common. Wait and get your QSL from
>a real ham.

I got a QSL from V31DX just a week ago (posted this already). This Ham said he was sorry for not sending a QSL sooner (it only took a month). This Ham gets my vote for Mr. Nice!

DE KJ6NN
Phil

1905. Jackson Bros. Dial Drives

Newsgroup: rec.ham-radio
Date: 1990-03-27 17:21:59 UTC
From: donm@hpnmdla.HP.COM
Message-ID: <1250137@hpnmdla.HP.COM>
Source record: 12459

Does anyone out there in net-land know who handles Jackson Brothers dial drives? Are they still in business? My last catalog is from 1974, when SWEDGAL ELECTRONICS in NYC handled their line.

Any help appreciated. Thanks

Don Montgomery, K6LTS
donm@hpnmdla.HP.COM

1906. stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-03-27 17:25:37 UTC
From: junki@kannel.lut.fi
Message-ID: <1839@kannel.lut.fi>
Source record: 12460
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

yanaa:

I've got two 70 cm yagis and i wonder what would be
the best stacking distance, with maximum gain in mind.

The antennae (:-)) are made according to the schema
in ARRL antenna book:
70 cm, 15 elements each, boom len about 3 meters.

Thanks for any advice,

juha nurmela, oh5nxo, junki@kannel.lut.fi

1907. Re: V31BB

Newsgroup: rec.ham-radio
Date: 1990-03-27 17:29:27 UTC
From: trey@ut-emx.UUCP
Message-ID: <26992@ut-emx.UUCP>
Source record: 12489

In article <19801@ea.ecn.purdue.edu>, wb9omc@ea.ecn.purdue.edu (Duane P Mantick) writes:
> >>From: mark@gizzmo.UUCP (mark hilliard)
> >Every day without fail there is a fellow on (ve31bb or v31bb)
> >who has the loudest signal that I have EVER heard (he must be pumping 1kw)
>
> I have heard him and listened with upraised eyebrow on many, many
> occasions. First off, I have heard him say that anyone who runs
> under 250 watts is an "insect" whodeserves to be squashed by
> the 1KW flyswatter.
>
> Yes. I think he acts like a real jerk. Sure, I'd love to have
> a QSL card from Belize, but since his royal behindness deigns
> to not lower himself to QSO with "insects", I can get nice QSL's
> elsewhere, thank you.

I promised myself not to get involved in this discussion, but what the
hey.

As I said in an unrelated previous posting about DX stations in general,
V31BB is just a guy with a radio, the same as every other guy on the band.
No better. No worse. Yet he seems to get people stirred up just as a
guy who was on the bands a few years ago: Mike, WA4D, aka "The Dawg."

I don't see V31BB as being much different from those "phone in and be
abused" type talk-radio shows where the DJ sits around and harangues
the callers. The funny thing is that people sit around and listen
to this stuff for hours and let themselves get all steamed.

Why do people let themselves do this?? The answer must be that they
enjoy letting themselves get angry!

The following analogy is not for those individuals who are getting angry
for the thrill or the "rush" or the high of "letting yourself go" by
becoming enraged. It is for those people who are really upset and
find themselves taking this stuff personally: I don't mean to suggest
V31BB is a raving lunatic, but ... If you met a raving lunatic out
on the street (for instance, a religious zealot who is shouting at
everybody who walks by, telling them they will burn in hell), would
you A) attempt to shout the madman down, or B) Run away! Run away!
If you answer B (like me), then why are you so distressed by V31BB?

The good news is that most of the people on the street are pretty
much minding their own business, just like most of the people on the
ham bands.

> Duane Mantick
> WB9OMC, a "25 watts on 10-meters" insect (according to V31BB, anyway)

Of course it's hard to determine inflection and so forth from written
text, but the insect thing is really pretty funny. Lots of humor
is based on absurdity. I'm 99.9% percent sure that Duane Mantick
put this in his signature because he thinks it is funny, not because
he considers it an evaluation of his worth as a human being.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

1908. FM Citizen's Band? GMRS or GRMS?

Newsgroup: rec.ham-radio
Date: 1990-03-27 18:32:42 UTC
From: megabyte@chinet.chi.il.us
Message-ID: <1990Mar27.183242.15156@chinet.chi.il.us>
Source record: 12494
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I have seen references to an FM Citizen's Band radio service refered to as the GMRS or maybe the GRMS service. This seems not to be the 11 meter Citizen's Band Radio Service, as that is limited to AM and SSB.

I don't think this is a part 15 type service either, can anyone shed any light on what it is I keep seeing references to?

--

Mark E. Sunderlin: IRS Technocrat in Winchester, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
"Welcome to my fog! There's room for you, to come right in.
Welcome to my fog..... I guess?!"

1909. Wild accusations against MFJ, V31BB.

Newsgroup: rec.ham-radio
Date: 1990-03-27 19:44:43 UTC
From: waco@cbnewse.ATT.COM
Message-ID: <13855@cbnewse.ATT.COM>
Source record: 12461

In regard to all the postings about MFJ and V31BB, here is my 2 cents worth. I have only two MFJ products: 1) MFJ-102 digital clock 2) MFJ-815B SWR bridge/wattmeter. I have had the clock many years and it keeps exceptionally good time to within a second or so a month. The wattmeter was purchased this January at a local hamfest. After reading all the articles about MFJ quality, I looked inside the unit. It is rather well put together and all the solder joints look OK, not too sloppy. It is neat and looks like they do have some quality control. Also, their guarantee is for one full year; not bad on the average. It works well so far -- I run barefoot.

As to V31BB, he must, indeed, have been contacted by the government agency in Belize regarding his diatribes against MFJ. I last listened to him about three weeks ago and he was ranting on about being told he could no longer mention "the company's name" on the air. He did not do so and I was curious about which company and what he was talking about. After reading the news net here I found out.

As to his being a jerk, he certainly is! The best advice was offered here today, I think, or yesterday. That is to just ignore him. He is not the only ham in Belize and people like him give the hobby a bad name. Without anyone to listen to him I am sure he will eventually go away. People like him feed on reaction and attention. However, if anyone wants to volunteer to engage him in a rag chew during a rare DXpedition, go ahead. That will make sure he does not become a "policeman" on the DX station's frequency -- he seems to be a good candidate for the job.

Remember, DXing is fun, but missing a rare one will not REALLY change your life. There are enough, the vast majority, of good hams to still make this the best hobby there is! One contact with a really nice person makes up for a lot of V31BBs. My contact with JY1 made up for all the jerks I have every run across, almost.

John L. Broughton WB9VGJ
AT&T Bell Laboratories
1200 E. Warrenville Rd.
Naperville, IL 60566-7045
(708) 713-4319
john.l.broughton@att.com

1910. Re: Micrwave

Newsgroup: rec.ham-radio
Date: 1990-03-27 20:16:09 UTC
From: dalyb@godzilla.UUCP
Message-ID: <49732d06.1423f@godzilla.UUCP>
Source record: 12462

In article <15266.260D93E3@stjhmc.fidonet.org>, Brian.Crawford@p12.f15.n114.z1.fidonet.org (Brian Crawford) writes:
>
> Are there any hams on the usergroup currently ACTIVE on 3 & 5 GHz Amateur
> Bands? Is there anyone ACTIVE on the amateur bands in between 10 & 47 GHz?

I am actively pursuing microwave activity in the 10GHz band. If all goes well, withing the next few months I'll be on the air..

73's,

--
Brian K. Daly WB7OML @ AG Communication Systems, Phoenix, Arizona
UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att}!gtephx!dalyb
Phone: (602) 582-7644 FAX: (602) 582-7111
~

1911. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-27 20:40:22 UTC
From: medin@cod.NOSC.MIL
Message-ID: <1841@cod.NOSC.MIL>
Source record: 12497

Ok here is my 2 cents also, have one of their tuners that fried a
pot (probably my fault, new rig & new ham) returned it and they took my
word for it that it was still in warranty (sp? it was). They fixed it
and i now have over a year on it. My opinion - it does the job,
the price is fair & the service is gud.
73, ted
n6trf

1912. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-27 20:50:02 UTC
From: barry@dgbt.uucp
Message-ID: <1376@dgbt.uucp>
Source record: 12463

I see folks are coming to the defence of MFJ, so I'll add another ringing endorsement:

The only MFJ product I own is an HF dummy load. It's been 100% reliable.

:-)

- Barry VE3JF

--
Barry McLarnon Communications Research Center Ottawa, ON Canada
Internet: barry@dgbt.crc.dnd.ca UUCP: ...utzoo!dciem!nrcaer!dgbt!barry
CI$: 71470,3651 PBBS: VE3JF@VE3JF AMPRnet: barry@bbs.ve3jf [44.135.96.6]

1913. Texas Towers query

Newsgroup: rec.ham-radio
Date: 1990-03-27 21:54:28 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9003280805.AA10007@ucbvax.Berkeley.EDU>
Source record: 12464

>I used to work for Texas Towers as Sales/Service Manager,

Great! Someone who can answer questions that I've wondered about for years! Texas Towers is the firm that has the centerspread ads in CQ every month, right? (If not, ooops, my apologies, insert foot in mouth and hop away... :-) But, assuming I'm remembering right and it is...

1) Why does this company have different reader-service numbers for different pages of its multi-page ad?

2) Why does it have reader-service numbers at all? I've circled numbers on those ads on the CQ bingo card on and off many times over the years, and I have *never* gotten a single piece of literature or a flyer or a catalog from that company. If there is a management decision to not respond to reader-service inquiries, why don't they use the "send all inquiries directly" option CQ offers instead of having numbers?

I've tried various techniques -- picking the number from one page and circling that some months and other months circling all the numbers from all pages. Ignoring the ad for months and then circling the number. Circling all numbers every month for several months in a row. No style ever seems to trigger the company into sending anything out. In recent months I tend to just ignore the ad after this history...

In addition to answering the above specific queries, any comments you care to offer on reader-service inquiries from the vendor side will be appreciated.

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

1914. CB Xcvr -> 10M Beacon

Newsgroup: rec.ham-radio
Date: 1990-03-27 21:55:57 UTC
From: charlie@oakhill.UUCP
Message-ID: <3140@radio.oakhill.UUCP>
Source record: 12465
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

I'd like to set up a 10 meter 5W beacon.
I have a couple of questions regarding 10m beacon operation:

1) Is there a currently-available/easy-to-modify-to-10 meters CB tranceiver
on the market? Or other such quick-and-simple xmitter?

2) How do I register the beacon to make it official on the beacon roster?

3) What do hams typically use for the ID'er? I've heard some long-winded
ID'ers out there on some of the beacons.

Any beacon jocks out there?

Thanks,

Charlie Thompson
WB4HVD

1915. Heath HT mods?

Newsgroup: rec.ham-radio
Date: 1990-03-27 22:08:07 UTC
From: km@cs.pitt.edu
Message-ID: <7251@pitt.UUCP>
Source record: 12466

Does anyone know of any modifications for the Heath 2XL HT to extend
its receive capability? Out of the box it does only 144 - 148 mHz.

-Ken Mitchum KY3B
km@cs.pitt.edu

1916. CALL FOR VOTES - rec.arts.tv.cable

Newsgroup: rec.ham-radio
Date: 1990-03-27 22:09:30 UTC
From: mrapple@quack.UUCP
Message-ID: <5221@quack.UUCP>
Source record: 12467
Cross-posted to: news.groups,rec.arts.tv,rec.ham-radio,rec.radio.shortwave,sci.electronics

[followups to news.groups. crossposted to s.e r.h-r for technical reasons,
r.r.s because of satelite discussions]

Since there has been no further discussion, I think it is not
sacreligious to bump up the vote.

CHARTER: REC.ARTS.TV.CABLE

This group is for discussions pertaining in general to cable television,
and satelite television. Broadcast only issues should go to rec.arts.tv.
More specifically, discussions of technical, regulatory, programming,
and/or customer service/cost/quality issues are welcome.

Technical discussions of cable programming technology are welcome, which
is somewhat at odds to its placement in "rec," but this is proposed
simply because of the infeasability of placing the group elsewhere.
The original name rec.arts.tv.catv was objected to by several
because of the confusion over the designation "catv" meaning
community access TV instead of community antenna TV. Several have
objected to placing the group in rec.arts, but there have been no
alternative suggestions.

The newsgroups line would read:

rec.arts.tv.cable Discussion about cable and satelite television

This newsgroup would not be moderated. It distribution would be
world-wide.

To vote, send mail to:

uop.edu!quack!vote-no for no votes
uop.edu!quack!vote-yes for yes votes

A daemon will pick out the "From:" line and add it to a file. No reply
will be sent. Second call with vote list will be posted Tuesday the
2nd, and third call with vote list will be posted Tuesday the 9th.

The vote will end April 16, 2359 UTC, with the usual 5 day wait for
late mail.

Any personal mail may be sent to ...quack!mrapple, but votes sent there
will not be counted. Posted votes will not be counted.
--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
---------------------------------+---------------------------------
quack!mrapple@uop.edu !

...pacbell!sactoh0!quack!mrapple ! And now, The Fish Slapping Dance
N6QQQ (145.75 - TCP/IP soon) !

1917. Help needed for WWV literature

Newsgroup: rec.ham-radio
Date: 1990-03-27 22:15:36 UTC
From: chju366@ut-emx.UUCP
Message-ID: <27019@ut-emx.UUCP>
Source record: 12468
Cross-posted to: rec.ham-radio,sci.electronics

I am researching the NBS Frequency and Time Broadcast Services and need some literature reference sources. I have a copy of the NBS Special publication No. 236. It's about 15 pages long and talks at length about getting WWV and using it to set your clocks and check your freq.

I'd like to get some more information on it, such as the history of it and its usefulness. Send mail to me and I will summarize for the net.

I seem to recall a discussion about this and the Heathkit clock designed to receive WWV over the summer. If anyone has a copy of any of it, I'd appreciate it if you'd send it to me.

Thanks!
Jose Benki chju366@emx.utexas.edu (Internet)

1918. Re: QEX and other Ham mags.

Newsgroup: rec.ham-radio
Date: 1990-03-27 22:21:50 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490095@hpscdc.scd.hp.com>
Source record: 12469

> / hpscdc:rec.ham-radio / elliott@optilink.UUCP (Paul Elliott x225) / 9:44 am Mar 26, 1990
/
> I am considering renewing or starting subscriptions to various HAM magazines,
> and would appreciate comments or suggestions.
>
> My priority list goes something like this:
>
> 1) Technical content
> 2) Technical content
> 3) Technical content
> 4) Operating practice, band openings, etc
> ...
> 98) Contests
> 99) Silent Keys (unless I am listed; that would concern me :-(
>
> ... de wb6cxc <end of work>

You need to get VHF Communications which is an English translation of
a German ham magazine, with 100% technical content. Available
in this country thru Timekit in Ohio.

Rick N6RK
rkarlqu@hpscdc.scd.hp.com

1919. Happy Times are here Again

Newsgroup: rec.ham-radio
Date: 1990-03-27 22:46:49 UTC
From: G4JJO.WBST207V@XEROX.COM
Message-ID: <900327-152339-2635@Xerox>
Source record: 12470

For several reasons, not the least of which the ARPA gateway here has been not been operating here, I have not had the pleasure of reading Info-Hams for at least 6 months.
I was totally amazed to find that just like the soap operas I hadn't missed a thing. Only the names have changed (presumaably to protect the innocent) Rather cunning name changes have been made "code-nocode" has been changed to "increasing CW speed"....subtle Huh
Although I did notice that in several notes some people forgot the name change and still called it "code-nocode".... got to to watch those name changes.....
I see we are still modifying HT's for out of band listening, and transmitting into dummy loads etc. and even still getting into trouble on airplanes with them.
What's the new name of the 220 MHZ discussion or did it dry up.....

If it sounds like I'm cynical it's probably because I am, it's just that it's getting tougher to sort out the real gems and useful information from all the chaff (I'm being polite here) that's flowing downhill.

Cheers and 73's Geoff Williams G4JJO

1920. Re: Radio Phone Salesmen LIE!

Newsgroup: rec.ham-radio
Date: 1990-03-28 01:39:18 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500479@ux1.cso.uiuc.edu>
Source record: 12471

You could subscribe to their service, pick up YOUR OWN signal on your unmodified scanner (which MIGHT be arguably legal), and file a complaint with appropriate consumer protection agencies (all you can find at once) complaining that you were ripped off and the company is advertising fraudulently.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1921. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-28 01:39:26 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500478@ux1.cso.uiuc.edu>
Source record: 12472

Alternatives to code test:

Novice: eat 5 bunches of brocolli
Tech: eat 5 bunches of brocolli
General: eat 13 bunches of brocolli
Advanced: eat 13 bunches of brocolli
Extra: eat 20 bunches of brocolli

Of course for some people this is easy to do, but it certainly takes a lot
of dedication, and will help keep out the riff-raff.

Anyone for CHINESE FOOD at the Dayton Hamfest?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1922. Re: Legalities...

Newsgroup: rec.ham-radio
Date: 1990-03-28 01:39:42 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500480@ux1.cso.uiuc.edu>
Source record: 12473

> Just an ethical question. I live in a very rural area and wish to
> put a phone patch at my QTH. I was planning to do it cross-band
> by using the TS-680S in the car to go to the house on 6m FM, and back
> out on 2m. With the "links above 220MHz" rule, how is this classified
> and is it legal?? Do want to be legal now you know.
>
> tnx es 73 de km4jn

Ethically speaking, I personally don't see anything wrong with it...

but...

as I interpret the rules, you would be bringing up the transmitter back at home from your car. That constitutes REMOTE CONTROL. All transmitters under remote control must be controlled by means of either "wire line" (i.e. a phone line, etc.) or by means of a station in AUXILIARY OPERATION. The legal CONTROL POINT would be at the car. That's where you would be able to shutdown the transmitter from should you discover it to be in violation of the rules. My guess is that the FCC wants this communications to be reliable and so requires that all auxiliary operation be limited to frequencies above 220.5 Mhz except 431-433 and 435-438 Mhz. These might change when the 220-222 loss finally happens.

So as long as the transmission from the car to the house is on an auxiliary frequency, then it could be ok, legally.

REMOTE CONTROL of a station is authorized for REPEATERS and I think BEACON stations (I have to double check on beacons, but they don't apply here anyway). A plain patch is just an ordinary station conducting third party traffic (don't forget about the third party traffic rules).

You might be able to turn it into a true repeater. You'd have to make sure that BOTH the input and output are in the repeater subbands of the respective bands. It would have to qualify as a repeater under the repeater rules. Then it can be operating under AUTOMATIC CONTROL and the phone patch can be attached as a extra feature.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1923. Re: Favorite Mode numbers

Newsgroup: rec.ham-radio
Date: 1990-03-28 01:40:09 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500481@ux1.cso.uiuc.edu>
Source record: 12474

How about a survey that breaks up the favorite modes in terms of bands?

1. What is your favorite mode(s) on HF
2. What is your favorite mode(s) on VHF
3. What is your favorite mode(s) on UHF

Since the no-code license is only addressing privileges above somewhere
between 30 Mhz and 220 Mhz (depending on which one you look at) I would
think the VHF and UHF distribution to be far more important relative
to having no code requirement on a class giving only those privileges.

How about?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1924. WANTED: Johnson Viking 4740 Schematic/Layout

Newsgroup: rec.ham-radio
Date: 1990-03-28 05:43:27 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <243@ka2qhd.UUCP>
Source record: 12475
Cross-posted to: rec.radio.shortwave,rec.ham-radio.swap,rec.ham-radio

I have an inoperative Johnson Viking 4740 CB/SSB radio.
It is 40 channels. It has no receive audio at the present time.
I am in need of a schematic/PC layout for the radio so I can get
running so I can convert it to 10 meters. Anyone having any
info, please contact me at:
Chris Crosby KA2RAF
P.O.Box 1286
Lakewood, NJ 08701
201-905-9843
p.s. I would be interested in any mods for the radio. I heard the 10 meter
mod is a "ground the pin on the synthesizer" mod. That and any others
would be greatly appreciated ! 73 de Chris, KA2RAF@NN2Z

1925. Re: V31BB

Newsgroup: rec.ham-radio
Date: 1990-03-28 06:42:30 UTC
From: donahn@gypsum.berkeley.edu
Message-ID: <1990Mar28.064230.1692@agate.berkeley.edu>
Source record: 12476

In article <26992@ut-emx.UUCP> trey@ut-emx.UUCP (Trey Garlough) writes:
>I don't see V31BB as being much different from those "phone in and be
>abused" type talk-radio shows where the DJ sits around and harangues
>the callers. The funny thing is that people sit around and listen
>to this stuff for hours and let themselves get all steamed.

One of the intents of Amateur Radio is to "foster international goodwill".
On the bands, one does not expect to be yelled at or insulted. V31BB
is in a postion, living in an exotic location, of having lots
of stations that would like to work him. He compounds the situation by
working contest-style pileups -- people dying for a Belize QSL. Most of
his victims think they are talking to Joe DX station -- and then they
get slapped. This is enough to get most people steamed.

With a talk show, you know what you're getting into, and you're basically
paying to get abused. With a pileup, you should be able to at least get some
courtesy -- its in the charter of Amateur Radio. Amateur Radio is having
a tough enough time with image as it is - without V31BB.

Don Ahn, AA6UD

1926. V31BB

Newsgroup: rec.ham-radio
Date: 1990-03-28 08:22:28 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9003280822.AA16081@tecnet1.jcte.jcs.mil>
Source record: 12477

Has anyone thought about collecting all the articles written on this gentleman via this network and sending them all at once?

I suppose that the infamous recognition might fan the flames of this individual, but it is a pleasant thought.

Heck... he might even send you a QSL! (Joke please... not serious)

Which brings up the topic of "self-policing", something that seems to be on the mind of a lot of people now-a-days. Obviously that term is a joke. The proof of that is in what is happening on our bands today.

Maybe I am daydreaming, but it seems to me that the MAJORITY of hams are disturbed or down-right disgusted at a lot of the behaviour that is going on in our spectrum. The ARRL says that a ham must NEVER jam someone intentionally (so does the FCC), and if you want to get down to brass tacks.... putting a pin in a licensed hams coax is a felony, as is beating the tar out of him at a local hamfest. So I am getting a little short on patience when I read people like Wayne Green saying that WE as HAMS are FAILING at our jobs of "self-policing" because we are too "whimpy". I hear all the accusations, but I sure don't see any valid suggestions on how to stop it.

Mr. Green has a strong medium that he could use to help stop this by simply having a "Lid of the Month" award. We could have write in votes and he could publish the results! But of course he would then probably get SUED, and he is too "whimpy" to risk that!

No... I do not like being called a "whimp". I also don't like people that print up great suggestions for where we as a Amateur Service should be headed, but don't give too many details on how to get there. Sure, you first have to define a GOAL, but I think we're all aware of some pretty good ones to shoot for... it's in how to GET there that really poses the problem.

IMHO the conduct of ham radio operators, and improving same.... is a lot more important... or at least AS important as a code/no-code license.

"Self-Policing"...In ham radio that is a GUN that has NO ammunition, unless you are willing to break the law or compromise your own ethics to make an impact.

I am interested in anyones opinion on this. My personal feeling is that the war on the crazy people has to get personal. Names have to be named and callsigns included. The really worst offenders have to be put on a hit list of every ham so that whenever they hear the persons callsign, they will know that THIS guy is a real turkey. Yes, this could drive

such mentalities into rash behaviour such as jamming the local 2 meter repeater.... but then it is HIM that is breaking the law, and then HE is the one that can be prosecuted.

V31BB has been put on MY hit list, and while the internet probably isn't a good place to keep such a database :-) it is a good example of what I am talking about.

Since CW is not a "good filter" for nut cases, how about filling me in on how to go about stopping this mess? I believe that it is getting worse. Quickly.

Whew... this was pretty strong....I can feel the heat already! :-)

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

1927. Horrible New UK call allocations!!

Newsgroup: rec.ham-radio
Date: 1990-03-28 09:02:00 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <28.Mar.90.10
Source record: 12478

In INFO-HAMS Digest V90 #303, Bob, W3OTC comments on the new proposed
United Kingdom callsign allocations, and says::
>
>Who said that the American callsign scheme is complicated ??????
>
I *LIVE* in the UK, and may have to *PUT UP WITH* this farce of a scheme
for assigning new calls..... {start playing of sad violin music...}
The need to have a seperate call series for club stations passing third-party
messages(!) seems obscure and unnecessary to me, add this to the confusion
that the new 'novice' license will introduce, and i predict chaos! (BTW,
why do we need a 'novice' license? we already have one - its called the
'Class 'B'', no-code license - gives us six meters and up, full privileges).
I feel that the proposed call scheme is nothing more than the uninformed
scribbling of incompetent buffoons, and have written to RSGB expressing
my strongest disapproval of the new proposal. But i feel that i am a
lone voice crying in the wilderness...

>>>Pete>>> G6WBJ (A No-code licensee - and proud of it!)

1928. CQ PEACE

Newsgroup: rec.ham-radio
Date: 1990-03-28 11:48:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9003290802.AA07895@ucbvax.Berkeley.EDU>
Source record: 12479

Normally - I feel politics and Amateur Radio have no real common
ground - especially here on Info-Hams. However in this case I must make
an exception since what happened this week in Israel just might be the spark
that can eventually lead to peace in the Middle East - or at least a beginning
of something...
On March 27th, it was announced by the Ministry of Communications that Amateur
Radio operators can now legally communicate with 22 Arab countries that were
formally forbidden under the rules and regulations since 1948.
So far, nothing has been said formally on the part of our neighbors - but it
is too soon to tell. Jerusalem and Amman for example are in 2 meter repeater
range. 40 meter SSB operation during the day would give coverage into many
neighboring countries.(It would be nice to hear JY1 pop on to the Jerusalem
repeater on his way to work!)
Things happened in Eastern Europe recently after no one thought it was
possible... Why not here ?
Peace via Amateur Radio ??
This may be a real first...

73
4X1DA / WB2JBS
Richard Harel
Jerusalem

1929. WWV

Newsgroup: rec.ham-radio
Date: 1990-03-28 12:33:20 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9003281233.AA21498@cmr.ncsl.nist.gov>
Source record: 12480

I was unable to send the following message directly since the addressee seems to be unknown by emx.utexas.edu.

Date: Wed, 28 Mar 90 07:29:16 EST
>From: Robert Carpenter <rc>
Message-Id: <9003281229.AA21492@cmr.ncsl.nist.gov>
To: chju336@emx.utexas.edu
Subject: WWV

One source of historical info about WWV / WWVH is the book "Achievement in Radio", by Wilbert F Snyder and Charles L Bragaw, available from the US Govt Printing Office (for maybe $55). I would think that the U Texas library might have a copy. It is an 842-page history of radio activities at NBS up through the mid-1970s. The section about WWV starts on page 263 and runs about 30 pages. If you absolutely can't turn up a copy of the book, I suppose I could copy the pages. This story isn't technical, or at least not very technical. Contacting somebody like Roger Beehler at NIST/Boulder, might lead you to more technical info. Note that the name was changed from NBS to National Institute of Standards and Technology about a year ago - congressmen at work.
73, Bob W3OTC

1930. Q-Signals

Newsgroup: rec.ham-radio
Date: 1990-03-28 13:09:14 UTC
From: ean@gvlv3.gvl.unisys.com
Message-ID: <593@gvlv2.GVL.Unisys.COM>
Source record: 12481

Dig out you copy of the Amateur Radio Handbook or most any other handbook of radio and someplace you will find a list of the "INTERNATIONAL Q-SIGNALS". And, yes, they are still in use on the 'outmoded' mode of CW! Also there is another type of signals used on CW by the U.S. Military forces "Z-SIGNALS"

Ed Naratil (All standard disclaimers apply)
AMPR: W3BNR@N3LA.#EPA.PA.USA.NA ean@gvlv3.gvl.unisys.com

1931. Re: Ham Radio article in Worc

Newsgroup: rec.ham-radio
Date: 1990-03-28 13:09:16 UTC
From: dls@genrad.com
Message-ID: <34450@genrad.UUCP>
Source record: 12482

I have been asked via email to post the article, so here it is in full.
This article is being reproduced without permission from the Worcester
Telegram, Sunday, March 18th issue (ps, I fixed the misspelled name):

RADIO HAMS CAN BE BIG HELP IN TIME OF NEED

The Montachusett Amateur Radio Association is there when you need it. The
75 member club for amateur radio operators, popularly known as "hams," has
a long history of acting as a vital communication link in time of emergency.
But if you ask club members why they're involved, they'll tell you it's
because amateur radio is a lot of fun.

"It's quite a hobby," declared Gerald Jubb, an association member who got his
first ham license in 1934 when amateurs typically rigged up their own radio
sets. "You get into it as a kid and then stay the rest of your life," Jubb
added.

Local hams join the association to sharpen their skills and to share the fun
of ham radio with their fellow enthusiasts. The association also gives
classes so that aspiring hams can learn their craft and obtain a license to
operate. Of the 19 people in the current class, four are 14 years of age
or younger [Diana: two of them are my kids!], three of them girls, noted
Charles Cayen, the chairman of the club's membership committee.

FORMS OF COMMUNICATION

Hams can use a variety of formats to communicate, including voice, Morse
Code, teletype and computer. Many hams have handheld units and others
broadcast from mobile units in their cars.

Some operators, said Bill Wornham, get into the hobby to "chew the fat with
anybody and everybody." Some are particularly interested in foreign contact,
while others prefer getting involved in the technology of radio such as using
computers and satellites. The first non-government satellite ever launched
back in 1961 was for radio amateurs across the world and 12 more have been
launched since then, said Jubb.

But it may be the public service and emergency functions that make ham
operators and the club particularly recognizable. The association helps
ensure the safety of participants in local bicycle and foot races as well as
walkathons by providing communications along the routes and promptly directing
help to trouble spots.

DISASTER HELP

And when all other communications fail, such as during a flood, earthquake
or hurricane, amateur radio operators are there to help coordinate disaster

relief and get messages in and out of the affected area. During last October's quake in California, amateur radio operators passed 15,000 messages between the stricken area and the outside, mostly to family members concerned about the fate of their loved ones, said club member Wornham. Hams passed the same number of messages down to the Caribbean when Hurricane Hugo ripped through the islands last year, he added.

Wornham sent one inquiry to Puerto Rico for a co-worker who wanted to find out if her family was safe. She got a message the next day from an operator who telephoned her from Kentucky. Everybody was fine. Montachusett Amateur Radio Association members are also ready to spring to action when local emergencies arise. The association counts among its members Wornham, who is the Civil Defense director in Townsend, and Cayen, who acts as the northeast coordinator in Worcester County for the Amateur Radio Emergency Service, the volunteer agency that would coordinate ham efforts during an emergency.

Cayen remembers a few years ago, during a flood warning in the Fitchburg area, that volunteer hams went out periodically to measure water levels which they passed on to officials who were monitoring the situation. Hams are also called upon to report local road conditions during a snowstorm or weather conditions in their town during a tornado watch.

Jubb has been a ham since the 1930s when radio captured his imagination and he began building sets to send and receive messages. He made his first radio contact with a Springfield amateur in 1933 and he's been at it ever since. Jubb makes his contacts out of the same room where he began, in a converted closet in a 250-year-old house that was built by his family.

The association has its roots in the Fitchburg Radio Club which began in the 30s, Jubb recalled. In the 1970s, the Fitchburg Club merged with an informal group of operators to form the Montachusett Amateur Radio Club. The name was eventually amended to association.

In addition to offering classes, the club participates in the annual field day sponsored by the American Radio Relay League, the national association of ham radio operators. A sort of national disaster drill, the field day gives clubs across the country a chance to operate under emergency conditions and have their performance rated.

The club meets every second Wednesday, except in July and August.

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

1932. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-28 13:20:44 UTC
From: k2ph@cbnewsj.ATT.COM
Message-ID: <4374@cbnewsj.ATT.COM>
Source record: 12483

From article <30500478@ux1.cso.uiuc.edu>, by phil@ux1.cso.uiuc.edu:
>
> Alternatives to code test:
>
> Novice: eat 5 bunches of brocolli
> Tech: eat 5 bunches of brocolli
> General: eat 13 bunches of brocolli
> Advanced: eat 13 bunches of brocolli
> Extra: eat 20 bunches of brocolli
>

Can I put melted Velveeta on the broccoli? :-)

p
o
s
t

p
r
o
g
r
a
m
-> needs these lines.
--
==========
Bob Schreibmaier K2PH | UUCP: att!lzss!k2ph or k2ph@lzss.att.com
AT&T Bell Laboratories | ARPA: k2ph%lzss@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

1933. Re: FM Citizen's Band? GMRS or GRMS?

Newsgroup: rec.ham-radio
Date: 1990-03-28 13:49:08 UTC
From: davet@tsdiag.ccur.com
Message-ID: <809@tsdiag.ccur.com>
Source record: 12484

In article <1990Mar27.183242.15156@chinet.chi.il.us> megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
-I have seen references to an FM Citizen's Band radio service refered to as
-the GMRS or maybe the GRMS service. This seems not to be the 11 meter
-Citizen's Band Radio Service, as that is limited to AM and SSB.
-I don't think this is a part 15 type service either, can anyone shed any
-light on what it is I keep seeing references to?
-Mark E. Sunderlin: IRS Technocrat in Winchester, VA
-aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203

Check out Title 47 CFR, in either part 90 or 95. (It's in with CB under the heading "Personal Radio Services".) It is FM, with a few channel pairs around 463/468 MHz. Repeaters are allowed within certain constraints, and buisness communications are allowed. If you'd like more information, please give me a call or E-Mail me directly. PS - How's Winchester this time of year? I grew up in Ashland, just north of Richmond. Are the apple blossoms out yet? Heard any good concerts at the conservatory? You're making me homesick!

1934. Re: Favorite Mode numbers

Newsgroup: rec.ham-radio
Date: 1990-03-28 13:56:31 UTC
From: davet@tsdiag.ccur.com
Message-ID: <810@tsdiag.ccur.com>
Source record: 12485

In article <30500481@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
-How about a survey that breaks up the favorite modes in terms of bands?
-1. What is your favorite mode(s) on HF
-2. What is your favorite mode(s) on VHF
-3. What is your favorite mode(s) on UHF
---Phil Howard, KA9WGN--
-<phil@ux1.cso.uiuc.edu>

1) Phone (10m)
2) Packet (2m)
3 ATV (439.25 & 427.25) - "All Dave, all night - it's Dave TV!!"

--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

1935. Cellular phone salesmen story

Newsgroup: rec.ham-radio
Date: 1990-03-28 14:51:30 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9003290806.AA08232@ucbvax.Berkeley.EDU>
Source record: 12486

I heard a sales rep for a cellular phone company giving a pitch in a shopping mall one day. The person he was pitching to asked about scanners. He told them, "scanners can't pick up this signal, it's distributed by SATELLITE and we use special encoding on it." I actually could not contain myself and burst out laughing, much to my fiance's chagrin :-). The rep gave me The Mean Face so I just walked on. Oh well.

That is just out-and-out fraud. Someone needs to deal with that.

Just my 2/100 dollars worth.

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

1936. Re: INFO-HAMS Digest V90 #333

Newsgroup: rec.ham-radio
Date: 1990-03-28 15:27:44 UTC
From: arie@ee.su.oz.au
Message-ID: <9003280027.AA02760@ee.su.oz.AU>
Source record: 12487

Please remove me from the distribution list

73's 4X6JO / VE3JLM

Arie Markus arie@ee.su.oz (formerly axm2f@uottawa)

Its been a slice, now I'm on my way back to 4X land.

1937. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-28 15:54:27 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <4156@kd4nc.UUCP>
Source record: 12488

>Ken Hendrickson writes:
>Aurora can only be effectively utilized if CW is used.
Try AMTOR.
>
>During contests, I can do a CW contact in about 1/2 the time a voice
>contact takes, and I never have to ask for a repeat.

Fasinating! I suppose you talk MUCH more slowly than the average person.
Normal conversational speech is 120 wpm. I also must assume you never
work the weak ones or operate when there is QRM or QRN since you NEVER
ask for a repeat.

From personal traffic handling experience on both phone and cw nets
during the Vietnam era, I can say confidently that we passed MUCH
more traffic by voice than cw. Course we used the hi-tech of the
era, tape recorders for both out going and in coming traffic. Crisp
operating technique was a greater factor than mode, but the higher
speed of voice sure helped.

Gary Coffman KE4ZV

1938. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-28 16:32:54 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <617.2610FC9A@weyr.FIDONET.ORG>
Source record: 12491

It seems that you anti-CW logic can be applied to ham radio in general. I suggest that if use your underlying premises that we could make an argument for turning all the amateur radio bands into Citizen's bands. Perhaps you might wish to expound on this topic for awhile!
As I have said before if your really wish to use voice pick up the land line.

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1939. Change your life...

Newsgroup: rec.ham-radio
Date: 1990-03-28 16:45:27 UTC
From: aaker@apple.com
Message-ID: <39890@apple.Apple.COM>
Source record: 12492

John L. Broughton WB9VGJ writes:
"Remember, DXing is fun, but missing a rare one will not REALLY change
your life."

Funny, after missing a rare one I usually end up with:

a tired elbow or hoarse voice
loss of hearing
a warm heat sink
larger electrical bills
a neglected wife

and a fierce determination not to miss them the NEXT time. :-)

Mark NT6G
aaker@apple.com

1940. Re: Yeasu FT-212 MODS

Newsgroup: rec.ham-radio
Date: 1990-03-28 16:56:23 UTC
From: jle@hpfcdc.HP.COM
Message-ID: <7880138@hpfcdc.HP.COM>
Source record: 12493

> / hpfcdc:rec.ham-radio / fisher@hpfelg.HP.COM (Doug Fisher) / 4:37 pm Mar 26, 1990 /
> Does anyone know the out-of-band mods for the
> Yeasu FT-212?
> ----------

Yes, stop by 1UP10, 15E, assuming you are in Fort Collins. (Just try
and get this information from YA-HOO.) I'll even sell a 212 service
manual.

Now what I really wanted to say. Sell it and by an ICOM-228A.
I'm much happier. The ICOM service people were much more reasonable
to deal with and the radio isn't such a lame duck (one of a kind).

I speak for me. I have had bad experiences with YA-HOO and will never,
ever buy their equipment again.

Jer/ Eberhard, (SLASH), HAM = N0FZD | Hewlett-Packard - MS99, 1UP10, 15' East
CAP SAR Pilot, COMM,INST,CFI-GLIDER | 3404 East Harmony Road (303) 229-2861
UUCP:hplabs!hpfcla!jle | Fort Collins, Colorado 80525-9599
ARPA:jle%hpfcla@hplabs.HP.COM

1941. Re: Help needed for WWV literature

Newsgroup: rec.ham-radio
Date: 1990-03-28 17:22:59 UTC
From: roy@phri.nyu.edu
Message-ID: <1990Mar28.172259.12682@phri.nyu.edu>
Source record: 12495
Cross-posted to: rec.ham-radio,sci.electronics

In article <27019@ut-emx.UUCP> chju366@ut-emx.UUCP writes:
> NBS Special publication No. 236 [...] talks at length about getting
> WWV and using it to set your clocks and check your freq.

I called NBS/NTIS (301-975-3058) and asked for this. Apparantly
that document is out of date; the replacement is NBS Special Publication
432. The very nice woman I spoke to offered to send me one. She was so
nice and so efficient on the phone, it was hard to believe I was actually
talking to somebody at a government agency (actually, I have found that
many government agencies, such as NSF and NIH, are populated by nice,
efficient people; the IRS and motor vehicles, on the other hand...)
--
Roy Smith, Public Health Research Institute
455 First Avenue, New York, NY 10016
roy@alanine.phri.nyu.edu -OR- {att,philabs,cmcl2,rutgers,hombre}!phri!roy
"My karma ran over my dogma"

1942. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-28 17:40:11 UTC
From: sawyer@twg.com
Message-ID: <905@gollum.twg.com>
Source record: 12496

In article <7880136@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>
>While I'm not a VE, the guys I've taken tests from wouldn't mind the
>verbatim dot-dash copy and translation. Also, if the OM understands
>binary trees, ... make up a balanced btree, assigning dits and dahs, then
>create a silly saying to remember the tree.
> E T
> I A N M
> S U R W D K G O
> H V F * L * P J B X C Y Z Q * *
>
>Something like "Extra Terrestrials In A New Mexico Sun Use Running
>Water (for) DrinKinG Or HaVing Fun."

Thanks for making my day! Although cute, this is approximately the dumbest idea I've heard all week. No personal offense intended, but I think the writer is doing a disservice to potential new hams here. I am a VE, and I have seen a few guys try to write down dots and dashes and then translate after the test was over. Not one of them ever passed. They always get balled up trying to write the last string of dots & dashes while the next letter comes at them. The result is an untelligible mess. But now I can't wait to see some guy sitting there trying to remember his 26-word mnemonic string to reconstruct his binary tree from memory!!!

Let's relegate this myth about how some people CANNOT learn code to the same scrap heap that I hope most of us have used to discard the notion that some people CANNOT learn math. When people supposedly competent in a particular skill pass around the myth that some people are absent the capability of learning that skill, we give them a crutch that turns into a disabling handicap. Witness the whining over the code requirement that occupies about half the bandwidth of this forum. It comes from the same group that thinks they should get 3 hours credit for a full semester course in C.

AA6KX

1943. Re: CODE vs NO-CODE

Newsgroup: rec.ham-radio
Date: 1990-03-28 18:55:02 UTC
From: jim.grubs@w8grt.nstar.com
Message-ID: <FqBRg1w161w@w8grt.nstar.com>
Source record: 12498

jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:

> In article <a1ckg1w161w@w8grt.nstar.com> jgrubs@w8grt.nstar.com (Jim Grubs) w
> >Let's drop the argument. Code can be useful. Code can be fun for those who
> >like it. Big deal! That does not by itself make it necessary to require
> >testing on code proficiency on VHF only licenses. Noone is going to change
> >anyone else's mind on those points.
> >
> >But NPRM 90-55 is up for consideration and comment. It seems almost 100%
> >certain to be approved. Let us therefore limit our arguing to the more
> >constructive issues of how best to implement no-code. Pax?
>
> To the guy who suggested a rec.ham-radio.debate group: it was suggested
> before, and that generated the HAMLICEN mailing list. It was taken over
> almost completely by the anti-code types, and while I continue to read
> it, I won't contribute to it - I can't afford to replaced a modem that's
> been flamed to a crisp.

Jay, you're living up to both your monicker and your tag line again.
You are deliberately distorting the attitude of HAMLICEN participants.
None of us are "anti-code" - just against requiring it for all license
exams for VHF-only licenses. <sigh>

1944. Re: CODE vs NO-CODE

Newsgroup: rec.ham-radio
Date: 1990-03-28 18:59:33 UTC
From: jim.grubs@w8grt.nstar.com
Message-ID: <yXBRg2w161w@w8grt.nstar.com>
Source record: 12499

phil@ux1.cso.uiuc.edu writes:

>
> > > I have already come up with NINE alternatives to the 90-55 proposal, and
> > > plan to include them all in my comments. I also suspect that 90-55 will
> > > exceed even 87-14 in the total volume of comment filings.
> >
> > I plan to propose adoption of the Canadian Plan as is except for
> > modification of the homebrewing restrictions.
>
> That's one of the nine and in fact its the first one.

Tell us more.

/s/ Jim

1945. Re: Field Day 1990

Newsgroup: rec.ham-radio
Date: 1990-03-28 19:04:24 UTC
From: jim.grubs@w8grt.nstar.com
Message-ID: <26BRg3w161w@w8grt.nstar.com>
Source record: 12500

tad@ssc.UUCP (Tad Cook) writes:

> Gee, the SUN came out the other day, and I got to daydreaming about...
>
> FIELD DAY!
>
> Anyone have any neat plans for this year?
>
>
> Tad Cook
> Seattle, WA
> Packet: KT7H @ N7HFZ.WA.USA.NA
> Phone: 206/527-4089
> MCI Mail: 3288544
> Telex: 6503288544 MCI UW
> USENET:...uw-beaver!sumax!amc-gw!ssc!tad
> or, tad@ssc.UUCP

In the center court of the most popular shopping mall in town. Great
for public relations - inside the family and outside.

1946. Re: The BEST scanner antenna!

Newsgroup: rec.ham-radio
Date: 1990-03-28 19:16:14 UTC
From: bmp@hpcupt1.HP.COM
Message-ID: <7120112@hpcupt1.HP.COM>
Source record: 12501

I am confused, I thought the 5094 was made by Channel Master.

I've got a 5094A from Channel Master and I concur. Somedays
I turn the attenuator on cause I'm picking up too much stuff.

Brian Perkin
N6RSW

P.S. Even though it is not in its specs, it does extremely
well at 243.00 Mhz.

1947. QSL HELP NEEDED

Newsgroup: rec.ham-radio
Date: 1990-03-28 19:20:06 UTC
From: rambo@sun.acs.udel.edu
Message-ID: <9601@sun.acs.udel.edu>
Source record: 12502

I'm looking for some help in getting QSL cards from the following stations worked by my father, W3LQE, in the past.

5Z4TA in April 1987 ... this station is not in the 1990 Callbook.
8Q7MT via JI1DBQ ... JI1DBQ is not in the 90 callbook either.

Any help would be greatly appreciated. A t D h V a A n N k C s E

73's de KA3KHZ

Doug Rambo KA3KHZ
Univ. of Delaware Class of '92 (hopefully)
2 Meter Meteor Scatter Skeds upon Request... (302) 798-4163
FM29 ... one of those "overpopulated" grids.

1948. Hamerlund Radio for sale... Still works great.

Newsgroup: rec.ham-radio
Date: 1990-03-28 20:13:48 UTC
From: eustace@krypton.arc.nasa.gov
Message-ID: <9712@shlump.nac.dec.com>
Source record: 12503

Joe Eustace eustace@medusa.enet.dec.com
or
eustace%medusa.enet.dec.com@decwrl.dec.com

The opinions expressed in my posting are totally mine and do not
reflect the opinions of my employer !

I have a 1936 Hamerlund radio for sale... complete with manuals and parts list.
The radio works fine.... Last week I was listening to Radio Toyko...
They just don't build 'em like that anymore...

1949. re: CW and the handicapped

Newsgroup: rec.ham-radio
Date: 1990-03-28 20:18:16 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <618.261126D7@weyr.FIDONET.ORG>
Source record: 12504

Compassion has to be the first rule for all human endeavours. The problem is not with Morse Code but rather with the systems. This answer should have been obvious!

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1950. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-28 20:26:28 UTC
From: jgrubs@w8grt.nstar.com
Message-ID: <TyFRg1w161w@w8grt.nstar.com>
Source record: 12505

karn@ka9q.bellcore.com (Phil Karn) writes:

> In article <9003231820.AA29999@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD)
> > I submit that MOST of the arguments that have been presented in
> >opposition to the CW requirement could JUST AS EASILY be applied to any othe
> >entrance requirement, including examinations. Just plug in your favorite
> >hang-up in place of "CW" in all the preceding arguments and see how it comes
> >out.
>
> In my opinion, the popularity of this argument shows that American amateur
> radio is in serious trouble.
>
> In response to your likely rejoinder ("But wait! What about people who are
> interested only in public service?") I would say two things. First, the
> amount of public service traffic carried by CW is nil;

With all do respect, the NTS traffic nets on CW are quite active and
important. Packet networks will no doubt change that but they have not
yet.

1951. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-03-28 20:58:42 UTC
From: MLS129@psuvm.psu.edu
Message-ID: <90087.155842MLS129@psuvm.psu.edu>
Source record: 12506

Hm... I'm amazed by all of the garbage about MFJ. I have been using a Versa Tuner III for about 6 years now and it has never given out. The same goes for my 1274B.

Just because MFJ isn't a "big-name" company and doesn't package or advertise its products in a very slick manner doesn't mean that it's not a good brand. At least some of their stuff is made in the US!

--Mike Sensor KD3LR
Penn State Univ. -- Altoona Campus
Altoona PA
SIGNATURE FILE AUTO=off
]]>>1 MLS129 @ PSUVM

1952. Re: QEX and other Ham mags.

Newsgroup: rec.ham-radio
Date: 1990-03-28 21:48:18 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250138@hpnmdla.HP.COM>
Source record: 12507

Paul
HR seems to have more consistent technical representation but like
the other mags is subject to the "NiCad battery charger syndrome"
(actually this month in HR it was a NiCad *dis*charger). QEX is Paul
Rinaldo's (w4ri) baby and has been struggling since most of the
solid technical authors don't want to publish there due to the lack of
circulation. QST pages seem to be at a premium and there is a tremendous
battle over them, you can see which priorities win. HR and CQ
(which generally seems non-technical) do seem to have the better
international coverage and availability.
I've chosen HR for my last few articles because of their willingness
to publish and international availablility.
I think the bottom line is that the magazines tend to try to appeal
to the lowest common denominator for sales and aren't especially
interested in technical articles, per se.
I'm afraid they are suffering from the same problem as the
hobby as a whole, a general lack of relevance to the information age.

BTW, what's your qth? It looks like we are pretty close.

I e-mailed this but optilink doesn't recognize you!

Glenn Elmore -N6GN-
(near Santa Rosa, about 2 miles west of Fulton road at West 3rd)

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

1953. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-28 22:26:21 UTC
From: pbhx@tank.uchicago.edu
Message-ID: <8147@tank.uchicago.edu>
Source record: 12508

In article <1990Mar28.060557.29706@agate.berkeley.edu>
donahn@gypsum.berkeley.edu (Don Ahn) writes:
::
::CW is one skill that is in the potentially useful category. It is not
::a "totally useless" skill. Witness the fact that most repeaters/ and beacons
::ID with it. Along with is heavy use in ship-to-shore/satellite communications.
::An "archaic and useless" skill? I don't think so. You can't get away from
::CW -- on any of the ham bands.
::
::Irregardless, I'm not interested in cramming CW down anyone's throat, just
::in keeping the door open, something that I think the 5wpm test does well.
::Most of you must have realized that you don't really have to "know" CW
::to pass the multiple guess test at the VEC. In fact, I think all that it
::can be said the 5wpm test "guarantees" is that you can tell dots from dashes,
::keeping your options open to learn CW if it appeals to you.
::
::I really can't see how anyone can be against such an innocuous little 5wpm
::test -- especially in its current multiple guess incarnation.

It is my impression that *most* countries do not require 20 WPM for a
class of license. If memory serves me right, the UK requires 12, other
countries require 7 or 8 tops. Why, then, do we go through the
foolishness of requiring 20?

Perhaps Don has hit the nail on the head. Let's petition that the code
requirement for *all* licenses be dropped to 5 WPM (or 8 - 10 if you
want to stretch it a bit), and then let's ask that the theory exams
stress the type of stuff that people really need to know on the air.

--

Peter B. Hayward N9IZT
University of Chicago Computing Organizations
pbhx@tank.uchicago.edu .....mimsy!oddjob!tank!pbhx

1954. Re: Control program for TS440

Newsgroup: rec.ham-radio
Date: 1990-03-28 22:32:38 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <4372@ubbs-nh.MV.COM>
Source record: 12509

In article <185@brandy.UUCP> mark@brandy.UUCP (mark hilliard) writes:
>
>Does any one out there have a UNIX based control program for the
>Kenwood TS440? I am running 386ix and would rather run a control
>program from UNIX rather than from VPIX.

I'd be interested in this as well. Additionally, I'd like to get my
hands on a decent packet/rtty/etc and logging programs that run under
Unix/Xenix.

VP/ix is ok, but I'd much rather run them in "native" mode.

Noel
KC1RB

--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

1955. Packet(?) on commercial bands

Newsgroup: rec.ham-radio
Date: 1990-03-28 22:44:09 UTC
From: pfluegerm@valley.UUCP
Message-ID: <4978b8cc.15840@valley.UUCP>
Source record: 12510
Cross-posted to: rec.ham-radio.packet,rec.ham-radio,rec.radio.shortwave

The local (Phoenix) police and fire use some packet-like mode to communicate with computers in the vehicles, and my PK-232 signal analysis mode is unable to figure it out. I've also tried quite a few combinations manually, to no avail.

Sounds like about 2400 baud, and it's bursty like packet.

If anyone else figured out what formats commercial systems use, could you please post them or email them.

Thanks

--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

1956. Re: Code vs No-Code

Newsgroup: rec.ham-radio
Date: 1990-03-28 22:51:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500485@ux1.cso.uiuc.edu>
Source record: 12511

>From: jim.grubs@w8grt.nstar.com
> Tell us more.
>
> /s/ Jim

Sorry, Jim, but your new e-mail address bounces as "host unknown"
and without a signature, I'll have to go extract your old address
(which I assume still works) from the HAMLICEN mailing list file.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1957. Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-29 00:14:22 UTC
From: faunt@CISCO.COM
Message-ID: <9003290807.AA08291@ucbvax.Berkeley.EDU>
Source record: 12512

Is there any justification for requiring the punctuation and prosigns
on the test?

1958. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-29 01:07:01 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <eysRg1w161w@w8grt.fidonet.org>
Source record: 12513

katz@weyr.FIDONET.ORG (sylvan katz) writes:

> It seems that you anti-CW logic can be applied to ham radio in general. I sug
> As I have said before if your really wish to use voice pick up the land line.

Nobody is anti-CW. Nobody wants to abolish CW anywhere on any band. The only thing anyone want to do away with is making code proficiency the sine qua non on VHF and up.

You may now join the growing list of people who totally missed the point to the discussion.

1959. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-29 01:37:38 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500482@ux1.cso.uiuc.edu>
Source record: 12514

1. The argument about the requirements for admission or graduation in college is not a good one. There are a lot of colleges around that have different and/or fewer such requirements. If you don't like the requirements at the one you are now in, transfer. If you can't get in this one, apply to that one. In education you do have a choice. If you have a problem with the lesser reputation of the schools that don't require calculus, english, and foreign languages, then I suggest you think about WHY the better schools have their reputations. If you were an employer, which school would YOU hire graduates of?

2. In Amateur radio you don't have much of a choice. CB doesn't get you anywhere (it's equivalent to the choice of NOT attending school). That's not to say that CB'ers are bad; I know some CB'ers who are good people. To get a ham radio license, you must pass certain tests; there is no alternative.

3. Knowing Morse Code does not improve one's operating skills on VHF frequencies anywhere near what it did many years ago on HF. Code is still popular on HF, and you would be a more rounded operator if you do know code when operating HF. But we (no coders) are talking about VHF (see #4) and above.

4. Most HF bands are now OVERCROWDED. Most VHF/UHF/SHF bands are way under occupied. Only 2 meters appears to have some significant usage in many parts of the country, but no where near that of the big 5 HF bands. The other "centimeter" bands are very sparsely occupied if at all. The numbers are needed on VHF/UHF/SHF and not on HF. We would not have this problem (and would not need a no code license class) if half the HF operators would start doing their primary operating on 220 Mhz and above. Come on guys, move on up in the world.

5. It used to be of benefit to THE PUBLIC to encourage knowing the Morse Code operating skill, because there was a demand for such radio operaters in various other services such as Maritime and Military. These demands and being phased out in favor of computer operating skills, which is what we should be encouraging next. The very reason for having a CW test in the earlier days of ham radio can be applied to require a COMPUTER TEST today (but we won't go so far). Just ask the DoD what they need.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1960. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-29 01:40:12 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500484@ux1.cso.uiuc.edu>
Source record: 12515

> Can I put melted Velveeta on the broccoli? :-)

Sure, if I can have mine with Chinese spices.

> p
> o
> s
> t
>
> p
> r
> o
> g
> r
> a
> m
> -> needs these lines.

Ah... one of those "you included more than you posted" thingys, eh?

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1961. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-29 01:40:33 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500483@ux1.cso.uiuc.edu>
Source record: 12516

>From: VE5ZX
> It seems that you anti-CW logic can be applied to ham radio in general.
> I suggest that if use your underlying premises that we could make an
> argument for turning all the amateur radio bands into Citizen's bands.
> Perhaps you might wish to expound on this topic for awhile!
> As I have said before if your really wish to use voice pick up the land line.

First of all, I reformatted your message since the first 4 lines above
were actually typed in a one big long line, which also means the people
getting your message via INFO-HAMS lost much of it. The lines need to
be kept under 80 columns for some parts of the network.

Ham radio is something entirely different from the land line. Would you
still say "pick up the land line" if it went dead, or was overloaded, or
the computers running it crash (again)?

CB is a "land mobile" type service intended for letting ordinary people
have access to communications while mobile. With today's cellular phones,
CB could not be justified if it were being created today.

Ham radio and CB a very different. People do not do technical experimentation
on CB (legally). Ham bands are for that. At least here in the US we at least
pay some lip service in the rules to the ideas of advancing the state of the
art. Some of us are trying to re-establish ham radio's FIRST tradition of
invention and creation.

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1962. Re: stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-03-29 02:07:30 UTC
From: kjh@pollux.usc.edu
Message-ID: <23772@usc.edu>
Source record: 12517
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1839@kannel.lut.fi> junki@kannel.lut.fi (Juha Nurmela) writes:
>yanaa:
>I've got two 70 cm yagis and i wonder what would be
>the best stacking distance, with maximum gain in mind.
>
>The antennae (:-)) are made according to the schema
>in ARRL antenna book:
> 70 cm, 15 elements each, boom len about 3 meters.
>
>Thanks for any advice,
>juha nurmela, oh5nxo, junki@kannel.lut.fi

If these were commercial antennas, I would advise you to contact the manufacturer. They should have this information.

Since these antennas are probably home-made, I would recommend that you check out some of the articles published in the literature. You should be able to find two or three good articles in Ham Radio Magazine, from the middle 80's. Unfortunately, my mags are 2600 miles away, so I can't give you a better reference.

You didn't say if you wanted to stack them in the E-plane or the H-plane.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

1963. Re: Phone Frequencies

Newsgroup: rec.ham-radio
Date: 1990-03-29 02:19:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90033012503034@masnet.uucp>
Source record: 12518

To: ormsby@ohstpy.mps.ohio-state.edu

%Can anyone tell me what are some characteristic frequencies that the
%following operate on:
% 1.)Cellular phones
% 2.)Cordless phones
%I have monitored High Seas Ship/Shore, but have nevered monitored
%other phone calls below 30 Mhz.

Cellular is in the mid to upper 800 MHz band. Cordless generally are
around 48 MHz.

Note that while marine ship to shore is regarded as HF public traffic
these are strict regulations about monitoring private radio telephone
connections.

73, Dean VE1CBF

~ EZ-Reader 1.21 ~ He who can follow only his own will is a king
~ QNet 2.04: :NANet: MUI Sydney, N.S. Cape Breton Regional (902) 564-5022

1964. Re: Phone Frequencies

Newsgroup: rec.ham-radio
Date: 1990-03-29 02:19:00 UTC
From: dean.milner@canremote.uucp
Message-ID: <90033012503012@masnet.uucp>
Source record: 12519

To: ormsby@ohstpy.mps.ohio-state.edu

%Can anyone tell me what are some characteristic frequencies that the
%following operate on:
% 1.)Cellular phones
% 2.)Cordless phones
%I have monitored High Seas Ship/Shore, but have nevered monitored
%other phone calls below 30 Mhz.

Cellular is in the mid to upper 800 MHz band. Cordless generally are
around 48 MHz.

Note that while marine ship to shore is regarded as HF public traffic
these are strict regulations about monitoring private radio telephone
connections.

73, Dean VE1CBF

~ EZ-Reader 1.21 ~ He who can follow only his own will is a king
~ QNet 2.04: :NANet: MUI Sydney, N.S. Cape Breton Regional (902) 564-5022

1965. Re: stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-03-29 02:19:39 UTC
From: kjh@pollux.usc.edu
Message-ID: <23773@usc.edu>
Source record: 12520
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1839@kannel.lut.fi> junki@kannel.lut.fi (Juha Nurmela) writes:
>I've got two 70 cm yagis and i wonder what would be
>the best stacking distance, with maximum gain in mind.
>juha nurmela, oh5nxo, junki@kannel.lut.fi

More info about stacking antennas:

The stacking distance strongly depends upon the gain of the antennas.

You also didn't specify what you were looking for. Do you want maximum
gain? Do you want a clean pattern? In which plane?

In general, I usually recommend stacking at just a short distance less
than the max_gain_distance. This will reduce the gain only marginally,
but clean up the pattern significantly. Sorry, but my literature is
2600 miles away, so I can't give any quantitative information.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

1966. Interested...

Newsgroup: rec.ham-radio
Date: 1990-03-29 03:31:02 UTC
From: umrose05@ccu.umanitoba.ca
Message-ID: <1990Mar29.033102.23763@ccu.umanitoba.ca>
Source record: 12521

It looks like this is a good place to post this message.

I am quite interested in getting into ham.

I have been CB'ing for a while and have grown real bored of it...I then
got into "bootlegging" the dx'ing with an out of frequency radio, and now
have decided to get into ham.

The only problem is, I have no idea even where to start...I was wondering if
anyone out there on the Canadian side (no offence, but I think Canada is different than the
U.S.A) that could offer some information to me.

Just the basic stuff, such as what it takes to become the Class C Novice and
what band restrictions there are etc...

Thanks in advance...

Dave (DR70)
.

--

Dave Rose : Email - Umrose05@ccu.UManitoba.CA
10 Covent Rd. : Local (Amdahl) - #Rose05@ccm.UManitoba.CA
Winnipeg, Manitoba, Canada:

1967. Re: The BEST scanner antenna!

Newsgroup: rec.ham-radio
Date: 1990-03-29 04:07:49 UTC
From: mikew@hpsad.HP.COM
Message-ID: <1530042@hpsad.HP.COM>
Source record: 12522

> From: flash@lopez.UUCP (Gary Bourgois):

> There is one of those three left, and it is MINE. My second MOTOROLA
> MONITENNA Model # 5094 goes up 40 feet SUNDAY....
>
> This is one fine antenna....

What does the thing look like? Can you identify what kind of antenna
it is? Do they mention specific purported gain figures? I'm curious
what this is that makes it so good.

...could I build one easily myself...?

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsadmjw.hp.com
mikew%hpsad@hp-sde.sde.hp.com

Hewlett-Packard Co. Volunteer firefighter/EMT
Signal Analysis Div. Penngrove Fire Prot. Dist.
1212 Valley House Dr. Penngrove, CA
Rohnert Park, CA 94928
(707)794-4454
****

1968. ARF GUESTS

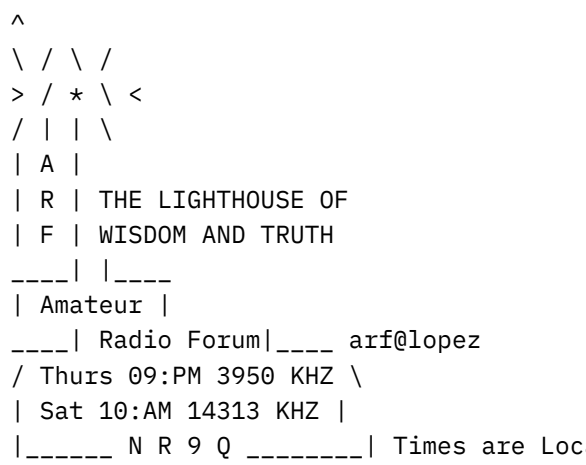
Newsgroup: rec.ham-radio
Date: 1990-03-29 05:05:17 UTC
From: arf@lopez.UUCP
Message-ID: <1228@lopez.UUCP>
Source record: 12523
Cross-posted to: talk.politics.misc,talk.politics.mideast,soc.rights.human,misc.headlines,rec.radio.shortwave,rec.ham-radio

ARF GUESTS

On Mar 29, our guest on the Amateur Radio forum will be Jay Miller from the ACLU. In addition to discussing the ACLU in general, the main topic will be legalization of drugs.

On Apr 05, our guest will be Jerry Levin, former hostage and CNN bureau chief. Jerry's experiences as a hostage and his criticism of American policy concerning hostages will be discussed.

Our guest last week was Wayne Heimbach from Amnesty International. AI's position on the death penalty generated a very spirited debate.



NEVER VOTE FOR THE INCUMBENT!!!!!

1969. Re: FM Citizen's Band? GMRS or GRMS?

Newsgroup: rec.ham-radio
Date: 1990-03-29 07:50:32 UTC
From: techie@well.sf.ca.us
Message-ID: <16928@well.sf.ca.us>
Source record: 12524

In article <1990Mar27.183242.15156@chinet.chi.il.us> megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
>I have seen references to an FM Citizen's Band radio service refered to as
>the GMRS or maybe the GRMS service. This seems not to be the 11 meter
>Citizen's Band Radio Service, as that is limited to AM and SSB.
>
>I don't think this is a part 15 type service either, can anyone shed any
>light on what it is I keep seeing references to?
>--
>Mark E. Sunderlin: IRS Technocrat in Winchester, VA
> aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
>"Welcome to my fog! There's room for you, to come right in.
> Welcome to my fog..... I guess?!"

The service in question in GMRS or General Mobile Radio Service.
There are a limited number (8-10) of channels in the 462 Mhz
band. Some are repeater pairs, some are simplex.
Both personal and business communications are allowed, however
only an individual can be licensed (due to overcrowding by business
users). Existing business licence holders can stay until their licence
expires, however no new business licenses will be issued.

There is an address to write for more information, however I do not
Have it available. I am also looking for more information on GMRS,
so post away.

Bob Vaughan
techie@well.sf.ca.us
{apple,pacbel,hplabs,ucbvax}!well!techie
--
Bob Vaughan - techie@well.sf.ca.us - {apple,pacbell,hplabs,ucbvax}!well!techie
GEnie - BVAUGHAN2
Welcome My Son, Welcome To The Machine
I am me, I am only me, and no one else is me. What could be simpler?

1970. wanted: HR-2B schematics (last)

Newsgroup: rec.ham-radio
Date: 1990-03-29 12:43:59 UTC
From: look@uicsrd.csrd.uiuc.edu
Message-ID: <54900010@uicsrd.csrd.uiuc.edu>
Source record: 12525

I have been trying to find some one who has a schematic of the Regency HR-2B that would be willing to make me a copy. I called Regency and they have sold the ham gear to a company called ESI. I called them and they will only sell me the complete service manual for $15. I really don't wish to double my investment in this radio so if anyone would be willing to make a copy of just the schematic I would gladly pay costs & postage. I had another person contact me wanting the same thing and I will pass it on if I receive any response. Thanks,

Steve Look ka9szw
look@uicsrd.csrd.uiuc.edu

1971. Re: stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-03-29 13:19:53 UTC
From: bernerus@utcrt2.utc.chalmers.se
Message-ID: <776@vice2utc.chalmers.se>
Source record: 12526
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Hmmm. Nice to see a fellow UHF guy on the net, almost within reach without having
to use the moon ...

Lets see, 3m boom is somewhat more than 4 wavelengths. The antennae thus are quite long.
The usual recommendation if optimizing for gain is 2-2.5 wavelengths which means
1.4 - 2 metres apart. Omtimizing for space (communication) suggests smaller spacing in
order to minimize the backlobe. I somewhere saw 0.8-1 wavelength.

See you on 70
Chris.

Christer Bernerus (SM6FBQ) ! E-mail:
University Technology Centre for Andrew (UTC) ! bernerus@utc.chalmers.se
Chalmers University of Technology
S-412 96 Gothenburg SWEDEN

1972. GOES Down Converter

Newsgroup: rec.ham-radio
Date: 1990-03-29 13:55:48 UTC
From: Jay_Appell@es.UUCP
Message-ID: <9003290855.6DE40604FB01@es.office>
Source record: 12527

Can anyone suggest sources for a down converter for GOES reception ?
Maybe there is a do-it-yourself kit or circuit available ? I currently
intercept the GOES photos from 8080 Norfolk WX and haven't found other
sources. I would like to receive wirephotos, but I am unable to locate a
frequency for this that is active. I am located in New England.
Thanks in advance for your comments.

-Jay- KA1SNA

1973. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-29 14:37:52 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <620.261223F2@weyr.FIDONET.ORG>
Source record: 12528

It looks like you got the message. You explanation was wonderful and
I think if yoy keep it mind you will be able to rationalize CW
for yourself!

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1974. Re: Packet(?) on commercial bands

Newsgroup: rec.ham-radio
Date: 1990-03-29 15:06:43 UTC
From: root@nebulus.UUCP
Message-ID: <1990Mar29.150643.14742@nebulus.UUCP>
Source record: 12529
Cross-posted to: rec.ham-radio.packet,rec.ham-radio,rec.radio.shortwave

In article <4978b8cc.15840@valley.UUCP> pfluegerm@valley.UUCP (Mike Pflueger) writes:
>
> The local (Phoenix) police and fire use some packet-like mode to communicate
> with computers in the vehicles, and my PK-232 signal analysis mode is unable
> to figure it out. I've also tried quite a few combinations manually, to no
> avail.
>
What you are hearing is "commercial packet" It is in MMP protocol. Even
if you could capture the bits with your TNC you would spend the next
three lifetimes decoding the packet. Security is top on the list when
it comes to public safety. MMP is a proprietary Mobile Data International
protocol.

--

Dennis S. Breckenridge (604) 277-7413 dennis@nebulus.uucp VE7TCP
EMACS: Eight Megabytes And Constantly Swapping!

1975. Re: Jackson Bros. Dial Drives

Newsgroup: rec.ham-radio
Date: 1990-03-29 16:22:05 UTC
From: koning@koning.dec.com
Message-ID: <9743@shlump.nac.dec.com>
Source record: 12530

In article <1250137@hpnmdla.HP.COM>, donm@hpnmdla.HP.COM (Don Montgomery) writes:

> Does anyone out there in net-land know who handles Jackson Brothers
> dial drives? Are they still in business? My last catalog is from 1974,
> when SWEDGAL ELECTRONICS in NYC handled their line.

Radiokit, P.O. BOx 973, Pelham, NH 03076. I don't have their phone number handy. If you ask directory assistance, ask for Londonderry. That's where they are located, though the P.O.Box is still in Pelham.

paul, ni1d

1976. Re: CW and the handicapped

Newsgroup: rec.ham-radio
Date: 1990-03-29 16:52:24 UTC
From: fel@hpcuhb.HP.COM
Message-ID: <10510006@hpcuhb.HP.COM>
Source record: 12531

I am neither an expert nor a lawyer, but would it be possible to have a friend take notes? Specifically, a friend who:
- Does not hear the code (i.e. headphones on the exam-taker) and
- Does not know Morse Code

Then the question becomes, is it permissible to take audible notes (talking while head-copying). Perhaps into a tape recorder, but then replay might be more difficult.

I don't know the legalities of this method, but I do know someone (my sister) who was allowed to take the SAT test with a (much younger, and therefore presumed less knowledgeable) brother filling out the form because of some reason she couldn't (I think a broken arm).

A slightly-off-the-topic question -- what about the requirement to send?

- Skip KK6HK

1977. Loading of Telephone Channels by Voice or Data

Newsgroup: rec.ham-radio
Date: 1990-03-29 18:17:04 UTC
From: DEFRANCO@TOPS20.RADC.AF.MIL
Message-ID: <12577606692.12.DEFRANCO@TOPS20.RADC.AF.MIL>
Source record: 12532

About a week ago, someone noted, while discussing thenon-existent FCC proposal to "tax" modem users on phone lines, that the telco's are still interested in such a proposal because transmission of modem data occupies a full 64 kbps "channel" while voice can be combined. I don't know what kind of carrier system he might be referring to, but at "baseband" levels, the standard system is the DS-1 channel bank that multiplexes into a T-1 data stream at 1.544 mbps. Each individual voice channel is converted from analog to digital by sampling at 8 kilosamples per second, then coded into 8 bits per sample. Thus, a 64 kbps datastream is created from ONE VOICE CHANNEL. If your modem is operated over a standard voice grade telephone line, and your local telco uses digital switches, your modem signal will also be converted into a 64 kbps data stream. There is no difference as far as the switching equipment is concerned.

The telco's concern is related to the amount of time that modem users spend connected through the system compared to voice users. Telephone switching centers or "Central Offices", whether analog or digital, are sized using probabilistic predictions of subscriber use. If large numbers of long connection times are expected, moretranmission paths and generally more switch capacity are required. Modem users generally stay connected longer than voice users (unless, of course, you are raising teenagers, at which point probability goes out the window), and affect the traffic flow accordingly. The telco argument is that if you are connected longer, you should pay more.

Ironically, it is the true digital channels that can be multiplexed into higher level datastreams to provide greater capacity per channel. While one voice circuit requires the full 64 kbps, up to 6 9600 bps channels could be multiplexed into the same data space.

Carl DeFranco
KB2JLY

1978. Re: Sweeping carrier in the HF bands

Newsgroup: rec.ham-radio
Date: 1990-03-29 19:10:11 UTC
From: flash@lopez.UUCP
Message-ID: <1230@lopez.UUCP>
Source record: 12533
Cross-posted to: rec.ham-radio,rec.radio.shortwave

dalyb@godzilla.UUCP (Brian Daly) writes:

>In article <16508@orstcs.CS.ORST.EDU>, liud@guille.ECE.ORST.EDU (Don Liu) writes:
>> In article <3034@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>> >I have noticed (for some time now) a sweeping carrier
>> >passing through the HF bands. It appears both in the
>> >amateur HF bands and other HF frequencies as well.
>>
>> >Anybody have any explanations?
>> >Thanks in advance,
>>
>> These are the SPREAD SPECTRUM communication signals. There are
>> usually two modulating signals. One is the useful signal which

>My quess is the continuous sweeping is some sort of OTH backscatter radar.

Once again, let us put this question to a rest. The sweeping carrier is a CHIRPSOUNDER. Used to track ionospheric conditions. There are several locations (All Military) in the world, where these sweeps are made according to a predefined schedule. The schedule itself is in the (I believe) lastest issue of Popular Communications.

In addition to reading this newsgroup, anyone with a serious interest in radio communications should subscribe to Popular Communciations (or get it at your news stand) and Monitoring Times. Glenn Hauser's two magazines are probably also very useful, though I have not managed to part with the subscription fee yet...

To the person who replied to my PockaPock posting (the funny sputtering sound I noted on 75 meters) I am quite sure that he is right, and that the sound eminates from frequency hopping radios (military). This leaves the funny BURST type (Obviously Digital) transmissions that I regularly hear on 75 meters very early in the morining. I was told that these are used in conjunction with Radio Navigation for USAF planes, though none of my friends in the USAF "will confirm nor deny".... It IS interesting to note though that on the night Norriegga was being ferried to the USA, that the well known Cuban CW jammer that trashes up the entire 75m band was out in full force, and making a shambles of 75 meters (though the cuban's fundamental is 3922, his spurs are LOUD on 3950, which also happens to be where I often copy the one second digital bursts (they are NOT any type of signal I am familiar with, but obviously ARE digital)...

Where is HAVANA MOON to solve these mysteries... I know he reads this group......

>73's.

>--
>Brian K. Daly WB7OML @ AG Communication Systems, Phoenix, Arizona
>UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att}!gtephx!dalyb
>Phone: (602) 582-7644 FAX: (602) 582-7111
>~
--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

1979. Direction Finding toys?

Newsgroup: rec.ham-radio
Date: 1990-03-29 20:30:50 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9003292033.AA10926@ti.com>
Source record: 12534

A few months back, (ultb!cep4478) (Chris Piggot) posted some information about direction finding toys. I have tried on numerous occasions to contact Chris via e-mail, but with no luck. Chris, please email me any information you have on this, or give me an address for email; or a phone number.

Thanks,
Dube Todd N5PDK "Anarchy was what men had before he became civilized"

1980. Re: Code vs No-Code

Newsgroup: rec.ham-radio
Date: 1990-03-29 20:45:49 UTC
From: megabyte@chinet.chi.il.us
Message-ID: <1990Mar29.204549.10987@chinet.chi.il.us>
Source record: 12535

As I understand it, the basis for the communicator, or other no-code radio licenses is to provide for those person who wish to operate in the VHF, UHF, and EHF spectrum. The idea is that thses people should be able to get a license wtihout having to take aa code test. The VHF and above sees little CW action compared to the HF bands.

I can see the point being made, but my question is this: With the novice and tech tickets being replaced by some type of a "no-code" ticket, won't that make the very bands we want populated by experimentors populated by the least experienced, least educated, radio persons?

I'm NOT supporting a code requirement, I'd just hate to see the No-code ticket be "bottom rung" of the license structure. Mainly, because I'd think we want the entrence level ticket to give the new ham a taste of as many different type of ham radio as possible.

Seems to me that we still need something where a person can get an entrence level ticket, explore all aspect of Ham radio, and learn. But, I can also see that we might need a no-code ticket for VHF and above.

How can we get both? Got me. My perspective is from a SWL who is studying to get his novice license. I'm trying to hurry up before the rules change. Right now, I get a little of everything in Ham for my novice ticket.

With the current communicator proposal, I'd have to get a general class ticket before I could operate anywhere but on VHF and above.
--
Mark E. Sunderlin: IRS Technocrat in Winchester, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) 667-5203
"How could he hope to survive the alien conquest when he had not yet conquered the alien within himself?" - The Madness Season by C.S. Friedman

1981. COLLEGE & UNIV. NET 3/31 1800Z

Newsgroup: rec.ham-radio
Date: 1990-03-29 22:46:42 UTC
From: sek9424@cec1.wustl.edu
Message-ID: <1990Mar29.224642.383@cec1.wustl.edu>
Source record: 12536

This is just a reminder/invitation to all college and university
ARC's and any other interested parties to join in the College & University
Net to be held this Saturday, March 31 at 1800Z on 28.425+-. Net control
will be the Washington Univ. ARC - W0QEV. I realize that 10m is not the
most ideal place for a net - we have been through that already. Let's just
give it a try and see how it works, shall we? Hope to hear you on the air...

Scott

--
Scott Keller (KA0WCH) - Permanent Undergrad - Dept. of Computer Science
Wa$hington Univer$ity - St. Louis, Mo. USA
Internet: sek9424@cec2.wustl.edu UUCP:ihnp4!wucec2!sek9424 (I think...)
The opinions represented here are mine and mine alone, not Wa$h. U's.

1982. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-30 00:32:05 UTC
From: <>
Message-ID: <21465@bellcore.bellcore.com>
Source record: 12537

In article <TyFRg1w161w@w8grt.nstar.com> jgrubs@w8grt.nstar.com (Jim Grubs) writes:
>> In response to your likely rejoinder ("But wait! What about people who are
>> interested only in public service?") I would say two things. First, the
>> amount of public service traffic carried by CW is nil;
>
>With all do respect, the NTS traffic nets on CW are quite active and
>important. Packet networks will no doubt change that but they have not
>yet.

Note that I said "nil", not "zero". I'm sure there's *some* public service traffic carried by CW, but I find it hard to believe that it's more than negligible. However, I would be open to statistics on this point.

By the way, note that I didn't limit my assertion to amateur radio; lots of radio services besides the amateur service carry public service traffic, and to my knowledge few use CW to do so. A fair comparison would include these other services, since much of the amateur use of CW for traffic handling is due more to inertia or the personal preference of the operator than to it being the best mode for the job.

Phil

1983. Kenwood 721 Display Upgrade - It Works

Newsgroup: rec.ham-radio
Date: 1990-03-30 00:44:42 UTC
From: john@anasaz.UUCP
Message-ID: <1545@anasaz.UUCP>
Source record: 12538

I just got my 721 display upgrade in the mail (Cost: $40+$1 S&H). Installation took about half an hour using small phillips screwdriver and solder iron. Now I can see it in the bright sunlight (at least, I think I can - our usual sunny weather is cloudy today!). It has black numbers, with a yellow background - just like the TM-731.

I think Kenwood should be commended for doing this. They could have just told everyone to buy the next model (the 731), but instead they are supplying a replacement display (readable in sunlight) for an old one!

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

1984. Re: QEX and other Ham mags.

Newsgroup: rec.ham-radio
Date: 1990-03-30 03:00:48 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <11593@ttidca.TTI.COM>
Source record: 12539

In article <3290@optilink.UUCP> elliott@optilink.UUCP (Paul Elliott x225) writes:
+I am considering renewing or starting subscriptions to various HAM magazines,
+and would appreciate comments or suggestions.
+My priority list goes something like this:
+1) Technical content
+2) Technical content
+3) Technical content
+4) Operating practice, band openings, etc
+...
+98) Contests
+99) Silent Keys (unless I am listed; that would concern me :-(
+
+QST, Ham Radio, and 73 Magazine are locally available, so I have a pretty
+good idea of their content... how about QEX or others I may not be aware
+of? Any good newsletters?

Well Paul, my list is similar to yours..but I notice you give a damn about chasing awards..I simply don't! My ranking:

1-98) Technical Content
99) FCC ACTIONS, NPRMS, etc

Puts QEX near the top of any list, yes, I do subscribe to QST also but tend to read it last! Ham-Radio is next, and equal in stature to the AMSAT monthly pub, 73 magazine is fun so I usually read it for the fun that Wayne pokes at the "Newington-Nerds" every month. CQ magazine is normally for, er, uhm... ..shall we call them, 'transition operators'..?! You know, CBers on the verge of finally growing up, and getting their ticket. ;-) As for the smaller, club/specialized activity-oriented pubs there are some really great ones; like the TAPR Journal, RTTY Times, DSP Picture, So Cal. ATV's rag and the like... ..then there are ones like the OLD-Old-Timer's Club, which is filled with obits, ancient tube/radio ads, notices of ex-XYLs having estate-sales (some real bargains out there!) and the nominal letters to the Editor ("..these damn kids don't know what fun IS! Packet phooey! We used to run an 813 as an oscillator on 40 meters with an antenna made from old barbed-wire on my Dad's farm back in 1930...blah, blab, blather!") and a calander of upcomming events - Yawn! The only value in this sort of junk is the letters, and the ocassional sideways editorials. Try it.

73! Erik

(as an aside: Given my druthers, it would be great if QST were to take all that damn contest garbage out of the magazine and put IT into a special pub for those that care about it..and want to pay extra for it being printed!...HINT! HINT!..then they'd have room to publish the kind

of quality tech-stuff that I buy QEX for! ;-))

1985. CW: Where do you stand?

Newsgroup: rec.ham-radio
Date: 1990-03-30 04:52:23 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <11595@ttidca.TTI.COM>
Source record: 12540

In article <905@gollum.twg.com> sawyer@twg.com (Bruce B. Sawyer) writes:
+handicap. Witness the whining over the code requirement that occupies about
+half the bandwidth of this forum. It comes from the same group that thinks
+they should get 3 hours credit for a full semester course in C.
+ AA6KX

One minute, the question isn't about learning CW. The discussion centers around the notion that the requirement of CW skill @ 5 WPM is obsolete. You should decide for yourself, of course, but consider the matter a little more; consider these categories:

1) Keep it all as is. No new class of license. 5 WPM = Novice & Tech, 13 for General and Advanced and 20 WPM for Extra. (call this viewpoint "STATUS QUO")
-- kiss the Amateur Service goodbye! The Land Mobile guys love it!

2) Have a Communicator Class license, as proposed. No code, but with very restrictive band/power privs. (call this one NO-CODE GHETTO)
-- add 10-15 years to the timescale, THEN kiss it goodbye!

3) Have a Communicator Class license with the same band/power privs as TECH but with no HF privs. (call this one NO-CODE TECH)
-- add 20, maybe 25 years to the scenario of #1.

4) Do #3 and then ELIMINATE the requirements for CW beyond 5 WPM for all other classes of license. Maybe make the written tougher and more comprehensive regarding Radio Science, the laws and operating conventions. (label this view THE FUTURE, and count on CW being dropped by the ITU, as a requirement for Amateur Operations at a future date!)

-- Keep The Amateur Service FOREVER!

The slant in naming is mine, and I'll admit my bias towards #4, it seems to loom on the horizon, the only thing standing in the way is an ocean of people that insist on paying lip service to an outdated notion...the notion that good communication/engineering skills are rooted in CW. It just ain't so...

Notice I said notion, not mode! I'll continue to use CW as it's appropriate to do so, but only for the sheer entertainment value of working weak signal stuff...not everyone is so easily amused! ;-)

73!

1986. Re: FM Citizen's Band? GMRS or GRMS?

Newsgroup: rec.ham-radio
Date: 1990-03-30 05:50:59 UTC
From: onymouse@netcom.UUCP
Message-ID: <10224@netcom.UUCP>
Source record: 12541

In article <809@tsdiag.ccur.com>, davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
> In article <1990Mar27.183242.15156@chinet.chi.il.us> megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
> -I have seen references to an FM Citizen's Band radio service refered to as
> -the GMRS or maybe the GRMS service. This seems not to be the 11 meter
> -Citizen's Band Radio Service, as that is limited to AM and SSB.
> -I don't think this is a part 15 type service either, can anyone shed any
> -light on what it is I keep seeing references to?
> -Mark E. Sunderlin: IRS Technocrat in Winchester, VA
> Check out Title 47 CFR, in either part 90 or 95. (It's in with CB under
> the heading "Personal Radio Services".) It is FM, with a few channel pairs
> around 463/468 MHz. Repeaters are allowed within certain constraints, and
> buisness communications are allowed. If you'd like more information, please
> give me a call or E-Mail me directly. PS - How's Winchester this time of

GMRS is formerly known as "class A" CB and oeprates on 8 pairs at around 462.5MHZ. The regulations section is part 95, sub part A. The FCC has recently ruled that GMRS is for personal use only and no more businesses will be granted GMRS licenses. All businesses now using GMRS will not have their licenses renewed. Any citizen may apply for a GMRS license using the business license application but there is no need to explain why you need a license, contrary to the requirements for a buiness service license, so you need not fill in that part of the form. (I forget the form # - 510?)

You can use any FM radio type-accepted under part 95 (and most that are type accepted for business radio are also accepted for part 95), including hand-helds and pagers. Repeaters are allowed on this band and may either be open or closed, depending on the owners wishes. You may use a closed repeater for a monthly rental fee of at least $20.00 a month. Radio prices range from around $100.00 for old crystal-controlled hand-helds to several hundreds for modern synthesised gear or even several thousands for scanning transceivers and other state-of-the-art goodies. If you want to use every channel, you could require as many as sixteen channels -one each of duplex and simplex.

jd
onymouse@netcom.UUCP

1987. gen covg rcvr reccommend

Newsgroup: rec.ham-radio
Date: 1990-03-30 09:09:20 UTC
From: rrw@naucse.UUCP
Message-ID: <1968@naucse.UUCP>
Source record: 12542

I know this is a somewhat subjective topic, but I'm
interested in people's opinions of what make & model
general coverage receiver (say, 500 Khz - 30 Mhz) HF
for around $1 kilobuck would be worthwhile.

We need something which will be stable enough to make
tuning of SSB and RTTY reasonably easy, have bandwidths
good for CW, RTTY, SSB, and AM and is a "shack" (as opposed
to mobile) rig.

During times when experiments are not being run in the lab, it
could be used in conjunction with a ham station we are trying
to set up. Should be well shielded since we got a BUNCH
of electrical noisy equipment in the engineering bldg, particulary
class B computer systems.

I'm searching thru back issues of the ham mags for reviews, but
am also interested in personal opinions. Of course, I'm
considering ICOM, Kenwood, & Yesau. Any others? Digital control
would be nice, but is not critical. Would we do just as well to
go with a transiever as a straight receiver? How about the
IC735? IC751A (if I can get that much money)? R71A? TS440S/AT?
R-5000? R-2000? FRG-8800? FT-757? others?

Please E-Mail me back, since due to a disk space crisis we are
not accepting rec.* groups (sigh) (although I am getting the bitnet
gatewayed digest).

Tnx & 73's

"Reply" address frequently doesn't work, please use one of the below
- Bob Wier Northern Arizona University
summer:Ouray, Colorado winter:Flagstaff, Arizona
Internet: rrw@naucse.cse.nau.edu | BITNET: WIER@NAUVAX | WB5KXH
or ...arizona!naucse!rrw

1988. Re: Code vs No-Code

Newsgroup: rec.ham-radio
Date: 1990-03-30 10:39:57 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500486@ux1.cso.uiuc.edu>
Source record: 12543

> Seems to me that we still need something where a person can get an entrence
> level ticket, explore all aspect of Ham radio, and learn. But, I can also
> see that we might need a no-code ticket for VHF and above.
>
> How can we get both? Got me. My perspective is from a SWL who is studying
> to get his novice license. I'm trying to hurry up before the rules change.
> Right now, I get a little of everything in Ham for my novice ticket.
>
> With the current communicator proposal, I'd have to get a general class
> ticket before I could operate anywhere but on VHF and above.

I agree that there should be a no-code license one can get that is other
than an entry level license. I also believe would should retain an entry
level license as the Novice is.

There does NOT have to be one single point of entry, nor does there have
to be one ultimate goal.

The 90-55 proposal stinks because it ruins ham radio and sets up a nocode
system that is doomed and will reap worse sentiments among hams than was
ever imagined with incentive licensing.

[all above are my opinions]

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1989. Re: FCC procedures on NRPM comments (wa

Newsgroup: rec.ham-radio
Date: 1990-03-30 10:40:11 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500487@ux1.cso.uiuc.edu>
Source record: 12544

> Are the comments received by the FCC distributed around the country in
> some form, or is a trip to Washington, D.C. required? Should make some
> interesting reading.

The comments are available on file at the Washington offices for examination during business hours. They are not distributed. They are public files and you may copy them if you wish. You may pay someone to go there and copy them for you. The FCC has contracted with a commercial copy contractor to provide this service. You can contact them; they are listed in each Report and Order from the FCC (see any library that receives the Federal Register).

--Phil Howard, KA9WGN--
<phil@ux1.cso.uiuc.edu>

1990. Re: stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-03-30 13:48:12 UTC
From: dvh@cci632.UUCP
Message-ID: <35571@cci632.UUCP>
Source record: 12545
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1839@kannel.lut.fi>, junki@kannel.lut.fi (Juha Nurmela) writes:
> yanaa:
>
> I've got two 70 cm yagis and i wonder what would be
> the best stacking distance, with maximum gain in mind.
>
> The antennae (:-)) are made according to the schema
> in ARRL antenna book:
> 70 cm, 15 elements each, boom len about 3 meters.
>
>
> Thanks for any advice,
>
> juha nurmela, oh5nxo, junki@kannel.lut.fi

According to the ARRL Handbook (which may or may not be the best source of this info), optimum spacing between long yagis is one wavelength- this would be the position for maximum gain. Closer spacing results in less net stacking gain, but a cleaner pattern.

According to the 22nd edition of the Radio Handbook by Bill Orr, W6SAI (which may or may not be the best source of this info- where did I just hear that? :^)), "...as a simple rule of thumb in stacking extended Yagi antennas, or other arrays having high gain, it is suggested that stacking distance be equal to 3/4 of the length of the antenna."

The numbers I have personally seen for stacking 432 antennas, seem mostly to run in the 60 inch range, for antennas such as the Cushcraft 424B which has about a 17 foot boom. This suggests a compromise between the previously mentioned references, and it may be that the gain degradation by spacing closer may not be as much of a loss as the pattern degradation by spacing them wider.

Bottom line, I'd start with about 60 inch spacing, I bet you'll be close to optimum. If your station setup allows, you can play with the spacing while measuring Sun noise when the Sun is just clear of your horizon. If you can't do that, just space them 60 inches apart and leave it- it'll be real close.

Hope this helps some.

73 Dave KD5RO/2

1991. Help Getting an 02AT on Packet

Newsgroup: rec.ham-radio
Date: 1990-03-30 14:14:39 UTC
From: pjstopa@CRDEC4.APGEA.ARMY.MIL
Message-ID: <9003300914.aa06620@CRDEC4.APGEA.ARMY.MIL>
Source record: 12546

I recently obtained a PK232 and want to use it with my 02AT on VHF.
Any hints or suggestions for setting the deviation, interface cables,
etc. would be appreciated. Please post to the net since other people
may be interested also.

BTW, I enjoyed Phil Karn's article in QST. I hope the OF's in Newington
aren't using it as their April Fool's article.

/s/ Peter J. Stopa
KA3LKQ

1992. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-03-30 14:24:25 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <40251@iuvax.cs.indiana.edu>
Source record: 12547
Cross-posted to: sci.electronics,rec.ham-radio

to rec.ham-radio and sci.electronics:

A few weeks ago, beale@sierra.Stanford.EDU (John P. Beale) wrote:
>
> A colleague of mine is interested in finding out about litz wire...

It took a while to locate and type this. The following is excerpted from articles in _The Lowdown_, April 1987. (Copy of complete articles for SASE.) _The Lowdown_ is the monthly newsletter of the Longwave Club of America, whose major interests include operation in the 1750-meter band, which is license-free with the restrictions of one watt transmitter power and 50 foot maximum antenna length.

LITZ WIRE AND 1750 METER LOADING COILS

by Mitchell Lee

Litz wire is a favorite among LF enthusiasts. It is commonly held that litz wire possesses magical properties that obsolete any other type of wire. While litz falls short of some of these claims, it can provide a significant improvement in loading-coil quality factor and transmitting efficiency. When winding a coil with litz wire it is a good idea to plan in advance as to which type to use...

Litzendraht wire was developed as a means of reducing skin effect. As the frequency of an AC current in a wire is increased, current is forced out to the surface of the wire by the magnetic field generated from the current itself. If this argument is carried to extreme, all of the current ends up flowing on the skin of the conductor and no current flows at the center. Skin effect causes the AC resistance (loss) to be greater than the DC resistance. It is even significant at frequencies as low as 60Hz, where it often enters into AC transmission line design calculations for long lines.

There are two ways to combat skin effect. One is to use a larger wire diameter so that the surface area... is relatively large. This works well at shortwave frequencies and in some cases copper tubing is used to save weight and material... Sometimes the conductor may be coated with silver to enhance the conductivity at the surface.

A second method is to break the conductor up into a bundle of many individually-insulated conductors. This is the same as paralleling many wires... Each strand is sized so that its diameter is equal to approximately 2 skin depths or less, for optimum results. Litz wire fails to be useful at frequencies above 2 MHz, as capacitance effects begin to dominate and the relative size of a single conductor with

similar loss characteristics becomes small enough to be practical.

Skin depth is the thickness of conductor where the majority of AC current is concentrated. The AC resistance of a given conductor is approximately the same as the DC resistance of a hollow tube having a wall thickness equal to one skin depth. Skin depth is given by the equation

skin depth (cm) = 5033 sqrt(p/uF) (Terman)

where p (rho) is in ohms/cm^3, and F is the frequency in Hertz. u (mu) is the relative permeability of the conductor. For copper, the formula reduces to

skin depth (inches) = 2.61 sqrt(F)

At 175 kHz, the skin depth is approximately 6.2 thousandths of an inch. If we select a wire that has a diameter of 2 skin depths #28 AWG) or less... all of it will be carrying current. If the wire is 6 skin depths in diameter, less than half of the wire will actually carry current. To minimize losses for a given diameter of finished conductor, we should use litz wire made of strands that are no larger than 2 skin depths diameter.

This is only a first-order approximation. Air space between the strands in the cable, capacitance effects, and the fact that the definition of a skin depth holds true only for a big wire, will limit the accuracy of this approximation. But, it is good enough for LF work. At 175 kHz, a cable of numerous 28 AWG strands is the largest practical size...

There is a limit on how many strands remain cost effective. If more and more strands are added into a litz wire bundle, the wires in the center begin to feel the effects of the outside strands through mutual coupling. The impedance of the wires on the inside is higher than... on the outside of the bundle...

To help improve this situation, an attempt is made to transpose the strands in a litz bundle so that each one weaves a path through the center, outside and middle, thereby equalizing the impedance of each strand. This is difficult to achieve in practice, particularly where large numbers of strands are used. The same method of transposition is used to balance the impedance of 3-phase, 60Hz high tension transmission lines. You may have noted an occasional tower with extra framework and insulators; if one looks closely he can see that the relative positions of the cables are being switched around.

If smaller individual strands are used, the losses do not necessarily go UP. Instead, the DC resistance more nearly approximates the AC loss. While a 10 AWG wire has much higher AC loss than DC loss, it is still superior to a single 44 AWG conductor. But much less copper would be used (and the overall outside diameter greatly reduced) if the 10 AWG conductor was replaced with a number of 28 AWG wires. This

is because all of the copper in a 28 AWG wire does work carrying current, where only the skin (the outside .062") of the 10 AWG does any work...

[Coil construction information omitted]

Common litz wire sizes also dictate the use of a strand size no larger than 28 AWG. For instance, Kerrigan-Lewis only stocks litz of 30 AWG strands and smaller. Given the constraints discussed, 34 or 36 AWG strand size is still a good compromise. 60/36 (60 strands of #36) has the lowest practical loss for stock sizes. It is also available as 3/30/36 (3 bundles of 20 strands of #36), with no difference in loss. 175/40 is another stock size of similar low-loss characteristics, but the coupling between individual strands may degrade its AC loss.

Litz wire is available from Kerrigan-Lewis Wire Products, 4421 W. Rice Street, Chicago IL 60651 (312) 722-7208. They manufacture much of the litz wire that is used in the US. Other companies that advertize litz often buy it from Kerrigan-Lewis. If you buy some litz, make absolutely sure it is solderable. Soldereze and Nyleze are two common insulations used on litz wire. The temperature of the average soldering iron is sufficient to cause the insulation to melt and evaporate, leaving the wire exposed for soldering. Other insulations must be removed chemically-- an unnecessary inconvenience.

References

Keith Henney: The Radio Engineering Handbook, Third Edition, 1941, McGraw-Hill.
Fred Terman: Radio Engineers' Handbook, First Edition, 1943, McGraw-Hill. Not to be confused with the much more common and vastly inferior Fourth Edition, 1955, which bears the revised title Electronic and Radio Engineering. The 1955 edition was compiled at a time when Terman began losing interest in engineering and electronics in favor of administrative pursuits at Stanford. The fantastic coil chapter was dropped in the 1955 edition!

LITZ APPLICATION GUIDELINES

(Reprinted in _The Lowdown_ from _Design Engineering_, February 1, 1979, "Multistrand Litz Wire Adds 'Skin' to Cut AC Losses in Switching Power Supplies," by T.A.O. Gross.)

1. If your present design uses a ferrite core, you should be using Litz on the high-current windings. If Litz does not help, the choice of ferrite was wrong in the first place. Most switching chokes should be using thin silicon-steep cores or Supermendur.

2. The biggest benefit from "Litzing" a coil comes in large reactors of low impedance working between 20 to 200 kHz. The high-current windings of flyback transformers are equally good candidates.

3. Thin foils compete with Litz and offer the advantage of better space factor. The disadvantage is that losses can be high due to fringing fluxes.

4. Transformers with large air gaps have large exciting currents, which in turn produce strong perpendicular magnetic fields. Very often it will pay to put the air-gap function elsewhere - in another component - so that the fields are out of harm's way.

5. Don't use solid round wire larger than AWG 8 for anything carrying 20-kHz current. Don't use wire larger than AWG 20 in 20-kHz transformers, or AWG 28 in 20-kHz reactors.

6. Balun and transmission line transformers are the least likely projects to make you a hero by Litzing.

7. Estimate the probably Rac:Rdc for inductors, flybacks and loosely coupled transformers using the ferrite pot-core applications data for the general size of the device you are designing. Keep in mind that Rac:Rdc gets worse with increasing size and decreasing impedance.

8. If the dc component exceeds the rms ac component by an amount greater than 10 times, you can forget about every rule in this table except rule #1.

-- 73,

Frank Reid W9MKV @ K9IU reid@ucs.indiana.edu
P.O. Box 5283
Bloomington IN 47407-5283

1993. Re: stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-03-30 15:07:06 UTC
From: dalyb@godzilla.UUCP
Message-ID: <49812f16.1423f@godzilla.UUCP>
Source record: 12548
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1839@kannel.lut.fi>, junki@kannel.lut.fi (Juha Nurmela) writes:
> yanaa:
>
> I've got two 70 cm yagis and i wonder what would be
> the best stacking distance, with maximum gain in mind.
>
> The antennae (:-)) are made according to the schema
> in ARRL antenna book:
> 70 cm, 15 elements each, boom len about 3 meters.
>
The ideal spacing is one wavelength to maximize the gain. This is
70 cm = 27.5 inches. I believe that one could also stack at multiples
of one wavelength to achieve the same characteristics, but I would
have to go through some calculations/computer simulations to be
certain this is true.

Another important consideration is feeding the array. Both Yagi-Uda
arrays need to be fed in-phase, plus you must maintain proper
impedance matching at the feedpoint, as follows:

Yagi #1 Yagi #2

--- ---
\ / \ /
l_____________________l
Point A l Point B
l
l 50 ohm feed line
/\
Need to see 50 ohms looking in

The phase at point A = phase at point B. As far as how to do this, I
believe both the ARRL antenna book and the ARRL Handbook both show
methods for providing this feed mechanism (I know I've seen it in older
editions). If you can't find it, email me a message (via UUCP given below)
and I'll send you the details.

73's.
--
Brian K. Daly WB7OML @ AG Communication Systems, Phoenix, Arizona
UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att}!gtephx!dalyb
Phone: (602) 582-7644 FAX: (602) 582-7111
~

1994. slow scan tv: need info please

Newsgroup: rec.ham-radio
Date: 1990-03-30 15:30:16 UTC
From: bill@b11.ingr.com
Message-ID: <7749@b11.ingr.com>
Source record: 12549

I would like to build a homebrew slow scan tv system for my amiga or ibm pc. I have seen a recent article in 73 magazine. But I cannot find any details on the format of the transmissions for the various kinds of pictures. I am especially interested in formats for amiga iff files, but any information would be appreciated.

Thanks in advance! de kc4mxj bill welch uunet!ingr!bill

1995. Re: Increasing CW speed

Newsgroup: rec.ham-radio
Date: 1990-03-30 15:48:45 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <621.26139FA7@weyr.FIDONET.ORG>
Source record: 12550

Perhaps you have a point about CW and VHF .... out-of-sight (or is that line-of-sight) out-of-mind .... not a bad adage for non-CWer's.

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

1996. Re: Kenwood 721 Display Upgrade - It Works

Newsgroup: rec.ham-radio
Date: 1990-03-30 16:18:28 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2660@wyse.wyse.com>
Source record: 12551

In article <1545@anasaz.UUCP> john@anasaz.UUCP (John Moore) writes:
>I just got my 721 display upgrade in the mail (Cost: $40+$1 S&H). Installation
>took about half an hour using small phillips screwdriver and solder iron.
>Now I can see it in the bright sunlight (at least, I think I can - our
>usual sunny weather is cloudy today!). It has black numbers, with a
>yellow background - just like the TM-731.
>
>I think Kenwood should be commended for doing this. They could have
>just told everyone to buy the next model (the 731), but instead they
>are supplying a replacement display (readable in sunlight) for
>an old one!

I have also ordered the upgrade for my 721A... However, while I am
pleased thay they are providing the display, it has taken over 6 months
from the original estimate of when it would be available. I have been calling
Kenwood every month since September to hear that it will be hear next month.

I do own a lot of Kenwood gear, but the 90-day warranty on their gear,
and passing of bad information for 6-months is not big on my list of
what I expect from a company. With this whole sequence of events it is
likely that I will consider Yeasu and ICOM for future radio needs that
I would not have done before...

Just my thought,

Phil
DE KJ6NN

1997. Re: Jackson Bros. Dial Drives

Newsgroup: rec.ham-radio
Date: 1990-03-30 16:39:35 UTC
From: donm@hpnmdla.HP.COM
Message-ID: <1250139@hpnmdla.HP.COM>
Source record: 12552

Thanks to Mike Butts (KC7IT) and others for locating the Jackson Bros
dial drives. They are available from:

RadioKit in Londonderry, NH
603-437-2722

Mike also says they have lots of other hard-to-find parts.

73's all
Don K6LTS

1998. Data Format in Trunked Systems

Newsgroup: rec.ham-radio
Date: 1990-03-30 17:02:31 UTC
From: judice@sulaco.enet.dec.com
Message-ID: <9003301702.AA05190@decpa.pa.dec.com>
Source record: 12553

In trunked systems such as Motorola's, can anyone identify the formats, etc. used on the trunking data channel? Watching the output of an AEA PK232 in ASCII mode on these channels seems to show fairly consistant patterns, etc...

/ljj

1999. Re: QEX and other Ham mags.

Newsgroup: rec.ham-radio
Date: 1990-03-30 17:25:19 UTC
From: elliott@optilink.UUCP
Message-ID: <3336@optilink.UUCP>
Source record: 12554

As the original question-asker (What's a good technical ham radio magazine these days, anyway?), I've received numerous replys. Here is my thumbnail summary:

QST: Generally lost in the dark ages, occasional good stuff however.

QEX: Skinny, merged with Gateway (ARRL packet/digital newsletter), pretty good but could be better.

73: Low-tech, appliance operator oriented

CQ: (see 73:)

Ham Radio: Generally the best technical articles

VHF Communications: (an English translation of a German magazine)
100% technical content. Available through Timekit in Ohio.

I guess I will re-join the ARRL to get QST, subscribe to QEX and Ham Radio. _VHF_Communications_ looks interesting, I will try to locate Timekit and get it. I will let you all know if anything interesting appears.

Yes, I know that the ARRL isn't too popular these days, but I figure they at least do more good than harm for the hobby as a whole.

In article <>, glenne@hpnmdla.HP.COM (Glenn Elmore) writes:
> [Good comparison of QST, Ham Radio, QEX, etc. Thanks!]
>
> I e-mailed this but optilink doesn't recognize you!
>
> [He turns out to be a neighbor of sorts (20 miles or so)]

Just so nobody gets the wrong idea, Optilink *does* recognize me (I'm not a hoax, although there are those who wish I were ;-). Glenn eventually got email to me.

de wb6cxc <end of work>

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{pyramid,pixar,tekbspa}!optilink!elliott

2000. Looking for Motorola manuals

Newsgroup: rec.ham-radio
Date: 1990-03-30 17:54:38 UTC
From: albers@ka3ovk.uucp
Message-ID: <1990Mar30.175438.22805@ka3ovk.uucp>
Source record: 12555
Cross-posted to: rec.ham-radio,rec.ham-radio.swap,sci.electronics

I am looking for a set of manuals for a Motorola Motrac "L" series solid state receiver, part number TLD1340AFSP20, with a recieve channel element number TLN1086A. This unit was built in the late 1960s, and was retrofitted into a J74XB12101AT repeater. Please if you know where one might find a service manual, or you have one you would be willing to copy or sell, we can pay for it. We have called motorola already, and they can't find it! They know they HAD manuals for it, but they can't find them!!

Jon Albers
KA3OVK
albers@ka3ovk.UUCP

Motoroa Motrac L Series Solid State Receiver
TLD1340AFSP20
Channel Element number TLN1086A
Manuf'd late 1960s
Retrofitted into a J74XB13101AT Repeater

--
| Jon Albers, IRS, Information Systems Management, Support and Installation. |
| Office Symbols: ISM:S:S:SI voice: (202/FTS)535-3729 Packet: KA3OVK@N4QQ |
| UUCP:(media|teemc|tcsc3b2|ki4pv)!ka3ovk!albers ARPA: JALBERS@SIMTEL20 |

2001. Yaesu FT-727R Problem

Newsgroup: rec.ham-radio
Date: 1990-03-30 20:30:12 UTC
From: mcross@hpcvck.CV.HP.COM
Message-ID: <5440014@hpcvck.CV.HP.COM>
Source record: 12556

Hi Netlanders,
One of the hams at this site also repairs radios on the side (no this isn't a commerical for him!). He has repaired a lot of Yaesu 727R radios(a lot being 3 or 4) in this area where the trouble was caused by loose slugs from the tuning coils. The loose slug is conductive and typically shorts out a transistor which in turn inhibits xmit on both bands. Letters to Yaesu bring no answer as to why this is happening.

If you have had a problem like this, send info to me and I will forward it to this fellow. If anything exciting comes of this I will let the net know.
Thanks,

___
/ / Minor Cross KD7YJ
/ / Hewlett-Packard Northwest IC Division [NID]
/ /_____ _________ 1020 NE Circle Blvd.
/ ___ / ____ / ___ / Corvallis, OR 97330
/ / / / /___/ / /__/ / -------------------------
/__/ /__/ / ______/ AT&T: (503) 750-2044
/ / HP telnet 750-2044
/__/ }inhp4!hplabs!hp-pcd!mcross

2002. Q-signals

Newsgroup: rec.ham-radio
Date: 1990-03-30 20:58:40 UTC
From: disbrow@skipper.dfrf.nasa.gov
Message-ID: <467@skipper.dfrf.nasa.gov>
Source record: 12557

Hi,
I just started studying for my novice and I have a question.

Where do the Q-signals come from? What's their origin?

Why "Q" ? Someone told me it might be from French.

And also is there a way one can memorize which is which without resorting to brute force memorization? Is there some mnemonic way to remember these things?

I know these questions aren't very important to most of you who know this stuff by heart, but if you find the time...

Thanx,

Jim Disbrow

work: 805/258-3417
home: 805/948-1363

internet: disbrow@skipper.dfrf.nasa.gov

-=
Brain. Brain. What is brain?
-- Kara the Eymorg, "Spock's Brain," stardate 5432.3.

2003. IC-32AT mod

Newsgroup: rec.ham-radio
Date: 1990-03-30 21:17:38 UTC
From: mustard@heights.cit.cornell.edu
Message-ID: <1990Mar30.211738.12370@heights.cit.cornell.edu>
Source record: 12558

Does anyone out there have a Modification for the IC-32AT that will
extend it's rather limited UHF capability to include the rest of the 420-450
band. Also , is there a way to restore transmit to the lower part of 420-450?

As a follow-up, what is this Mod Server that I've heard of. Is it an
ftp sight or does it require a modem?

TNX

William Middelaer
mustard@heights.cit.cornell.edu __ Both on Internet
v6dy@vax5.cit.cornell.edu /

v6dy@crnlvax5 __ Bitnet

2004. NEWSLINE NO-CODE NTRN QUERY

Newsgroup: rec.ham-radio
Date: 1990-03-30 21:24:00 UTC
From: SKAGOO@MEMSTVX1.BITNET
Message-ID: <9004050707.AA03656@ucbvax.Berkeley.EDU>
Source record: 12559

The Delta Ameatur Radio Club here in Memphis is airing the Newline
No-code National Teleconferencing Radio Network on its 2m/220 repeater
W4BS.

We have already received our port assigment from Newsline. The question that
we have now is whether the teleconference is two way over the phone patch or
do people with questions call on a seperate line ?.

Does anybody have any suggestions ?

Suresh Kagoo N9GSA/4S7??? Internet: skagoo@memstvx1.bitnet
Memphis State University Bitnet : SKAGOO@MEMSTVX1
Memphis, Tennessee

2005. Re: CQ PEACE

Newsgroup: rec.ham-radio
Date: 1990-03-30 21:53:42 UTC
From: winter@Apple.COM
Message-ID: <39954@apple.Apple.COM>
Source record: 12560

In article <9003290802.AA07895@ucbvax.Berkeley.EDU> RHAREL%FAB8@SC.INTEL.COM (Intel-FAB8
7589) writes:
>On March 27th, it was announced by the Ministry of Communications that Amateur
>Radio operators can now legally communicate with 22 Arab countries that were
>formally forbidden under the rules and regulations since 1948.
>Peace via Amateur Radio ??
>This may be a real first...

Richard--

I just heard about the new rules this morning, and I agree with you
that it's an encouraging development. I was also heartened to learn
that King Hussein worked some Israeli hams when he was visiting in
England a year or so ago. Perhaps Jordan will be the first of the
"banned" countries to renew amateur radio communications with Israel.

Every little bit helps...

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

2006. Re: Increasing CW Speed

Newsgroup: rec.ham-radio
Date: 1990-03-30 21:55:08 UTC
From: donahn@gypsum.berkeley.edu
Message-ID: <1990Mar30.215508.14115@agate.berkeley.edu>
Source record: 12561

In article <30500482@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>1. The argument about the requirements for admission or graduation in
> college is not a good one. There are a lot of colleges around that
> have different and/or fewer such requirements. If you don't like the
> requirements at the one you are now in, transfer....
>2. In Amateur radio you don't have much of a choice....
True, its our only college and hams have a big say in what goes on.
So when enrollment is down, you have two choices: 1. Figure its a symptom
of society and try to maintain standards of quality. 2. Figure its a symptom
of problems with ham radio and try to reduce standards to get enrollment up.
The evidence seems to point to conclusion 1. Thinking hobbies are
down all over the place and TV is up. If you support conclusion 2 though,
you won't be alone, you'll be following the path of untold numbers of high
school and college adminstrators all over the country. This is a very safe
path to take. The arguments have been handed down generation to generation
and usually work.
I'm not really interested in getting the best operators on the air.
Or of making the most efficient use of spectrum (this is a HOBBY for
christsake). I am interested in the learning aspect of ham radio and
feel that it is the best intent of ham radio. Incentive licensing is a
great way of tricking people into learning something potentially useful/fun.
(Yes, and people need to be tricked, you're fighting the biggest trickster of
all after all -- TV).
Morse code is Ham Anthropology/Archaeology 101 it is also Digital
Communications 101. Its the closest you'll ever get to BEING a modem.
And most of all, its a communication mode. Being apprentice communicators
we should learn it. The problem is, the other newer modes are not as
heavily stressed as CW. If there was more coverage (more tests?) in the
other modes, there wouldn't be such complaints for the 5wpm CW test.
CW is used in 1990. Phil, you mentioned that many repeaters now
ID with voice instead (or in supplement) to CW. True, there are more of
these. However, you'll notice that getting the hardware together to
do a voice ID is such a pain compared to a simple CW ID that those repeaters
usually have stuff like digital playback/S-meters too
(ie. they are well funded). Is CW a useful, cheap, and simple mode to use?
I'd say yes, and people are voting with their repeaters on this one.
Your arguments for abolishing the CW requirement for VHF are
compelling, however , given extra questions in other areas to replace it.
The problem is, most of the anti-code proponents seem to just want to
water down the tests. So it's much "safer" to try to resist change.
>--Phil Howard, KA9WGN--

Don Ahn, AA6UD
donahn@gypsum.berkeley.edu

2007. 49Mhz conversion question

Newsgroup: rec.ham-radio
Date: 1990-03-31 01:11:43 UTC
From: roger@hpfcmgw.HP.COM
Message-ID: <1690050@hpfcmgw.HP.COM>
Source record: 12562

I have just acquired a set of "Voice Actuated Audionic FM Transceivers" manufactured for Realistic (Radio Shack). Currently they are on 49.845Mhz along with all the baby monitors in the world. I'd like to move them up some 250 Khz to the six meter phone band.

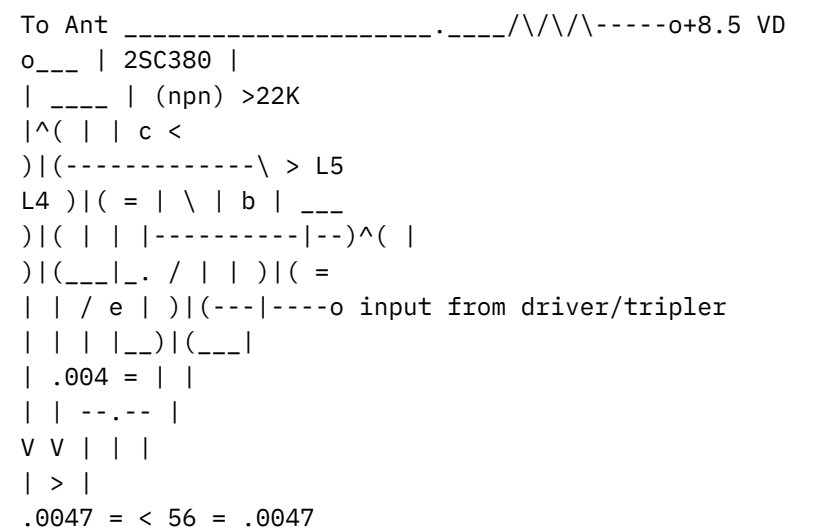
Can anybody direct me to articles which may have been published in some of the amateur radio magizines on moving such equipment up to six. Or may-be there has been some discussion on the net. In general, should the move require massive retuning? By that I mean, will I need to swap out coils or is it simply a matter of tweeking the existing coils?

I would also like to crank the power up a bit. The final output transistor, a 2SC380 is rated at 650mW. The spec on the power output as listed in the service manual is 80dB. I'm not sure what that means.(80dB relative to what?) The final output stage is a common emitter configuration inductively coupled to both the antenna and the driver/tripler stage. I assume that by simply increasing the current in the emitter by reducing the value of the emitter resistor I should be successful in my pursuit of higher power, as long as I don't exceed the maximum emitter or collector current ratings or power dissipation of the transistor. Am I on the right track? (Schematic below)

I would appreciate any help that I can get.

73,

Roger Jollis, KU6I
Fort Collins, Colorado



```
| > |
| | |
V V V
```

key:

```
V ground
. connection
```

2008. Re: Cellular phone salesmen story

Newsgroup: rec.ham-radio
Date: 1990-03-31 01:38:17 UTC
From: dwsmith@uxh.cso.uiuc.edu
Message-ID: <30000022@uxh.cso.uiuc.edu>
Source record: 12563

Actually, there is a satellite-based cellular phone service being developed by JPL and NASA called MSAT-X. It is not yet operational (in a commercial sense), but hopes are that it someday will be.

Dave Smith
dwsmith@uiuc.edu

2009. News From OSCAR-11 26-Mar-90

Newsgroup: rec.ham-radio
Date: 1990-03-31 01:48:08 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <246@ka2qhd.UUCP>
Source record: 12564
Cross-posted to: rec.ham-radio,sci.space

UOSAT 2 COMPUTER STATUS INFORMATION

FAD1 Operating System v2.0b
Today's date is 31 /3 /90 (Saturday)
Universal Time is 1 :5 :49
Auto Mode is selected

SPIN PERIOD IS - 298

Z MAG firings = 0
+ SPIN firings = A28
- SPIN firings = 12
RAM Wash Pointer at F34
WOD commenced 31 /3 /90 at 0 :0 :10
with channels 10 ,11 ,19 ,29 ,
Last cmd was 109 TO 0 WITH DATA 0

Attitude control initiated, mode 1

Data collection in progress
Digitalker active

**** UoSAT-OSCAR-11 BULLETIN - 211 26 March 1990 ****

UoSAT MISSION CONTROL CENTRE
University of Surrey, Guildford, Surrey, GU2 5XH, England

** UoSAT-OSCAR-14 ** (de G3YJO)

The gravity boom on UoSAT-3 was deployed successfully under on-board computer (OBC) control on Thursday morning (220390), following attitude control manoeuvres to 'lock' the spacecraft to the Earth's magnetic field. The attitude manoeuvres have been complicated by offsets experienced in the on-board magnetometer (which is used for attitude determination), requiring additional software filters to be included into the attitude control algorithms running on the OBC.

Following deployment of the boom and its 3.5 kg tip-mass to about 6 metres from the top of the spacecraft, delibration algorithms have been activated on the OBC to point the spacecraft towards Earth.

** UoSAT-OSCAR-15 ** (G3YJO)

The team at Stanford, having succeeded in detecting local oscillator (LO) leakage from the UO-15 command receiver, are now listening when the satellite is in eclipse - to determine whether the on-board NiCd battery is functioning.

** DOVE-OSCAR-17 ** (ASR)

Following the CPU crash on-board DO-17 which left the 2m transmitter ON,
command stations were unable to access the satellite receiver due to blocking.

On 170390, the AMSAT Engineering Team successfully reset the CPU on DO-17 and
commanded the 2M transmitter off. Dave Blaschke (W5UN), the owner of the
world's largest privately owned 2 meter antenna, worked with Harold Price
(NK6K) to overcome the desense problem (DO-17's command receiver is also in
the 2M band). Even with 32.5 dBi gain, and nearly 2 megawatts of EIRP, it
took several days of transmitting the reset sequence before they were
successful.

Alberto Zagni (I2KBD) reported that the transmitter power was dropping
significantly at the end of the eclipse portion of the orbit which indicated
that the batteries were flattening out. Bob McGwier (N4HY) then strategized
with W5UN as to the two best times to reset the spacecraft CPU and turn the
transmitter off. The first was at the end of the eclipse period, when
transmitter power would be at its lowest point. However, if it turned out
that the battery voltage was too low to maintain the GASFET preamp in the
receiver, then the next time to try was just as the transmitter power was
falling off (soon after it left the sun and started the voltage descent in
eclipse). The latter was the time which turned out to be successful.

The AMSAT Team is reviewing the events of the last week to determine the
failure mode. Once they have completed their investigation, they will upload
the operating system for DO-17 and continue commissioning. DO-17 is not
expected to be fully commissioned until sometime in April.

** $BID **

Please use BID $UOSAT.211 for PR BBS use.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2010. Re: Happy Times are here Again

Newsgroup: rec.ham-radio
Date: 1990-03-31 01:57:17 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Mar31.015717.14063@NCoast.ORG>
Source record: 12565

As quoted from <900327-152339-2635@Xerox> by G4JJO.WBST207V@XEROX.COM:
+---------------
| not been operating here, I have not had the pleasure of reading Info-Hams
| for at least 6 months.
| I was totally amazed to find that just like the soap operas I hadn't missed
| a thing. Only the names have changed (presumaably to protect the innocent)
+---------------

If you ask me, much of the activity here is little different from what can be heard on the air. Not much sense, lots of (near-)liddishness... "We have met the enemy, and he is us!"

73's,
++Brandon (pending receipt of my Novice ticket)
--
Brandon S. Allbery (human), allbery@NCoast.ORG (Internet), BALLBERY (MCI Mail)
ALLBERY (Delphi), uunet!cwjcc.cwru.edu!ncoast!allbery (UUCP), BrandonA (A-OL)

2011. Aargh! Want address/info to get Heathkit catalog

Newsgroup: rec.ham-radio
Date: 1990-03-31 02:03:39 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Mar31.020339.14162@NCoast.ORG>
Source record: 12566

I discovered earlier this week that the Cleveland area's only remaining Heathkit store is no more. Is Heathkit gone? If not, where and to whom do I write to get a catalog?

I plan to build a few simple kits to recover/(re-)develop my abilities, then dive into some more serious equipment-building.

++Brandon (pending receipt of Novice ticket)
--
Brandon S. Allbery (human), allbery@NCoast.ORG (Internet), BALLBERY (MCI Mail)
ALLBERY (Delphi), uunet!cwjcc.cwru.edu!ncoast!allbery (UUCP), BrandonA (A-OL)

2012. Re: stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-03-31 02:24:22 UTC
From: kjh@pollux.usc.edu
Message-ID: <23815@usc.edu>
Source record: 12567
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <49812f16.1423f@godzilla.UUCP> dalyb@godzilla.UUCP (Brian Daly) writes:
>The ideal spacing is one wavelength to maximize the gain.

This is not true. The maximum_forward_gain_spacing is a function of the gain of the antennas being stacked. It could also be (almost equivalently) considered to be a function of the boomlength of the antennas being stacked.

There are also other considerations. Do you want maximum forward gain? Do you want maximum front-to-back ratio? Do you want maximum front-to-side ratio? Do you want some combination of these merit figures, like almost maximum gain with a clean pattern?

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2013. * SpaceNews 02-Apr-90 *

Newsgroup: rec.ham-radio
Date: 1990-03-31 02:50:16 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <247@ka2qhd.UUCP>
Source record: 12568
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0402

=========
SpaceNews
=========

MONDAY APRIL 2, 1990

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world on USENET and Amateur Packet Radio. It is available for UNLIMITED worldwide distribution.

* DOVE NEWS *
=============
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[From: AMSAT via OSCAR-11]

* UoSAT-OSCAR-14 NEWS *
=======================
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(OBC) control on Thursday morning (220390), following attitude control manoeuvres to 'lock' the spacecraft to the Earth's magnetic field. The attitude manoeuvres have been complicated by offsets experienced in the on-board magnetometer (which is used for attitude determination), requiring additional software filters to be included into the attitude control algorithms running on the OBC.

Following deployment of the boom and its 3.5 kg tip-mass to about 6 metres from the top of the spacecraft, delibration algorithms have been activated on the OBC to point the spacecraft towards Earth.

[From: G3YJO via OSCAR-11]

* SHUTTLE NEWS *
================
The Hubble Space Telescope was installed in Discovery's payload bay last week after "midges" (mosquitoe-like insects) were removed from the Payload Changeout Room.

* UoSAT-OSCAR-15 NEWS *
======================
The team at Stanford, having succeeded in detecting local oscillator (LO) leakage from the UO-15 command receiver, are now listening when the satellite is in eclipse - to determine whether the on-board NiCd battery is functioning.

[From: G3YJO via OSCAR-11]

* JOIN THE RANKS! *
==================
Interested in learning more about the Amateur Radio Service? For information on licensing requirements and operating privileges, write:

The American Radio Relay League
225 Main Street
Newington, Connecticut 06111
U.S.A.

* FEEDBACK WELCOMED *
====================
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2014. Re: Packet(?) on commercial bands

Newsgroup: rec.ham-radio
Date: 1990-03-31 05:08:43 UTC
From: die@cpoint.UUCP
Message-ID: <4482@cpoint.UUCP>
Source record: 12569
Cross-posted to: rec.ham-radio.packet,rec.ham-radio,rec.radio.shortwave

In article <1990Mar29.150643.14742@nebulus.UUCP> root@nebulus.UUCP (Dennis S. Breckenridge) writes:
>What you are hearing is "commercial packet" It is in MMP protocol. Even
>if you could capture the bits with your TNC you would spend the next
>three lifetimes decoding the packet. Security is top on the list when
>it comes to public safety. MMP is a proprietary Mobile Data International
>protocol.
>
I hate to burst your bubble, but I know of a fellow radio hacker
who has been successfully copying mobile data terminal traffic in this
and several other so called "secure" proprietary protocols. He uses
modified commercial trunking capable radios with their built in FSK
demods to receive the bits and a combination of a stand alone micro and
an IBM PC clone to interpret the messages contained therin.

He says most of the bits are used for various forward error
correction and parity schemes. Encryption seems mostly to mean using
proprietary alphabets (substitution cipher), overlaying the message with
a LFSR sequence (scrambling, such as used on many modems), and XORing
the underlying message or sometimes the encoded data after adding the
FEC bits with a fixed multibyte pattern that is changed from time to
time. (For example he says IBM field service transmissions to their
portable terminals seem to use a 4 byte sequence changed every day and
different for each terminal)

I do not believe that aside from Motorola's line of DES based
DVP products (which really do use DES in a quite strong mode) most
two way radio security is very secure. I personally think it
pretty inexcusable for the manufacturers of these devices not to
use DES or some moral equivalent - merely deciding that the protocol
is complicated and nobody out there is bright enough to figure
it out is pretty stupid in my opinion....

Of course the fellow who broke these mobile data systems was
trained by the military as a cryptanalyst twenty years ago, so perhaps
that isn't completely fair. But there are people who do this sort of
protocol software work for a living who wouldn't find it hard either.

--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

2015. Re: Cellular phone salesmen story

Newsgroup: rec.ham-radio
Date: 1990-03-31 05:47:57 UTC
From: ldg@yoda.byu.edu
Message-ID: <106ldg@yoda.byu.edu>
Source record: 12570

I once heard a cellular phone salesman tell our radio club that their system could route a call, check your account, and transfer the call to a land line in 0.05 nanoseconds. During which time light could travel, what, a half inch? Isn't modern technology wonderful!

Lyle D. Gunderson N6KSZ | "Any technology without | ldg@yoda.byu.edu
350 CB/BYU | some attendant risk of misuse | CIS: 73760,2354
Provo UT 84602 | is probably trivial" | GEnie: L.GUNDERSON
| --Louise Kohl | AO: LGunderson

2016. Re: Control Program for TS440

Newsgroup: rec.ham-radio
Date: 1990-03-31 16:11:19 UTC
From: TWB0@LEHIGH.BITNET
Message-ID: <9003311611.AA17031@ucbvax.Berkeley.EDU>
Source record: 12571

I have a number of control programs archived on my packet BBS at home which are written in C (good for UNIX portability which is what several people were looking for). Next time I'm there I'll see if I can make the source code available. I believe that I have one for Kenwood, Yaesu, and Icom (written by Phil Karn, KA9Q) radios.

73, Tom
.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
Thomas Brown, KA2UGQ BITNET: twb0@lehigh.bitnet
Lehigh University Box 855 ARPA: twb0%lehigh@ibm1.cc.lehigh.edu
Bethlehem, PA 18015 UUCP: ..!att!twb0@lehigh.bitnet
(215) 758-1200 AX.25: ka2ugq@ka2ugq.nj.usa.na (145.01 MHz)

Stress: The confusion caused when one's mind overrides the desire to choke the life out of someone who desperately deserves it.

2017. Fidonet reply to Karn

Newsgroup: rec.ham-radio
Date: 1990-03-31 18:04:52 UTC
From: jgrubs@w8grt.fidonet.org
Message-ID: <TeTwg1w161w@w8grt.fidonet.org>
Source record: 12572

```
(461) Wed 28 Mar 90 12:58p
By: David Stark
To: Phil Karn
Re: ham changes
St:
--------------------------------------------------------------------------------
@EID:e643 147c6740
@MSGID: 1:260/218 3e0cc53c
@REPLY: 1:234/1 2b15ffcf
> From: karn@ka9q.bellcore.com (Phil Karn)
> Newsgroups: rec.ham-radio
> Subject: Re: Increasing CW Speed
> Message-ID: <21296@bellcore.bellcore.com>
> Date: 25 Mar 90 22:23:08 GMT
> References: <9003250020.AA12799@tecnet1.jcte.jcs.mil>
> Sender: news@bellcore.bellcore.com
> Reply-To: karn@ka9q.bellcore.com (Phil Karn)
> Organization: Secular Humanists for No-Code
> Lines: 60
>
>
> interested only in public service?") I would say two things. First, the
> amount of public service traffic carried by CW is nil; the action is on

OOOOOHH. You're gonna piss of the BPL folks! ;-)

> Our mainstay in the "public service" area for the past twenty years has
> been
> the FM repeater club whose members call in highway accidents and provide
> communications for the local March of Dimes Walkathon. In that twenty
> years, our technology has remained essentially unchanged. (Yes, we now

So have our traffic handling techniques vis-a-vis "real" emergencies.
One must apply the lessons learned during the walkathon to network operation
for nuke plant drills or actual disaster situations. Otherwise, the walkathon
is not "training for public service"; it's a waste of time.

> other) from their cars. In my area (NNJ/NYC) I can say that cell phone
> antennas outnumber every other kind of mobile two-way antenna by a
> *very* healthy margin.

True in most metro areas, I'd bet.

> field) must become its single most important role. But if this is to have a
> ghost of a chance of happening, amateur radio is going to have to make
> some MAJOR changes. The no-code license is but the first step.
```

Including the attitude of many hams that "I'm the communications expert. Leave me alone and don't try to teach me anything" when public safety organizations like Red Cross, OEP, the police or whomever want to offer training to the local hams for disaster communications. The big selling point for ham radio over cellular or other two-way radio ops is that there is a large pool of people who own radios and have a tradition of being available as unpaid (the rules say we can't be paid anyway), TRAINABLE bodies that can replace or supplement an overloaded communications network in a disaster.
That selling point won't wash with organizations that have already had bad experiences with ham groups insisting on handling traffic their own way and trying to make command decisions without the training or authority to understand what is going on.
I was the Disaster Communications Chairman for the Monroe County Chapter of the Red Cross in Rochester, NY. Believe me when I tell you, ARES/RACES was the most difficult local volunteer group to deal with when it came to trying to get them to comply with Red Cross needs and procedures. This in spite of the fact that the person trying to train them was a licensed ham.
As one example, I was responisble for communications (for Red Cross) from the command post at a chemical plant fire in Brockport, NY a couple of years back. The NCS at the RARA club station, which is located near the OEP office downtown, pulled his radio operators out when _he_ felt the operation was over. Red Cross still needed radio operators for the recovery phase. The RACES Radio Officer decided that _he_ was in charge of the radio operators and would deploy and release them as he saw fit. This is typical of that organization in my area.

--- FD 1.99c
* Origin: QRV de W8GRT (1:234/1)

2018. arrl

Newsgroup: rec.ham-radio
Date: 1990-03-31 21:09:19 UTC
From: gws@n8emr.UUCP
Message-ID: <1471@n8emr.UUCP>
Source record: 12573

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
```

ARRL Letter - March 16, 1990 - Volume 9, Number 5 - Page 1 of 3

ARRL COMMENTS IN NTIA SPECTRUM MANAGEMENT INQUIRY

The National Telecommunications and Information Administration (NTIA) which shares responsibility with the FCC for management of the radio spectrum, recently began a comprehensive policy review of the use and management of the radio frequency spectrum in the US. The NTIA Notice of Inquiry (NOI) was published in the Federal Register on December 8, 1989. The NOI invited comments from the public on a wide-ranging series of questions. (See ARRL Letter Volume 8, Number 25.)

On February 23, 1990 ARRL Counsel Chris Imlay, N3AKD filed comments on behalf of the League. In its opening comments ARRL said "The League has been a participant in the spectrum management process for its entire 76 years of existence -- virtually the entire history of radio regulation. From that time until the present, the history of radiocommunication [contains many] examples of concepts being developed and implemented by radio amateurs that subsequently were adopted by the commercial sector.

"While improvements in spectrum management policies are needed... the public interest cannot be measured solely in the economic terms of marketplace forces. Just as public policy requires that there be public parks and other open space for the nourishment of the human spirit, so must there be `open spaces' in the radio spectrum where the public can pursue personal, non-commercial ends. This is the essence of the Amateur Radio Service.

"The value of the Amateur Radio Service is recognized internationally... virtually every country in the world makes provisions for the licensing of radio amateurs... A close correlation has been noted between the extent to which a government encourages Amateur Radio, and the level of technical development achieved in that country.

"On behalf of present and future licensees in the Amateur Radio Service, the League respectfully urges that considerable weight be given to the protection of this access in the present proceeding."

The League commented on certain of the questions posed in NTIA's Notice of Inquiry including:

- Encouragement of spectrum-efficient technology:

"The greatest impediment to the introduction of new technology...is the lack of an incentive for more spectrum- efficient techniques to be implemented within each existing service... the opportunity to seek new allocations simply relieves services of the obligation to use their existing allocations to full efficiency. If a service, or those who regulate the service, cannot efficiently use a block, it is puzzling why they should be permitted to expand into other services' blocks.

"A case in point is the land mobile service's apparent inability to find a way of incorporating `narrowband technologies' into their existing extensive allocations instead of seeking reallocation of 220-222 MHz from the amateur service to land mobile. It would seem logical that if narrowband technologies were more efficient than existing FM communications in the land mobile bands, then these technologies could displace FM and make room for additional assignments within existing land mobile bands."

- Alternatives to apportioning and valuing spectrum:

"Any discussion of alternatives to the present system of apportioning and valuing spectrum should not overlook a primary Congressional objective: the promotion of safety of life and property through the use of wire and radio communications (Section 1, The Communications Act of 1934). The Amateur Radio Service exists as a non-commercial, volunteer-based system that provides critical life-and property-saving communication services at no cost to the public, private or government sectors.

"Congressional support for the Amateur Radio Service was expressed in Public Law 100-594... this law states the sense of Congress that `it strongly encourages and supports the Amateur Radio Service and its emergency communications efforts; and Government agencies shall take into account the valuable contributions made by amateur radio operators when considering actions affecting the Amateur Radio Service.'
... (Continued next page)

ARRL COMMENTS IN NTIA SPECTRUM MANAGEMENT INQUIRY (Continued)

"In countless well-documented cases, Amateur Radio operators have stepped in to provide continuity of communications for government and non-government relief agents, as well as to the public, in disasters when normal communications links have been disrupted or completely severed. In such cases, the value of Amateur Radio is enormous relative to the amount of its allocated spectrum.

"The Amateur Radio Service, through participation by thousands of dedicated volunteers, provides a resource that could never be matched by commercial services. The very nature of the service requires that Amateur Radio operators be prohibited from accepting compensation for their communications services; however, this means they cannot afford to compete, head-to-head, with commercial interests that seek spectrum in order to provide services for monetary gain. A pure marketplace approach to spectrum management would work to the serious detriment of radio amateurs, and thus to the public interest.

"Thus, any alternatives to apportioning and valuing spectrum must take into consideration the following mandates:

1. Uses of radio that promote the safety of life and protection of property are entitled to special consideration.

2. Networks built and operated by volunteers that provide necessary services should be valued according to what it would cost to duplicate the services.

3. The value to the public of any particular communications service is not necessarily commensurate with the financial resources at its disposal; it is not in the public interest to apportion spectrum based solely or even largely on ability to pay.

4. The public is entitled to access to its own spectrum."

The League also commented on these issues:

- FCC allocation and assignment processes
- FCC reliance on private user groups for specific spectrum management functions
- Domestic coordination
- Strengths and weaknesses of existing domestic coordination process
- US preparation for ITU conferences
- The strengths and weaknesses of the block allocation system
- Possible amendment of definitions of radio services
- Increasing use of spectrum by non-licensed (Part 15) devices
- Revenue enhancement proposals
- Measuring spectrum use; private monitoring

ARRL concluded by saying, "As citizens who stand to be significantly affected by the policies adopted as a result of this proceeding, both as consumers of telecommunications services and as volunteer suppliers of such services, radio amateurs urge that those spectrum management practices which result in an artificial scarcity of spectrum be revised or replaced.

"However, in implementing new practices that encourage greater efficiency in the use of the radio spectrum, it must be recognized that they will have limited applicability to the Amateur Radio Service. Attempts to force-fit the Amateur Radio Service into a new system designed to encourage innovative uses of the spectrum will lead to the opposite result in one of the most innovative radio services now in existence."

FCC FORMS WARC-92 ADVISORY COMMITTEE

FCC Commissioner Sherrie Marshall and Francis Urbany, Director of International and Agency Relations, BellSouth Corporation have been appointed co-Chairpersons of the FCC's Advisory Committee for the World Administrative Radio Conference (WARC-92).

The Advisory Committee will counsel the Commission on the preparations for WARC-92 and will develop and make recommendations for the US proposals and positions on topics to be addressed at the conference.

ARRL Executive Vice President David Sumner, K1ZZ, has been named to serve as one of the 35 members of the FCC WARC Advisory Committee. Committee members were selected to represent a diversity of telecommunications interests and were drawn from both the business and the academic communities

FCC ISSUED CALL SIGN UPDATE

The following is a list of most recently issued FCC call signs (March 1).

DIST	GRP"A"	GRP"B"	GRP"C"	GRP"D"
	Extra	Advanced	Tech/Gen	Novice
0	WZ0Y	KF0IM	N0LPK	KB0GAM
1	WD1N	KC1TX	N1HJS	KA1VFZ
2	WW2Q	KE2SE	N2KJU	KB2JOW
3	NY3R	KD3RF	N3HWQ	KA3VVM
4	AB4TW	KN4EZ	N4YHA	KC4OVY
5	AA5QS	KI5DF	N5QBM	KB5LUZ
6	AA6UH	KK6HJ	N6YBR	KC6JCV
7	AA7DO	KG7AX	N7OIZ	KB7JVU
8	WZ8W	KF8ES	N8LXN	KB8JFB
9	WO9Z	KE9VF	N9JIN	KB9EDT
Guam	KH2M	AH2CF	KH2EI	WH2AMK
Hawaii	***	AH6KH	NH6WB	WH6CGU
Alaska	***	AL7LX	NL7TN	WL7BXE
USVI	NP2F	KP2BT	NP2DP	WP2AHA
P.R.	***	KP4QN	WP4XK	WP4IUH

*** indicates that all 2 x 1 call signs have been assigned in those areas.

The N-prefixed Group C (1X3) call# signs blocks for the fourth and sixth call districts have nearly all been assigned. After N4ZZZ and N6ZZZ have been issued, FCC will begin assigning calls from the Group D (2X3) call sign block.

OTHER FCC NEWS

Ervin S. Duggan was sworn in on February 28 as an FCC Commissioner by FCC Chairman Alfred C. Sikes. Commissioner Duggan succeeds former Commissioner Patricia Diaz Dennis. This brings the FCC to its full complement of 5 Commissioners.

An FCC Notice of Proposed Rule Making in PR Docket 90-100, released on March 7, proposes to relocate the Novice and Technician segment of the 80 meter band from 3700-3750 kHz to 3675-3725 kHz. The Commission believes that this relocation will reduce interference to and from Canadian amateurs. FCC is asking for comments with respect to the level of interference in the current Novice and Technician segment and how the proposed frequency move would impact current amateur operations. Amateurs may file comments on or before June 15, 1990, and reply comments on or before July 13, 1990.

Responding to an ARRL proposal (RM-6512), FCC has relocated automatic beacon operation in the 2 meter and 70 cm amateur bands (PR Docket 89-65). On 2

meters the band segment has changed from 144.05-144.06 MHz to 144.275-144.300 MHz and on 70 cm from 432.07-432.08 MHz to 432.300-432.400 MHz. ARRL also requested relocation of the 220 MHz beacon subband from 220.05-220.06 MHz to 220.275-220.300 MHz. FCC denied this portion of the request. Effective date of the change is May 18.

"NORTH POLE 90" EXPEDITION UNDERWAY

A joint UK/USSR expedition is underway with the two British members of the team attempting to reach the north pole on foot. The expedition "ice team" consists of Dr. Mike Stroud and Sir Randulph Fiennes. Their progress will be monitored from 2 base camps, one located towards the end of the expedition on the moving Arctic Ocean ice at approximately 86 degrees North Latitude and the other on Sredniy Island at the tip of the Soviet Union.

Two special event calls will be used. GB4MSS at Sredniy base camp and GB4ICE at the forward base camp on the ice. The main base station GB4MSS will be active during March with GB4ICE signing on in April. Both stations will be active on most HF frequencies. GB4MSS will also be active on OSCAR 10, OSCAR 13, RS10 and RS11. In addition, GB4MSS will upload weather and other information on the expedition to the Digital Communications experiment (DCE) on board UoSAT 2 (OSCAR 11). This information will then be made available on packet bulletin boards, worldwide.

Special QSL cards are available from the expedition's QSL manager Ian Crockford, GM1AUZ.

2019. Re: Code vs No-Code

Newsgroup: rec.ham-radio
Date: 1990-04-01 01:26:31 UTC
From: jay@splut.conmicro.com
Message-ID: <4D8+B9@splut.conmicro.com>
Source record: 12574

In article <30500486@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>The 90-55 proposal stinks because it ruins ham radio and sets up a nocode
>system that is doomed and will reap worse sentiments among hams than was
>ever imagined with incentive licensing.

Couldn't have said it better myself, Phil.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
"Flying is a lot more fun than being in the Senate." -- Senator Jake Garn

2020. Re: Heathkit Info

Newsgroup: rec.ham-radio
Date: 1990-04-01 13:36:00 UTC
From: RBMURDOC@COLOSPGS.BITNET
Message-ID: <9004020605.AA12497@ucbvax.Berkeley.EDU>
Source record: 12575

allbery@NCoast.ORG (Brandon S. Allbery) writes in article
<1990Mar31.020339.14162@NCoast.ORG>...
>I discovered earlier this week that the Cleveland area's only remaining
>Heathkit store is no more. Is Heathkit gone? If not, where and to whom do I
>write to get a catalog?

I believe there is still a Heathkit store near the Westminster Mall in
Westminster (metro Denver), Colorado - but most people wouldn't be interested
in that. I got a catalog about 6 months ago from Heathkit; heres the address
& phone number...

Heath Company
P.O. Box 1288
Benton Harbor, MI 49022

Orders: 1-800/253-0570, 24 hours a day.
(the catalog has several other phone numbers)

Hope this helps... -Robert

Robert B. Murdock
University of Colorado at Colorado Springs

--
| BITnet: rbmurdock@colospgs |
| INTERnet: rbmurdoc@colospgs.bitnet |
| ARPAnet: rbmurdock@colospgs.EDU |
| UUnet: uunet!colospgs.bitnet!RBMURDOC |
| DECnet: UCCS::RBMURDOCK |
| GEnie: R.MURDOCK |
| FIDOnet: 1:128/16.0 Robert Murdock |
| NCIC: CO0210001, TO: MURDOCK x6365 |
| CCIC: ELP, TO: MURDOCK x6365 |
| PLATO: bob murdock/dialup/cerl |
| MAbell: 719/637-1820 |
--

2021. Peru EME

Newsgroup: rec.ham-radio
Date: 1990-04-01 16:42:13 UTC
From: rfc@briar.philips.com
Message-ID: <90407@philabs.Philips.Com>
Source record: 12576

copied from packet:

Msg# TSF Size #Rd Date/Time MsgID From To
23298 BF 2594 1 0317/1223 6188_OA4O OA4PQ ALL@ARL ()
Sb: Peru on EME

Lima,Peru.Date:17 March 1990.Time:1628UTC

Radio Club Peruano, OA4O is pleased to anounce that its EME Station
on 432MHZ started operations today receiving clearly the signals from
K2UYH and KB8ZW on CW at 1220UTC and 1240UTC. We had initially hward
our own echos. Tomorrow we will be transmitting withour 1.5KW
transmitter and 27 foot dish computer controlled. We have checked in
at the EME Net with K2UYH who is preparing the schedules for future
schedules.We would be most pleased to arrange schedules with all
those interested in working Lima,Peru on 432MHZ via the moon.

Our address:P.O.Box 538,Lima,Peru
.Phone[(5114)458134.Fax(5114)462408.BBS:OA4O,Node:Lima-1,

Frequency:28103kc.Forwading:N8GTC. EME Station:OA4O. Frequency 432,006MHZ.
Our next window:31 March 1800UTC to 0200UTC of April
1,1990.Regards.Alfonso,OA4PQ@OA4O.Lima.Peru.Sa.

1616z, 819 msgs, #23321 last @KD6TH-4 MailBox>

2022. Re: Happy Times are here Again

Newsgroup: rec.ham-radio
Date: 1990-04-01 18:30:23 UTC
From: jay@splut.conmicro.com
Message-ID: <L88+M.@splut.conmicro.com>
Source record: 12577

In article <1990Mar31.015717.14063@NCoast.ORG> allbery@ncoast.ORG (Brandon S. Allbery) writes:
>73's,
>++Brandon (pending receipt of my Novice ticket)

Congratulations, Brandon!

For those of you who don't know him, Brandon is one of the hardest workers on Usenet. He moderates comp.sources.misc, generally keeping the group's quality high and the content useful (even though he DID accept a submission from me! :-), and contributes thoughtful, cogent articles on a wide variety of other subjects. He's one of the most respected people on the net.

He took the time to learn code and get his ham ticket. That says good things about ham radio - someone who's that busy making the time to fulfill the requirements for a ham ticket says that he thinks he'd get something out of it, and wants it bad enough to do what's needed.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
"Flying is a lot more fun than being in the Senate." -- Senator Jake Garn

2023. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-04-01 18:39:04 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9004020604.AA12441@ucbvax.Berkeley.EDU>
Source record: 12578

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #671 -
Alouette 1
1 00424U 62B-A 1 90 85.87533969 .00000287 00000-0 33449-3 0 2662
2 00424 80.4673 7.2223 0023710 121.3444 239.0057 13.67315063371448
ATS 3
1 03029U 67111 A 90 85.19999999 -.00000075 00000-0 99999-4 0 3105
2 03029 13.0950 21.8870 1511700 213.0960 275.0970 1.00274572 81968
Cosmos 398
1 04966U 71 16 A 90 86.81381975 .00063898 16903-4 37776-3 0 7128
2 04966 51.5246 81.1326 2340999 355.3604 2.8502 10.91007940582758
Starlette
1 07646U 75010 A 90 79.35466968 .00000024 00000-0 66758-4 0 182
2 07646 49.8262 149.0019 0205982 257.7547 100.0210 13.82133620763495
LAGEOS
1 08820U 76039 A 90 84.17564747 .00000003 00000-0 00000 0 0 358
2 08820 109.8583 326.3520 0044613 256.1711 103.4118 6.38664410 68578
GPS-0001
1 10684U 78020 A 90 83.17253213 .00000008 00000-0 99999-4 0 3520
2 10684 63.7308 92.3634 0112562 201.4876 158.1111 2.00561634 74141
GPS-0002
1 10893U 78 47 A 90 82.14627732 -.00000026 00000-0 00000 0 0 1055
2 10893 64.4203 333.0787 0162656 25.6016 335.2470 2.00548034 86946
SeaSat 1
1 10967U 78064 A 90 85.19393295 .00001922 00000-0 71021-3 0 2510
2 10967 108.0163 148.9230 0001889 255.0907 105.0040 14.35504750614549
GPS-0003
1 11054U 78093 A 90 84.93638282 -.00000025 00000-0 00000 0 0 1854
2 11054 63.9614 329.3120 0091431 114.6762 246.3567 2.00566593 84019
Nimbus 7
1 11080U 78098 A 90 79.64417161 .00000099 00000-0 11973-3 0 6367
2 11080 99.2002 346.5520 0008828 324.6704 35.3873 13.83406562575791
GPS-0004
1 11141U 78112 A 90 86.02921549 .00000008 00000-0 00000 0 0 2925
2 11141 63.6655 92.0255 0060461 315.9646 43.5902 2.00560996 82735
GPS-0005
1 11690U 80 11 A 90 83.17769374 .00000009 00000-0 00000 0 0 9203
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2 11690 64.1576 94.1242 0113550 204.1021 155.4346 2.00556806 88539
GPS-0006
1 11783U 80 32 A 90 81.49404736 -.00000025 00000-0 00000 0 0 705
2 11783 63.7464 329.0017 0149884 59.9932 301.5424 2.00574077 72588
GOES 5
1 12472U 81049 A 90 83.90277584 -.00000235 00000-0 99999-4 0 8393
2 12472 3.2581 76.8719 0005155 223.6361 136.7513 1.00246638 31408
DE 1
1 12624U 81 70 A 90 85.14451002 -.00000085 00000-0 -56826-3 0 3494
2 12624 89.0672 148.6785 6215186 309.8739 10.2093 3.51023267259208
SME
1 12887U 81100 A 90 86.16240197 .00052073 00000-0 11206-2 0 5387
2 12887 97.6499 128.9611 0001852 344.3202 15.8112 15.44465227468583
Salyut 7
1 13138U 82 33 A 90 86.87371872 .00034655 00000-0 46804-3 0 1279
2 13138 51.6060 354.0368 0001107 125.3432 234.7862 15.57428948452156
Cosmos 1383
1 13301U 82 66 A 90 73.88623749 .00000152 00000-0 16695-3 0 5417
2 13301 82.9322 9.8816 0029351 60.6296 299.7765 13.67807233384782
LandSat 4
1 13367U 82 72 A 90 86.96260791 .00000652 00000-0 15450-3 0 2637
2 13367 98.1753 151.0562 0003898 50.0279 310.1271 14.57142931409472
IRAS
1 13777U 83 4 A 90 82.51381876 -.00000042 00000-0 -16850-4 0 7279
2 13777 99.0328 280.6158 0012204 262.0151 97.9630 13.98751998 34960
Cosmos 1447
1 13916U 83 21 A 90 86.05503322 .00000158 00000-0 15509-3 0 6799
2 13916 82.9415 72.7763 0039244 10.5971 349.6037 13.74019365351390
TDRS 1
1 13969U 83 26 B 90 84.89757252 -.00000205 00000-0 00000 0 0 9428
2 13969 4.2780 66.5769 0007904 264.2836 96.0492 1.00265947 92242
GOES 6
1 14050U 83 41 A 90 86.08714174 .00000121 00000-0 00000 0 0 1008
2 14050 2.0232 79.2376 0003220 240.8022 119.8260 1.00259876 9442
OSCAR 10
1 14129U 83 58 B 90 84.27862046 -.00000064 00000-0 00000 0 0 4622
2 14129 25.9479 212.4769 5985025 129.1636 301.2066 2.05882684 23004
GPS-0008
1 14189U 83 72 A 90 85.57040254 .00000007 00000-0 99999-4 0 7288
2 14189 63.3185 90.4822 0146634 219.0181 139.9279 2.00708999 49100
LandSat 5
1 14780U 84 21 A 90 87.05772954 -.00000736 00000-0 -15805-3 0 809
2 14780 98.2142 148.3041 0003286 126.1180 234.0368 14.57126761322909
UoSat 2
1 14781U 84 21 B 90 86.14190031 .00002602 00000-0 49286-3 0 6391
2 14781 97.9630 141.3660 0012026 141.7015 218.5388 14.65066797323956
GPS-0009
1 15039U 84 59 A 90 86.63542429 .00000007 00000-0 00000 0 0 8593
2 15039 63.0655 89.6634 0021135 246.1542 113.6577 2.00563725 42407
Cosmos 1574
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1 15055U 84 62 A 90 83.03701959 .00000125 00000-0 12379-3 0 8329
2 15055 82.9595 125.0895 0026361 197.6005 162.4253 13.73334744288383
GPS-0010
1 15271U 84 97 A 90 85.53219523 -.00000025 00000-0 00000 0 0 7665
2 15271 63.2547 328.4735 0105888 325.7374 33.6555 2.00573492 39492
Cosmos 1602
1 15331U 84105 A 90 86.42769812 .00006446 00000-0 89563-3 0 1922
2 15331 82.5340 76.6611 0021130 236.7697 123.1520 14.77600893296018
NOAA 9
1 15427U 84123 A 90 86.52400184 .00001096 00000-0 61384-3 0 4967
2 15427 99.1666 84.4674 0014440 236.1030 123.8749 14.12495397272458
Cosmos 1686
1 16095U 85 86 A 90 87.00205539 .00042313 00000-0 56897-3 0 5308
2 16095 51.6069 353.3914 0001397 135.0631 225.1214 15.57451512253279
GPS-0011
1 16129U 85 93 A 90 83.70302040 .00000008 00000-0 00000 0 0 4408
2 16129 63.9058 90.4109 0121373 150.9460 209.9844 2.00554384 32661
Mir
1 16609U 86 17 A 90 86.88569158 .00034801 00000-0 41161-3 0 4961
2 16609 51.6186 20.1471 0013614 325.7994 34.2479 15.60830891235404
SPOT 1
1 16613U 86 19 A 90 86.05661483 .00001467 00000-0 70677-3 0 8130
2 16613 98.7068 161.6538 0002000 89.5387 270.6020 14.20041749 52274
Cosmos 1766
1 16881U 90 86.46295988 .00004720 00000-0 66182-3 0 8974
2 16881 82.5210 135.7785 0020136 253.5721 106.3296 14.77173918197087
EGP
1 16908U 86 61 A 90 82.38362287 -.00000047 00000-0 -56053-4 0 1722
2 16908 50.0128 159.7805 0011412 340.8346 19.2058 12.44385776164175
NOAA 10
1 16969U 86 73 A 90 86.53414345 .00001025 00000-0 46693-3 0 3574
2 16969 98.6072 116.2835 0014202 144.0843 216.1298 14.23515237182995
MOS-1
1 17527U 87 18 A 90 86.08329478 .00000531 00000-0 42007-3 0 4495
2 17527 99.1153 159.6712 0000856 76.1437 283.9837 13.94883986157811
GOES 7
1 17561U 87 22 A 90 85.78807102 -.00000044 00000-0 99999-4 0 4481
2 17561 0.0555 127.9949 0006720 242.1433 349.8971 1.00272941 4597
Kvant-1
1 17845U 87 30 A 90 86.94974008 .00023781 00000-0 28369-3 0 349
2 17845 51.6215 19.8265 0013458 325.6376 34.5436 15.60828324171464
DMSP B5D2-3
1 18123U 87 53 A 90 86.53788568 .00001317 00000-0 71316-3 0 5125
2 18123 98.8203 278.2284 0013689 253.7413 106.2254 14.13932918142864
RS-10/11
1 18129U 87 54 A 90 86.12911367 .00000138 00000-0 14025-3 0 806
2 18129 82.9260 29.1455 0012687 353.5163 6.5678 13.72070282138192
Meteor 2-17
1 18820U 88 5 A 90 85.36624882 .00000157 00000-0 13071-3 0 2093
2 18820 82.5390 56.2908 0015895 193.2552 166.8196 13.84302765108727
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DMSP B5D2-4
1 18822U 88 6 A 90 86.54656080 .00001222 00000-0 57710-3 0 4276
2 18822 98.6596 327.2237 0007198 140.1184 220.0529 14.21334660111223
AO-13
1 19216U 88 51 B 90 84.34076849 -.00000112 00000-0 99999-4 0 831
2 19216 57.0247 162.9141 6918075 223.7284 54.0834 2.09703072 13642
OKEAN 1
1 19274U 88 56 A 90 86.08081456 .00004944 00000-0 70270-3 0 6891
2 19274 82.5148 234.7373 0023013 33.9258 326.3476 14.76566209 92807
Meteor 3-2
1 19336U 88 64 A 90 85.22380357 .00000391 00000-0 99999-3 0 3939
2 19336 82.5474 336.1353 0017964 155.4164 204.7931 13.16883450 80037
NOAA 11
1 19531U 88 89 A 90 86.51089540 .00001007 00000-0 57517-3 0 2132
2 19531 98.9742 34.7668 0012718 150.1926 209.9970 14.11508477 77443
TDRS 2
1 19548U 88 91 B 90 82.97117171 .00000131 00000-0 99999-4 0 801
2 19548 0.0121 357.6623 0002549 22.4447 339.6491 1.00276223 4594
Cosmos 2001
1 19796U 89 11 A 90 85.45017627 -.00001044 00000-0 99999-4 0 4089
2 19796 63.0829 103.4600 7126476 319.8552 5.0564 2.00678134 8146
GPS BII-01
1 19802U 89 13 A 90 84.20620273 .00000016 00000-0 99999-4 0 733
2 19802 55.0674 200.7245 0059398 159.4655 200.7139 2.00562044 8067
Akebono
1 19822U 89 16 A 90 84.96167583 .00019634 00000-0 13593-2 0 4870
2 19822 75.1519 279.3011 4199944 274.6538 40.0369 7.06708446 27531
Meteor 2-18
1 19851U 89 18 A 90 85.09920047 .00000189 00000-0 16080-3 0 1597
2 19851 82.5208 294.6685 0012844 239.4688 120.5208 13.83950279 54071
TDRS 3
1 19883U 89 21 B 90 73.63596307 -.00000234 00000-0 99999-4 0 571
2 19883 0.0121 142.7301 0004020 162.5881 54.6626 1.00271148 2948
GPS BII-02
1 20061U 89 44 A 90 84.88812907 -.00000032 00000-0 00000 0 0 534
2 20061 54.7360 19.2046 0082149 173.1235 186.9879 2.00562067 5825
Nadezhda
1 20103U 89 50 A 90 85.20371224 .00000157 00000-0 15693-3 0 879
2 20103 82.9619 346.1737 0036355 271.2169 88.4836 13.73573262 36324
GPS BII-03
1 20185U 89 64 A 90 84.85765043 .00000016 00000-0 99999-4 0 506
2 20185 54.9240 201.5454 0026080 146.4732 213.6690 2.00561278 4390
Activnyi
1 20261U 89 80 A 90 86.94034152 .00011439 00000-0 36092-2 0 3586
2 20261 82.5888 280.1329 1259710 161.9898 203.0542 12.43418405 22499
Activnyi RB
1 20262U 89 80 C 90 85.10399389 .00001390 00000-0 43619-3 0 1497
2 20262 82.5920 281.3122 1261184 166.2028 197.7270 12.43034056 22260
Magion 2
1 20281U 89 80 B 90 86.92430850 .00010455 00000-0 32795-2 0 3720
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2 20281 82.5883 280.0986 1259741 161.9576 203.0924 12.43596691 22499
GPS BII-04
1 20302U 89 85 A 90 83.59101463 -.00000029 00000-0 99999-4 0 448
2 20302 54.6854 320.5035 0038653 316.5649 43.1813 2.00569262 3058
Meteor 3-3
1 20305U 89 86 A 90 85.03473964 .00000021 00000-0 41488-4 0 688
2 20305 82.5458 276.6453 0015145 173.6925 186.4455 13.15852730 20017
INTELSAT-6A
1 20315U 89 87 A 90 82.60216427 -.00000223 00000-0 99999-4 0 347
2 20315 0.0542 285.6905 0011044 328.3023 105.8759 1.00275106 1435
COBE
1 20322U 89 89 A 90 86.05594312 .00005131 00000-0 34080-2 0 656
2 20322 99.0205 97.1461 0006545 234.7971 125.2865 14.01620680 17989
Kvant-2
1 20335U 89 93 A 90 86.94977015 .00012013 00000-0 14669-3 0 1524
2 20335 51.6228 19.8232 0012979 326.2622 34.0875 15.60821796 19063
GPS BII-05
1 20361U 89 97 A 90 85.37752912 .00000016 00000-0 99999-4 0 192
2 20361 54.9694 143.6304 0059986 62.3433 298.3547 2.00578066 2060
SPOT 2
1 20436U 90 5 A 90 86.09190053 .00001458 00000-0 70215-3 0 749
2 20436 98.7144 161.6950 0000893 90.2137 269.9067 14.20045785 9093
UO-14
1 20437U 90 5 B 90 85.18004452 .00000842 00000-0 35167-3 0 402
2 20437 98.7000 161.5159 0012097 39.3460 320.8598 14.28528043 9016
UO-15
1 20438U 90 5 C 90 86.24060707 .00001950 00000-0 79683-3 0 352
2 20438 98.7054 162.5787 0011219 43.3016 316.8975 14.28309610 9168
PACSAT
1 20439U 90 5 D 90 87.06694798 .00000796 00000-0 33264-3 0 348
2 20439 98.7141 163.4552 0012645 33.6137 326.5917 14.28633402 9282
DO-17
1 20440U 90 5 E 90 85.24450925 .00000768 00000-0 32146-3 0 257
2 20440 98.7146 161.6407 0012520 38.9057 321.3145 14.28665661 9029
WO-18
1 20441U 90 5 F 90 85.23954507 .00000677 00000-0 28462-3 0 224
2 20441 98.7117 161.6374 0013280 38.6607 321.5599 14.28773964 9024
LO-19
1 20442U 90 5 G 90 85.23654442 .00000715 00000-0 29950-3 0 293
2 20442 98.7067 161.6352 0013415 39.8421 320.3841 14.28842923 9021
GPS BII-06
1 20452U 90 8 A 90 83.59839905 -.00000000 00000-0 99999-4 0 258
2 20452 54.6279 259.4333 0035050 59.4427 300.8885 2.00567086 1143
Cosmos 2057
1 20457U 90 60.41396968 0.00615956 39350-4 26857-3 0 942
2 20457 62.8210 195.0039 0138628 118.4735 243.0622 16.03448844 5582
1990 010B
1 20466U 90 57.13960967 0.00001501 22415-3 0 174
2 20466 82.5064 301.6148 0022858 187.2711 172.8185 14.74059308 3927
PRC-26
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1 20473U 90 11 A 90 71.25642786 -.00000262 00000-0 99999-4 0 366
2 20473 0.0912 295.7660 0000216 40.4684 23.7389 1.00268398 368
1990 011B
1 20474U 90 11 B 90 70.45931368 .00008564 00000-0 28596-2 0 191
2 20474 30.5413 293.8454 7260425 199.4213 103.2645 2.30231055 760
1990 012A
1 20476U 90 12 A 90 71.70450279 .00268139 16276-4 75305-3 0 1026
2 20476 65.8265 286.7895 1285784 133.0880 238.5288 13.26692660 4478
1990 012B
1 20477U 90 12 B 90 71.81006393 .00478087 17407-4 86754-3 0 1182
2 20477 65.8383 285.2297 1215139 132.0593 239.0520 13.46529432 4526
MOS-1B
1 20478U 90 13 A 90 86.89758534 -.00003422 00000-0 -25401-2 0 1074
2 20478 99.1941 157.4381 0000515 114.9840 245.1322 13.94818028 6800
1990 013B
1 20479U 90 13 B 90 66.25543317 -.00000045 00000-0 -73232-4 0 191
2 20479 99.0518 131.9584 0540229 279.3893 74.6534 12.83148607 3675
FO-20
1 20480U 90 13 C 90 85.20385752 .00000096 00000-0 26566-3 0 197
2 20480 99.0520 147.3503 0540825 236.3713 118.4676 12.83121017 6109
1990 013D
1 20491U 90 76.04757038 -.00000440 -80625-3 0 187
2 20491 99.0578 140.9896 0470398 247.0098 108.0736 13.02713573 4409
Soyuz TM-9
1 20494U 90 14 A 90 86.94973764 .00037250 00000-0 43974-3 0 577
2 20494 51.6245 19.8221 0014056 327.4318 32.7350 15.60840794 6988
1990 015A
1 20496U 90 72.61405566 0.00006039 38701-3 0 341
2 20496 43.1160 127.2684 0012138 129.2385 230.9548 15.09120691 4079
1990 015B
1 20497U 90 72.51517909 0.00010921 33808-3 0 355
2 20497 43.1034 122.8931 0010853 90.0585 270.1507 15.33471906 4138
1990 015C
1 20498U 90 81.09953213 0.00059706 13764-2 0 454
2 20498 41.6300 68.4127 0038152 27.2360 333.0469 15.40934956 5476
Raduga 25
1 20499U 90 81.06833755 0.00000001 10000-3 0 400
2 20499 1.4006 274.1312 0004873 103.7390 255.0465 1.00264606 352
1990 016D
1 20502U 90 77.10221800 0.00000123 10000-3 0 109
2 20502 1.4372 273.2882 0037369 63.7706 295.8480 1.00012617 337
Nadezhda 2
1 20508U 90 17 A 90 85.23782595 .00000181 00000-0 18334-3 0 123
2 20508 82.9516 121.0730 0043370 215.3397 144.4908 13.73190935 3621
1990 017B
1 20509U 90 81.28160896 0.00000406 41640-3 0 273
2 20509 82.9513 123.9577 0041369 204.1738 155.7476 13.74430108 3085
OKEAN 2
1 20510U 90 86.47696350 .00006017 00000-0 93475-3 0 368
2 20510 82.5305 172.9438 0020069 174.8521 185.2865 14.72820237 4041
```

1990 018B
1 20511U 90 80.96956445 0.00000974 14812-3 0 139
2 20511 82.5297 177.9994 0019337 194.1890 165.8777 14.72989964 3233
Progress M3
1 20513U 90 20 A 90 87.01379027 .00043556 00000-0 51244-3 0 370
2 20513 51.6164 19.4930 0014342 323.5380 36.7960 15.60852249 4232
INTELSAT-6
1 20523U 90 21 A 90 86.09204134 .00000089 00000-0 00000 0 0 302
2 20523 28.3473 81.8747 0018376 30.0423 331.1809 15.02904355 2082
1990 021B
1 20524U 90 21 B 90 86.97445435 .04647913 -37131-4 60659-4 0 422
2 20524 28.6013 68.5041 0035291 251.3462 108.5985 16.45449032 2187
Cosmos 2060
1 20525U 90 80.85238791 0.00022990 38028-3 0 170
2 20525 65.0280 54.3347 0009493 268.0793 91.9542 15.52155137 1122
Cosmos 2061
1 20527U 90 80.90087557 -.00000544 -61207-3 0 101
2 20527 82.9381 210.3131 0029860 268.2907 91.4830 13.71236145 265
1990 023B
1 20528U 90 81.33614906 0.00000006 0 48
2 20528 82.9369 209.9951 0023631 257.4823 102.3690 13.72754896 314
1990 024A
1 20529U 90 82.03685358 0.00140215 91205-4 0 56
2 20529 82.3253 315.0965 0027866 145.4003 212.6610 16.16322684 128
1990 024B
1 20530U 90 82.09530506 0.06612521 -54597-5 71783-3 0 42
2 20530 82.3192 315.0501 0017698 100.5402 260.2226 16.36876750 138
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2024. NASA Prediction Bulletin Format

Newsgroup: rec.ham-radio
Date: 1990-04-01 18:39:33 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9004020602.AA12330@ucbvax.Berkeley.EDU>
Source record: 12579

As a service to the satellite user community, the following description
of the NASA Prediction Bulletin's two-line orbital element set format is
uploaded to sci.space on a monthly basis. The most current orbital elements
from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513)
427-0674, and are updated several times weekly. Documentation and tracking
software are also available on this system. The Celestial RCP/M may be
accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop
bit, no parity.

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical
to that used by NASA and NORAD. The format description is:

```
Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1; plus sign = 2)
```

```
Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
```

09-16 Inclination [Degrees]
18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6
1 11416U 86 50.28438588 0.00000140 67960-4 0 5293
2 11416 98.5105 69.3305 0012788 63.2828 296.9658 14.24899292346978

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.

--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2025. Re: V31BB

Newsgroup: rec.ham-radio
Date: 1990-04-01 21:14:01 UTC
From: keithm@wicat.UUCP
Message-ID: <449@wicat.UUCP>
Source record: 12580

This guy burned me once too.

Is it possible to "impeach" a ham in another country? >8-)
^^^^^^^
pick your own favorite word...

--
Keith McQueen, Wicat Systems Inc. , (801)224-6400 | My opinions are |
N7HMF @ NV7V (84058), 147.34+, 147.28+, 449.675- | all mine... |

2026. Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-01 21:50:23 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21536@bellcore.bellcore.com>
Source record: 12595

The following item just appeared on the comp.protocols.tcp-ip newsgroup:

Article 11060 in comp.protocols.tcp-ip:
From: farber@linc.cis.upenn.edu (David Farber)
Subject: Re: High Schools on the Internet
Message-ID: <22608@netnews.upenn.edu>
Date: 1 Apr 90 14:16:53 GMT
Organization: University of Pennsylvania

We, at UPenn, are in the final stages of putting our
local magnet high school of engineering and
science -- the George Washington Carver High School
in Philadelphia onto the internet via
a spread spectrum radio link operating license free at
900 mh.

By the way, the GWC High School is an interesting case of
what can be done to turn the inner city
students onto science and education. They are really
an outstanding example.

Dave
David Farber; Prof. of CIS and EE, U of Penn, Philadelphia, PA 19104-6389 Tele: 215-898-9508(off); 215-274-8292 (home); FAX: 215-274-8192; Cellular: 302-740-1198 "The fundamental principle of science, the definition almost, is this: the sole test of the validity of any idea is experiment." -- R. P. Feynman

(end of included article)

At the risk of appearing to commit heresy and treason against amateur radio, I have to say that in my opinion this particular application represents a more worthwhile use of the 902-928 MHz band than yet another bunch of ham FM repeaters. And it is certainly far more worthwhile than letting the band go idle, which is its current state in most areas.

In my opinion, this operation ought to fall squarely within amateur radio's role in supporting education. I'd consider it a credit to the service if this operation were done under an amateur license.

The fact that so many hams see ham radio as an exclusive social club devoted primarily to the recreation of its aging members (and are determined to keep it that way) won't keep our bands from being used for other purposes. We can either enlarge the service to take in new and novel applications, or we can continue to wither as the FCC either reallocates spectrum outright to other services or increases the sharing in our bands, as with Part 15 spread spectrum on 902-928 MHz.

Phil

2027. We got a new Ham

Newsgroup: rec.ham-radio
Date: 1990-04-01 22:16:07 UTC
From: mikey@pnet01.cts.com
Message-ID: <2060@crash.cts.com>
Source record: 12597

I have'nt seen anyone announce the fact that a new ham exists. But it's true. I first became active on this very networking system here in Sandy Eggo after a long hiatus due to this individuals efforts. He has been active here and on the various Pnets for mucho time. He has faithfully (F)orwarded msgs to me that he knew would be of interest. I just got a near new Yaesu FT-33R walkie-talkie due to diligence in monitoring the various newsgroups. I would have missed this super-deal had I not had this extra set of eyes.

This individual is so interested that he has contacted the ARRL to check on what his call group may be. He has found an outfit that will sell the complete FCC Amatuer License Datafile on CD-ROM with supporting software for $50.00. He is toying with adding with the idea of having this database online for the rest of us to us (maybe with bi-monthly updates). Now that some interest I'd say.

Well, Mr. Scott O'Connell (scotto@ipars) passed his Novice test two weeks ago. And then passed the Tech yesterday. I now encourage him to keep practising the code while it's still fresh. Something I failed to do and have always regreated. Scott is now joining our local club and of course is anxiously waiting for his Novice ticket. He tells me he wants to start yappin' on the radio. Another lid hits the frequencies; oh well...

Congratuations to Scotto and welcome aboard.

****
Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey
****

2028. RF + Metal Siding = ?

Newsgroup: rec.ham-radio
Date: 1990-04-01 22:51:19 UTC
From: summers@hpspkla.spk.hp.com
Message-ID: <4630012@hpspkla.spk.hp.com>
Source record: 12581

I am considering having metal (steel) siding installed on my home and would be interested in hearing about any bad experiences anyone might have had with metal siding in a high RF environment (close to HF antennas). I am not worried so much about the effects of the siding on antenna impedance / radiation pattern, but more the possibility that corrosion could produce rectifying contacts which could generate harmonic energy.

Thanks in advance for any info.

Jim Summers KD7F

2029. Re: Fidonet reply to Karn

Newsgroup: rec.ham-radio
Date: 1990-04-01 23:05:24 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21539@bellcore.bellcore.com>
Source record: 12596

Me:interested only in public service?") I would say two things. First, the
Me:amount of public service traffic carried by CW is nil; the action is on

Jim Grubs: OOOOOHH. You're gonna piss of the BPL folks! ;-)

Tell me about it. A few years ago, I was invited to one of my Division Director's cabinet meetings. The question of whether packet stations should be eligible for BPL credit came up. It was very telling to hear people argue against it because it was somehow "cheating" to be able to handle traffic reliably and quickly without an operator, and that it was "unfair" to those who still handled traffic via CW.

By the way, several people have challenged my use of the word "nil". I didn't use it to mean "zero", but rather "too small to be significant".

Phil

2030. Re: 49Mhz conversion question

Newsgroup: rec.ham-radio
Date: 1990-04-01 23:55:59 UTC
From: jim@mmsac.UUCP
Message-ID: <5337@mmsac.UUCP>
Source record: 12582

I'm sure that you won't have to swap out the coils. If you only want to move them up .25 mhz, you probably won't even have to retune the coils. I'd imagine they are crystal-controlled, so all you'll probably have to do is order a new set of crystals from BOMAR (1-800-526-3935) for each unit, and you'll be off and running. The only problem I can forsee, is that they (BOMAR) will need the load capacitance across the xtal, and I don't know how you come up with that value. Perhaps the schematic will help. You'll also need the fundamental frequency of the crystal. They probably multiply it up to the 49 mHz range from some lower frequency. Again, the schematic should help. Calculating the rx xtal will be a little more difficult. You'll have to find out what freq. the IF is, and do a little mathematics. For example, if it is a 10.7 mHz IF, you'll subtract (or add, depending if you want high or low side injection) 10.7 from/to the desired operating frequency, then divide that result by whatever the multiplication factor is. If the existing xtals in the unit have their operating frequency listed on them, that will help a bunch.

--

Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu

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The opinions stated herein are all mine.

2031. CALL FOR VOTES - rec.arts.tv.cable

Newsgroup: rec.ham-radio
Date: 1990-04-02 00:00:00 UTC
From: mrapple@quack.UUCP
Message-ID: <5233@quack.UUCP>
Source record: 12583
Cross-posted to: news.groups,rec.arts.tv,rec.ham-radio,rec.radio.shortwave,sci.electronics

[followups to news.groups. crossposted to s.e r.h-r for technical reasons,
r.r.s because of satellite discussions]

The first week of voting was both productive and unproductive. We
received 36 votes, and the ratio yes/no was 75%:25%. The bad news was
that we had a disk problem and lost them all. The vote won't be
extended, because those who voted in the first week have plenty
of time to do it again (my appologies), and it may or may not be
"legal" to do so anyway. Votes list (so far) below.

Lots also sent corrections for "satelite." Thanks. Really.

CHARTER: REC.ARTS.TV.CABLE

This group is for discussions pertaining in general to cable television,
and satellite television. Broadcast only issues should go to rec.arts.tv.
More specifically, discussions of technical, regulatory, programming,
and/or customer service/cost/quality issues are welcome.

Technical discussions of cable programming technology are welcome, which
is somewhat at odds to its placement in "rec," but this is proposed
simply because of the infeasability of placing the group elsewhere.
The original name rec.arts.tv.catv was objected to by several
because of the confusion over the designation "catv" meaning
community access TV instead of community antenna TV. Several have
objected to placing the group in rec.arts, but there have been no
alternative suggestions.

The newsgroups line would read:

rec.arts.tv.cable Discussion about cable and satellite television

This newsgroup would not be moderated. It distribution would be
world-wide.

To vote, send mail to:

uop.edu!quack!vote-no for no votes
uop.edu!quack!vote-yes for yes votes

A daemon will pick out the "From:" line and add it to a file. No reply
will be sent. Second call with vote list will be posted Tuesday the
2nd, and third call with vote list will be posted Tuesday the 9th.

The vote will end April 16, 2359 UTC, with the usual 5 day wait for
late mail.

Any personal mail may be sent to ...quack!mrapple, but votes sent there
will not be counted. Posted votes will not be counted.

Vote list as of 4/2/90, 0000 UTC:

From: Dave Ratcliffe <uop!uunet.UU.NET!compnect!dave>
From: mrapple (Nick Sayer)
From: uop!cod.nosc.mil!scallon (Matthew C. Scallon)
From: uop!netcom!netnews (NetCom Usenet Admin)
--
Nick Sayer - The Goose Egg public unix - 209-952-5347 (Telebit)
---------------------------------+---------------------------------
quack!mrapple@uop.edu !
...pacbell!sactoh0!quack!mrapple ! And now, The Fish Slapping Dance
N6QQQ (145.75 - TCP/IP soon) !

2032. Cordless phone antennas question

Newsgroup: rec.ham-radio
Date: 1990-04-02 00:26:30 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <2640@ultb.isc.rit.edu>
Source record: 12584

I am interested in installing cordless phone antennas or the right length of wire in all the rooms of my house, so that I would get good coverage from room to room, and wouldn't have to put a phone in each room.

Does anyone have any good suggestions about how to go about doing this? Like the best antenna length and how to connect them all up to the receiver?

Lance

Any and ALL help is appreciated

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

2033. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-02 02:52:20 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <22638@netnews.upenn.edu>
Source record: 12600

In article <21536@bellcore.bellcore.com> karn@ka9q.bellcore.com (Phil Karn) writes:
>
>The following item just appeared on the comp.protocols.tcp-ip newsgroup:
>
>>From: farber@linc.cis.upenn.edu (David Farber)
>>Subject: Re: High Schools on the Internet
>>Organization: University of Pennsylvania
>>
>>We, at UPenn, are in the final stages of putting our
>>local magnet high school of engineering and
>>science -- the George Washington Carver High School
>>in Philadelphia onto the internet via
>>a spread spectrum radio link operating license free at
>>900 mh.
>
>At the risk of appearing to commit heresy and treason against amateur radio,
>I have to say that in my opinion this particular application represents a
>more worthwhile use of the 902-928 MHz band than yet another bunch of ham FM
>repeaters. And it is certainly far more worthwhile than letting the band go
>idle, which is its current state in most areas.
>
>Phil

I have to agree with Phil (not only because I'm involved in the project :-).

Although in many parts of the country 2m is overcrowded with repeaters,
simplex users, packet, etc., there is plenty of room on other bands, but
nobody seems to want to take advantage of it. Part of the blame should be
put on the manufacturers (e.g. Icom, Kenwood, Yaesu, etc.) for not
making equipment for these bands, particularly 902. But even if they
did, I'd guess that not many people would use them. Most people have
already found their own niche in ham-dom and don't care to change, which
is why 2m is still overpopulated while 220 is vacant in most areas,
even though range on 220 is virtually identical to 2m and equipment
is less expensive (many distributors/stores are selling 220 equipment
at a discount because it isn't selling).

By the way, as Phil mentioned, the data link is not amateur-radio specific
and does not require a license, even though it does operate within
the amateur band - it's a shared allocation. However, if a lot of people (read
businesses) see how useful the 902 band could be for both voice and
digital communications, especially at power levels higher than 1 watt which
is what the FCC limit is for this type of spread spectrum communications,
chances are that we'll lose the band completely and it will all be given/sold
to oranizations who WILL use it. But hey - we're not using it now, so

what's the big deal...

--- Jeff

+----------------------+---+
Jeff DePolo - N3HBZ	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 243-8125 home
Class of 1991	Carrier pigeon: 3901 Spruce St Box 850 Philly 19104
+----------------------+---+

2034. 49 MHz to 50 MHz Conversion

Newsgroup: rec.ham-radio
Date: 1990-04-02 03:19:31 UTC
From: rc@cmr.ncsl.nist.gov
Message-ID: <9004020319.AA01365@cmr.ncsl.nist.gov>
Source record: 12585

hpfcso!hpfcmgw!roger@hplabs.hp.com (Roger Jollis) writes:
> I have just acquired a set of "Voice Actuated Audionic FM Transceivers"
> manufactured for Realistic (Radio Shack). Currently they are on 49.845Mhz
> along with all the baby monitors in the world. I'd like to move them up
> some 250 Khz to the six meter phone band.
^^^-- 49.845 + 0.250 = 50.095 MHz (US phone band starts at 50.1 MHz)

AAAARRRGGH !!!!! You may well qualify for lid-of-the-year if you end up so low in the 6-meter band. All kidding aside, it is generally considered BAD PRACTICE to run even narrow FM below about 50.5 MHz; many would suggest a higher frequency. With so many people looking for band openings, which are fairly common these days, you would be MOST unpopular running FM (& ragchewing?) in the "DX window" at the bottom of the U.S. SSB portion of the phone band. There is a gentlemen's agreement to only work non-US/Canadian stations in the 50.100 - 50.125 MHz region, to make hearing the weak DX stations easier.

Good luck with your project.

73, Bob W3OTC

2035. Kenwood TM-2530 Series Radios & DCL System

Newsgroup: rec.ham-radio
Date: 1990-04-02 04:57:26 UTC
From: steve@mcnnet.UUCP
Message-ID: <13@mcnnet.UUCP>
Source record: 12602

I am looking for anyone who has had success in implementing a home-brew circuit for the Kenwood TM-x5x0 series of 144, 220, and 440 radios for the purpose of causing the radio to change frequency.

I am trying to design such a circuit that would use the DCL interconnection provided within this series of radios so that I could change the frequency of the radio remotely.

Is this possible? If someone out there has successfully accomplished this task I would really like to hear from them.

I will compile all responses and distribute as appropriate.

Thank you,
Steve Corso
KV8G

umich!mcnnet!steve

2036. Congratulations, Bob!

Newsgroup: rec.ham-radio
Date: 1990-04-02 05:17:57 UTC
From: winter@apple.com
Message-ID: <39982@apple.Apple.COM>
Source record: 12601
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Congratulations to our very own netperson Bob McGwier, N4HY, on being named this year's winner of the Dayton Amateur Radio Association's Technical Achievement award. In part, the award recognizes Bob's inexhaustible work on the Microsat project.

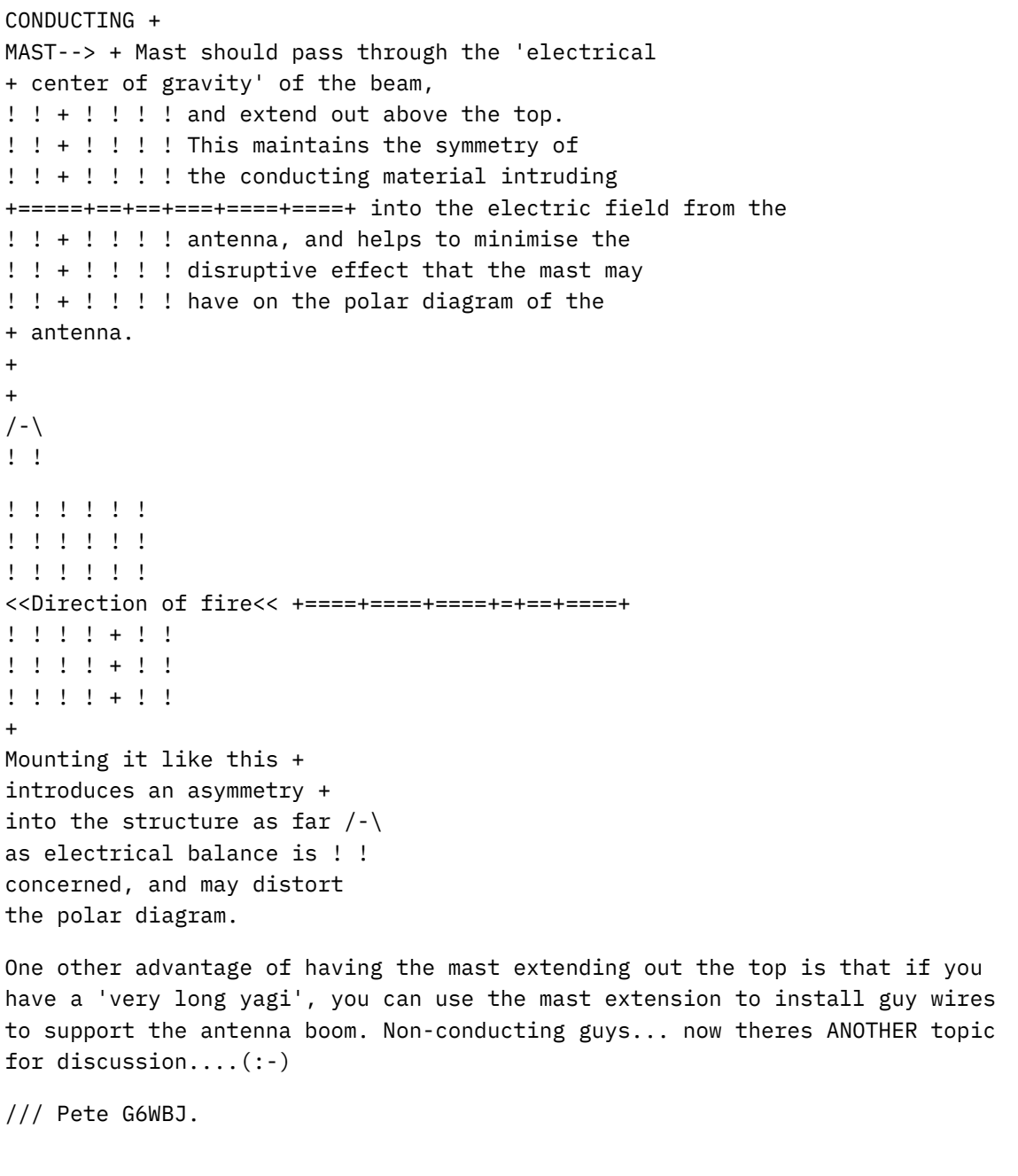
This makes two years in a row that a Usenet denizen has won one of the three Dayton awards. Anyone care to try for Ham of the Year in 1991? :-)

Patty

2037. Do you need non-conducting masts>

Newsgroup: rec.ham-radio
Date: 1990-04-02 09:45:11 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <02.Apr.90.10
Source record: 12586

There was recent discussion about the need for non-conducting masts for vertically polarised antennas. IMHO this is not necessary. i have not done any serious research myself, just taken advice from the designers and installers of commercial VHF beams... (note i say *COMMERCIAL*, not *HAM* beams. The commercial guys dont get paid until the installation works.....)


CONDUCTING +
MAST--> + Mast should pass through the 'electrical
+ center of gravity' of the beam,
! ! + ! ! ! ! and extend out above the top.
! ! + ! ! ! ! This maintains the symmetry of
! ! + ! ! ! ! the conducting material intruding
+=====+==+==+===+====+====+ into the electric field from the
! ! + ! ! ! ! antenna, and helps to minimise the
! ! + ! ! ! ! disruptive effect that the mast may
! ! + ! ! ! ! have on the polar diagram of the
+ antenna.
+
+
/-\
! !
! ! ! ! ! !
! ! ! ! ! !
! ! ! ! ! !
<<Direction of fire<< +====+====+====+=+==+====+
! ! ! ! + ! !
! ! ! ! + ! !
! ! ! ! + ! !
+
Mounting it like this +
introduces an asymmetry +
into the structure as far /-\
as electrical balance is ! !
concerned, and may distort
the polar diagram.

One other advantage of having the mast extending out the top is that if you have a 'very long yagi', you can use the mast extension to install guy wires to support the antenna boom. Non-conducting guys... now theres ANOTHER topic for discussion....(:-)

/// Pete G6WBJ.

2038. TH-75 Dualbander CPU Problems

Newsgroup: rec.ham-radio
Date: 1990-04-02 12:11:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9004030709.AA10427@ucbvax.Berkeley.EDU>
Source record: 12587

I've been experiencing several problems with my TH75 Dual-bander
HT ever since modifying the rig to work outside of it's
normal Amateur band limits. (Removed D-2 and W-1).
Every now and then the CPU will lock up during normal operation
and the radio will not allow transmit or change in any parameter
without first turning it off. Once I turn it on again - all
functions return to normal.
A less frequent, more severe problem is total reset of the CPU,
erasing all memory etc. - this also seems to happen out-of-the-blue.
Does anyone out there in Net-Land have any fixes for these problems
(besides buying Yeasu ...hi) or am I the only one who got the lemon.
I'd be happy to hear feedback.

By the way the HT allows TX from about 395-455 Mhz. Is there a way
I can bring up this window to the higher portion of UHF ?

Regards,
4X1DA
Richard Harel

==========
My employer in no way warrants or for that matter agrees
with opinions which are expressed here.

2039. How does Novice upgrade in new proposal?

Newsgroup: rec.ham-radio
Date: 1990-04-02 12:59:39 UTC
From: dls@genrad.com
Message-ID: <34678@genrad.UUCP>
Source record: 12603

Forgive my ignorance, but I have waited around waiting to see if this was brought up and no one else has asked, so I'll ask.

I've finished reading the proposal that was in QST April 1990 magazine about the FCC proposal for the Communicator license. There is one thing that is not clear from that. I've asked a few local hams, and they've kind of hemmed and hawed over the answer as well, so I think it's a valid question.

With the new proposal, HOW DOES A NOVICE UPGRADE? It says that Novices will be grandfathered in....and Techs too, but upgrading from Tech is not the issue. In order for a Novice to upgrade, must he upgrade DIRECTLY to General? Does he take the 13 wpm Morse code test and then the General written test? What happened to the Technician test? Is that no longer required? (Before the older hams say that this is the SAME test, let me remind you that the PREVIOUS General test was broken into two separate question pools so that NOW the General test and the Technician test are two separate entities.) Is the Novice required to take the Communicator test BEFORE the General test?

Here are the options (and my conclusions) of what might be done (and I don't advocate any of these, I'm simply asking which one it is!):

1. The Novice must take the Communicator test, then the General test and of course the 13 wpm Morse code test.
Conclusion: The Novice must now memorize or remember not only the data for the previous Technician class, but also for the Novice class, which he has already passed. Plus, it is now a 60 question test, so he has to take 35 more questions than he would have had to take, were he to upgrade to Technician. A 60 question test may be overtiring for our younger hams.....

2. The Novice must only take the General test and the 13 wpm Morse code test.
Conclusion: The Novice surely gets a break here, since the NEW material which was previously required for Technician is no longer required. Stuff like repeaters, packet radio, 2meter protocol, simple calculations on series or parallel resistance, capacitance and inductance may never be learned.....

3. The Novice must take the Technician test, as before, then must take the General test and the 13 wpm Morse code test.
Conclusion: The Novice is basically provided the same means of upgrading as before. This does imply that the Technician test will be around as long as there are Novices in our midst, though....possibly a maintainability problem.

4. Other options? I can't think of any, but maybe I'm missing one.

Has anyone any idea what is meant by the current FCC proposal? I'd sure like to know.....since it looks like two of the Novices will be my kids (not yet, they passed the Morse code, but not the written yet!).

Diana

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

2040. Re: SW Radio Kit

Newsgroup: rec.ham-radio
Date: 1990-04-02 14:15:26 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004030705.AA10074@ucbvax.Berkeley.EDU>
Source record: 12588

Someone on one of these groups asked about a source for a shortwave radio kit. I just received a catalog from "Yeary Communications" which appears to be a source for parts for restoring old radios, radio books, and kits that include SW radios. Now, these aren't digital-readout and fancy-capability receivers; they are crystal sets, tube regenerative receivers, and simple minimal solid-state models. Prices range from $9.95 to $99.95 for the kits. They also sell some regular radios, scanners, and portable SW receivers.

Write for a catalog:

Yeary Communications
12922 Harbor Blvd., Suite 800
Garden Grove, CA 92640
[No phone given]

They also claim they'll "beat anyone's price" on radios, scanners, CBs, and some ham gear if you write for a quote. However, they don't seem to take chargecards (no mention of such on the order form) and their shipping charge seems quite high (12% of the order amount, $3 minimum) plus there is an extra $2 per-order "handling charge". They also sell used radio-related books and have separate flyers for those; if you are interested, ask to be sent the next issue when you write.

Regards, Will

2041. Code vs. No Code

Newsgroup: rec.ham-radio
Date: 1990-04-02 14:32:00 UTC
From: GOODWIN@SMCVAX.BITNET
Message-ID: <9004030707.AA10230@ucbvax.Berkeley.EDU>
Source record: 12589

As a newly-licensed Novice (still waiting for a call sign!), I thought a perspective from that point of view might be interesting. I should point out that I am not intimately familiar with all the issues surrounding this debate, so I'm sure I'll miss some points which might be obvious to the rest of you! :^)

I think most everyone would concede that the population of hams today is in decline. Reasons for this may not be so easily accepted though. It appears to me to be due to several factors. First, radio no longer holds the challenge and mystique it used to. Second, there seems to be little in the way of interesting discussion on the bands. One can only listen to so many rig and weather reports, after all. Finally, although it may not be difficult to learn code, many people undoubtedly find it no longer worth the effort and hence remain unlicensed.

I do not believe that code should be an entry-level requirement; it serves too much as a deterrent in this day and age. I would like to see it retained as an incentive of some sort for those who wish to learn it; perhaps by granting some additional frequency privileges to those who do so. To that end, I think we need a no-code license that grants a smattering of all operating modes and bands. This will allow a new ham to get his or her feet wet and see what else is happening outside their allocations. A VHF only no-code won't do that.

By judiciously allocating spectrum, I think the FCC could provide the incentive to upgrade. As a simple example, give the entry-level licensee some privs on 10 meters. They'll be happy until the band dies at the pit of the solar cycle, at which point upgrading will probably become very interesting to them. Of course, code would be a requirement for that upgrade but they don't HAVE TO upgrade. It's their choice.

I don't agree with the viewpoint that code should be eliminated entirely. There are still many occasions where it's useful. An advanced ham should know it, in my opinion.

As a final comment, let me say that I think the current testing system is a joke. Those who espouse simply adding more questions to the test are doing themselves and ham radio a disservice. These question pools are simplistic and require almost no knowledge of the underlying technical concepts to answer. I was amazed to find out that all the questions and answers are readily available! What kind of learning does this encourage? I strongly feel we need a testing process which ensures that licensees know something about what they're doing! We need to avoid the "appliance" syndrome.

Well, that's my perspective. Comments and/or flames are welcome! I have asbestos skin! :^)

==
Dave Goodwin |
Coordinator, PC Support/User Services | To err is human.
VAX System Manager | To really foul things up,
---| You need a computer.
BitNet/CREN : Goodwin@Smcvax |
Ma Bell : (802)655-2000 X2220 |
Pony Express: Saint Michael's College |
Department of Computer Services |
Winooski Park |
Colchester, VT 05439 |
==

2042. Re: Long Division? (was Re: Increasing CW speed)

Newsgroup: rec.ham-radio
Date: 1990-04-02 15:04:08 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004030706.AA10150@ucbvax.Berkeley.EDU>
Source record: 12590

>if he doesn't know how to respond to real-world questions like
>"You are given ten pounds of brocolli and asked to give equal portions to 25
>people, except for George, who isn't eating any. How much should you give to
>each person?"

Obviously, you give each broccoli-eater 3 cooked stalks (sprigs?
whatever you call the individual pieces after you cut up the bunches...)
and let the ones who want more come back for seconds. :-) [You said it
was a "real-world question"; this is a real-world answer from a cook...]

Regarding the math/calculator issue, it is an interesting phenomenon. I
grew up in the pre-calculator age, so learned traditional arithmetic in
school. Yet now, though I am perfectly capable of adding in my head and
doing computations on paper, I *don't trust myself* any more. I feel a
compulsion to get out a calculator to do simple things like subtracting
the check amount from the balance in my checkbook. To relate this to ham
radio, I wonder if the same attitude arises once you get used to digital
readouts? The old dial-scale interpolation skills might still be there,
but you feel "better" or at least more comfortable with an explicit
digital display telling you what you already knew.

Maybe it is due to the accumulated memory of errors made in the past from
carelessness or sloppiness or whatever, but more and more you feel the need
for the confirmation or reassurance those little glowing digits provide...

Regards, Will

2043. Re: ARRL DX NR 13

Newsgroup: rec.ham-radio
Date: 1990-04-02 15:29:43 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004030707.AA10219@ucbvax.Berkeley.EDU>
Source record: 12591

It seems like it has been for *years* that we have been reading the
following statement, over and over, in the DX news:

FROM THE DXCC DESK. DO NOT SUBMIT QSL CARDS FOR WALVIS BAY BEFORE
JUNE 1. CARDS SUBMITTED BEFORE THAT DATE WILL BE RETURNED WITH NO
CREDIT. DXCC CREDIT FOR WALVIS BAY WILL BE GIVEN FOR CONTACTS ON OR
AFTER SEPTEMBER 1, 1977.

What IS all this anyway? If the contacts are legitimate, what makes them
invalid or incorrect until the "magic date" of June 1? If the spot has
been a "real" "DX country" since 1977, let the contesters or certificate
hunters claim the damn thing. It certainly hasn't been worth using the
prime position at the start of this DX news posting every issue to put this
notice about "no, not yet...", especially when there doesn't seem to be
any reason *not* to accept the silly cards whenever they are submitted
in any case. Is this the result of some sort of political infighting or
personality conflict? Somebody retiring as of June 1 or something?

I guess I just finally read this thing one time too many... Maybe it
wouldn't have been so irritating if it had been a footnote or an
addendum instead of the #1 item each issue....

The old curmudgeon,
Will

2044. Re: ARRL DX NR 13

Newsgroup: rec.ham-radio
Date: 1990-04-02 15:29:43 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004030706.AA10162@ucbvax.Berkeley.EDU>
Source record: 12592

It seems like it has been for *years* that we have been reading the following statement, over and over, in the DX news:

FROM THE DXCC DESK. DO NOT SUBMIT QSL CARDS FOR WALVIS BAY BEFORE JUNE 1. CARDS SUBMITTED BEFORE THAT DATE WILL BE RETURNED WITH NO CREDIT. DXCC CREDIT FOR WALVIS BAY WILL BE GIVEN FOR CONTACTS ON OR AFTER SEPTEMBER 1, 1977.

What IS all this anyway? If the contacts are legitimate, what makes them invalid or incorrect until the "magic date" of June 1? If the spot has been a "real" "DX country" since 1977, let the contesters or certificate hunters claim the damn thing. It certainly hasn't been worth using the prime position at the start of this DX news posting every issue to put this notice about "no, not yet...", especially when there doesn't seem to be any reason *not* to accept the silly cards whenever they are submitted in any case. Is this the result of some sort of political infighting or personality conflict? Somebody retiring as of June 1 or something?

I guess I just finally read this thing one time too many... Maybe it wouldn't have been so irritating if it had been a footnote or an addendum instead of the #1 item each issue....

The old curmudgeon,
Will

2045. Re: ARF

Newsgroup: rec.ham-radio
Date: 1990-04-02 15:36:41 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004030708.AA10317@ucbvax.Berkeley.EDU>
Source record: 12593

I tried to mail this, but the poster gives too-abbreviated a net address in his signature and the return-path failed. So this is directed to Jack Schmidling:

How about a posting (at least to the swl list) explaining just what the ARF is, and a bit of its history? I'm sure a lot of non-hams out here, like myself, have no idea what it is and why it exists.

Also, I note the dates you give are Thursdays, but the signature block indicates airings on both Tursdays and Saturdays. Is the Saturday one a tape repeat? Are the times unchanged after the start of Daylight Time?

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

2046. Amateur Radio is Enjoyable!

Newsgroup: rec.ham-radio
Date: 1990-04-02 15:40:27 UTC
From: rbono@necis.UUCP
Message-ID: <1223@necis.UUCP>
Source record: 12604

.
.
.
[Seeing how many potential Amateur Radio operators subscribe to this (rec.ham-radio) forum, I believe that we (the users of rec.ham-radio) should try and spend at least a little net-bandwidth talking about the enjoyable aspects of "ham" radio. It seems that (some of us) don't realize that this method of communications is very much like Amateur Radio in that this is an INTERNATIONAL forum. With this in mind, let me relate a recent enjoyable on-the-air experience and challenge others to do the same:]
.
.
.
I frequent the 10 meter band, and usually have my radio tuned to 28.330MHz when not using it for anything else. One Saturday while working on a project in my 'shack' I heard a signal a little off this frequency and tuned the radio to get clearer reception. As I tuned the signal I heard a young voice. As the voice became clear, I heard the person saying 'CQ CQ this is KA0xxx' (CQ means 'calling anybody'. Sorry I don't have my log in front of me, I can't remember the actual callsign). I answered the call, 'KA0xxx this is NM1D in New Hampshire'.

We chatted for 20 minutes or so. Her name was Theresa. She was about 16 years old and was at her grandfather's home. She goes there to use his shack because she does not have a shack of her own. She has a job now, and hopes to save enough money to purchase her own radio equipment.

As we chatted, we learned a little about one another. When she is not using 'ham' radio she enjoys walking. She frequently follows the train tracks with her friends, and enjoys the country side. I told her that I also enjoyed walking along the train tracks when I was a kid (I am 32 now), and my friends and I used to walk for long distances along the tracks.

I mentioned how the countryside here in New Hampshire is... many hills, and less than an hour from Boston, the White Mountains, and the Ocean. I told her that I also enjoy SCUBA diving here in New England in addition to my Amateur Radio activities.

This started a discussion about swimming and water in general. Being in the mid-west, she has never been to the ocean. Although her area has some lakes and ponds, the only 'large' body of water is the Missouri (sp?) river. She couldn't imagine swimming in the ocean because she imagined it must have a swift current like the river!!! I explained that the ocean does have some currents, but most beaches (in my area) are very 'swimmable', with a light to medium surf that makes the ocean a fun place to swim.

It was very enjoyable to 'travel' through her eyes to the midwest. I believe that she now has a better idea of how it is here in Southern New Hampshire. I am sorry to say that we had to end our conversation early (her dinner was ready), and I am looking forward to chatting with her again.

Amateur Radio IS very enjoyable, share it!!

Rich, NM1D

--

/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

2047. Re: GOES Down Converter

Newsgroup: rec.ham-radio
Date: 1990-04-02 17:21:23 UTC
From: mac@idacrd.UUCP
Message-ID: <653@idacrd.UUCP>
Source record: 12607

From article <9003290855.6DE40604FB01@es.office>, by Jay_Appell@es.UUCP:
> Can anyone suggest sources for a down converter for GOES reception ?

There was a nice looking package from a company in Texas in the latest
QEX. I don't have it here, can someone pass along the name.

Bob

--

_____
My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

2048. Re: Long Division? (was Re: Increasing CW speed)

Newsgroup: rec.ham-radio
Date: 1990-04-02 19:06:47 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880140@hpfcdc.HP.COM>
Source record: 12608

>Let's relegate this myth about how some people CANNOT learn code to the same
>scrap heap that I hope most of us have used to discard the notion that some
>people CANNOT learn math.
>
> AA6KX

As rebuttal, I need only offer an existence proof. I know a guy with self-described "code dyxlexia". Had a hell of a time hearing CW. He claims his VE "gave" him 5 wpm (!). Because of this, I can't tell you who it is. This same guy happens to have been a microwave wiz at HP back in the early 70's when hams were just getting their feet wet above 1 GHz. I often wonder what might have happened to our hobby had he gotten in 20 years ago.

When constructing a test as a means of filtering "undesirables", it is important to be testing the right thing. However, your point about the quick-to-whine is well-taken. It is my opinion that a CW requirement isn't what you want if you're trying to promote a technical hobby.

All this code-vs-nocode debate is putting the cart before the horse. We should first decide what ham radio is (should be), and then develop a testing method to achieve that goal.

Perry Scott
KF0CA

2049. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-02 19:18:36 UTC
From: mmm@cup.portal.com
Message-ID: <28533@cup.portal.com>
Source record: 12594
Cross-posted to: sci.electronics,rec.ham-radio

I had thought that Litz wire was the stuff used for the cords of old-fashioned headphones, mostly because it was limp. Is this true? Is that difficult-to-solder stuff used for cheap earphones Litz wire?

BTW, I recently went looking for a crystal earphone for a project which needed a high-efficiency, high-impedance audio output. Surprise! Nobody makes those anymore. They're impossible to find. The guy at Halted didn't even know what I was talking about. I finally found one among the accessories for a 30-year-old Sony reel-to-reel tape recorder my dad has.

I guess that means kids won't be able to build simple crystal radios anymore :-(

Radio Shack had little earphones, but when I cracked one open, I found a little coil. Impedance was probably between 8 and 32 ohms. The leads seemed like what I have always called "Litz wire", i.e. tiny threads of copper woven with some kind of fiber.

2050. Re: Aargh! Want address/info to get Heathkit catalog

Newsgroup: rec.ham-radio
Date: 1990-04-02 20:50:07 UTC
From: markz@ssc.UUCP
Message-ID: <609@ssc.UUCP>
Source record: 12619

In article <1990Mar31.020339.14162@NCoast.ORG>, allbery@NCoast.ORG (Brandon S. Allbery) writes:
> I discovered earlier this week that the Cleveland area's only remaining
> Heathkit store is no more. Is Heathkit gone? If not, where and to whom do I
> write to get a catalog?

Try (800) 253-0570. Visa, Mastercard, and American Express.

It sure looks like the beancounters have gotten to Heath. Half the stuff
in the catalog is only available assembled, and the retail stores (actually
a seperate corporation to dodge the state sales taxes) seem to be mutating into
Apple Computer dealerships. The local store is even closed Saturdays.

On the plus side, they're back in the hi-fi stereo kit buisness.

Now that Bull is buying the Zenith Computer division, who got Heath?
Bull or Zenith?

markz@ssc.uucp

2051. Re: QEX and other Ham mags.

Newsgroup: rec.ham-radio
Date: 1990-04-02 21:50:00 UTC
From: elliott@optilink.UUCP
Message-ID: <3352@optilink.UUCP>
Source record: 12609

In article <3336@optilink.UUCP>, elliott@optilink.UUCP I write:
> As the original question-asker (What's a good technical ham radio magazine
> these days, anyway?), I've received numerous replys. Here is my thumbnail
> summary:
> [Others omitted]
> 73: Low-tech, appliance operator oriented

As a reality check, I located a nearby newsstand that carries QST, QEX, Ham-Radio, and 73 magazines. I then invested this week's lunch money and bought them all (and the latest Scientific American, for the review of Currents_of_Death). After skimming them, I came to the conclusion that, at least for this month, 73 was the most interesting (even technically).

The articles ranged from analysis of the state-of-the-hobby, through discussons of fairly high-end technical operating practice, and even included some low-to-medium tech construction articles. Hardly the technical oasis I'm searching for, but better than the other offerings this month (Ham_Radio wasn't too horrible, either).

Still carrying my lantern...
--
Paul M. Elliott Optilink Corporation (707) 795-9444
{pyramid,pixar,tekbspa}!optilink!elliott

2052. Technical question on RF power measurements

Newsgroup: rec.ham-radio
Date: 1990-04-02 22:30:27 UTC
From: gary@tank.uchicago.edu
Message-ID: <8230@tank.uchicago.edu>
Source record: 12606

Excuse my intrusion into this ham group but I think this is the best
place to get my technical question answered.

RF input power; RF output power;

I was looking at a bunch of specs for (can I say this here) "CB" radios.
The specs give numbers for RF input and RF output power.

So here's the question(s).

1) At what points are these values measured and by what mechanism?

2) On 3 different radios(transmitters) I see the following:
a) RF Input- 5 Watts; RF Output 4 Watts
b) RF Input- 5 Watts; RF Output 3.5 Watts
c) RF Input- 5 Watts; RF Output 2.5 Watts

These radions are all advertised as being "5 Watts" but I
assume that this isn't the "bottom" line as far as what
you get as realized power

What's in the last stage ? Is RF output power rating related
to type of antenna configuration (I assume that if I knew how
these are measued I know the answer to that - but I don't.

Can someone clear thus up for me ?

Thanks,
Gary

2053. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-03 00:11:34 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <ZPZ1g1w161w@w8grt.fidonet.org>
Source record: 12598

karn@ka9q.bellcore.com (Phil Karn) writes:

>
> The following item just appeared on the comp.protocols.tcp-ip newsgroup:
>
> Article 11060 in comp.protocols.tcp-ip:
> From: farber@linc.cis.upenn.edu (David Farber)
> Subject: Re: High Schools on the Internet
> Message-ID: <22608@netnews.upenn.edu>
> Date: 1 Apr 90 14:16:53 GMT
> Organization: University of Pennsylvania
>
>
> We, at UPenn, are in the final stages of putting our
> local magnet high school of engineering and
> science -- the George Washington Carver High School
> in Philadelphia onto the internet via
> a spread spectrum radio link operating license free at
> 900 mh.
>
> By the way, the GWC High School is an interesting case of
> what can be done to turn the inner city
> students onto science and education. They are really
> an outstanding example.
>
> Dave
> David Farber; Prof. of CIS and EE, U of Penn, Philadelphia, PA 19104-6389 Tel
> 215-898-9508(off); 215-274-8292 (home); FAX: 215-274-8192; Cellular: 302-740
> 1198 "The fundamental principle of science, the definition almost, is this: t
> sole test of the validity of any idea is experiment." -- R. P. Feynman
>
> (end of included article)
>
> At the risk of appearing to commit heresy and treason against amateur radio,
> I have to say that in my opinion this particular application represents a
> more worthwhile use of the 902-928 MHz band than yet another bunch of ham FM
> repeaters. And it is certainly far more worthwhile than letting the band go
> idle, which is its current state in most areas.
>
> In my opinion, this operation ought to fall squarely within amateur radio's
> role in supporting education. I'd consider it a credit to the service if
> this operation were done under an amateur license.

I agree heartily. And when they get their new ham tickets (either code or
no-code variety), they can tack on amps and boost their range. Hurrah for them!

2054. Re: Fidonet reply to Karn

Newsgroup: rec.ham-radio
Date: 1990-04-03 00:29:10 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <BJ11g2w161w@w8grt.fidonet.org>
Source record: 12599

karn@ka9q.bellcore.com (Phil Karn) writes:

> Me:interested only in public service?") I would say two things. First, the
> Me:amount of public service traffic carried by CW is nil; the action is on
>
> Jim Grubs: OOOOOHH. You're gonna piss of the BPL folks! ;-)
>
> Tell me about it. A few years ago, I was invited to one of my Division
> Director's cabinet meetings. The question of whether packet stations should
> be eligible for BPL credit came up. It was very telling to hear people argue
> against it because it was somehow "cheating" to be able to handle traffic
> reliably and quickly without an operator, and that it was "unfair" to those
> who still handled traffic via CW.

Several years ago, there was a devastating tornado at Xenia, Ohio.
(Pronounced "ZEENya".) The Amateur Radio Emergency Corps (later AREService)
did fantastic work in the disaster. The work in that immediate locality was
done primarily on VHF FM repeaters.

Later, one of the radio clubs in Toledo brought some of the people involved
to Toledo to lecture us what they had learned about disaster
communications. During the Q&A period that followed one of them remarked
that at a similar Q&A session in another Ohio town he was asked by an old
timer, "Why did you use that two meter stuff? You could have done the job
just as well on 80 meters."

A little further probing revealed that the OT had never operated anything
but HF CW and literally was incapable of comprehending the need or interest
in anything else. I think much the same mentality is operating in the case
of much of the anti-packet and anti-no-code sentiment. They're not "bad"
people. They just don't comprehend what it is we're trying to do.

>
> By the way, several people have challenged my use of the word "nil". I
> didn't use it to mean "zero", but rather "too small to be significant".

"INFINITESIMAL" might have been a better choice.

2055. HF beacons on satellites

Newsgroup: rec.ham-radio
Date: 1990-04-03 00:51:04 UTC
From: mahaun@sactoh0.UUCP
Message-ID: <2804@sactoh0.UUCP>
Source record: 12610
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.space

Does anyone know of any currently transmitting satellite beacons in the range of 10-30 Mhz? These beacons are really fun to listen to on an HF general-coverage receiver because you can listen to the obvious "falling tone" doppler effects. The are also useful in ionospheric studies because they will bounce back into space if the MUF of the ionosphere is above their transmitting frequency. Sometimes one can actually listen to the spacecraft as it passes "holes" in the ionosphere, and often its signal will propagate hundreds of miles through normal HF propagation after entering through one of these holes.

Several months ago, I knew of two such satellites: UoSat-OSCAR 9, an amateur radio satellite, carried propagation beacons on most of the HF amateur bands, but it reentered last year. The Soviet Mir space station used to have a beacon on about 19.954 MHz, but I haven't heard it for quite some time. Perhaps it has a new frequency?

I would appreciate hearing from anyone who has successfully monitored any such satellites. If I get enough of a response, I will post a compiled list of them.

Thanks,

--
Mark A. Haun / 3445 Del Mesa Ct. / Sacramento, CA 95821 / Phone: (916) 488-2965
UUCP: {ames | apple | sun}!pacbell!sactoh0!mahaun | Amateur Radio KJ6PC
INTERNET: pacbell!sactoh0!mahaun@ames.arc.nasa.gov
Amateur Pkt Radio: kj6pc@wa6nwe.#nocal.ca.usa -or- [44.2.0.56] on 144.93 Mhz

2056. PRO-34 scan speed mod wanted...

Newsgroup: rec.ham-radio
Date: 1990-04-03 02:39:11 UTC
From: sneakers@heimat.UUCP
Message-ID: <11336.AA11336@heimat>
Source record: 12622
Cross-posted to: misc.wanted,rec.ham-radio,rec.radio.shortwave

[-=-]

Im in need of a mod for the Radio Shack PRO-34 to increase the -SLOW-
scan speed. If you know of one, please send E-Mail.

Sneakers

--
___
Dan "Sneakers" Schein //// Quote:
Sneakers Computing //// Those who worked the hardest
2455 McKinley Ave. ___ //// are the last to surrender.
West Lawn, PA 19609 \\\\//// -= Gary Ward =-
\\\///
sneakers%heimat@commodore.com (or) uunet!cbmvax!heimat!sneakers

2057. Re: HF beacons on satellites

Newsgroup: rec.ham-radio
Date: 1990-04-03 05:31:41 UTC
From: winter@Apple.COM
Message-ID: <40017@apple.Apple.COM>
Source record: 12618
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.space

In article <2804@sactoh0.UUCP> mahaun@sactoh0.UUCP (Mark A. Haun) writes:
>Does anyone know of any currently transmitting satellite beacons in
>the range of 10-30 Mhz?

Try the Soviet Radiosport satellites, RS-10/11. (Actually, one
satellite with two transponders. I don't know which one is
active right now.) Their beacons are on 29.403 and 29.453.

For those who've never tried this before, you can determine when
they'll pass over your location by using tracking software in
conjunction with the Keplerian elements that Tom Kelso posts to
rec.ham-radio (and sci.space?) every week or so.

>Several months ago, I knew of two such satellites: UoSat-OSCAR 9,
>an amateur radio satellite, carried propagation beacons on most
>of the HF amateur bands, but it reentered last year.

Really? I thought it was only on VHF. If it was on HF, maybe its
sister satellite, UO-11, is on HF as well.

Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

2058. SAREX STS-35

Newsgroup: rec.ham-radio
Date: 1990-04-03 06:07:45 UTC
From: joehol@microsoft.UUCP
Message-ID: <53940@microsoft.UUCP>
Source record: 12605
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

i'm disappointed to read in the the AMSAT Journal
that the SAREX STS-35 mission will only have a 28.5
inclination - making direct communications to Seattle
47.7 latitude impossible...

is anybody out there going to be digipeating someway,
somehow, so us poor out o' luck northerners will have
a way to make contact with the packet set-up ???

Joe Holman, KA7LDN

joehol@microsoft.uucp
uw-beaver!microsoft!joehol
206-882-8921

cq space shuttle ? ! ?

2059. Re: Address of Wyman Research

Newsgroup: rec.ham-radio
Date: 1990-04-03 06:37:45 UTC
From: nagle@well.sf.ca.us
Message-ID: <17014@well.sf.ca.us>
Source record: 12620

In article <726@smcnet.UUCP> lawrence@smcnet.UUCP (Lawrence Roney) writes:
>
>Does anyone have the address of Wyman Research. They are the manufacturers of
>amateur television exciters.

Wyman Research, Inc.
R.R. #1, Box 95
Waldron, IN 46182

317-525-6542

A very small operation, Wyman uses Wood and Douglas components and
builds various units around them. I've used their gear for
mobile robot video. Wyman sells FM TV gear, which has good noise
immunity, although hams may find it difficult to find someone to
talk to.

Video linearity and audio bandwidth are both poor by broadcast
standards. But compared to typical AM ATV, it's great.

John Nagle

2060. Snippets and ALBANIA??

Newsgroup: rec.ham-radio
Date: 1990-04-03 11:39:26 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9004031139.AA01085@bunny.gte.com>
Source record: 12611

ANOTHER APPLICANT SEEKS FCC
APPROVAL FOR PCN EXPERIMENT

STATUS: Another entity in a growing list of wireless afficionados has filed an application with the FCC for an experimental license to provide personal communications network service (PCN).

PCN, a currently undefined and untested method of wireless communication, has caught the interest of numerous companies and individuals throughout the U.S., Europe and Japan.

The latest American attempt to experiment with PCN was filed by Matrix Personal Communications, Inc. Matrix proposes to provide a low-powered voice and data system for ten handsets in the Chicago area. In a second phase, the proposal calls for expansion to 100 handsets.

COMMENTS: The FCC is aware of the growing interest in wireless communications, as evidenced by the increasing numbers of PCN-related and CT2-related experimental applications.

FCC staffers are preparing a notice of inquiry, requesting additional information about wireless communications and the potential need for spectrum. Meanwhile, it's expected that the FCC will continue granting experimental licenses to applicants whose proposals are relatively small and are not likely to interfere with existing users. Larger proposals, like the recent Millicom filing, may be held in abeyance pending Commission action on the notice of inquiry.

THE NEW YORK TIMES, 3/27.

PHILIPS TO BUILD TV TUBE PLANT, p.D5.
"Detroit, March 26-The Philips Display Components Company said it would build a $100 million color-television picture-tube plant in Saline, Mich. The plant, which could eventually produce high-definition television picture tubes, is scheduled to begin operating in July 1992. Plans call for the production of a million 27-inch color-television picture tubes a year."

!!!

Maybe amateur radio licensing will be next?!?!?!?!?!?!?!?!? - EKK

DAILY NEWS, 3/27.

DIRECT TELEPHONE SERVICE LINKS ALBANIA TO WEST.
"Rome, March 27-Albania has opened direct telephone service with the West, lifting some of the restrictions that have made it one of the world's most isolated countries."

de WB2EKK

2061. Goes Converter

Newsgroup: rec.ham-radio
Date: 1990-04-03 12:28:07 UTC
From: Jay_Appell@es.UUCP
Message-ID: <9004030828.F0D70604FEBB@es.office>
Source record: 12612

Re: Bob McGwier
I saw the advertisement you mentioned in QEX. I also explored an ad I saw in QST. Maybe you have seen the ad also with the earth WEFAX photo in grey-scale. I found out that this company buys the down converter from the company in QEX and sells at a lower price. I will be receiving my package shortly and will let you know. Has anyone received media wirephotos ?

-Jay- KA1SNA

2062. Re: Technical question on RF power measurements

Newsgroup: rec.ham-radio
Date: 1990-04-03 12:35:42 UTC
From: kjh@pollux.usc.edu
Message-ID: <23878@usc.edu>
Source record: 12616

In article <8230@tank.uchicago.edu> gary@tank.uchicago.edu (Gary Buchholz) writes:
% 2) On 3 different radios(transmitters) I see the following:
% a) RF Input- 5 Watts; RF Output 4 Watts
Somebody is lying. Possibly in the marketing department.
% b) RF Input- 5 Watts; RF Output 3.5 Watts
This I find hard to believe also, but it might be possible for a "plate"
modulated class C final, for AM only.
% c) RF Input- 5 Watts; RF Output 2.5 Watts
This is easy to believe.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2063. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-03 13:11:32 UTC
From: dvh@cci632.UUCP
Message-ID: <35654@cci632.UUCP>
Source record: 12613

In article <22638@netnews.upenn.edu>, depolo@eniac.seas.upenn.edu (Jeff DePolo-N3HBZ)
writes:
> In article <21536@bellcore.bellcore.com> karn@ka9q.bellcore.com (Phil Karn) writes:
> >>
> >>We, at UPenn, are in the final stages of putting our
> >>local magnet high school of engineering and
> >>science -- the George Washington Carver High School
> >>in Philadelphia onto the internet via
> >>a spread spectrum radio link operating license free at
> >>900 mh.
> >
> >At the risk of appearing to commit heresy and treason against amateur radio,
> >I have to say that in my opinion this particular application represents a
> >more worthwhile use of the 902-928 MHz band than yet another bunch of ham FM
> >repeaters. And it is certainly far more worthwhile than letting the band go
^^
> >idle, which is its current state in most areas.
^^
> >
> >Phil
>
(Some stuff deleted)
>
> By the way, as Phil mentioned, the data link is not amateur-radio specific
> and does not require a license, even though it does operate within
> the amateur band - it's a shared allocation. However, if a lot of people (read
> businesses) see how useful the 902 band could be for both voice and
> digital communications, especially at power levels higher than 1 watt which
> is what the FCC limit is for this type of spread spectrum communications,
> chances are that we'll lose the band completely and it will all be given/sold
> to oranizations who WILL use it. But hey - we're not using it now, so
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
> what's the big deal...
^^^^^^^^^^^^^^^^^^^^^^
>
> --- Jeff

SPEAK FOR YOUR DAMN SELVES!!! It just so happens that in Jeff's part
of the country is probably THE most active group on 902- namely, the
Mt. Airy Pack-Rats. I'll bet no one bothered to ask them- specifically
WA3AXV, N3CX, WA3NUF, WC2K, WA3JUF, WB3JYO or the other officers of the
club about their opinion regarding this subject. The impact of 1 Watt
license-free equipment is already being felt on this band- the wireless
stereo speakers that are now available immediately come to mind. There

is a fairly large, but mostly unsung group of weak signal operators using the 33cm band all over the Northeastern U.S.- you don't hear much from us because we mostly are building stuff and running skeds, and because we're not all over the band. If the feeling is that we need to do something to save the band (and I don't disagree with that feeling), at least have the courtesy to save a small portion, say the bottom few hundred kiloHertz for those of us that pioneered the band. That way we can continue to experiment with useless modes such as CW and EME :^)- and- oh yeah, so we can demonstrate that we can reliably communicate over distances of hundreds of miles with low power and on a band where the expected range of communications is in the tens of miles.

There- I feel better now.

Flames to /dev/null- so there.

Dave KD5RO/2 11 states, 35 grids, 3 countries, 1239 miles best dx on 33cm!

2064. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-03 15:00:40 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <9914@shlump.nac.dec.com>
Source record: 12621

Heck, I wouldn't worry too much about 902-928 being turned over to commercial services anytime soon. Not so long as its primary occupant is the ISM service!

It's a garbage band, given to hams because hams won't interfere with rf heaters. :-) Now if the spread-spectrum data were able to get thru the crud, and there were little enough crud that the rf-modem vendors didn't get overwhelmed with complaints, then maybe...

Incidentally I just received the latest edition of Mischa Schwartz' book on modulation and noise. It has all sorts of useful information about modulation, coding, etc., albeit a bit too mathematical for my taste.

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

2065. Re: HF beacons on satellites

Newsgroup: rec.ham-radio
Date: 1990-04-03 15:55:17 UTC
From: mac@idacrd.UUCP
Message-ID: <656@idacrd.UUCP>
Source record: 12625

From article <40017@apple.Apple.COM>, by winter@Apple.COM (Patty Winter):
>
> Really? I thought it was only on VHF. If it was on HF, maybe its
> sister satellite, UO-11, is on HF as well.
> Patty

UO-11 does not have an HF beacon. I heard several of the HF beacons on
UO-9. It was a shame that more was not done with the beacons. I think
the University of Surrey program is just outstanding, packing a lot of
neat stuff into their birds on a shoestring budget. My only complaint
with them is their `on orbit support' of a user community which could be
a lot bigger if kept better informed. I could never find out what beacon
was going to be on when and found it frustrating. This has gotten much
better with UO-11 running DIARY and Jeff Ward's arrival at Surrey.

Bob
--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

2066. Re: stacking yagis

Newsgroup: rec.ham-radio
Date: 1990-04-03 16:10:01 UTC
From: dalyb@godzilla.UUCP
Message-ID: <49958535.1423f@godzilla.UUCP>
Source record: 12380

In article <23815@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
> This is not true. The maximum_forward_gain_spacing is a function of the
> gain of the antennas being stacked. It could also be (almost
> equivalently) considered to be a function of the boomlength of the
> antennas being stacked.
>
> There are also other considerations. Do you want maximum forward gain?
> Do you want maximum front-to-back ratio? Do you want maximum
> front-to-side ratio? Do you want some combination of these merit
> figures, like almost maximum gain with a clean pattern?
>
> Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

There are a number of ways one could approach the Yagi stacking problem:

1. Use a generally accepted "rule of thumb"; these usually provide resonable
results.

For stacking Yagi-Uda arrays, the one wavelength distance does provide
maximum gain. For extended Yagi's (i.e. very long), another rule of
thumb is to stack a distance equal to 3/4 the length of the boom of
the antenna.

Since the requirements stated "maximum gain" without any mention
of pattern requirements, the rule of thumb stated above should
provide reasonable results for the given application.

2. Use the results published in the literature:

If it is desired to go into further detail and optimize the stacking
distance, I'd recommend reading the U.S. department of Commerce/National
Bureau of Standards publication "Yagi Antenna Design", NBS Technical Note 688
author P.P. Viezbicke, December 1968. This publication gives criteria
for Yagi design and stacking.

Another paper I'd recommend is C.C. Lee and L.C. Shen, "Coupled Yagi
Arrays", in the IEEE Transactions on Antennas and Propagation,
vol. AP-25, p. 889-891, November 1977.

3. Experiment with various distances

You could also experiment with distances around those given by the
rule of thumb, and measure both the gain and the pattern in the far field.
This does require antenna pattern test equipment.

The considerations such as front-to-back ratio, front-to-side ratio, gain, etc.
are both a function of the design of the Yagi itself, and also how the Yagi's

are stacked. If the requirements are strict for these parameters, then an in depth analysis would have to be performed.

73's

--
Brian K. Daly WB7OML @ AG Communication Systems, Phoenix, Arizona
UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att}!gtephx!dalyb
Phone: (602) 582-7644 FAX: (602) 582-7111
~

2067. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-04-03 16:17:23 UTC
From: rwa@cs.AthabascaU.CA
Message-ID: <1793@aurora.AthabascaU.CA>
Source record: 12379

In article <1376@dgbt.uucp>, barry@dgbt.uucp (Barry McLarnon DGBT/DIP) writes:
> I see folks are coming to the defence of MFJ, so I'll add another ringing
> endorsement:
> The only MFJ product I own is an HF dummy load. It's been 100% reliable. :-)

When Dennis ve7tcp and I were fiddling with his new hf rig, we started by making a few patch cables & c (using those *atrocious* pl-239s you get from radio scrap). I got to build the cables because I'm the only one who knows which end of the iron to pick up :-). Anyway, we hooked the new rig to Dennis' new MFJ dummy load and keyed up - suprise! It wouldn't load. Naturally I was the goat and suspicion centered on the cables I had just built. (Some present questioned the quality of the beer.)

To make a long story short (or rather open) the real problem was that MFJ hadn't bothered to scrape the paint from the case of the dummy load in a couple of strategic places, and we were tring to drive about 500 K ohms or so instead of 50. So even a dummy load can have problems.

Yes, I own some MFJ gear too. I think it's OK for the price.

--
--
Ross Alexander (403) 675 6311 rwa@aungbad.AthabascaU.CA VE6PDQ

2068. Second Annual Open House at WPI / W1YK

Newsgroup: rec.ham-radio
Date: 1990-04-03 16:50:46 UTC
From: jwhitson@WPI.WPI.EDU
Message-ID: <9004031650.AA13150@wpi.wpi.edu>
Source record: 12614

On April 7, 1990, at Worcester Polytechnic Institute
in Worcester, Massachusetts, the WPI Wireless Association
will be holding The Second Annual Open House in its Ham Shack.
It will run from 10:00 AM to 4:00 PM. We will be working
on many bands (160m - 10m, 2m, 440MHz, as propagation permits),
and in many modes. The Club Station, W1YK, is excellently
situated on the roof of Salisbury Laboratories, which is one
of the buildings on the top of a large hill where WPI is located.

The WPI Wireless Association, founded in 1909, is the oldest college
radio club in the United States. Originally 1YK, the station and
club has enjoyed a wide variety of equipment and opportunites, including
a 440 MHz repeater and a satellite tranciever station.

Come and help us celebrate our 81st Anniversary!

For more information, send mail to me (see signature), or any of the
people you hear working as W1YK.

---------- If at first you don't succeed, so much for skydiving ---------
John Whitson: Internet: jwhitson@wpi.wpi.edu Bitnet: jwhitson@wpi.bitnet
73's from KB2GNC/1 UUCP: uunet!wpi.wpi.edu!jwhitson
---------- Anything with this tag on it is purely my own opinion ---------

2069. Re: GOES Down Converter

Newsgroup: rec.ham-radio
Date: 1990-04-03 17:31:06 UTC
From: dvh@cci632.UUCP
Message-ID: <35664@cci632.UUCP>
Source record: 12615

In article <653@idacrd.UUCP>, mac@idacrd.UUCP (Robert McGwier) writes:
> From article <9003290855.6DE40604FB01@es.office>, by Jay_Appell@es.UUCP:
> > Can anyone suggest sources for a down converter for GOES reception ?
>
>
> There was a nice looking package from a company in Texas in the latest
> QEX. I don't have it here, can someone pass along the name.
>
> Bob
>
>
> --
> ____
> My opinions are my own no matter | Robert W. McGwier, N4HY
> who I work for! ;-) | CCR, AMSAT, etc.
> ---

That's Quorum Communications, Inc.
P.O. Box 277
Grapevine, Tx 76051

Phone # (817) 488-4861

It's run by my good friend Rick Fogle, WA5TNY- tell him I said
hello.

Rick has been working on this product line for a while now, and
with the cooperation of several other noted VHF/UHF/SHF types
(WB5LUA and Bill Olson W3HQT/1 of Down East Microwave), has developed
what is probably the finest WEFAX line available.

If you're going to the Dayton Hamvention, Quorum will have a booth
right next to (actually part of) the Down East Microwave booth. Stop
by and talk to Rick, Bill, John WA3ETD (SHF Systems, makers of the
single-board no-tune transverters), Rick KK7B, Jim WA8NLC, Al WB5LUA,
and last and certainly least, me. I suspect Quorum will have hardware
to demo and sell there.

Hope this helps.

Dave Hallidy KD5RO/2

2070. Re: Wild accusations against MFJ?

Newsgroup: rec.ham-radio
Date: 1990-04-03 18:34:07 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <LYNDON.90Apr3123407@aurora.AthabascaU.CA>
Source record: 12378

In article <1793@aurora.AthabascaU.CA> rwa@cs.AthabascaU.CA (Ross Alexander) writes:

To make a long story short (or rather open) the real problem was that
MFJ hadn't bothered to scrape the paint from the case of the dummy
load in a couple of strategic places, and we were tring to drive about
500 K ohms or so instead of 50. So even a dummy load can have
problems.

Interesting. This is the same trick they use on my Versatuner. All those
nice screws to electrically bond the cabinet together to prevent stray
RF from floating about. Trouble is, with all that damned paint there,
I might as well leave the lid off.
--
Lyndon Nerenberg CF6BBM / Computing Services / Athabasca University
{alberta,decwrl}!atha!lyndon || lyndon@cs.AthabascaU.CA

2071. Comments on "ARRL FILE FORMAT"

Newsgroup: rec.ham-radio
Date: 1990-04-03 18:56:12 UTC
From: Don_Lewine@dgc.ceo.dg.COM
Message-ID: <9004031956.AD00051@rtp40.dg.com>
Source record: 12617

COMMENTS ON ARRL FILE FORMAT FOR CONTEST LOGS

This is a response to K1CC's posting:
First, the philosophical objections. I am not a big gun and I have never spent the full contest period on the air. I typically work 300-600 stations in a contest. I have won the EMA section from time to time mainly due to weak competition.

All of my logs are kept by computer using software that I have written. I have no problem formatting a floppy in the format that you request. My question is why should I bother? It might take me a day to write the code and I would have to copy the files off my UNIX system onto an IBM PC to write the floppy. All for zero gain. And I don't even get the floppy back. Why should I go to that bother instead of just printing a log on my laser printer?

To attempt to answer my own question, there are several things that would motivate me to send in an electronic log and even pay for the chance to do it. First, if it were required for stations with over say 500 QSOs. This might cut down the competition. A more positive reason would be getting an audited log back. I would be happy to pay $10 to $20 to get back a floppy with my cross checked QSOs. A simple flagging of unique QSOs would be of value.

In short, I need some better reason than making a contribution to the ARRL's supply of floppy disks.

Now for the technical issues. First, you say, "aligned by column", what does that mean? I assume that you mean in fixed width columns padded (on the right or left?) with ASCII blanks and with a single blank between columns. How about a comma between columns?

Under "CALL" you say, "(allow 15 columns)". There is no specification for the number of columns for any other data item. Can I pad the others to 50 characters each? How about 512 each? Why should the call be longer than the largest station that I work? Should numbers be padded with zeros and right justified?

The statement "Complete exchange sent" and "Complete exchange rcvd" is not very specific. What about contest like SS where there are long exchanges? Should there be blanks in this column making it, in effect, multiple columns or do you want something like 123BWB2UMF65EMA as one hunk?

While there may be a few popular logging programs that many people will use, some of us will want to roll our own. You need to specify EXACTLY what the ARRL will and will not accept. I have been

writing software for 30 years and the single largest cause of problems
is lack of a clear statement of what is wanted. Do not assume that
the world of amateur programmers out there will know what you mean.

Donald Lewine
WB2UMF
uunet!ptech!don <-best
uunet!dg-rtp.dg.com!lewine
lewine@dg-rtp.dg.com
lewine@cheshirecat.dg.com

2072. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-03 19:43:05 UTC
From: stevew@wyse.wyse.com
Message-ID: <2663@wyse.wyse.com>
Source record: 12383

In article <9914@shlump.nac.dec.com> goldstein@carafe.enet.dec.com (Fred R. Goldstein k1io) writes:
>
>Heck, I wouldn't worry too much about 902-928 being turned over to
>commercial services anytime soon. Not so long as its primary occupant
>is the ISM service!

Good theory...but ISM isn't the ONLY primary on the band....I believe
another primary is a mobile location service (or something like that...)
Everyone down in the LA area has thrown up their hands in recent months
because a commercial system is to be installed in the next couple years
using something like 7Mhz of the bottom end of the band.

Anybody have better/more accurate details of this?

All of the propossed ARRL band plans are out the window right now
because of this system. Since this other service is primary..
amateur repeater interference won't be tolerated. I also believe
this same company is planning on installing similar systems in most
of the major metropolitan areas over the next 4-6 years.

>It's a garbage band, given to hams because hams won't interfere with
>rf heaters. :-) Now if the spread-spectrum data were able to get thru
>the crud, and there were little enough crud that the rf-modem vendors
>didn't get overwhelmed with complaints, then maybe...

73's de Steve KA6S

2073. RE: INFO-HAMS Digest V89 #699

Newsgroup: rec.ham-radio
Date: 1990-04-03 20:52:00 UTC
From: zwirko%v5120.decnet@CCF3.NRL.NAVY.MIL
Message-ID: <9004040703.AA09041@ucbvax.Berkeley.EDU>
Source record: 12397

```
mailer test - from NRL
```

2074. Foreign Language Translators

Newsgroup: rec.ham-radio
Date: 1990-04-03 22:01:21 UTC
From: griest@ajpo.sei.cmu.edu
Message-ID: <659@ajpo.sei.cmu.edu>
Source record: 12384

Forgive me if I am restating or missing something... I am new to
this newsgroup and to Amateur Radio.

It seems to me that amateur international communication could be served
by the availability of a public-domain translation system for use with
PC-based communication systems. I realize that natural language translation
is not a perfect technology, but for people who use Morse code,
perfection is obviously not a big consideration.

Do any such systems exist? I have heard of hand-held translators which I
suspect are moderately useful for foreign travelers. The draw-backs
in these systems is the requirement to carry around the notebook sized
machine, and the cumbersome typing-in/reading of the text. These are
not an issue for RTTY-type communication systems.

The system I envision is one that provides both the original text on one
line and translation(s) under it. A really dumb system would just look
up all possible meanings of the source words and display them under
the original text. A more sophisticated system would work on phrases,
or even use some AI techniques to translate semantics. Since this
is not intended for business or diplomatic uses, occasional errors
are probably acceptable. I would imagine that for simple systems,
real-time translation should be feasible.

Anyone know of the availability of such a system? Or is anyone interested
on helping with the development of such a system?

Tom Griest
griest@ajpo.sei.cmu.edu

2075. Restricted Space Antennas...

Newsgroup: rec.ham-radio
Date: 1990-04-03 22:32:00 UTC
From: MULTI@TRIUMFER.BITNET
Message-ID: <90Apr3.173527edt.57418@ugw.utcs.utoronto.ca>
Source record: 12392

I live in a 2nd floor apartment without a balcony, and am trying to get onto HF bands of 20, 40 and 80(!) meters. Have been loading up eight feet of wire using a commercial antenna tuner with poor transmission results, and with the effect that the room lights get brighter on 20 meters, and I get moderate herringbone cable-TV interference on 40 and 80 when loading at full power of one hundred watts output. Currently, I am wondering whether loading up a horizontal loop would result in less local interference and more radiated power. Does anybody have any experience or suggestions?

Y.N. Miles,
<multi@triumfcl.bitnet>,
VE7-ALQ

2076. Scanner mods database

Newsgroup: rec.ham-radio
Date: 1990-04-03 23:44:01 UTC
From: sneakers@heimat.UUCP
Message-ID: <11348.AA11348@heimat>
Source record: 12385
Cross-posted to: rec.shortwave,rec.ham-radio

[-=-]

On a semi-regular basis I see both requests and answers to questions for scanner modifications. Rather than have to search and repost this information each time id like to offer to collect this information into one file. Then this file could be place at a site that offers a mail server (you send a request via mail and the list is forwarded to your account). To do this I would require 2 things, (1) a site with such a mailer that is willing to keep this list, (2) YOU to send me your list of scanner modifications.

Rest assured I have no plans on converting this information into a book or magazine article. That all credits (if attached) will be maintained. My only goal is to make life easier for those who want to know and as such im willing to donate the time to prepare and maintain (update) a list.

Comments, questions, offers for a mail server....

Sneakers

--

___
Dan "Sneakers" Schein //// Quote:
Sneakers Computing //// Those who worked the hardest
2455 McKinley Ave. ___ //// are the last to surrender.
West Lawn, PA 19609 \\\\//// -= Gary Ward =-
\\\///
sneakers%heimat@commodore.com (or) uunet!cbmvax!heimat!sneakers

2077. Re: Amateur Radio is Enjoyable!

Newsgroup: rec.ham-radio
Date: 1990-04-03 23:59:07 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Apr3.235907.6231@NCoast.ORG>
Source record: 12623

As quoted from <1223@necis.UUCP> by rbono@necis.UUCP (Rich Bono):
+---------------
| Amateur Radio IS very enjoyable, share it!!
+---------------

Undoubtedly. Unfortunately, I'm currently finding the *physical* requirements to be a bear....

To wit: I live in an apartment, on the ground floor. Putting up an antenna down here would seem inadviseable, the landlord doesn't like antennas hanging from e.g. the patio of the apartment above mine, and even if I'm allowed to put an antenna on the roof, I'm none too keen on climbing around up there. So I've scratched working from my apartment for now.

My next thought was, of course, mobile. Ever try to fit a radio---ham, CB, or otherwise, aside from in-dashboard models---into a Ford Escort? It doesn't look too promising, unless there's one that will fit into the dashboard. So far, the only radio I've been able to see up close is the Radio Shack HTX-100; it won't fit. About the only place I can see to put it is somewhere where it will be virtually begging for someone to break in and steal it---and I sometimes have to go to parts of town where having something that visible is a *very* bad idea. An alternative would be to stuff it in the glove compartment---my father did that back when he had a CB, and even had a special mount for it so that the radio could be seen and tuned within the glove compartment---but, again, it won't fit.

I seem to be stuck with a handheld. Do 10 meter HT's exist? (Until I upgrade, I'm rather limited in voice bands---and I don't want to try to operate CW while I'm driving....) I don't want to jump into 220 only to have it mostly disappear, and while 1270-1295 looks interesting, I'd like to also have a presense on bands which have a somewhat better chance of reaching non-local stations.

So I'm looking for suggestions. (Aside from "upgrade"---I'm working on it, but I suspect that I'll be able to get on the air before a test date coincides with my schedule.)

++Brandon (Novice ticket pending FCC approval)
--
Brandon S. Allbery (human), allbery@NCoast.ORG (Internet), BALLBERY (MCI Mail)
ALLBERY (Delphi), uunet!cwjcc.cwru.edu!ncoast!allbery (UUCP), BrandonA (A-OL)

2078. Alf a Ham?

Newsgroup: rec.ham-radio
Date: 1990-04-04 00:55:02 UTC
From: GR6588@SIUCVMB.BITNET
Message-ID: <9004040703.AA09075@ucbvax.Berkeley.EDU>
Source record: 12394

Bill Gunshannon <702WFG%SCRVMSYS.BITNET@CORNELLC.cit.cornell.edu> writes
Code Saves the Day

>
>Date: 28 Mar 90 21:40:37 GMT
>From: cadnetix.COM!cadnetix!rusty@uunet.uu.net (Rusty Carruth)
>Subject: Code Saves the Day
>Message-ID: <11874@cadnetix.COM>
=
=Wow! Well, I can top that! Did you know that ET's know code?
=Yup! I was flipping through the channels on the TV this week, and
=just happened to see Alf as he was making some kind of weighty decision
=about going home.. or something. Anyway, I stopped because there was
=some kind of brass contraption sitting in front of him. After a few
=moments of talking/thinking/something, he took the key in hand and
=<GASP!> sent some code! He sent about 10 characters, as far as I
=could tell, and then when asked what he said, he spent about a minute
=explaining what he said. Talk about compression!
=
>You mean nobody has noticed the KENWOOD HF rig sitting in the garage
>before??? Although they have made reference to Willy being a ham in
>previous episodes, they have never given out his call sign and I have
>never seen any QSL's laying around.
>
>I didn't even know we had a reciprical agreement with MELMAC!!!

>bill KB3YV

From time to time they have a shot of the "ham shack" (garage) and Willie's
call is something like KXY913 or something along those lines. It is not a
real call, although it was nice of the producers to have taken the time to use
real hams gear. Along the same lines, I was watching Die Hard (starring the
guy from Moonlighting...the name escapes me) and they were using either Ken-
wood TS41's or 21's for their communications. Funny thing, how did he know
what frequency the cops used in LA? He was from New York. And wasn't it
convenient that it was already dialed in? :)

+---+
: ***** :
: (0 0) mmp KE9KD W9UIH :
: mmp (-~-) / / Kelly D. Jones So. Il. University ARC :
: \ ____{'}____/ / 1195 E. Walnut #J8 Eng. and Tech Building :
: ___/ O ___/ Carbondale, IL Carbondale, IL :
: | O | 62901 62901 :
: | O | :

```
: :@@@@@@@: BITNET: GR6588 @ SIUCVMB.BITNET :
: ========= PACKET: KE9KD @ WD9EBQ.IL.USA.NA :
: | / \ | :
: | | | | ==> If it ain't boke, break it <== :
: | | | | ==> Sometimes ya godda do whatcha godda do <== :
: _\u--| |--u/_ ==> When in doubt, have someone else decide <== :
: (_____| |_____) :
+-------------------------------------------------------------------------+
```

2079. TM-721/RC-10

Newsgroup: rec.ham-radio
Date: 1990-04-04 01:09:06 UTC
From: edeu5eb@OUTLAW.UWYO.EDU
Message-ID: <900403190854.208004ea@UWYO.BITNET>
Source record: 12393

I have a Kenwood 721 radio and have been wanting to interface this to my repeater to provide a simplex I/O. I want to be able to control various functions of the radio, basically those available on the RC-10 remote handset.

All of the functions from the RC-10 are controlled through the microphone plug. I am wondering if anyone has the communications protocol from the RC-10 to the microphone plug.

I called Kenwood in California today and talked to their technical support. I was told that they didn't have the information but had "heard that some hams had received this information directly from Tokyo but it would take awhile to get a response".

Before writing to Tokyo, I decided to see if anyone on the net had this information. Any help would be greatly appreciated.

Thanks
Mark Skelton N7CTM
e-mail SKELTON@MOHO.UWYO.EDU

2080. Re: Heathkit Info

Newsgroup: rec.ham-radio
Date: 1990-04-04 01:14:31 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <waX3g1w161w@w8grt.fidonet.org>
Source record: 12395

RBMURDOC@COLOSPGS.BITNET writes:

> allbery@NCoast.ORG (Brandon S. Allbery) writes in article
> <1990Mar31.020339.14162@NCoast.ORG>...
> >I discovered earlier this week that the Cleveland area's only remaining
> >Heathkit store is no more. Is Heathkit gone? If not, where and to whom do
> >write to get a catalog?
>
> Heath Company
> P.O. Box 1288
> Benton Harbor, MI 49022
>
> Orders: 1-800/253-0570, 24 hours a day.
> (the catalog has several other phone numbers)

The Heath Users' Group also has a landline BBS which will accept orders
from approved members.

2081. Kenwood 940S vs Icom 765??

Newsgroup: rec.ham-radio
Date: 1990-04-04 01:30:50 UTC
From: twt@hpfcbig.SDE.HP.COM
Message-ID: <7650004@hpfcbig.SDE.HP.COM>
Source record: 12624

I'm looking for comments on the Kenwood TS-940S and/or the Icom IC-765 transceivers. Has anyone out there compared them head to head?

Tim (ticket coming) Tillson

2082. Reference wanted for systems that Design Analog Circuitry

Newsgroup: rec.ham-radio
Date: 1990-04-04 02:48:05 UTC
From: GMoretti@massey.ac.nz
Message-ID: <661@massey.ac.nz>
Source record: 12386

WHAT
I am interested in finding out what work has been done on expert systems
or CAD systems for the DESIGN and SYNTHESIS of DISCRETE ANALOG circuitry.

I'm lookin
g for references to work that encompasses the synthesis of
systems (eg radio receivers) down to building these at the component
level (such as coils transistors, opamps ...). I'm looking at systems
that help you to design such system, not ones that help you optimise IC
layouts ...

WHY
This area is inspired by my constant irritation whenever I want to design
anything of having to wade through all the books I used last time (when I
can remember what books they were) to find out how many turns you need on
a toroid for a certain inductance or any of the other myriad of standard
formulae/approximations that we all use when designing something, but not
often enough to commit to memory.

STORING CIRCUIT IDEAS
A related part of this is the need to store all the neat circuits/ideas
one finds in magazines ... in such a way that it's usable by the
synthesiser. I've got a pile of articles about three feet high that I've
copied from magazines, great information in there - if you can find it.

HOW ???
If you know of any work in this area, I'd like to here from you,
especially if you have references :-) If you have any ideas or constant
source of annoyance that you think a system like this should address let
me know.

Thanks
Giovanni ZL2BOI

--

GIOVANNI MORETTI, Consultant	EMail: G.Moretti@massey.ac.nz
Computer Centre, Massey University	Ph 64 63 69099 x8398, FAX 64 63 505607
Palmerston North, New Zealand	QUITTERS NEVER WIN, WINNERS NEVER QUIT

2083. Re: Xtals for old Drake R4B

Newsgroup: rec.ham-radio
Date: 1990-04-04 03:04:21 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250140@hpnmdla.HP.COM>
Source record: 12396

I THINK the formula for Drake 4-line crystals is:

F(crystal) = F(low end of band) + 11.1 MHz

The 11.1 number is what I'm not sure of. Check one or two of the other crystals to see if this is the right number.

Al N1AL

2084. V31BB

Newsgroup: rec.ham-radio
Date: 1990-04-04 04:10:41 UTC
From: oo7@ut-emx.UUCP
Message-ID: <27460@ut-emx.UUCP>
Source record: 12388

To all you folks who are so burned up by this guy - why don't you get in touch with W1MFJ, W2MFJ, W3MFJ and all the other MFJ calls you can find, and line them up in the next contest and work BB one by one. It would be fun to listen to.

More realistic is to take AD1C's advice and ignore him. There are usually V3's on in major contests and at other times. Most of them have US QSL managers and you don't have to suffer through what many of you apparently have. There are a few countries that have only one active ham most of the time, and you have to work that person if you want a QSL card, but Belize isn't one of them!

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

2085. Re: SAREX STS-35

Newsgroup: rec.ham-radio
Date: 1990-04-04 04:38:47 UTC
From: winter@Apple.COM
Message-ID: <40043@apple.Apple.COM>
Source record: 12389
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <53940@microsoft.UUCP> joehol@microsoft.UUCP (Joseph HOLMAN) writes:
> i'm disappointed to read in the the AMSAT Journal
> that the SAREX STS-35 mission will only have a 28.5
> inclination - making direct communications to Seattle
> 47.7 latitude impossible...
>
> is anybody out there going to be digipeating someway,
> somehow, so us poor out o' luck northerners will have
> a way to make contact with the packet set-up ???

Joe--

As previously announced in the AMSAT bulletins that Phil Karn posts,
AMSAT will have an extensive redistribution network active during
both of the next two SAREX missions.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

2086. HF Transceiver to drive transverter.

Newsgroup: rec.ham-radio
Date: 1990-04-04 10:02:25 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <04.Apr.90.11
Source record: 12626

Anyone out in netland got any advice on HF transceivers? I primarily
want one to drive transverters for six, four and two meters (yes we have
70.0 to 70.5MHz as a ham band here in the UK).

Requirements as follows:

'Old' HF bands (not interested in WARC bands).
Spin-tuned VFO (no nasty synthesizers unless they step in 1Hz steps!)
Analog readout to 1KHz or better.
AM/FM/SSB capability.
High resistance to crossmodulation (i.e a tube frontend!)
Room for lots of filters (15KHz, 6KHz, 2.4KHz and 600Hz).
Plenty of audio output (at least 4 watts to external speaker)
Input socket for ALC from transverter.
Able to run 100% duty cycle for at least 1/2 hour on FM/AM/RTTY duty.
User-serviceable without any need for special tools, non
miniature components, no surface-mount devices, and finally;

No Gimmicks! I dont want scanning, memories, voice IDs,
speech processors or any of that sort of stuff.

Somehow i think i have just described a member of the Drake '4' line....
alas these seem to be somewhat scarce on the European secondhand
market. Some of the early TEN-TEC gear also seems a possibility (before
ten-tec got bitten by the microprocessor bug!).

Work you on Six soon???

Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

Please use the following addresses for reply: + \/Natural
+ \/\Environment
JANET: PJML@UK.AC.NERC-WALLINGFORD.IBMA + \/\/Research
ARPA : PJML%IA.NWL.AC.UK@NSS.CS.UCL.AC.UK + \/\/\Council
EARN : PJML%UK.AC.NWL.IA@UKACRL + NERC Computer Services
AX25 : G6WBJ {144.650MHz} + Holbrook House
SPAN : STAR::"PJML%IA.NWL.AC.UK@NSS.CS.UCL.AC.UK" + Station Road
PHONE: +44 793 411613 + SWINDON SN1 1DE
FAX : +44 793 411503 + GREAT BRITAIN
++
+ 'The One-Nighters' 86.437.5 +
++

2087. Webersat pictures , how to locate ?

Newsgroup: rec.ham-radio
Date: 1990-04-04 12:43:09 UTC
From: antsu@kontu.utu.fi
Message-ID: <34523.2619ebdd@kontu.utu.fi>
Source record: 12398

Hi all networkers!

I am trying to locate a place, where to get some Webersat taken
pictures. I would like some in b&w in some standard format
for example GIF TIFF etc...
Are there any available via anonymous ftp ??

73's to all de Antti-Pekka OH1YF

2088. Ham Call of P Viezbicke

Newsgroup: rec.ham-radio
Date: 1990-04-04 12:51:28 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9004041251.AA02795@cmr.ncsl.nist.gov>
Source record: 12377

A recent posting recommended the old NBS Tech Note 688 on Yagi Antenna Design by Pete Viezbicke. For your info, Pete's call is W0NXB.

Bob, W3OTC

2089. Re: V31BB

Newsgroup: rec.ham-radio
Date: 1990-04-04 14:19:42 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004050712.AA04064@ucbvax.Berkeley.EDU>
Source record: 12381

>This guy burned me once too.
>
>Is it possible to "impeach" a ham in another country? >8-)
> ^^^^^^^
> pick your own favorite word...

Well, a batch of hams could pay a midnight visit with a bit of plastique
and gasoline... Maybe a surplus HARM (anti-radiation missile) aimed for
the guy's antenna would get the message across...

Gives a whole new meaning to the idea of a "DXpedition"... :-)

Regards, Will

2090. Re: Aargh! Want address/info to get Heathkit catalog

Newsgroup: rec.ham-radio
Date: 1990-04-04 14:44:16 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004050713.AA04122@ucbvax.Berkeley.EDU>
Source record: 12382

Re Heath:
>Try (800) 253-0570. Visa, Mastercard, and American Express.
>It sure looks like the beancounters have gotten to Heath. Half the stuff
>in the catalog is only available assembled, and the retail stores (actually
>a seperate corporation to dodge the state sales taxes) seem to be mutating into
>Apple Computer dealerships. The local store is even closed Saturdays.
>On the plus side, they're back in the hi-fi stereo kit buisness.

I noticed the latest Heath catalog ("Volume 220", Spring 1990) had a "market research" survey form enclosed in the middle. It was also an entry in a sweepstakes to win $1000 worth of their products. They are chintzy enough that it wasn't Business-Reply Mail, but I decided to invest a stamp, and, since I was doing so, included a couple-page letter of suggestions and customer feedback. I recommend that all other current and former Heath customers do the same -- if they get inundated with user responses, maybe they'll pay attention to at least some of them!

My product-line suggestions included that they come out with a decent-quality $300-$400 range tabletop shortwave receiver, since that is a market void right now, and that they look into the high-end audio market in the areas of minimalist preamps and tube power amps. In both cases, I emphasized that they should first publicize their plans and talk to experts in the field and solicit user input, doing things like going to the ANARC and Monitoring Times conventions to talk to SWLs about radios, and talking with the staffs of The Absolute Sound nd Stereophile about audio gear. Maybe that approach will help them avoid mistakes like their last lousy SW receiver that got such bad reviews.

As a side issue, does anyone out there know when Heath started? The catalog doesn't say. I expected to find some sort of advertising puffery like "serving America's electronic hobbyists since <date>" in it somewhere but couldn't find any such reference. I thought they began in the early '50's. Anybody on the net know for sure?

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

2091. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-04 16:44:53 UTC
From: trw@usna.NAVY.MIL
Message-ID: <242@usna.NAVY.MIL>
Source record: 12402

> > We, at UPenn, are in the final stages of putting our
> > local magnet high school of engineering and
> > science -- the George Washington Carver High School
> > in Philadelphia onto the internet via
> > a spread spectrum radio link operating license free at
> > 900 mh.
> >
> > In my opinion, this operation ought to fall squarely within amateur radio's
> > role in supporting education. I'd consider it a credit to the service if
> > this operation were done under an amateur license.
>
> I agree heartily. And when they get their new ham tickets (either code or
> no-code variety), they can tack on amps and boost their range. Hurrah for them!

As has been stated many times before in this forum, The INTERNET can not be
LEGALLY directly gatewayed to amateur radio. The content of 90% of the traffic
is unsuitable for amateur radio transmission.

However I applaud the use of radio to extend this kind of service to people
who would otherwise have no way to get access. I have long been an advocate
of using the technology we have developed to bring more and better service
the the general population. I think that packet radio technology can be put
to use in building inexpensive networks for lower level schools who don't
have the resources of a university.

Maybe if we as hams started setting these systems up and showing schools and
libraries etc. what could be done with it, we might win back that mystique
we once held with the general public. Radio by itself no longer mystifies
anyone, but we have much more than that to offer today. Lets stop hiding
our lamps under bushel baskets and get out there and show that there is more
to ham radio than field day.

bill KB3YV

bill@platypus.uofs.edu
702wfg@scrvmsys.bitnet

2092. Re: Restricted Space Antennas...

Newsgroup: rec.ham-radio
Date: 1990-04-04 17:17:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9004050714.AA04260@ucbvax.Berkeley.EDU>
Source record: 12387

Take a look at the section "small loop antennas" in the "antennas for limited space" chapter of the ARRL Antenna Book. Several people on this conference have reported excellent results with small tuned loops on HF. The primary disadvantage of these antennas is that they have a very small bandwidth; other than that, they radiate like gangbusters. The solution to the bandwidth is to have a remotely tuned motorized capacitor.

Also, note in the latest QST, AEA is advertising a 32" small loop for 14-30 Mhz, 150w. It has remote tuning. Sounds like a winner -- has anyone actually seen one, or a price?

Incidentally, these might make interesting Field Day antennas. They are sharp enough that they'd substantially reduce QRM and overload from positions working CW and phone on the same band.

2093. electronic components dealers?

Newsgroup: rec.ham-radio
Date: 1990-04-04 17:25:50 UTC
From: washer@unisoft.UUCP
Message-ID: <2909@unisoft.UUCP>
Source record: 12400
Cross-posted to: rec.ham-radio,sci.electronics

Forgive me if this has 'been done to death', but I haven't seen
it since I began reading these newgroups. (~6 mos)

I'd like to assemble a list of 'electronic component dealers'.
If you would care to mail me a list of your favorite dealers
along with phone number, address, and any 'speciality', I will
assemble the list, verify the addr and numbers, as well as things
like 'catalog available', 'minimum orders', etc and post the list.

Once again, if this has already been RECENTLY done, I beg your pardon.

Thanks in advance

Jim Washer KK6GQ
UniSoft Corp
6121 Hollis St
Emeryville, Ca 94608-2092
(415) 420-6410 x137

uunet!unisoft!washer
washer@unisoft.com

2094. Re: Xtals for old Drake R4B

Newsgroup: rec.ham-radio
Date: 1990-04-04 17:26:23 UTC
From: jsb@hpfinote.HP.COM
Message-ID: <16170014@hpfinote.HP.COM>
Source record: 12415

Give the parts department a call at Drake. They still stock most of what
you need for the "R4-" series equipment.

The Address is: R.L. Drake
9111 Springboro Pike
Miamisburg, OH 45342
Parts: 513/866-3211
Gen. 513/866-2421

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

2095. Re: Technical question on RF power measurements

Newsgroup: rec.ham-radio
Date: 1990-04-04 18:09:21 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230017@hpfcdj.HP.COM>
Source record: 12416

>Excuse my intrusion into this ham group but I think this is the best
>place to get my technical question answered.
>
>RF input power; RF output power;

Actually, the *input* power shouldn't be expressed as "RF" power; the typical input power measurement - and the basis for most power-limit regulations - has to do with the DC power supplied to the output stage. This is simply the product of the DC supply voltage and current delivered to the final stage, except for any filament supply (if any).

The RF *output* power is just exactly that, and is intended to mean the actual honest-to-God RF power that the output will deliver into its nominal load - usually 50 ohms for amateur and CB transmitters. It can easily be measured via an in-line wattmeter or by RF voltage measurements on an appropriate dummy load. The output power is obviously less than the input power, as no amplifier can be 100% efficient. 4W out for 5 in is pretty unrealistic; your 2.5 - 3.5 (at the outside) figures are much more believable for an AM transmitter with a typical output stage. Output power, as measured in this manner, in NOT dependent on the antenna used, although everything after the output stage - cable losses, whether or not the antenna is properly matched, etc. - plays a part in determining how much of the output actually makes it out as useful radiated energy. "Gain" antenna such as a beam or quad do not actually increase the power, they simply concentrate more of the radiated energy in one direction (at the expense of all others).

A favorite marketing ploy for CB transmitters which include single-sideband mode (SSB) is to quote the "peak envelope power", or PEP. This number CAN be greater than those quoted for AM outputs, as power measurements for SSB are not as straightforward as those for AM; the SSB envelope precludes the simple voltage-across-the-dummy-load technique as a meaningful measurement. However, the *DC* input to the final stage is still the same, and that's what the FCC is (or at least used to be) concerned about. (I believe that the CB regs were revised to limit the RF output power to 4W some time back for AM rigs, with an appropriate PEP number for SSB transmitters.)

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

2096. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-04 18:12:52 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <22798@netnews.upenn.edu>
Source record: 12390

I wrote:

>> to oranizations who WILL use it. But hey - we're not using it now, so
> ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
>> what's the big deal...
> ^^^^^^^^^^^^^^^^^^^^^^
>>
>> --- Jeff
>

Dave wrote:

>SPEAK FOR YOUR DAMN SELVES!!! It just so happens that in Jeff's part
>of the country is probably THE most active group on 902- namely, the
>Mt. Airy Pack-Rats. I'll bet no one bothered to ask them- specifically
>WA3AXV, N3CX, WA3NUF, WC2K, WA3JUF, WB3JYO or the other officers of the
>club about their opinion regarding this subject. The impact of 1 Watt
>license-free equipment is already being felt on this band- the wireless
>stereo speakers that are now available immediately come to mind. There
>is a fairly large, but mostly unsung group of weak signal operators
>using the 33cm band all over the Northeastern U.S.- you don't hear
>much from us because we mostly are building stuff and running skeds, and
>because we're not all over the band. If the feeling is that we need to do
>something to save the band (and I don't disagree with that feeling), at
>least have the courtesy to save a small portion, say the bottom few
>hundred kiloHertz for those of us that pioneered the band. That way we
>can continue to experiment with useless modes such as CW and EME :^)-
>and- oh yeah, so we can demonstrate that we can reliably communicate
>over distances of hundreds of miles with low power and on a band where
>the expected range of communications is in the tens of miles.
>
>There- I feel better now.
>
>Flames to /dev/null- so there.
>
>Dave KD5RO/2 11 states, 35 grids, 3 countries, 1239 miles best dx on 33cm!

I write:

Just to clarify myself - I'm not at all in favor of dumping the 902 band.

The statement that Dave highlighted was meant to be sarcastic, for those
of you that didn't catch on. What I'm trying to say is that if hams
would start using 902, we would have more of a say in whether or not we
get to keep the band as well as what other services/emissions should be
allowed on the band. Sitting back and complaining that the FCC is taking

our bands is not what's going to cure the problem - you have to use them regularly. 902 is almost only used during contests. Very few people use it for normal day-to-day communications and there are hardly any repeaters on 902. Since there's nobody there, everybody seems to have the attitude that there is no reason to use it if you're not going to have anybody to talk to. This is true. But, look at 2 meters. 20 years (or whatever) ago, there were no 2m repeaters, nobody on 2m FM. But look at it today. All that it takes is some interested people getting on the band and actually using it - even if at first it's only for contests. Hats off to those guys out there who actually use this band.

--- Jeff

+----------------------+---+
Jeff DePolo - N3HBZ	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 243-8125 home
Class of 1991	Carrier pigeon: 3901 Spruce St Box 850 Philly 19104
+----------------------+---+

2097. Novice or Technician exam?

Newsgroup: rec.ham-radio
Date: 1990-04-04 18:25:47 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <11390001@hpcuha.HP.COM>
Source record: 12418

I have a question about what exams to take. But first some history.

I got interested in electronics when I was in grade school, sometime in the mid '60s. I started studying for a ham license, but lost interest (what's the average 6th graders attention span?) when my code speed was only 2-3 WPM (remember code practice LP's?) Well just the other day, when I was trying out some PD and shareware programs on a new PC, I found a Morse code training program. I discovered that with a few minutes practice that I could now copy alphabetics at 5 WPM! Osmosis or something.

Anyway I looked at some license prep books, and decided that I could pass the written for both novice class (2) and technician class (3a). But one of the books recommended against taking both tests at the same time.

So my question is: should I take one or both? What's the problem if I try to take both exams at the same time?

Thanks,

Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>

2098. Re: Scanner mods database

Newsgroup: rec.ham-radio
Date: 1990-04-04 18:41:09 UTC
From: jpd@pc.usl.edu
Message-ID: <6271@rouge.usl.edu>
Source record: 12391
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <11348.AA11348@heimat> sneakers@heimat.UUCP (Dan "Sneakers" Schein) writes:
> On a semi-regular basis I see both requests and answers to questions
> for scanner modifications. Rather than have to search and repost this
> information each time id like to offer to collect this information into

Already being done! Here's the info for Canadian MODS DATABASE:

From: bitlib@business.uwo.CA (Business School Server)
Newsgroups: rec.ham-radio
Date: 4 May 89 16:13:00 GMT

This file is: INTRO MODS

MODS database
---- --------

This database was setup to archive files containing information on
how to modify radio equipement to either improve its performance,
or add new functions or capabilities to the radio.

This database runs on a IBM 4381 under VM/CMS. The driving software
is a homebrew list exploder with extra routines to handle file requests
from mail. The software was written in REXX and is available to whomever
likes to take a look at it. It was my first real REXX program so be gentil
with regards to beauty of the logic.

To access a file from the archive, send a message to the server running
under userid -> BITLIB@UWO.CA
Also you may try the userid -> BITLIB@UWO.CDN

The subject of the message must be -> MODS

The text of your message descibes what files you want. For example:
sendme intro mods
sendme radio mods
sendme TH215 mods

You can have as many requests in the same message as required.
INTRO MODS is the file you are reading now.
RADIO MODS is a list of files available.
TH-215 MODS is a file that can be requested.

To submit a file for the database, send me the message and I will
add your entry to the database.

**Note: If you don't seem to be getting a reply to your requests, it is
probally due to the fact that your header doesn't show a reachable

address. You must be reachable from UWO. You can place your return
address in the first line of your message. Example:
FROM: someuser@somenode

UUCP users have had some success by stating their address as:
userx!usery!userz@julian.uucp
Julian can usually find most gateways.

Any questions or concerns can be directed to:

Mark Bramwell VE3PZR
University of Western Ontario
School of Business Administration
London, Ontario

Bitnet: MBRAMWEL@UWO.CA Packet: VE3PZR @ VE3GYQ

If you are having difficulties getting into the server, you can try anyone of
these addresses:

bitlib @ business.uwo.ca .ca .cdn & .bitnet are all
business.uwo.cdn acknowledged by our system
uwovax.uwo.ca
uwo.ca
uwovax.uwo.bitnet

Our mail system will re-route requests for bitlib to the proper id once it
has made it onto campus.

Also, just because you made it to bitlib, does not mean that bitlib can
reply to you. Lately I have been getting alot of usenet mail bounced back
to bitlib.

If you reply address is different than your address in the FROM: line of
the header, please make the first line in your message a new FROM: line
EXAMPLE:

FROM: jdoe@central.yalevm.bitnet

If after a few days of no response, you can try the following:

FROM: HAMRADIO

This tells the server to post the response to the INFO-HAMS digest!
Since everyone can read the digest, you will eventually receive the reply.
INFO-HAMS and REC.HAM-RADIO seem to be the same thing (gatewayed <>)
Please don't post numerous files to INFO-HAMS using this method else
it might get messy(nasty) on the net.

de VE3PZR, Mark in London.

From: MBramwel@business.uwo.CA (Mark Bramwell 519 661-3714)
Newsgroups: rec.ham-radio
Subject: ftp access for mods database

The mods database is now available through the internet.

IP address: 129.100.22.100 HAMSTER.business.uwo.ca

If you want to post a file, please email it to me.

A separate copy is stored on the IBM 4381 for mail users, therefore
I need to know if a new file comes in.

Enjoy, let me know if you have any problems.
--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

2099. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-04 18:41:13 UTC
From: paulf@jessica.Stanford.EDU
Message-ID: <10771@portia.Stanford.EDU>
Source record: 12404

In article <22638@netnews.upenn.edu> depolo@eniac.seas.upenn.edu.UUCP (Jeff DePolo-N3HBZ) writes:
>I have to agree with Phil (not only because I'm involved in the project :-).

I also agree with Phil, but for entirely technical reasons. The spectrum above 500 MHz is pretty unsuited for multiaccess networks (FM repeaters being but one example). Between 500 and 1000 MHz, hybrid mono - multi systems are more spectrally efficient, and above 1GHz, you really want to stick to point to point systems.

-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

2100. Help on QSL Routes

Newsgroup: rec.ham-radio
Date: 1990-04-04 20:08:09 UTC
From: daveh@compnect.UUCP
Message-ID: <515@compnect.UUCP>
Source record: 12399

I worked a bunch of stations during this year's CQ WW WPX contest that aren't in the 1990 Callbook. I would appreciate it if anyone could give me the mailing address or QSL route/manager for the following callsigns:

ED4VPM
FF1COM
FF1MKK
PB0AIU
TM6A
Y38I

Thanks in advance for any help. 73

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

2101. Re: Alf a Ham?

Newsgroup: rec.ham-radio
Date: 1990-04-04 20:45:29 UTC
From: k2ph@cbnewsj.ATT.COM
Message-ID: <4498@cbnewsj.ATT.COM>
Source record: 12410

Hey, I didn't buy my TS-940S until after I saw it being used
to communicate with Melmack (spelling?) in 1988! If it's
good enough for Willie Tanner... :-)

--
==========
Bob Schreibmaier K2PH | UUCP: att!lzss!k2ph or k2ph@lzss.att.com
AT&T Bell Laboratories | ARPA: k2ph%lzss@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

2102. Re: Who got Heathkit?

Newsgroup: rec.ham-radio
Date: 1990-04-04 21:07:00 UTC
From: john@frog.UUCP
Message-ID: <13555@frog.UUCP>
Source record: 12403

In article <609@ssc.UUCP>, markz@ssc.UUCP (Mark Zenier) writes:
>
> Now that Bull is buying the Zenith Computer division, who got Heath?
> Bull or Zenith?
>
Bull did. Now I'm waiting for Heathkit to come out with a kit version
of the GE-635 computer so that Honeywell can finally have a market for
MULTICS... ;-)
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

2103. College and Univ. Net on 10m

Newsgroup: rec.ham-radio
Date: 1990-04-04 21:41:12 UTC
From: sek9424@cec1.wustl.edu
Message-ID: <1990Apr4.214112.4872@cec1.wustl.edu>
Source record: 12406

For those interested, the first real convening of the College and
University net went fairly ok. Propogation was really good to the western
US and we spoke with several stations. Unfortunately, only one was really
affiliated with a university. I don't have the calls at hand, but the two
gentlemen were mobile and were from UCSD. We discussed the possibility of
them operating from the site of a crew regatta their school is sponsoring.
Wash U. is participating and I am sure several other schools that may have
radio clubs are as well. The competition is this weekend and I got the
impression that they would be there on Saturday. We are going to try to
link up with them and find out how our team is doing if they ever get back
to me with the times and freqs they will be on. (Yo, Andy! Are you out there?)
In any event, we will try to convene the net again this weekend.
Again that is 28.425+-, Saturday at 1800Z. Control will be W0QEV here at Wash U.
If you have any questions, let me know. Hope to see you on the air....

73,
Scott - KA0WCH

--
Scott Keller (KA0WCH) - Permanent Undergrad - Dept. of Computer Science
Wa$hington Univer$ity - St. Louis, Mo. USA
Internet: sek9424@cec2.wustl.edu UUCP:ihnp4!wucec2!sek9424 (I think...)
The opinions represented here are mine and mine alone, not Wa$h. U's.

2104. Re: WB2UMF comments on ARRL file format

Newsgroup: rec.ham-radio
Date: 1990-04-04 22:40:00 UTC
From: RJA%UTRC@UTRCGW.UTC.COM
Message-ID: <9004041740.RJA%UTRC@utrcgw.utc.com>
Source record: 12127

In response to WB2UMF's comments on the ARRL file format for contest logs:

> All of my logs are kept by computer using software that I have
> written. I have no problem formatting a floppy in the format that you
> request. My question is why should I bother? It might take me a day
> to write the code and I would have to copy the files off my UNIX
> system onto an IBM PC to write the floppy. All for zero gain. And I
> don't even get the floppy back. Why should I go to that bother
> instead of just printing a log on my laser printer?
> To attempt to answer my own question, there are several things
> at would motivate me to send in an electronic log and even pay for
> the chance to do it. First, if it were required for stations with
> over say 500 QSOs. This might cut down the competition. A more
> positive reason would be getting an audited log back. I would be
> happy to pay $10 to $20 to get back a floppy with my cross checked
> QSOs. A simple flagging of unique QSOs would be of value.

Your raise some very valid points. We ruled out any requirement
for submitting logs on diskette, simply because not everyone uses a
computer or even has access to one, especially DX stations. However,
we are considering various proposals for offering incentives to submit
logs on diskette. I think yours is a good one - in fact the CQ Contest
Committee will return anyone's submitted log on disk with a list of
uniques and the average unique rate for that class of entry. They also
reduce the penalty for busted calls and unmarked dupes if logs are
submitted on disk.

> First, you say, "aligned by column", what does that mean? I assume
> that you mean in fixed width columns padded (on the right or left?)
> with ASCII blanks and with a single blank between columns. How about
> a comma between columns?
Yes, that's exactly what we meant. "Aligned by column" would allow
the log checking staff to "screen" each log as at comes in and to assign
columns to each piece of data, assuming that data item (and no other data
item) is always located within the assigned field . The alternative would
have been to read each line and look for a data delimiter, such as a space,
tab or comma. The majority of log submissions are formatted in columns. The
left or right justification doesn't matter, as long as the data is contained
within the assigned columns. The reason for specifying 15 columns for the
call is because that is the maximum envisioned length of a call (e.g.,
FG/KA1XYZ/FS/m). It would be desirable to have the total column width
under 80 characters, though not absolutely necessary.

> The statement "Complete exchange sent" and "Complete exchange
> rcvd" is not very specific. What about contest like SS where there

> are long exchanges? Should there be blanks in this column making it,
> in effect, multiple columns or do you want something like
> 123BWB2UMF65EMA as one hunk?

Again, as long as each data item was "lined up" by column it would
be OK. Maybe a better choice of words is needed instead of "aligned by
column", which could be misinterpreted. Any suggestions from anyone?

> While there may be a few popular logging programs that many
> people will use, some of us will want to roll our own. You need to
> specify EXACTLY what the ARRL will and will not accept. I have been
> writing software for 30 years and the single largest cause of problems
> is lack of a clear statement of what is wanted. Do not assume that
> the world of amateur programmers out there will know what you mean.

Yes, we didn't want to discourage anyone from "rolling their own".
Ironically, we started off proposing a very rigid ASCII format and
subsequently decided to "loosen up" the format in order not to discourage
anyone from submitting a log on disk. I agree that the specification
needs to be reworded in order to make it "perfectly clear" what's required.
The proposed policy on accepting other formats is that they will be
accepted, but must be accompanied by a paper log. However, we hope that
simplicity of the proposed format will encourage submissions in that
format. Regarding non-MS DOS, there's a 24-hour BBS is available for use
in submitting logs, and may be an attractive alternative for people like
you who make less than several thousand contacts - hi! All you need to
do then is send a signed paper summary sheet in the mail.

Any comments received will be passed along to the ARRL Contest Advisory
Committee, all other contest-related comments are welcome... An SASE with
85 cents postage to my Callbook address will bring you copies of CAC
correspondence related to the file formats, including the proposed format.

Rich Assarabowski K1CC
CAC Chairman
RJA%UTRC@utrcgw.utc.com

2105. Re: 49Mhz conversion question

Newsgroup: rec.ham-radio
Date: 1990-04-04 23:28:35 UTC
From: storkus@arrakis.nevada.edu
Message-ID: <1521@unsvax.NEVADA.EDU>
Source record: 12405

I would also be interested in any information on this out there. Many other toy 49 MHz walkie-talkies sold by the rat shack as well as others contain a similar configuration, and I have 4 of these at home, waiting for 6M conversion. It seems easy enough, but any real help would really be appreciated. Thanks and 73's, Mike, N7MSD

2106. Re: Technical question on RF power measurements

Newsgroup: rec.ham-radio
Date: 1990-04-04 23:45:09 UTC
From: bobw@col.hp.com
Message-ID: <18230002@col.hp.com>
Source record: 12401

```
>/ col:rec.ham-radio / gary@tank.uchicago.edu (Gary Buchholz) / 4:30 pm Apr 2, 1990 /
>
>
>RF input power; RF output power;
>
>
>So here's the question(s).
>
> 1) At what points are these values measured and by what mechanism?
>
RF input power is the DC power at the last power amplifier stage.
The FCC used this type of measurement because it was easy to do with
simple DC meters.

RF output power is the power coming out of the last power amplifier
stage (and presumably to the antenna). It requires an RF power meter
to measure it.

The difference betweent the two powers is accounted for by the
efficiency of the amplifier.

---------------------------------------------------------------------
Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd
---------------------------------------------------------------------
```

2107. Re: Comments on "ARRL FILE FORMAT"

Newsgroup: rec.ham-radio
Date: 1990-04-05 00:39:21 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500490@ux1.cso.uiuc.edu>
Source record: 12409

My interpretation of the ARRL log file format requirements indicates that they are intending, at the present anyway, to just PRINT out the file you send them.

It would be nice if a general purpose file format can be designed for logging info that can handle a large number of cases and contest types. I believe it can be done, and done more efficiently than a plain printable format.

Does the ARRL accept the files compressed? I don't know yet if large logs in the format they now want would fill up a disk. They should be prepared to accept some of the defacto standards, such as .arc, .tar.z, .zip, .zoo, and .z extensions.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2108. Re: Worthwhile non-amateur use of 902-9

Newsgroup: rec.ham-radio
Date: 1990-04-05 00:39:41 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500489@ux1.cso.uiuc.edu>
Source record: 12407

There are THREE possible ways to increase the usage of 33cm:

1. Increase the amount of radio activity the users of 33cm do.

2. Increase the number of hams and hope the new ones use 33cm.

3. Move some of the hams from other bands such as 80m and 20m to 33cm.

Given an already very low number of hams on 33cm, if each ham were to
operate 16 hours a day, it would still not be enough.

Of course the current "no-code" bunch is already trying #2. Now if all
the people who are against a no-code license, would do more of #3, then
maybe we won't need a "no-code" license.

Let's set a goal. If 50,000 amateurs will change their primary operating
band from an HF band up to 33cm, and operate at least 3 hours per day,
then I will back down from my efforts to get more hams who are interested
in UHF into the hobby by means of a no-code license.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2109. Re: Worthwhile non-amateur use of 902-9

Newsgroup: rec.ham-radio
Date: 1990-04-05 00:39:45 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500488@ux1.cso.uiuc.edu>
Source record: 12408

6 users in one area don't constitute sufficient usage to make the band nearly used as other land mobile services use their bands.

Unless we can get MOST of the OF's off HF and onto 33cm, we might as well write the band off for anything but a few isolated point-to-point links which could be just as well done on 23cm or 13cm.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2110. Re: electronic components dealers?

Newsgroup: rec.ham-radio
Date: 1990-04-05 01:40:06 UTC
From: hbg6@citek.UUCP
Message-ID: <12687@mcdphx.phx.mcd.mot.com>
Source record: 12421
Cross-posted to: rec.ham-radio,sci.electronics

In article <2909@unisoft.UUCP> washer@unisoft.UUCP (Jim Washer) writes:
>
>I'd like to assemble a list of 'electronic component dealers'.

Do you mean general hobbiest firms or industrial distributors? I mostly
use the latter (samples for small quantities).

John

2111. Motorola Model Number Decoding--help

Newsgroup: rec.ham-radio
Date: 1990-04-05 01:56:01 UTC
From: mikey@pnet01.cts.com
Message-ID: <2093@crash.cts.com>
Source record: 12420

Anyone have the listing for the various model numbers series? I know many of the numbers of the Motrans and earlier. But the later model radios have left me in the dust.

By the way, have 5 UHF 2 freq carrier squelch MT-500's with two rapid chargers and 2 Hi-band 5 watt 2 channel HT-90's with 1 rapid charger with anyone is interested.

****
Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey
****

2112. DIGITAL RADIO

Newsgroup: rec.ham-radio
Date: 1990-04-05 02:06:52 UTC
From: koffi@bsu-cs.bsu.edu
Message-ID: <11036@bsu-cs.bsu.edu>
Source record: 12425
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Hello there,

Could someone tell me a little bit about DIGITAL RADIO and its furure worldwide? How is it going to surpass FM and AM?

How is the FCC will be allocating the frequencies and what are the major public policies involved in the USA?

Some references would also be helpfull.

Thanks!!!!

~~~~~~
Koffi Magloire

Ball State U.

"The only Basketball team that almost choked UNLV in the NCAA"
~~~~~~

2113. Re: Alf a Ham?

Newsgroup: rec.ham-radio
Date: 1990-04-05 02:17:44 UTC
From: mkg@lzsc.ATT.COM
Message-ID: <1543@lzsc.ATT.COM>
Source record: 12417

One of the producers or writers (I can't remember which) for Alf is a ham.
He works ham radio into the story line where appropriate.
Marsh Gosnell AD2H mkg@lzsc.att.com

2114. test

Newsgroup: rec.ham-radio
Date: 1990-04-05 02:34:44 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <LoV5g1w161w@w8grt.fidonet.org>
Source record: 12422

```
test
```

2115. Where am I?

Newsgroup: rec.ham-radio
Date: 1990-04-05 03:39:00 UTC
From: UCSBPM@UWPLATT.EDU
Message-ID: <B48374BECDFFA01CC6@uwplatt.edu>
Source record: 12426

I am making QSL cards and am trying to find out what grid square
my home QTH is in. The city (village) is Sister Bay, WI
Looking on a 15' topographic map, I estimated :
40 deg, 11.5' N, 87 deg, 7' W
But looking at the National Atlas of the US (published by the gov't) says
45 deg, 11.3' N, 87 deg 7.3' W
I dunno if this is city (village) hall or not, but
a) Sister Bay isn't all that big
b) I live pretty close to village hall
I know there was an article in the (aug 89?) issue of QST, but all the 89
issues are missing at the library. I would like to know how to find out my
grid square and/or what it is. I really want my SIO (oops)
SIX digit grid square (yes, 6, and yes, I am wierd)

Since I doubt this information is of interest to anyone else, I think
e-mail would be appropriate. Thanks.

Brian P. McCarty, N9IWP
bitnet:UCSBPM@UWPLATT
internet:UCSBPM@UWPLATT.EDU

2116. Re: Who got Heathkit?

Newsgroup: rec.ham-radio
Date: 1990-04-05 11:26:46 UTC
From: parnass@cbnewse.ATT.COM
Message-ID: <14062@cbnewse.ATT.COM>
Source record: 12411

As I've speculated here before, Heathkit may become Bullkit :-)
--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

2117. Maidenhead Grid Square System

Newsgroup: rec.ham-radio
Date: 1990-04-05 11:45:04 UTC
From: kjh@pollux.usc.edu
Message-ID: <23911@usc.edu>
Source record: 12423

Somebody asked about the Maidenhead Grid Square Locater System. Here are the details of how this system works. This system is in widespread use in North America on VHF/UHF/SHF/EHF. I believe that it is also catching on in Europe. I think it is one of the best location identification schemes ever developed.

The world is divided up into fields. Fields are divided up into squares. Squares are divided up into sub-squares.

Each field is 10 degrees N-S by 20 degrees E-W.
Each field is indicated by a two (capital) letter identifier. The South-Western most field is AA. This field is actually a triangle, and it is located from the South Pole to 80 degrees South, and from 180 degrees West to 160 degrees west. The field directly north of AA is AB. The field directly north of AB is AC. The field directly east of AA is BA.

Each field has 100 squares. Each square is 1 degree N-S by 2 degrees E-W. Each square (inside it's respective field) is indicated by a 2 number identifier. The South-Western most square in a field is 00. The square just north of 00 is 01. The square just north of 01 is 02. The square just east of 00 is 10. The North-Eastern most square in a field is 99.

It is meaningless to refer to a square, without first identifying it's respective field.

For most amateurs, this is enough. On VHF, for example, when I lived in Grand Rapids, Michigan, I identified my location as EN72. On higher bands, (or maybe for other reasons), you might want to identify your location more accurately. For this, sub-squares are used.

Each square has 576 sub-squares. Each sub-square is 2.5' N-S by 5' E-W. Each sub-square (inside it's respective field) is indicated by a two (lower-case) letter identifier. There are 24 x 24 sub-squares in each square; each sub-square is pretty %^&* small. The South-Western most sub-square in a square is "aa". The sub-square just north of this is "ab". The sub-square just east of "aa" is "ba".

It is meaningless to refer to a sub-square, without first identifying the field and square.

When operating on the higher bands from my GR, MI QTH, I identified my location as EN72eu. To wrap this up: The fields, squares, and sub-squares adjacent to mine were:

EO

EN73

EN72ev

DN EN62 EN72du EN72eu EN72fu EN82 FN

EN72et

EN71

EM

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2118. Peter Viezbicke

Newsgroup: rec.ham-radio
Date: 1990-04-05 11:47:08 UTC
From: Jay_Appell@es.UUCP
Message-ID: <9004050747.8A3C06040065@es.office>
Source record: 12412

To the gentleman who is looking for Peter Viezbicke's info:

Amateur Call W0NXB Theresa Dr. Boulder, CO. 80303 Advanced

Hope this helps!

-Jay- KA1SNA

2119. panel vs chassis mount connectors

Newsgroup: rec.ham-radio
Date: 1990-04-05 11:54:04 UTC
From: kjh@pollux.usc.edu
Message-ID: <23912@usc.edu>
Source record: 12424

In article <116@gizzmo.UUCP> mark@gizzmo.UUCP (mark hilliard) writes:
>Several weeks ago, my early model Kenwood TS-440's antenna connector
>spun. It was the type with a large nut holding it on rather than a
>flange.

This is my biggest complaint against Kenwood. They use the cheap chassis mount connectors. For just a few pennies more, they could put a panel mount connector that would never wear out or need replacing. The panel mount connectors have a square flange, and four mounting holes. I have had to replace every connector on my Kenwood gear. Why must they all produce chinsey gear? Whatever happened to quality?

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2120. VK2SG RTTY DX BULLETIN

Newsgroup: rec.ham-radio
Date: 1990-04-05 13:07:00 UTC
From: hfair@PAXRV-NES.NAVY.MIL
Message-ID: <9004060734.AA03469@ucbvax.Berkeley.EDU>
Source record: 12413

I missed not reading the VK2SG RTTY DX BULLETIN this week. I guess I have become hooked to on its timely news. My personnal thanks to whoever has been providing it and hope it will continue.

2121. Digitial Audio (response)

Newsgroup: rec.ham-radio
Date: 1990-04-05 13:48:11 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9004051348.AA05544@cmr.ncsl.nist.gov>
Source record: 12414

Koffi Magliore asks about the status of Digital Radio. I gather, from following Broadcasting magazine, that digital radio is going to be real in Europe fairly soon. The interest there mostly centers on Direct Broadcast Satellites (DBS), with gap-fillers on the ground for tunnels, etc. Filling in the blanks in the non-technical articles, some sort of pseudo-random coding is used, since they talk about multipath being a benefit to improve coverage. A big pitch and demos happened at the (US) National Accosiation of Broadcasters (NAB) covention last weekend in Atlanta. It is recognized that US policy on broadcasting would require Digital Audio to be a terrestrially-based service here, not DBS. Numbers bandied about include up to 24 audio services multiplex on a 4-MHz bandwidth transmitter. The Europeans (often French) who are pushing the most, talk about using schemes to reduce the required bit rate by "not sending the unneeded part of the sounds". (see more below)

As hams, we should be most concerned by the statements that the Digital Audio people have decided that the 500 to 2000 MHz region is the only one suitable, and that they need about 100 MHz of that region!!!!!

Currently, there is a fair amount of digital audio used to distribute radio programs by satellite. While I would reallly like to know more about the subject, the scheme seems to be to sample the incoming audio at 32,000 15-bit samples per second (barely adequate for the claimed 15 kHz response), and block the samples into groups of 32 (or is it 64 for stereo) [one millisecond worth]. A scale-factor is then determined for each block, and the block is sent with 11-bit audio (not the 15 bits of the original samples), with a single scale factor for the whole block. The process is reversed upon reception to compander back to a 15-bit dynamic range (~ 90 dB). Note that the distortion is roughly that of an 11-bit signal, say 0.1 %. National Public Radio uses this system and markets it commercially. ABC-radio also distributes by digital audio.

My knowledge is sketchy, in that I don't know what 7-8 code expansion they use, what error control, etc., etc. The equipment, from Scientific Atlanta and others (?), gets about 24 channels on a single transponder, any 15 kHz audio channel can be split into two 7.5 kHz channels, etc.

Does anyone have more (or better) info?

Bob W3OTC

2122. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-05 14:26:00 UTC
From: commgrp@pewter.ucs.indiana.edu
Message-ID: <12600093@pewter>
Source record: 12128

>I had thought that Litz wire was the stuff used for the cords of old-
>fashioned headphones, mostly because it was limp. Is this true? Is
>that difficult-to-solder stuff used for cheap earphones Litz wire?

No, that frustrating stuff is called _tinsel_ wire. It's completely
different from Litz, and is used in telephone cords because it is
designed to not break with repeated flexing. It's usually used
with crimped connectors. The only way I've been able to solder the
stuff is to laboriously unwrap each little flat strand of copper
(bronze?) from its fiber core, then twist them together and use solder
flux.

>I recently went looking for a crystal earphone for a project which
>needed a high-efficiency, high-impedance audio output. Surprise!
>Nobody makes those anymore. They're impossible to find...
>I guess that means kids won't be able to build simple crystal radios
>anymore :-(

High-impedance earphones went the way of vacuum tubes, but it should
be possible to make excellent and sensitive earphones with the
piezoelectric substances now available. I'm also looking for some
nonmagnetic earphones to use with my 3.5kHz "cave radio" because
feedback from phones to loop antenna is a problem.

--

Frank W9MKV reid@ucs.indiana.edu

2123. Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-05 15:23:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9004060731.AA03257@ucbvax.Berkeley.EDU>
Source record: 12145

KE9KD sez...

>From time to time they have a shot of the "ham shack" (garage) and Willie's
>call is something like KXY913 or something along those lines. It is not a
>real call, although it was nice of the producers to have taken the time to use
>real hams gear. Along the same lines, I was watching Die Hard (starring the
>guy from Moonlighting...the name escapes me) and they were using either Ken-
^^^^ Bruce Willis
>wood TS41's or 21's for their communications. Funny thing, how did he know
>what frequency the cops used in LA? He was from New York. And wasn't it
>convenient that it was already dialed in? :)

The Bro! sez...

One day last year "me 'n' the boys" (the other guys in the Texas A&M
Amateur Radio Club - W5AC) watched Die Hard on video and could not keep
ourselves from laughing at this.

In answer to your question about his knowing the police frequencies, he
didn't have to. Quite insultingly, the Kenwood radios used were supposedly
(ACK!) CBs!!! Early in the show, he gets on the roof of the building and
says "Channel 9" something or other... don't ask me why we are supposed to
swallow the idea that the police use CB radios, but I guess it works for the
uninformed public. Hey, they used them on the Dukes of Hazzard!

The thing we couldn't get over was their blatant abuse of radio operation
procedure. For instance, the ability to interrupt someone while he is
talking on another radio. Full-duplex HTs??? Right.

This was most dramatically demonstrated when the hero was patching up his
well-cut and bloody feet in a restroom. He somehow locked the HT on transmit
and was able to carry on a conversation with the cop down on the street.
What a laugh.

As I said before, though, I'm sure for all Americans that have never touched
or used a radio it works. We just have to laugh and enjoy the inside
joke ourselves.

Mark C. "Bro!" Lowe - KB5III

MCL9337@TAMVENUS.BITNET

2124. Re: HF Transceiver to drive transverter.

Newsgroup: rec.ham-radio
Date: 1990-04-05 16:12:57 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250141@hpnmdla.HP.COM>
Source record: 12130

I found myself trying to make a similar decision about a year ago.
I was replacing a previous station which had been robbed and I
wanted a multimode transceiver to drive my transverter array;
I have a 50 MHz through 10 GHz phase locked "transverter stack"
(Feb/Jun/Oct 1988 HR Magazine) and wanted something to drive it with.
Since I'm getting old and don't learn new interfaces as easily I
wanted to buy two of the same radios. That way I could operate two
vhf-microwave bands simultaneously, or liaison for a vhf-microwave
schedule on HF without getting confused about which button to
push.
I ended up getting two IC735s. The 725 was available as was the TS440
but I wanted passband tuning which the 735 doesn't have and Kenwood
seems to have forgotten about transverter support on their newer
radios (:>[
By cutting two diodes I get general coverage transceive out the
transverter output.
The performance of the 735s seems to be a good deal better than any
tube type transceivers I've ever owned including two Drake Lines and
an R4(solid state). Third order intercept, dynamic
range and spurious performance seems very competetive and phase noise
is also acceptable. The 735 is specified better than the newer DDS
Icom radios too.
They aren't perfect radios but I've had one of them running full time
for over a year driving a 2M transverter (on packet) with no failure.

Hope this helps.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

2125. R.L Drake Info

Newsgroup: rec.ham-radio
Date: 1990-04-05 16:22:38 UTC
From: ewb@raybed2.ray.com
Message-ID: <1492@raybed2.ray.com>
Source record: 12141

R. L. DRAKE is still alive and well and living in Miamisberg Ohio.

The address is: R.L. DRAKE
540 Richard St.
Miamisberg, Ohio 45342

Phone 513-866-2421

They still repair/refurbrish Drake Amateur gear but they are not currently involved in the manufacture of ham gear. I say currently because there is always that rumor around that says that they are planning to return to the ham market first with an HF amp and then with a tranceiver. The latest one (rumor that is) has them paired up with Sony to produce an HF tranceiver called The Sake. :-) Where do they come from !

73
WA1UXa

2126. Re: ARRL file format comments

Newsgroup: rec.ham-radio
Date: 1990-04-05 16:33:00 UTC
From: RJA%UTRC@UTRCGW.UTC.COM
Message-ID: <9004051133.RJA%UTRC@utrcgw.utc.com>
Source record: 12419

In response to KA9WGN's comments on the ARRL file format:

> My interpretation of the ARRL log file format requirements indicates that
> they are intending, at the present anyway, to just PRINT out the file you
> send them.

No, the ARRL Contest Branch will read the file, convert it into a
binary format and then add it to a database of contest files. Each file
will be checked for dupes, the multipliers will be determined and counted,
and the log will be scored. They will also be able to do cross-checking
and unique call sign analyis of logs (identifying calls which are "unique"
to that log compared against a database of all known good calls, active
calls in contests, calls contained in other logs or calls who's log has
been submitted). The uniques analysis capability is being developed --
other groups such as the CQ Contest Committee and various individuals have
been doing "uniques" analysis for a number of years. A contact labeled
as "unique" MAY be a bad call, but not necessarily. A high unique rate
raises eyebrows regarding the accuracy of log, but is NOT absolute proof
as to the accuracy of a log. It's analagous to the IRS, but hopefully
the logs are more accurate than tax returns...

> It would be nice if a general purpose file format can be designed for logging
> info that can handle a large number of cases and contest types. I believe it

The format we developed should handle all contest types since the
data in it is common to all contests. A binary format (rather than ASCII)
would be more efficient -- considerable discussion of binary vs. ASCII
took place before we decided on our course of action, which was described
in the original posting.

> Does the ARRL accept the files compressed? I don't know yet if large logs
> in the format they now want would fill up a disk. They should be prepared
> to accept some of the defacto standards, such as .arc, .tar.z, .zip, .zoo,
> and .z extensions.

You raise an interesting point. I don't see why not as long as it was
a commonly used compression routine. But 99% of the logs should fit on a
360K floppy without compression.

Rich Assarabowski K1CC
Contest Advisory Committee
RJA%UTRC@utrcgw.utc.com

2127. V31BB

Newsgroup: rec.ham-radio
Date: 1990-04-05 18:12:39 UTC
From: whester@nyx.UUCP
Message-ID: <369@nyx.UUCP>
Source record: 12140

With all the talk about the Belize ham, V31BB, not responding to QSL requests which include IRCs or money for postage, I looked at my log since the call was familar.

I too had worked him (in fact he was one of my first contacts when I received my ham license and I was thrilled!). I had made a note in my log (last fall) that he was visiting and taking care of a friend's house right on the beach. He went on about how he would love to stay on a while if he could find a way to support himself.

Looks like he found a way.

73s, Bill, N0LAJ, Denver Colorado USA

2128. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-05 18:41:09 UTC
From: elliott@optilink.UUCP
Message-ID: <3368@optilink.UUCP>
Source record: 12129
Cross-posted to: sci.electronics,rec.ham-radio

In article <28533@cup.portal.com>, mmm@cup.portal.com (Mark Robert Thorson) writes:
> I had thought that Litz wire was the stuff used for the cords of old-
> fashioned headphones, mostly because it was limp. Is this true? Is that
> difficult-to-solder stuff used for cheap earphones Litz wire?

This stuff is commonly called "tinsel wire". It is used where the cable
will be subjected to lots of flexing, so you find it in guitar cords (the
coiled kind) and in older telephone handset cords. It is not the same
as Litz wire, since the individual conductors are not insulated (although
it probably would work similarly, due to the insulating fiber filler and
the tinsel-like shape of the conductors).

Most of time the connections are crimped, and I hope I never have to solder
tinsel wire again.

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{uunet, pyramid, pixar, tekbspa}!optilink!elliott
"Less than perfect, that's what I've been striving for all along."

2129. Looking for KA1XN

Newsgroup: rec.ham-radio
Date: 1990-04-05 18:47:35 UTC
From: hjj@MED.UNC.EDU
Message-ID: <9004051847.AA15017@pelham.med.unc.edu>
Source record: 12148

(Sorry to tie up the net for this, but it's more important than that code speed s#@!)

Bob, KA1XN...What is your E-Mail Address?????

-- Ray, K4HJJ
hjj@med.unc.edu

2130. Alf And Willie Tanner Hams?

Newsgroup: rec.ham-radio
Date: 1990-04-05 19:37:09 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12579456277.10.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 12147

I remember watching ALF one evening and briefly saw a nameplate with a call sign on it WA6--- I think. Has anyone seen this? If so who does it belong to (given the call sign, we could look it up in the call sign server).

I hate to watch such a dumb show just to get the call sign....

2131. College and Univ Net and San Diego Crew Classic

Newsgroup: rec.ham-radio
Date: 1990-04-05 21:31:22 UTC
From: sanford@ucsd.Edu
Message-ID: <12947@ucsd.Edu>
Source record: 12131

This weekend on the College and University Net, we are going to try
to have a special event station set up in San Diego at the Crew
Classic to attempt to pass traffic and messages for the various
colleges and universities that are participating. I will try to be
on the air at 1800Z on 28.425. Hopefully the conditions (weather
and RF) will be satisfactory for the event. If you want to be
involved in this, please tune in this Saturday. Please note, we are
trying to get this setup in a hurry, so if things dont work out,
please continue on with the net as normal. I will try to call with
my callsign (N6WUY). This is also not sanctioned
by anyone, so we are just going to wing it. If you have any
questions please REPLY by email not the net.
I will check my e-mail regularly. You can mail to any of the addresses below.

Talk to you this weekend (hopefully). 73 de Mike

Mike Sanford (619) 534-4870 |Internet: sanford@ssurf.ucsd.edu
Scripps Institution of Oceanography |BITnet: msanford@ucsd.bitnet
University of California, San Diego |UUCP: ...!ucsd!ssurf!sanford
A-030-SSURF |SPAN/DECnet: SSURF::SANFORD
La Jolla, CA 92093 USA	HAM Callsign: N6WUY

Why do you park on a driveway and drive on a parkway?

2132. Mods for Bearcat 210xl

Newsgroup: rec.ham-radio
Date: 1990-04-05 21:37:07 UTC
From: bartsch@thor.acc.stolaf.edu
Message-ID: <11890@thor.acc.stolaf.edu>
Source record: 12132

I own an old Bearcat 210xl scanner which I bought back in 1985. With all the discussion of extended receive modifications available for various scanners, I began to wonder if anyone has ever modified their 210xl, especially since it has rather limited scanning ranges.

There are no mods posted to any MODS databases that I am aware of. Post or email replies. Thanks.

--
==========
Eric A. Bartsch N0JVP Senior
St. Olaf College Philosophy/Political Science
Northfield, MN 55057 bartsch@thor.acc.stolaf.edu

2133. Re: Loading of Telephone Channels by Voice or Data

Newsgroup: rec.ham-radio
Date: 1990-04-05 23:29:30 UTC
From: rusty@cadnetix.COM
Message-ID: <11965@cadnetix.COM>
Source record: 12159

In article <12577606692.12.DEFRANCO@TOPS20.RADC.AF.MIL> DEFRANCO@TOPS20.RADC.AF.MIL (Carl DeFranco) writes:
>
>
>Ironically, it is the true digital channels that can be multiplexed into
>higher level datastreams to provide greater capacity per channel. While
>one voice circuit requires the full 64 kbps, up to 6 9600 bps channels could
>be multiplexed into the same data space.
>
>Carl DeFranco
>KB2JLY

And, be fully prepared to pay MORE for a service which costs the telco LESS to supply than it does for them to supply voice lines for the modems. Just like when they charge you more for DTMF dialing than for rotary dialing.... They save money, and you pay more for it. (It takes fewer DTMF receivers and dial registers to accept DTMF tones, partly because you spend a lot less time dialing with DTMF (on average) than with rotary.)

Oh, well... (and no smiley this time!)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

2134. Re: Aargh! Want address/info to get Heathkit catalog

Newsgroup: rec.ham-radio
Date: 1990-04-05 23:36:16 UTC
From: wb8foz@mthvax.cs.miami.edu
Message-ID: <1990Apr5.233616.27095@mthvax.cs.miami.edu>
Source record: 12133

>As a side issue, does anyone out there know when Heath started? The
>catalog doesn't say.

Seems to me, Heath started out selling AIRPLANES! The founder
died in a crash, I recall.

--
A host is a host from coast to coast.....wb8foz@mthvax.cs.miami.edu
& no one will talk to a host that's close.....(305) 255-RTFM
Unless the host (that isn't close).....pob 570-335
is busy, hung or dead.....33257-0335

2135. Re: Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-06 00:04:49 UTC
From: mikew@hpsad.HP.COM
Message-ID: <1530043@hpsad.HP.COM>
Source record: 12149

> From: mmm@cup.portal.com (Mark Robert Thorson):
>
> I had thought that Litz wire was the stuff used for the cords of old-
> fashioned headphones, mostly because it was limp. Is this true? Is that
> difficult-to-solder stuff used for cheap earphones Litz wire?
> ...
> The leads
> seemed like what I have always called "Litz wire", i.e. tiny threads of
> copper woven with some kind of fiber.
>

No, this is not litz wire. The stuff in earphone wire that's
impossible to solder is just that--tiny metal wires or films wrapped
around a fiber core.

Litz wire is a bunch of strands of conductive wire that are
electrically isolated from one another except at the two ends.

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsadmjw.hp.com
mikew%hpsad@hp-sde.sde.hp.com

Hewlett-Packard Co. Volunteer firefighter/EMT
Signal Analysis Division Penngrove Fire Prot. Dist.
1212 Valley House Drive Penngrove, CA
Rohnert Park, CA 94928
(707)794-4454
****

2136. Re: Micrwave

Newsgroup: rec.ham-radio
Date: 1990-04-06 00:39:22 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500491@ux1.cso.uiuc.edu>
Source record: 12134

Can someone post the microwave bands other countries are authorized to use?

(not just the ones on other regions, but rather exactly what the PTT in
those countries have authorized to hams)

Enquiring minds want to know.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2137. beginner projects for radio amateurs (looking for)

Newsgroup: rec.ham-radio
Date: 1990-04-06 04:39:55 UTC
From: bill@b11.ingr.com
Message-ID: <7784@b11.ingr.com>
Source record: 12135

I am fairly new to amateur radio (licensed last november), and am interested in building some simple "rigs". My main purpose is to gain some practical experience in working with transistors, analog circuits, and radio circuits in particular.

I would like to hear from any of you that have similar interests, (especially you elmers out there :-).

I would also like to hear recommendations about books, magazines, etc. Also recommendations on mail-order part supply houses, as I am not close to any large metro areas. For example, a couple of the projects call for an audio transformer (10k to 2k), and I haven't had any luck finding it locally.

I have access to the following books:
Solid State Basics for the Radio Amateur - ARRL (this is is just about right for me, albeit a little old, eg no WARC bands)
Solid State Design for the Radio Amateur - ARRL (probably great, but over my head right now)
Understanding Amateur Radio - ARRL (good, but tries to cover a lot of material in one book)
QRP Notebook - ARRL (looks really neat, but it assumes the reader is already pretty comfortable transistors, etc)

Note: The fact that some of the above books are over my head doesn't mean that the books aren't good-- they just aren't aimed at beginners.

So, I would sure like to hear from you folks out there. By email, or on the air sometime. I'd love to tune in to a nice discussion on building QRP rigs, etc. I operate on 80, 40, 20, 15, and 10M.

Thanks in advance! de kc4mxj bill welch uunet!ingr!bill

2138. how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-06 04:48:12 UTC
From: bill@b11.ingr.com
Message-ID: <7785@b11.ingr.com>
Source record: 12136

I have spent a lot of time trying to increase my speed, and
am not too pleased with the results. I would sure like to hear
from some of you out there who have already passed the 20wpm
mark. What method did you use? Computer programs? Tapes?
What speeds? What type of text did you practice with?

I used the computer for my initial training and Novice test,
then switched to cassette tapes-- recordings (from the computer)
of simulated QSOs, the 30 most frequently used English words, etc.

Thanks in advance! de kc4mxj bill welch uunet!ingr!bill

p.s. if you want to discuss code vs no-code, please post your
own article, and change the subject line! :-)

2139. Re: Foreign Language Translators

Newsgroup: rec.ham-radio
Date: 1990-04-06 05:44:36 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21819@bellcore.bellcore.com>
Source record: 12139

In article <659@ajpo.sei.cmu.edu> griest@ajpo.sei.cmu.edu (Tom Griest) writes:

>It seems to me that amateur international communication could be served
>by the availability of a public-domain translation system for use with
>PC-based communication systems.

This is out of my area, but my understanding is that these systems are
either very limited in what they can do or are quite big and expensive,
or both.

But this *is* a most interesting topic. The development of packet radio has,
for the first time, made it possible for amateurs to send and receive
error-free text with a bandwidth almost large enough to do some real
human-to-human communicating. (Unlike CW, which I suspect is called the
"ham's universal language" because it's so slow and unreliable that you
spend all your time in standardized QSO overhead -- you never get far enough
to hit a language barrier! :-))

Ahem. Seriously, I think many more people might be more willing to practice
a foreign language by packet than by voice, especially when their knowledge
of the language is very weak. The main thing is that as long as the other
guy is patient, you can take plenty of time and use your dictionary if
necessary. Pronunciation and spelling ambiguities are avoided. Obviously
this doesn't help you learn the spoken form of the language, but it might be
a good way to get exposed to something you might not otherwise try at all.

Phil

2140. 210xl

Newsgroup: rec.ham-radio
Date: 1990-04-06 06:06:16 UTC
From: mikey@pnet01.cts.com
Message-ID: <2110@crash.cts.com>
Source record: 12146

I have the same old scanner. I would be interested in any responses to your query. Good Luck. ...Mike

****
Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey
****

2141. TVI/RFI - Need ADVICE !

Newsgroup: rec.ham-radio
Date: 1990-04-06 07:02:27 UTC
From: nfunamura%mis2.decnet@NUWES-LLL.NAVY.MIL
Message-ID: <9004060702.AA02217@ucbvax.Berkeley.EDU>
Source record: 12144

In Message-ID <1990Apr4.053057.7176@tandem.com>, Stuart Phillips writes:

<Folks, I need some advice.

<Since 12/88 I've been working a TVI/RFI problem with my neighbor. Initial
<problems such as 10 m interference with TV channel 2 were soon fixed (at
<my *small* expense) but his stereo system proved to be a first class
<receiver of 40 m and 20 m RF. As little as 5 watts on 40 m at some 80
<feet horizontal and 30 feet vertical separation causes severe hum on
<his ONKYO stero tuner/amp.
<.....

I don't know if this is the latest edition, but I have a copy of a 31 page pamphlet titled "How to Identify & Resolve Radio-TV Interference Problems". It was published by the FCC and is labelled "second edition, September 1982". On page 11, titled "Audio Inteference and Remedies":

INTERFERENCE TO AUDIO DEVICES (TELEPHONE, STEREOS, AM/FM RADIOS)
"Telephones, electronic organs, stereo/hi-fi equipment, or AM/FM radios can be susceptible to interference. The source of interference will determine the affect on your audio device. For instance, if the equipment is picking up a nearby radio transmitter, you may hear the voice of the operator. When electrical interference is present, you may hear a sizzling or popping sound. If you are receiving interference from a nearby radio transmitter, you should contact the operator and provide the Radio Operator Guidelines section of this handbook.

1. Generally, internal modification of your equipment must be made to eliminate the interference.
2. For safety reasons, it is recommended that any modification be made by a qualified service representative. The service representative should make the modification in the home while the interference is occurring, in order to locate the point at which the interfering signal is entering the equipment."

Further on the same page titled "OTHER AUDIO DEVICES"

"For other audio devices, such as stereo or hi-fi systems, the following steps may be taken before calling your service representative:

1. Replace unshielded wire between the amplifier and speakers with shielded wire.
2. Ground the affected equipment to a metallic cold water pipe or ground rod with a piece of 'bell wire,' which can be obtained at most electronic, hardware, or variety stores. Do not ground 'AC-DC' type devices. Normally, devices which may safely be grounded will provide a grounding terminal. If no terminal is provided, then you should consult a qualified

service representative for advice."

Page 12, "RADIO TRANSMITTER OPERATOR INFORMATION"

RADIO TRANSMITTER OPERATOR GUIDELINES
"Some interference problems can be traced to radio transmitters. When you receive an interference complaint from your neighbors, the following steps will help resolve the problem.
We encourage you to cooperate with your neighbor(s) and assist them in resolving the problem. When a positive dialogue between you and your neighbors exist, the problem will be more easily resolved.
It will also be most helpful to the commission and the general public if you would encourage a cooperative attitude among other radio operators.
Voluntary implementation of the steps outlined below, may prevent you from being directed by the Commission to implement these measures. The Commission does not, however, require that you service or modify your neighbor's TV set or audio device."

Sections on CB and Linears omitted.....

RESOLVING AUDIO INTERFERENCE
"Although audio inteference (often called audio rectification) is usually resolved by modification of the affected device, you as a radio operator can take certain steps to reduce the probability of audio rectification by eliminating circulating radio frequency (RF) currents in grounds and metal objects in the area.
1. Your radio transmitting equipment should be effectively grounded to a metallic cold water pipe or a ground rod driven into the ground at least 8 feet. The ground lead should be at least #10 wire or copper ribbon. The greater the surface area of the ground lead, the more effective it will be. Also, the ground lead should be as short as possible.
2. You are reminded that CBers are limited to 5 watts input power. Operating with excessive power is likely to cause audio interference problems.

If you need assistance in performing the above modifications to your equipment, you can contact the dealer or manufacturer's representative. An FCC-licensed service representative may also be able to assist you. A licensed representative normally will be available at your local CB repair or Service Center.

RESOLUTION OF INTERFERENCE FOR AMATEUR TRANSMITTER OPERATORS
1. If you have a linear amplifier on your amateur transmitting equipment, use two lowpass filters. One filter should be installed between the actual transmitter (exciter) and the input to the linear amplifier. (This prevents harmonics generated in the exciter from reaching the linear amplifier.) The second filter should be installed at the output of the linear amplifier to reduce harmonic and spurious content.

2. One unique interference problem to TV Channel 2 is from an amateur transmitter operating on the 6 meter band. This is due to the close proximity of the frequencies involved. You may wish to follow the procedures outlined in the Technical Information for Service Representatives section, page 23, to

eliminate this type interference. You are not, however, required to service or add filtering to the complainant's television, and should not take any such action without the full cooperation of your neighbor.

3. You are reminded that amateurs are licensed to use only the amount of power necessary to carry out communications.

4. Local Television Interference (TVI) Committees are available to assist you in resolving interference problems. Contact the nearest FCC district office (See addresses beginning on page 21), or the American Radio Relay League, Newington, Connecticut, for assistance in locating a TVI committee in your area."

Don't know what position the FCC takes today but this is what they said eight years ago. GOOD LUCK!

73, Norman
KH6R

2142. Re: College and Univ Net and San Diego Crew Classic (Correction)

Newsgroup: rec.ham-radio
Date: 1990-04-06 07:18:33 UTC
From: sanford@ucsd.Edu
Message-ID: <12958@ucsd.Edu>
Source record: 12143

In article <12947@ucsd.Edu> sanford@ucsd.Edu (Mike Sanford) writes:
>This weekend on the College and University Net, we are going to try
>to have a special event station set up in San Diego at the Crew
> I will try to be on the air at 1800Z on 28.425.
^^^^
I will probably be on the air at 1600Z (0900 PDT).
73 de Mike, N6WUY

2143. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-06 07:29:36 UTC
From: kjh@pollux.usc.edu
Message-ID: <23929@usc.edu>
Source record: 12142

In article <7785@b11.ingr.com> bill@b11.ingr.com (Bill Welch) writes:
>I have spent a lot of time trying to increase my speed, and
>am not too pleased with the results. I would sure like to hear
>from some of you out there who have already passed the 20wpm
>mark. What method did you use? Computer programs? Tapes?
>What speeds? What type of text did you practice with?

Throw out the code tapes, the computer programs, the computer (just kidding). To increase your code speed:

GET ON THE AIR AND HAVE REAL QSO's WITH REAL PEOPLE.

It's just that simple. You'll find that the fastest people are in the novice band. The next fastest are in the general class portion, just above the extra class portion. Work the people who are going just a little bit faster than what you can comfortably copy.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2144. Re: CW and the handicapped

Newsgroup: rec.ham-radio
Date: 1990-04-06 08:34:20 UTC
From: tenney@well.sf.ca.us
Message-ID: <17086@well.sf.ca.us>
Source record: 12160

I asked a similar question a while ago of the ARRL VE coordinator.
Everyone must take and pass the test, period. However, if I recall,
they can use someone to help copy (I believe the sample was
someone they could talk to who would copy for them). Believe it
or not, the best source of an answer would be for YOU to call the ARRL
and ask them. I might have misremembered, so post the correct answer
later.
tnx
Glenn

2145. Re: Where am I?

Newsgroup: rec.ham-radio
Date: 1990-04-06 13:22:32 UTC
From: dvh@cci632.UUCP
Message-ID: <35760@cci632.UUCP>
Source record: 12137

In article <B48374BECDFFA01CC6@uwplatt.edu>, UCSBPM@UWPLATT.EDU ("Brian P. McCarty ", N9IWP) writes:
> I am making QSL cards and am trying to find out what grid square
> my home QTH is in. The city (village) is Sister Bay, WI
> Looking on a 15' topographic map, I estimated :
> 40 deg, 11.5' N, 87 deg, 7' W
> But looking at the National Atlas of the US (published by the gov't) says
> 45 deg, 11.3' N, 87 deg 7.3' W
> I dunno if this is city (village) hall or not, but
> a) Sister Bay isn't all that big
> b) I live pretty close to village hall
> I know there was an article in the (aug 89?) issue of QST, but all the 89
> issues are missing at the library. I would like to know how to find out my
> grid square and/or what it is. I really want my SIO (oops)
> SIX digit grid square (yes, 6, and yes, I am wierd)

Brian-
I hope this helps. The QST article which describes how to determine in which Grid Square you reside, was titled "VHF/UHF Century Club Awards" by John Lindholm, W1XX and was published in the January, 1983 issue on pages 49-51.

By the way, you're either in EN60ke (40 deg, 11.5' N by 87 deg, 7' W) or EN65ke (45 deg, 11.3' N by 87 deg, 7.3' W).

I suspect the latter, because my geography is relly screwed up, I don't see how any part of Wisconsin could be much further South than azimuth 270 deg from my QTH here in Rochester (FN13fb, lat. 43.07 N by long. 77.54 W).

By the way, there may be others interested in determining their grid locator, and I had to spend a fair amount of time looking through QST indices to find the article, so I thought I'd post this to help their search, as well.

73

Dave KD5RO/2

2146. Second Annual Open House at WPI / W1YK

Newsgroup: rec.ham-radio
Date: 1990-04-06 13:22:38 UTC
From: jwhitson@WPI.WPI.EDU
Message-ID: <9004061422.AA04099@wpi.wpi.edu>
Source record: 12138

On April 7, 1990, at Worcester Polytechnic Institute
in Worcester, Massachusetts, the WPI Wireless Association
will be holding The Second Annual Open House in its Ham Shack.
It will run from 10:00 AM to 4:00 PM (EST). We will be working
on many bands (160m - 10m, 2m, 440MHz, as propagation permits),
and in many modes. The Club Station, W1YK, is excellently
situated on the roof of Salisbury Laboratories, which is one
of the buildings on the top of a large hill where WPI is located.

Come and help us celebrate our 81st Anniversary!

New Information
In addition, W1YK will be trying to WAS on as many bands as
possible, so if you can't be there, listen for us! Talk-In Frequency
of 146.925 (-). It is supposed to snow a bit, BUT THAT WON'T STOP US!
And we hope it won't stop you!!!!!

Humerous Section
BRING WOMEN!! The Male/Female Ratio at WPI is 7/1, and there are
NO female members at the Radio Club!! We've got SATELLITE capability!
Come and get spaced-out!! Come anyway!! PLEASE!! Packet Too!!!

Once again, feel free to call us or whatever for more information.
The phone in the shack is (508)831-5446, and we listen to the
Worcester Repeater at 146.925 (-). Or send email to me:

---------- If at first you don't succeed, so much for skydiving ---------
John Whitson: Internet: jwhitson@wpi.wpi.edu Bitnet: jwhitson@wpi.bitnet
73's from KB2GNC/1 UUCP: uunet!wpi.wpi.edu!jwhitson
---------- Anything with this tag on it is purely my own opinion ---------

2147. Re: Real People?

Newsgroup: rec.ham-radio
Date: 1990-04-06 15:02:20 UTC
From: brian@ucsd.Edu
Message-ID: <12961@ucsd.Edu>
Source record: 12162

Oh, I can't resist!...

In article <23929@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>GET ON THE AIR AND HAVE REAL QSO's WITH REAL PEOPLE.

Oh my. We all know that hams aren't real people - most of us are
social cripples who found ham radio so very very appealing because it
insulates us from the strain of interpersonal relationships. We feel
uncomfortable talking to people in person, face-to-face. We are, in
fact, the prototypical Asimov's Solarian.

Strike a chord?

Done Viewing.
- Brian

2148. Re: Technical question on RF power measurements

Newsgroup: rec.ham-radio
Date: 1990-04-06 16:38:33 UTC
From: music@hpfcmgw.HP.COM
Message-ID: <1690051@hpfcmgw.HP.COM>
Source record: 12150

/ hpfcmgw:rec.ham-radio / kjh@pollux.usc.edu (Kenneth J. Hendrickson) / 6:35 am Apr 3, 1990 /
In article <8230@tank.uchicago.edu> gary@tank.uchicago.edu (Gary Buchholz) writes:
>% 2) On 3 different radios(transmitters) I see the following:
>% a) RF Input- 5 Watts; RF Output 4 Watts
>Somebody is lying. Possibly in the marketing department.

Actually not, it is real easy to get 4 or more watts out of a CB with only
5 watts DC input (quiescent). (Maybe even 10 watts out for only 5 in...
it's not magic, its bending the rules just a bit).

>% b) RF Input- 5 Watts; RF Output 3.5 Watts
>This I find hard to believe also, but it might be possible for a "plate"
>modulated class C final, for AM only.

Actually this may be quite accurate, CB final outputs are "PLATE" or
as we in the biz say "collector" modulated class C amplifiers. I'd
expect to see a realistic 3.5 watts out under normal conditions.

>% c) RF Input- 5 Watts; RF Output 2.5 Watts
>This is easy to believe.

If this is true, then the transmitter isn't working efficeintly.

OK JOHN, HOW DO YOU GET ALMOST 5 WATTS OUT FOR ONLY 5 IN WITH AN AMPLIFIER
THAT ISN'T RUNNING ALMOST 100% EFFICIENT?

I'm glad you asked. Its easy, just bend the rules a bit. How?

Look at the diagram of any of the modern CB rigs. You may notice a diode
and a capacitor in the audio circutry feeding the collectors of the driver
and final RF amps. Simply put, the non modulated DC input to the final is
in fact ~5 watts. If one were to whistle into the microphone and produce
a nice sine wave, a portion of the audio amp power output is converted into
a little extra DC power that "kicks the power up to the final amp" during
periods of modulation. This nonlinear pumping of the final power will not
cause enough distortion to cause any noticeable degredation of the signal
quality. (HAHAHAHAHAHAHAHAHA) And it may be close enough to legal that the
FCC lets it slide. Thus, one will note that the appearent power output,
when measured with a BIRD watt meter, will actually go UP if you make sounds
in the microphone. This shouldn't happen on a real collector modulated
RF transmitter, but it does on CB's.

Love it when those marketing folks figure out a way to adjust reality!

John Wells WA0LHB in Ft. Fun, Coloradio

2149. Crystal Earphones (was Re: Litz wire)

Newsgroup: rec.ham-radio
Date: 1990-04-06 17:00:51 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004070945.AA03363@ucbvax.Berkeley.EDU>
Source record: 12151

THe catalog for Yeary Communications that I posted the note about a week back lists several crystal earphones, with tinned leads or with a plug on the wire. For those that didn't keep the reference, here's an extract:

Date: Mon, 2 Apr 90 8:15:26 CST
Subject: Re: SW Radio Kit
....
Write for a catalog:

Yeary Communications
12922 Harbor Blvd., Suite 800
Garden Grove, CA 92640
[No phone given]

Regards, Will

2150. INFO-HAMS Digest V90 #374

Newsgroup: rec.ham-radio
Date: 1990-04-06 17:05:22 UTC
From: rbarth@TUMTUM.CS.UMD.EDU
Message-ID: <9004061705.AA20300@tumtum.cs.umd.edu>
Source record: 12152

Re: IC22 Crystals.

I also replied via direct mail and have heard nothing since. Maybe
the original poster is on vacation?

2151. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-06 17:24:19 UTC
From: bobc@hplsla.HP.COM
Message-ID: <5720062@hplsla.HP.COM>
Source record: 12153

I plan on taking the 20wmp test next week. For me, getting my speed up hasn't been too painful. (FLAME PROTECTION ON) I've learned to copy code using computer programs only. (FLAME PROTECTION OFF). I generally practice 30-45 minutes a night, and have been doing so for the last 2 weeks.

The program I have allows the send speed and the character speed to be adjusted separately. By setting the character speed at 20wpm and the send speed at 8-13 wmp, I had sufficient time between characters to recognize and record (using pencil and paper) the character being sent. Whenever I reached a point at which I could copy random character groups with 50% accuracy, I would bump the send speed up another 2-3 wpm. Occasionaly I would try and copy at 23wmp. Even though I could only get about 20% of the characters at that speed, it seemed to improve my ability to copy at 20wmp. I spend most of my time copying random character groups (letters, numbers, and puctuation). Usually, before I shut the computer off, I spend a few minutes copying regular text at 20wmp. I sometimes get in trouble with text because I try and second guess the word being sent. When that starts to happen, I have to try and ignore the message content and pretend that I'm back copying crypt groups. It works for me.

Good luck on your upgrade.
--

Bob Cutler
KE7ZJ
Lake Stevens Instrument Division
Hewlett-Packard

2152. Re: HF Transceiver to drive transverter.

Newsgroup: rec.ham-radio
Date: 1990-04-06 17:34:01 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <eZV8g1w161w@w8grt.fidonet.org>
Source record: 12154

PJML@ibma.nerc-wallingford.ac.UK ("Pete Lucas, NCS-TLC, Swindon U.K.") writes:

> Anyone out in netland got any advice on HF transceivers? I primarily
> want one to drive transverters for six, four and two meters (yes we have
> 70.0 to 70.5MHz as a ham band here in the UK).
>
> Requirements as follows:
>
> 'Old' HF bands (not interested in WARC bands).
> Spin-tuned VFO (no nasty synthesizers unless they step in 1Hz steps!)
> Analog readout to 1KHz or better.
> AM/FM/SSB capability.
> High resistance to crossmodulation (i.e a tube frontend!)
> Room for lots of filters (15KHz, 6KHz, 2.4KHz and 600Hz).
> Plenty of audio output (at least 4 watts to external speaker)
> Input socket for ALC from transverter.
> Able to run 100% duty cycle for at least 1/2 hour on FM/AM/RTTY duty.
> User-serviceable without any need for special tools, non
> miniature components, no surface-mount devices, and finally;
>
> No Gimmicks! I dont want scanning, memories, voice IDs,
> speech processors or any of that sort of stuff.
>
> Somehow i think i have just described a member of the Drake '4' line....

You also described the Drake TR-7 with remote VFO and cooling fan. It doesn't have FM as is, but it's no big big trick to modify for that. I used one for years and loved it. Wish economic concerns hadn't forced me to sell it. In the U.S. a good condition used '7 brings about $650.

2153. Re: CW and the handicapped

Newsgroup: rec.ham-radio
Date: 1990-04-06 17:35:09 UTC
From: msjohnso@ensub.Wichita.NCR.COM
Message-ID: <302@ensub.Wichita.NCR.COM>
Source record: 12155

In article <10510006@hpcuhb.HP.COM> fel@hpcuhb.HP.COM (Skip La Fetra) writes:
>A slightly-off-the-topic question -- what about the requirement to
>send?

The requirement to send hasn't been enforced for some time, as far as I know.
I had to send when I took my last exam in about 1976, but I think it was
shortly thereafter removed as a test requirement.
--
Mark Johnson WB9QLR/0 NCR Peripheral Products Division, Wichita KS
Mark.Johnson@Wichita.NCR.COM Opinions expressed here are the author's.
CIS 76670,1775

2154. Re: Aargh! Want address/info to get Heathkit catalog

Newsgroup: rec.ham-radio
Date: 1990-04-06 17:35:37 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <32V8g2w161w@w8grt.fidonet.org>
Source record: 12156

wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:

> Re Heath:
> >Try (800) 253-0570. Visa, Mastercard, and American Express.
>
> As a side issue, does anyone out there know when Heath started? The
> catalog doesn't say. I expected to find some sort of advertising puffery
> like "serving America's electronic hobbyists since <date>" in it
> somewhere but couldn't find any such reference. I thought they began in
> the early '50's. Anybody on the net know for sure?

They started in the 30's marketing an airplane kit. No, not a model airplane kit. An honest to God get in it and ride it airplane kit. Then they had a boat kit and (I think) furniture. They returned to civilian pursuits immediately after World War 2 with a 5" oscilloscope kit based on military surplus CRT's and took off from there to where they are now - just another dealer for other people's products.

2155. FCC employees

Newsgroup: rec.ham-radio
Date: 1990-04-06 18:13:00 UTC
From: commgrp@pewter.ucs.indiana.edu
Message-ID: <12600094@pewter>
Source record: 12157

The April 1990 issue of _Sport Aviation_ (monthly magazine of the Experimental Aircraft Association) has an article on page 31 entitled "National Airspace System Plan Forum Hosted by EAA." In this forum, Federal Aviation Administration representatives were asked pointed questions about new requirements for very expensive avionics, including 720-channel aircraft radios with 25kHz spacing.

The article quotes Gerald Markey, manager of the FAA's Spectrum Engineering Division, as saying:

"The FCC has about 2200 employees, 1100 of which are lawyers. Most of their decisions are legal rather than technical."

--

Frank W9MKV reid@ucs.indiana.edu

2156. Low Frequency Transmitters

Newsgroup: rec.ham-radio
Date: 1990-04-06 18:13:45 UTC
From: georgez@synopsys.com
Message-ID: <484@synopsys.COM>
Source record: 12158
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I am looking for information on building / buying a low power
VLF transmitter for LW beacon application. I understand there
is a frequency range somewhere around 150 Khz where experimental
beacons are A-OK. Does anyone have any information on this
subject?

'73 George Zafiropoulos - KJ6VU
Internet address: georgez@synopsys.com

2157. Automatic reception of CW? Help!

Newsgroup: rec.ham-radio
Date: 1990-04-06 18:55:02 UTC
From: wille@hpccc.HP.COM
Message-ID: <5540033@hpccc.HP.COM>
Source record: 12161

I am interested in locating any computer code (preferably "C", but
I'll take ANYTHING) that *adaptively* converts dits and dahs (actually,
the individual bit lengths) into their equivalent characters. This is
the type of thing that some multi-mode controllers (like the PK-232) do.

It should be able to automatically determine the sending speed and
track it (if it varies) and adapt to the particular "fist" of the sender,
compensating for different ratios in the dit/dah/space lengths.

It would be nice if it had some AI-like features that tried to correct
errors (either in the sending, or due to static). For example, if the
character is not a valid letter, it may be two letters run together, or
a dah broken into two dits by static, etc. It could pick the most
likely candidate based on rules involving timing, context, etc.

Pointers to any articles written on the subject of automatic reception
of CW signals using adaptive techniques would be appreciated.

73, Ross N6SJD

+===+
Ross Wille - N6SJD	Email: wille@hpda.hp.com	"Undetectable errors are
Hewlett Packard	-or- wille@hpccc.hp.com	treated as if no error
Cupertino, CA	Phone: (408)447-0215	occurred." - IBM Manual
+===+

2158. Re: Foreign Language Translators

Newsgroup: rec.ham-radio
Date: 1990-04-06 19:34:24 UTC
From: winter@Apple.COM
Message-ID: <40108@apple.Apple.COM>
Source record: 12163

In article<21819@bellcore.bellcore.com>karn@ka9q.bellcore.com(Phil Karn)writes:
> I think many more people might be more willing to practice
>a foreign language by packet than by voice, especially when their knowledge
>of the language is very weak. The main thing is that as long as the other
>guy is patient, you can take plenty of time and use your dictionary if
>necessary.

Mygawd, Phil--I hope you aren't suggesting that people do this during real-time keyboard-to-keyboard contacts. My experience is that most hams type so slowly anyway that it seems like eternity waiting for a response. I dread the thought of the additional delay that would be introduced if they're constantly consulting a dictionary and typing in unfamiliar words!

I don't think "patient" would describe a ham who'd be willing to sit through that. "Masochistic", perhaps. :-)

Patty

p.s. Yes, I know that people can begin typing their responses while the other person is sending, and buffer their text until it's done. But a fast typist can still catch a slow typist unprepared. Or maybe folks just aren't pre-buffering their responses.
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

2159. Re: NEWSLINE NO-CODE NTRN QUERY

Newsgroup: rec.ham-radio
Date: 1990-04-06 21:34:45 UTC
From: <>
Message-ID: <21858@bellcore.bellcore.com>
Source record: 12164

In article <9004050707.AA03656@ucbvax.Berkeley.EDU> SKAGOO@MEMSTVX1.BITNET (SURESH KAGOO N9GSA/4S7???) writes:
>We have already received our port assigment from Newsline. The question that
>we have now is whether the teleconference is two way over the phone patch or
>do people with questions call on a seperate line ?.

My understanding is that the connections will be one-way. Callers may leave questions on an answering machine which will be periodically "dumped" during the conference and read on the air in non-real time. The reason for this is to eliminate the air time that would otherwise be spent on overhead like bad connections, callers that hang up, requests to turn down radios to avoid feedback, etc.

Phil

2160. Re: Low Frequency Transmitters

Newsgroup: rec.ham-radio
Date: 1990-04-06 22:11:52 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <40990@iuvax.cs.indiana.edu>
Source record: 12165

>I am looking for information on building / buying a low power
>VLF transmitter for LW beacon application. I understand there
>is a frequency range somewhere around 150 Khz where experimental
>beacons are A-OK. Does anyone have any information on this
>subject?
>
>'73 George Zafiropoulos - KJ6VU
>Internet address: georgez@synopsys.com

The U.S. has an unofficial "ham" band at 160-190 kHz (1750 meters). Part 15 of FCC Rules and Regulations permit license-free operation in that band with the limitations of one watt transmitter power and 50 feet maximum antenna length.

Most 1750m operation is beacons; there are few two-way QSOs. 1750m operation is a challenge: A 50-foot antenna at that freq. must be super efficient-- It must have a very high-Q loading coil and a super ground system. Receiving requires sophisticated antenna preamps and converters, and selective audio filters. Atmospheric noise makes the band fairly useless in summer. The DX record on 1750m is over 1000 miles. The current hot topic among 1750m enthusiasts (called "Lowfers") is BPSK (binary phase-shift keying) at very low baud rates, using WWV-locked frequency control.

1750m transmitters are very easy to build. The newsletters listed below have published numerous plans.

VLF/LF Resources

Newsletters:

Longwave Club of America
45 Wildflower Road
Levittown, PA 19057
Newsletter: _The Lowdown_ $12/year (12 issues)

Northern Observer
Herb D. Balfour
91 Elgin Mills Rd. West
Richmond Hill, Ontario
CANADA L4C 4M1
Published aprox. monthly. US$12/year and 12 self-addressed business-size envelopes; Herb will affix postage for non-Canadian subscribers.

Western Update
Jim Ericson
226 Charles St.
Sunnyvale, CA 94086-6063
Pulished aprox. monthly. $10/year and 12 business-size SASEs
with 25 cents postage.

State-of-the-art VLF preamps and converters:

Burhans Electronics
161 Grosvenor St.
Athens OH 45701

--

Frank Reid W9MKV @ K9IU reid@ucs.indiana.edu

2161. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-06 22:21:13 UTC
From: mdbomber@portia.Stanford.EDU
Message-ID: <10888@portia.Stanford.EDU>
Source record: 12166

In article <9004060731.AA03257@ucbvax.Berkeley.EDU> MCL9337@TAMVENUS.BITNET writes:
>One day last year "me 'n' the boys" (the other guys in the Texas A&M
>Amateur Radio Club - W5AC) watched Die Hard on video and could not keep
>ourselves from laughing at this.
>
>In answer to your question about his knowing the police frequencies, he
>didn't have to. Quite insultingly, the Kenwood radios used were supposedly
>(ACK!) CBs!!! Early in the show, he gets on the roof of the building and
>says "Channel 9" something or other... don't ask me why we are supposed to
>swallow the idea that the police use CB radios, but I guess it works for the
>uninformed public. Hey, they used them on the Dukes of Hazzard!

"Sir, this frequency is for emergency transmissions only."
"What do you think this is?! I'm ordering a pizza or something?!"

That was the good part about the radio sequences. I believe in the
movie it said he was broadcasting on Channel 9 when he did this.

Sounded like the Ch 9 operator was about as helpful as the 911 operators
are reputed to be.

--
Internet: mdbomber@portia.stanford.edu Matt Bartley
Bitnet: mdbomber%portia@stanford.bitnet
Kirk: "Spock! Where the hell's that power you promised?"
Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

2162. Re: Foreign Language Translators

Newsgroup: rec.ham-radio
Date: 1990-04-06 22:58:30 UTC
From: <>
Message-ID: <21864@bellcore.bellcore.com>
Source record: 12167

>Mygawd, Phil--I hope you aren't suggesting that people do this during
>real-time keyboard-to-keyboard contacts. My experience is that most
>hams type so slowly anyway that it seems like eternity waiting for a
>response. I dread the thought of the additional delay that would be
>introduced if they're constantly consulting a dictionary and typing in
>unfamiliar words!

Well, I *did* qualify my statement by using the word "patient". But the
fact that so many hams are willing to tolerate 1200 baud or even 300
baud packet in real time across NET/ROM networks or HF paths says that
there must be a lot more patience out there than you or I would give them
credit for.

Seriously, non-real-time email would probably be a lot more practical.

Phil

2163. Re: Foreign Language Translators

Newsgroup: rec.ham-radio
Date: 1990-04-07 00:38:29 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500492@ux1.cso.uiuc.edu>
Source record: 12171

Reading a foreign language you don't yet know is a lot easier than
listening to one because you at least get to see where the words
end and begin.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2164. TAPR TNC High Speed Serial Port Upgrade for 19.2 K baud

Newsgroup: rec.ham-radio
Date: 1990-04-07 02:31:32 UTC
From: 31002_1650@uwovax.uwo.ca
Message-ID: <5629.261d18c5@uwovax.uwo.ca>
Source record: 12168

This is a relatively easy modification that can be performed to most
TAPR TNC-2 boxes to allow 19.2K aynchronous communications between the
TNC and your computer.

FIRST *** Replay U3 (LM324) with a TL084CN or TL094 FET op-amp. The LM324
craps out at 9600 baud and is dead at 19.2K.

Cut the PC trace that goes to PIN 2 of U1 (divider) about 1/8 " from the
I.C. itself. Solder a jumper from pin 10 of U1 to the trace that you
just isolated. Solder to the side of the trace that goes to pin 1 and pin 6
of SW2 baud rate selector switch.

This supplies a 307.2 Khz clock (19.2K/16) to pin 1 which is now 19.2 K baud
on the serial port instead of 300 baud as well as pin 6 which is now 19.2 K
to the modem instead of 300 baud. Turning on SW1 and SW7 will allow 19.2 K
baud on the serial port and 1200 baud on the radio port.

**** NOTE ****

The 19.2 K baud rate is UNRELIABLE with the PMS code. We are using the
TAPR 1.1.6 code (or lower) without PMS and are having excellent results
on the serial port. The radio port is currently running at 9.6 K and is
connected to a G3RUH modem and a Kantronics DVR 2-2. Plans for next week
include increasing the G3RUH speed up to 19.2 K baud.

OHHHHH WHAT A FEELING.......

73 de VE3ZAV Anthony Varga
Kellogg Canada Inc
London, Ontario, Canada
519 455 9660 VMX 367

2165. Re: Foreign Language Translators

Newsgroup: rec.ham-radio
Date: 1990-04-07 05:45:03 UTC
From: wa1lbp@n3dmc.UU.NET
Message-ID: <922@n3dmc.UU.NET>
Source record: 12169

In article <21819@bellcore.bellcore.com> karn@ka9q.bellcore.com (Phil Karn) writes:
>In article <659@ajpo.sei.cmu.edu> griest@ajpo.sei.cmu.edu (Tom Griest) writes:
>
>>It seems to me that amateur international communication could be served
>>by the availability of a public-domain translation system for use with
>>PC-based communication systems.
>
>This is out of my area, but my understanding is that these systems are
>either very limited in what they can do or are quite big and expensive,
>or both.
>
Some japanese companies have marketed calculator sized translating devices
do a word for word translation. At the Japanese-English Machine Translation
Conference in December I saw a calculator size device with a tiny scanner that
could scan english or japanese text and output the equivalent word on its
LCD screen. Students and tourists are finding these useful and perhaps
some japanese hams who see unfamiliar words on their screens while copying
a packet or RTTY signal. More ambitious work is done in the European
Community and Japan. Xerox has been successful with machine translation
by getting its tech writers to use a special limited vocabulary and simple
gramattical structures in the manual so as not to confuse the machine.
Sometimes big systems do a good job with over 90% reliability, but the
worry is what horrors lurk in the remaining 10% -- the poison cookie in the
cookie jar problem. At the translation conference it appeared that that
many good papers in linguistics bearing on the problem are being produced
while several japanese companies have translation systems up and running --
several running on a PC, generally an NEC PC-9801 series PC -- and
moving forward by making incremental improvements in hardware and software.
The difference in US and Japanese approaches to this problem seem familiar...
>
>Ahem. Seriously, I think many more people might be more willing to practice
>a foreign language by packet than by voice, especially when their knowledge
>of the language is very weak. The main thing is that as long as the other
>guy is patient, you can take plenty of time and use your dictionary if
>necessary. Pronunciation and spelling ambiguities are avoided. Obviously
>this doesn't help you learn the spoken form of the language, but it might be
>a good way to get exposed to something you might not otherwise try at all.
>
>Phil
Yes indeed. A japanese ham told me on RTTY once he wouldn't dare
speak english. In many countries like Japan, people read English much
better than they speak it. An if we work 'em on packet perhaps their
written English will come along too!

2166. Re: Worthwhile non-amateur use of 902-928 Mhz

Newsgroup: rec.ham-radio
Date: 1990-04-07 17:18:20 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <0wP0g1w161w@w8grt.fidonet.org>
Source record: 12174

jta@hydra.Jpl.Nasa.Gov (Jon T. Adams) writes:

> In article <7359@lynx.UUCP> neal@lynx.lynx.cmp.UUCP (Neal Woodall) writes:
> >In article <35654@cci632.UUCP> dvh@cci632.UUCP (David Hallidy) writes:
> >
> >>The impact of 1 Watt license-free equipment is already being felt on this
> >>band- the wireless stereo speakers that are now available immediately come
> >>to mind.
> >>...
>
> Tee Hee Hee - Sorry Neal, but you don't understand how amateur radio works...
> What will happen is that the purchasers of the wireless products will complai
> to the manufacturer or to his representatives, then the manufacturer will lob
> Congress and the FCC; the good ole' FCC, with their Laissez-faire attitude
> will change the rules to remove us from the band or further restrict our
> operations. The ARRL, when approached by us to do something to resolve this
> crisis, will claim that they are pursuing the matter, but that they're more
> worried about losing 160m privileges in the lower part of west Idaho...

Come now, the ARRL is right in the thick of really important breakthroughs
in computerizing logs for the next DX contest on the Antique Wireless
Museum bands (HF).

2167. WANTED: TM-621 Mods

Newsgroup: rec.ham-radio
Date: 1990-04-07 18:36:36 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <258@ka2qhd.UUCP>
Source record: 12170
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

I have just purchased a Kenwood TM-621-A 144/220 MHz Dual-Bander and have found the extended VHF transmit will not go above 151.995 MHz. Other owners have found the same result. Is there any way to get the radio above that frequency without major modification? If anyone has this information, it would be much appreciated.

you can send any info to: C. Crosby
PO Box 1286
Lakewood, NJ 08701
201-905-9843

or mail to me here on UUCP
or packet radio: KA2RAF@NN2Z.NJ.USA

Many thanks from Chris

2168. * SpaceNews 09-Apr-90 *

Newsgroup: rec.ham-radio
Date: 1990-04-08 00:42:01 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <259@ka2qhd.UUCP>
Source record: 12172
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0409

=========
SpaceNews
=========

MONDAY APRIL 9, 1990

SpaceNews is published and distributed weekly around the world on USENET
and Amateur Packet Radio. It is available for unlimited distribution.

* COMET AUSTIN *
================
The April issue of Astronomy Magazine has an article on observing
Comet Austin, packed with info, charts, event predictions, etc.

The following table was given in the article. It gives, for each week
during the best period, the estimated magnitude, best time to look,
altitude (in degrees) from the horizon and direction at twilight,
and some comments. I have added more comments gleaned from the text.
All are oriented to viewing from the northern hemisphere, specifically
from the US.

Week of Mag. Phase Time Alt. Dir. Notes
------- --- ----- ------- ---- ---- ------------------------------
Mar 25 3 New Evening 7 W Twilight interferes
Apr 1 2 First Evening 6 WNW 5 deg above Mercury 4/1
Apr 8 1 Full Evening 4 NW Brightest, but near sun
13 deg to right of Mercury 4/8
Apr 15 1 Last Morning 11 NE Improves rapidly
1.5 deg SW of Beta Andr 4/19
Apr 22 2 New Morning 19 NE Excellent
south of M31 5 deg 4/25
tail might cross M31 4/19-4/22
rises 3am 4/25, tail rises 2:30

Apr 29 3 First Morning 28 ENE Good early in week
May 6 3 Full Morning 38 ENE Moon hurts visibility
May 13 3 Last Morning 51 E Better late in week
May 20 3 New Morning 56 SSE Excellent
May 27 4 First Early Morn. 38 S Good after midnight
Crosses M17 morning of 5/31
Jun 3 5 Full Midnight 24 S Moon overwhelms comet
Jun 10 6 Last Late eve. 19 S Better late in week
5 deg S of Antares 6/11-12

[From: James R. B. Davies via UUCP]

* STS-31 NEWS *
==========
Liftoff of the tenth flight of Discovery is scheduled for 9:21 AM EDT (1321 Z) on April 12 from Kennedy Space Center, Fla., launch pad 39-B, into a 330 by 310 nautical mile, 28.5 degree orbit. Nominal mission duration is expected to be 5 days 1 hour 15 minutes. Deorbit is planned on orbit 75, with landing scheduled for 10:36 AM EDT (1436 Z) on April 17 at Edwards Air Force Base, California.

Launch Site: Kennedy Space Center, Fla.
Launch Complex: 39B

Orbiter: Discovery (OV-103)
Altitude: 330 nm circular
Inclination: 28.45
Duration: 5 days, 1 hour, 15 minutes

Landing Date/Time: April 17, 1990, 10:36 a.m. EDT

Primary Landing Site: Edwards Air Force Base, Calif.

Abort Landing Sites: Return to Launch Site -- KSC

Abort Once Around - Edwards AFB, Calif.

Crew: Loren J. Shriver - Commander
Charles F. Bolden Jr - Pilot
Steven A. Hawley - MS-2
Bruce McCandless II - MS-1 and EV1
Kathryn D. Sullivan - MS-3 and EV2

Cargo Bay Payloads: Hubble Space Telescope
IMAX Cargo Bay Camera

Middeck Payloads: Ascent Particle Monitor (APM)
Investigations into Polymer Membrane
Processing (IPMP)
Ion Arc (Student Experiment)
Protein Crystal Growth (PCG-III)

==========
RELATIVE
EVENT MET VELOCITY MACH ALTITUDE
(d:h:m:s) (fps) (ft)
==========

Launch 00/00:00:00
Begin Roll Maneuver 00/00:00:09 160 .14 605
End Roll Maneuver 00/00:00:15 313 .28 2,173
SSME Throttle Down to 67% 00/00:00:28 656 .58 7,771
Max. Dyn. Pressure (Max Q) 00/00:00:51 1,155 1.07 25,972
SSME Throttle Up to 104% 00/00:00:59 1,321 1.26 33,823

SRB Staging 00/00:02:06 4,145 3.77 159,670
Negative Return 00/00:04:06 7,153 7.15 341,470
Main Engine Cutoff (MECO) 00/00:08:33 24,768 23.18 361,988
Zero Thrust 00/00:08:39 24,783 22.65 366,065
ET Separation 00/00:08:51
OMS 2 Burn 00/00:42:38
HST Deploy (orbit 19) 01/05:23:00
Deorbit Burn (orbit 75) 05/00:03:00
Landing (orbit 76) 05/01:15:00

Apogee, Perigee at MECO: 325 x 27 nm
Apogee, Perigee post-OMS 2: 330 x 310 nm
Apogee, Perigee post deploy: 332 x 331 nm

[From: NASA]

* WELCOME ABOARD! *
==========
Interested in learning more about the Amateur Radio Service? For information
on licensing requirements and operating privileges, write:

The American Radio Relay League
225 Main Street
Newington, Connecticut 06111
U.S.A.

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any
of the following paths:

UUCP : ...uunet!masscomp!ocpt!tsdiag!ka2qhd!kd2bd
AX.25 : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2169. Re: Low Frequency Transmitters

Newsgroup: rec.ham-radio
Date: 1990-04-08 01:18:19 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Apr8.011819.15197@NCoast.ORG>
Source record: 12173

As quoted from <40990@iuvax.cs.indiana.edu> by commgrp@silver.ucs.indiana.edu (BACS Data Communications Group):

> >VLF transmitter for LW beacon application. I understand there
> >is a frequency range somewhere around 150 Khz where experimental
> >beacons are A-OK. Does anyone have any information on this
>
> The U.S. has an unofficial "ham" band at 160-190 kHz (1750 meters).
> Part 15 of FCC Rules and Regulations permit license-free operation in
> that band with the limitations of one watt transmitter power and 50
> feet maximum antenna length.

Interesting. "Few QSOs" there may be, but I've heard at least one of them. I thought either I'd overheard pirates or the radio was acting up: I was about a mile from a set of TV transmitters, and within 8 miles of many other TV and AM/FM broadcast band transmitters; the radio was getting overloaded and doing *weird* things. But I could identify the "overloads" quite easily by their characteristics; the QSO I picked up didn't act like an overload.

++Brandon
--
Brandon S. Allbery (human), allbery@NCoast.ORG (Internet), BALLBERY (MCI Mail)
ALLBERY (Delphi), uunet!cwjcc.cwru.edu!ncoast!allbery (UUCP), BrandonA (A-OL)

2170. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-04-08 03:33:53 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9004080704.AA04452@ucbvax.Berkeley.EDU>
Source record: 12228

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #675 -
Alouette 1
1 00424U 62B-A 1 90 94.65622054 .00000384 00000-0 44991-3 0 2686
2 00424 80.4671 358.5677 0024268 99.4880 260.9014 13.67323595372647
ATS 3
1 03029U 67111 A 90 85.19999999 -.00000075 00000-0 99999-4 0 3105
2 03029 13.0950 21.8870 1511700 213.0960 275.0970 1.00274572 81968
Cosmos 398
1 04966U 71 16 A 90 95.87781837 .00089907 16630-4 52637-3 0 7360
2 04966 51.5235 58.8791 2332563 12.0743 352.7334 10.92772008583747
Starlette
1 07646U 75010 A 90 93.38170725 .00000051 00000-0 13469-3 0 218
2 07646 49.8254 93.6504 0205575 304.1243 54.0300 13.82136059765430
LAGEOS
1 08820U 76039 A 90 84.17564747 .00000003 00000-0 00000 0 0 358
2 08820 109.8583 326.3520 0044613 256.1711 103.4118 6.38664410 68578
GPS-0001
1 10684U 78020 A 90 94.14187154 .00000008 00000-0 99999-4 0 3552
2 10684 63.6880 91.8434 0116044 199.4439 160.1373 2.00558080 74365
GPS-0002
1 10893U 78 47 A 90 90.12448271 -.00000025 00000-0 00000 0 0 1072
2 10893 64.4166 332.8327 0162822 25.6014 335.2501 2.00547807 87105
SeaSat 1
1 10967U 78064 A 90 95.15882224 .00001709 00000-0 63543-3 0 2548
2 10967 108.0162 169.4771 0001911 231.5014 128.5851 14.35540202615970
GPS-0003
1 11054U 78093 A 90 91.41796723 -.00000025 00000-0 00000 0 0 1894
2 11054 63.9674 329.1132 0088551 114.4380 246.5664 2.00566376 84142
Nimbus 7
1 11080U 78098 A 90 92.22852239 .00000214 00000-0 22323-3 0 6398
2 11080 99.2007 358.8572 0008505 290.5812 69.4429 13.83413845577533
GPS-0004
1 11141U 78112 A 90 96.00123396 .00000008 00000-0 00000 0 0 3008
2 11141 63.6964 91.6953 0060824 316.0107 43.5218 2.00560483 82938
GPS-0005
1 11690U 80 11 A 90 95.64292369 .00000009 00000-0 00000 0 0 9214
```

```
2 11690 64.1703 93.7408 0113534 204.2713 155.2113 2.00556665 88781
GPS-0006
1 11783U 80 32 A 90 95.45405622 -.00000025 00000-0 00000 0 0 767
2 11783 63.7526 328.5596 0150863 60.9239 300.6165 2.00573618 72867
GOES 5
1 12472U 81049 A 90 94.87494609 -.00000231 00000-0 99999-4 0 8464
2 12472 3.2899 76.7975 0010280 210.5069 149.6961 1.00242024 31515
DE 1
1 12624U 81 70 A 90 93.12164510 -.00000081 00000-0 -57129-3 0 3578
2 12624 89.0578 148.6140 6213785 307.1889 10.8725 3.51024076259485
SME
1 12887U 81100 A 90 96.07227165 .00033504 00000-0 70379-3 0 5518
2 12887 97.6465 139.3944 0000848 252.0117 108.1043 15.45278489470119
Salyut 7
1 13138U 82 33 A 90 95.98277252 .00033348 00000-0 43824-3 0 1411
2 13138 51.6048 308.3357 0000978 176.7585 183.3380 15.58177308453579
Cosmos 1383
1 13301U 82 66 A 90 88.22371161 .00000197 00000-0 21988-3 0 5420
2 13301 82.9359 359.3811 0028732 23.9092 336.3390 13.67811981386743
LandSat 4
1 13367U 82 72 A 90 96.09559225 -.00000460 00000-0 -97147-4 0 2773
2 13367 98.1747 160.0176 0003052 20.1581 339.9848 14.57118160410807
IRAS
1 13777U 83 4 A 90 95.38945075 .00000123 00000-0 10968-3 0 7300
2 13777 99.0301 293.2996 0012675 222.2829 137.7358 13.98757469 36762
Cosmos 1447
1 13916U 83 21 A 90 94.42929210 .00000237 00000-0 23985-3 0 6815
2 13916 82.9407 66.5827 0038459 347.7414 12.2807 13.74024884352545
TDRS 1
1 13969U 83 26 B 90 88.88605720 -.00000208 00000-0 00000 0 0 9437
2 13969 4.2902 66.5749 0006905 263.3020 97.1849 1.00280192 92282
GOES 6
1 14050U 83 41 A 90 92.07053713 .00000121 00000-0 00000 0 0 1054
2 14050 2.0385 79.1757 0005250 222.3817 138.0009 1.00261594 9506
OSCAR 10
1 14129U 83 58 B 90 84.27862046 -.00000064 00000-0 00000 0 0 4622
2 14129 25.9479 212.4769 5985025 129.1636 301.2066 2.05882684 23004
GPS-0008
1 14189U 83 72 A 90 91.05096578 .00000007 00000-0 99999-4 0 7345
2 14189 63.3264 90.3069 0146224 219.5152 139.4228 2.00709146 49214
LandSat 5
1 14780U 84 21 A 90 96.05334579 -.00003151 00000-0 -69524-3 0 942
2 14780 98.2101 157.1711 0002031 71.8218 288.3180 14.57096697324215
UoSat 2
1 14781U 84 21 B 90 94.67880985 .00002796 00000-0 52817-3 0 6480
2 14781 97.9579 149.6227 0013721 117.3982 242.8594 14.65131608325206
GPS-0009
1 15039U 84 59 A 90 95.60926452 .00000007 00000-0 00000 0 0 8705
2 15039 63.0860 89.3125 0021743 242.0218 118.4938 2.00614172 42583
Cosmos 1574
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1 15055U 84 62 A 90 89.59411243 .00000156 00000-0 15721-3 0 8340
2 15055 82.9587 120.2560 0026767 178.6048 181.5199 13.73337365289289
GPS-0010
1 15271U 84 97 A 90 93.01074473 -.00000025 00000-0 00000 0 0 7693
2 15271 63.2519 328.2355 0105958 325.9837 33.3910 2.00573472 39648
Cosmos 1602
1 15331U 84105 A 90 95.97576416 .00004959 00000-0 68665-3 0 1981
2 15331 82.5339 67.8168 0022224 202.5338 157.4843 14.77693272297420
NOAA 9
1 15427U 84123 A 90 96.08678677 .00000747 00000-0 42473-3 0 4996
2 15427 99.1673 94.2494 0014761 208.0191 152.0180 14.12510700273806
Cosmos 1686
1 16095U 85 86 A 90 95.98273666 .00065311 00000-0 84781-3 0 5395
2 16095 51.6029 308.3398 0001803 208.3982 151.5072 15.58204635254678
GPS-0011
1 16129U 85 93 A 90 94.17688987 .00000008 00000-0 00000 0 0 4486
2 16129 63.8595 90.3216 0120977 149.9138 210.7980 2.00510803 32875
Mir
1 16609U 86 17 A 90 95.97464766 .00034006 00000-0 38964-3 0 5156
2 16609 51.6183 334.3254 0013691 359.0982 0.9952 15.61666435236827
SPOT 1
1 16613U 86 19 A 90 95.99142886 -.00000540 00000-0 -24483-3 0 8254
2 16613 98.7049 171.4287 0001823 74.9706 285.1440 14.20051880 53688
Cosmos 1766
1 16881U 86 55 A 90 96.08159112 .00003150 00000-0 44009-3 0 9099
2 16881 82.5242 126.8604 0020128 225.1701 134.7861 14.77237738198509
EGP
1 16908U 86 61 A 90 82.38362287 -.00000047 00000-0 -56053-4 0 1722
2 16908 50.0128 159.7805 0011412 340.8346 19.2058 12.44385776164175
NOAA 10
1 16969U 86 73 A 90 95.60129682 .00001002 00000-0 45684-3 0 3607
2 16969 98.6068 125.1540 0014299 118.3689 241.8931 14.23534985184284
MOS-1
1 17527U 87 18 A 90 95.98194806 .00000464 00000-0 36998-3 0 4597
2 17527 99.1127 169.4475 0000765 95.5849 264.5444 13.94890357159190
GOES 7
1 17561U 87 22 A 90 94.76334214 -.00000044 00000-0 99999-4 0 4589
2 17561 0.0791 107.8454 0005661 267.1199 345.0317 1.00273401 4680
Kvant-1
1 17845U 87 30 A 90 95.97466125 .00024562 00000-0 28369-3 0 436
2 17845 51.6157 334.3308 0013063 357.7418 2.4264 15.61655723172878
DMSP B5D2-3
1 18123U 87 53 A 90 94.18037317 .00001110 00000-0 60412-3 0 5175
2 18123 98.8208 285.7690 0014019 231.3863 128.6048 14.13950843143948
RS-10/11
1 18129U 87 54 A 90 96.04666951 .00000051 00000-0 49375-4 0 906
2 18129 82.9294 21.8206 0011153 326.5384 33.5024 13.72075535139556
Meteor 2-17
1 18820U 88 5 A 90 92.59416403 .00000273 00000-0 23399-3 0 2110
2 18820 82.5385 50.5428 0016572 172.1421 188.0012 13.84308504109720
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DMSP B5D2-4
1 18822U 88 6 A 90 96.26114560 .00001071 00000-0 50823-3 0 4324
2 18822 98.6578 336.7468 0007424 115.0265 245.1684 14.21357769112605
AO-13
1 19216U 88 51 B 90 84.34076849 -.00000112 00000-0 99999-4 0 831
2 19216 57.0247 162.9141 6918075 223.7284 54.0834 2.09703072 13642
OKEAN 1
1 19274U 88 56 A 90 96.04216322 .00002530 00000-0 35788-3 0 7008
2 19274 82.5165 225.5017 0022100 2.5152 357.6157 14.76634360 94270
Meteor 3-2
1 19336U 88 64 A 90 96.08854532 .00000392 00000-0 99999-3 0 4006
2 19336 82.5311 328.4357 0016475 127.0081 233.2499 13.16885681 81466
NOAA 11
1 19531U 88 89 A 90 94.37913638 .00000781 00000-0 45082-3 0 2153
2 19531 98.9753 42.6354 0012944 129.3791 230.8527 14.11525101 78551
TDRS 2
1 19548U 88 91 B 90 87.95843059 .00000130 00000-0 99999-4 0 815
2 19548 0.0305 163.0911 0001919 234.4105 322.4993 1.00271044 4642
Cosmos 1992
1 19769U 89 5 A 90 96.01991104 .00000672 00000-0 26270-3 0 2542
2 19769 74.0489 298.0119 0023758 158.0612 202.1562 14.31201590 62130
Cosmos 2001
1 19796U 89 11 A 90 94.91845524 -.00001028 00000-0 99999-4 0 4201
2 19796 63.1078 102.2290 7121640 319.8714 5.0318 2.00656359 8336
GPS BII-01
1 19802U 89 13 A 90 84.20620273 .00000016 00000-0 99999-4 0 733
2 19802 55.0674 200.7245 0059398 159.4655 200.7139 2.00562044 8067
Akebono
1 19822U 89 16 A 90 95.57376730 .00012942 00000-0 90047-3 0 4982
2 19822 75.1071 274.1589 4198067 267.9439 44.9824 7.07007464 28282
Meteor 2-18
1 19851U 89 18 A 90 88.06340460 .00000189 00000-0 16080-3 0 1604
2 19851 82.5205 292.3062 0012806 230.8733 129.1289 13.83951283 54481
TDRS 3
1 19883U 89 21 B 90 73.63596307 -.00000234 00000-0 99999-4 0 571
2 19883 0.0121 142.7301 0004020 162.5881 54.6626 1.00271148 2948
GPS BII-02
1 20061U 89 44 A 90 84.88812907 -.00000032 00000-0 00000 0 0 534
2 20061 54.7360 19.2046 0082149 173.1235 186.9879 2.00562067 5825
Nadezhda
1 20103U 89 50 A 90 89.21011830 .00000188 00000-0 18980-3 0 896
2 20103 82.9617 343.2216 0036252 259.6609 100.0472 13.73575466 36872
GPS BII-03
1 20185U 89 64 A 90 84.85765043 .00000016 00000-0 99999-4 0 506
2 20185 54.9240 201.5454 0026080 146.4732 213.6690 2.00561278 4390
Activnyi
1 20261U 89 80 A 90 95.87272347 .00002894 00000-0 90735-3 0 3746
2 20261 82.5896 274.4609 1259881 141.8255 227.9283 12.43471125 23607
Activnyi RB
1 20262U 89 80 C 90 95.56863623 .00001741 00000-0 54461-3 0 1537
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2 20262 82.5906 274.6705 1261844 142.5727 227.0377 12.43074011 23566
Magion 2
1 20281U 89 80 B 90 95.85533850 .00003489 00000-0 10894-2 0 3877
2 20281 82.5889 274.4249 1259752 141.7873 227.9700 12.43665027 23603
GPS BII-04
1 20302U 89 85 A 90 93.56239123 -.00000029 00000-0 99999-4 0 485
2 20302 54.6818 320.1038 0038342 316.1809 43.5712 2.00568734 3253
Meteor 3-3
1 20305U 89 86 A 90 92.56234753 .00000014 00000-0 22701-4 0 718
2 20305 82.5491 271.3387 0015898 154.2148 205.9766 13.15853081 21001
COBE
1 20322U 89 89 A 90 92.05215757 .00004631 00000-0 30754-2 0 687
2 20322 99.0176 103.0760 0007096 212.0115 148.0622 14.01678220 18827
Kvant-2
1 20335U 89 93 A 90 95.97467304 .00012425 00000-0 14669-3 0 1619
2 20335 51.6218 334.3270 0014695 3.4476 356.7690 15.61643915 20479
GPS BII-05
1 20361U 89 97 A 90 85.37752912 .00000016 00000-0 99999-4 0 192
2 20361 54.9694 143.6304 0059986 62.3433 298.3547 2.00578066 2060
SPOT 2
1 20436U 90 5 A 90 95.32214288 .00004445 00000-0 21057-2 0 852
2 20436 98.7114 170.7849 0001192 96.1393 264.0004 14.20020239 10401
UO-14
1 20437U 90 5 B 90 94.70565768 .00000068 00000-0 35155-4 0 455
2 20437 98.7005 171.0195 0011693 13.2313 346.9172 14.28544602 10373
UO-15
1 20438U 90 5 C 90 94.22658296 .00000672 00000-0 28542-3 0 386
2 20438 98.7043 170.5385 0010972 16.8573 343.2924 14.28317844 10301
PACSAT
1 20439U 90 5 D 90 91.26911740 .00000991 00000-0 41019-3 0 360
2 20439 98.7136 167.6512 0012244 22.3626 337.8129 14.28645767 9884
DO-17
1 20440U 90 5 E 90 95.74964558 .00000943 00000-0 39093-3 0 304
2 20440 98.7115 172.1224 0012269 10.3414 349.7970 14.28691837 10521
WO-18
1 20441U 90 5 F 90 95.74389687 .00000662 00000-0 27873-3 0 265
2 20441 98.7027 172.1163 0012666 11.3964 348.7487 14.28796561 10520
LO-19
1 20442U 90 5 G 90 96.09052163 .00000863 00000-0 35773-3 0 330
2 20442 98.7059 172.4701 0012995 10.2072 349.9342 14.28866649 10573
GPS BII-06
1 20452U 90 8 A 90 90.57837332 -.00000000 00000-0 99999-4 0 267
2 20452 54.6144 259.1483 0034708 60.1888 300.1280 2.00566395 1285
PRC-26
1 20473U 90 11 A 90 71.25642786 -.00000262 00000-0 99999-4 0 366
2 20473 0.0912 295.7660 0000216 40.4684 23.7389 1.00268398 368
1990 011B
1 20474U 90 11 B 90 70.45931368 .00008564 00000-0 28596-2 0 191
2 20474 30.5413 293.8454 7260425 199.4213 103.2645 2.30231055 760
Cosmos 2059
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1 20476U 90 12 A 90 71.70450279 .00268139 16276-4 75305-3 0 1026
2 20476 65.8265 286.7895 1285784 133.0880 238.5288 13.26692660 4478
1990 012B
1 20477U 90 12 B 90 71.81006393 .00478087 17407-4 86754-3 0 1182
2 20477 65.8383 285.2297 1215139 132.0593 239.0520 13.46529432 4526
MOS-1B
1 20478U 90 13 A 90 95.93583758 .00000112 00000-0 10867-3 0 1266
2 20478 99.1936 166.4433 0000478 138.1130 222.0104 13.94833791 8066
DEBUT
1 20479U 90 13 B 90 66.25543317 -.00000045 00000-0 -73232-4 0 191
2 20479 99.0518 131.9584 0540229 279.3893 74.6534 12.83148607 3675
FO-20
1 20480U 90 13 C 90 93.62525126 .00000132 00000-0 34767-3 0 208
2 20480 99.0483 154.1880 0540612 217.3591 138.8750 12.83124235 7181
1990 013D
1 20491U 90 85.18716079 -.00000314 -56773-3 0 202
2 20491 99.0492 148.6690 0470374 225.6034 130.5656 13.02708793 5597
Soyuz TM-9
1 20494U 90 14 A 90 95.97463192 .00045741 00000-0 52136-3 0 674
2 20494 51.6179 334.3324 0012978 358.0134 1.9930 15.61674117 8394
USA-51
1 20496U 90 72.61405566 0.00006039 38701-3 0 341
2 20496 43.1160 127.2684 0012138 129.2385 230.9548 15.09120691 4079
USA-52
1 20497U 90 72.51517909 0.00010921 33808-3 0 355
2 20497 43.1034 122.8931 0010853 90.0585 270.1507 15.33471906 4138
1990 015C
1 20498U 90 81.09953213 0.00059706 13764-2 0 454
2 20498 41.6300 68.4127 0038152 27.2360 333.0469 15.40934956 5476
Raduga 25
1 20499U 90 81.06833755 0.00000001 10000-3 0 400
2 20499 1.4006 274.1312 0004873 103.7390 255.0465 1.00264606 352
1990 016D
1 20502U 90 16 D 90 84.10001850 .00000154 00000-0 99999-4 0 126
2 20502 1.4209 273.2174 0037369 64.0442 295.2518 1.00014886 405
Nadezhda 2
1 20508U 90 17 A 90 89.53681993 .00000248 00000-0 25568-3 0 143
2 20508 82.9505 117.9024 0043573 203.0499 156.8713 13.73193454 4217
1990 017B
1 20509U 90 87.68788679 0.00000347 35298-3 0 296
2 20509 82.9522 119.2241 0041578 186.2581 173.8063 13.74435282 3967
OKEAN 2
1 20510U 90 18 A 90 96.05608297 .00002176 00000-0 33554-3 0 469
2 20510 82.5286 164.1322 0020919 144.5079 215.7564 14.72879997 5458
1990 018B
1 20511U 90 89.05320873 0.00001995 30621-3 0 194
2 20511 82.5291 170.5611 0021053 166.6080 193.5693 14.73029041 4424
Progress M3
1 20513U 90 20 A 90 95.97459514 .00078138 00000-0 88165-3 0 460
2 20513 51.6179 334.3267 0013639 350.5949 9.2094 15.61698303 5637
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INTELSAT-6
1 20523U 90 21 A 90 96.05299543 .00003784 00000-0 26354-3 0 362
2 20523 28.3479 16.5824 0017751 129.8955 230.3085 15.02596774 3586
Cosmos 2060
1 20525U 90 22 A 90 95.73717837 .00010955 00000-0 18449-3 0 454
2 20525 65.0289 4.0228 0009633 266.0612 93.9469 15.52076536 3436
Cosmos 2061
1 20527U 90 89.94888228 0.00000218 23060-3 0 143
2 20527 82.9389 203.6513 0029978 242.6532 117.1560 13.71240520 1508
1990 023B
1 20528U 90 23 B 90 94.74846989 .00001515 00000-0 16370-2 0 271
2 20528 82.9453 200.1045 0024610 217.4588 142.4834 13.72640314 2155
Cosmos 2062
1 20529U 90 24 A 90 94.74385527 .00099380 31691-5 12307-3 0 368
2 20529 82.3263 300.5664 0040936 60.7188 299.9716 16.05926774 2158
GPS BII-07
1 20533U 90 25 A 90 93.13613938 -.00000032 00000-0 00000 0 0 103
2 20533 55.0546 18.9610 0028410 67.1916 293.0923 2.01119080 99
1990 025B
1 20534U 90 25 B 90 94.24281941 .37884102 -24813-4 63644-3 0 288
2 20534 30.2158 304.0569 0043641 119.9657 240.7652 16.42527861 1456
1990 025C
1 20535U 90 91.08733286 0.00239366 16758-4 28459-2 0 71
2 20535 37.5752 10.9677 6034113 205.0637 106.1655 4.09270167 265
1990 026A
1 20536U 90 26 A 90 95.18796175 -.00000845 00000-0 55581-2 0 164
2 20536 62.8252 23.5499 7367937 318.2324 4.6960 2.00653191 181
1990 026B
1 20537U 90 26 B 90 95.24716172 .00748229 10160-4 12939-2 0 167
2 20537 62.7612 353.1662 0218563 119.7342 242.5745 15.70921967 1345
1990 026C
1 20538U 90 26 C 90 95.77214299 .02311999 37739-4 10963-2 0 280
2 20538 62.8120 350.6817 0197601 122.6062 239.5668 15.90154364 1437
1990 026D
1 20539U 90 91.17328937 0.00003687 62184-1 0 28
2 20539 63.0080 23.8890 7344659 318.4743 0.6448 2.02995503 126
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tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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2171. AMSAT Bulletins

Newsgroup: rec.ham-radio
Date: 1990-04-08 06:50:04 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21890@bellcore.bellcore.com>
Source record: 12229

Posted: Sat, Mar 31, 1990 8:06 PM GMT Msg: HGJA-4211-6292
From: CDUNCAN
To: is
CC: w1aw
Subj: ans$090

SB ALL @ AMSAT $ANS-090.01
RUDAK-2 MULTI MODE TRANSPONDERS

HR AMSAT NEWS SERVICE BULLETIN 090.01 FROM AMSAT HQ
SILVER SPRING, MD MARCH 31, 1990
TO ALL RADIO AMATEURS BT

RUDAK-2 To Carry Mode B Linear Transponder & Packet Radio

RUDAK-2, the second generation packet radio experiment to RUDAK which was flown on AO-13, has now been completed, tested, and fully integrated into a Soviet geological research satellite, known as GEOS, and is scheduled to fly in July. RUDAK-2 will not only carry a Mode B linear transponder for SSB and CW contacts but will also carry a variety of packet radio experiments. The digital communication capability of RUDAK-2 is astounding: five different data rates from 400 bps to 9600 bps using various modulation schemes. Radio amateurs will have the choice of using four different uplink frequencies for the various data rates. There is also a provision for digital signal processing (DSP) experimentation. Powering this "super-TNC" will be two on-board computers, providing processing at 15 Million Instructions Per Second (MIPS). RUDAK-2 will be compatible with AX.25 protocol and those amateurs who are equipped for FO-20, PACSAT, LUSAT, AO-13 PSK telemetry, and UO-14 will be ready to use RUDAK-2. The following are the transponder specifications provided by AMSAT-DL:

Amateur Radio Payload: Linear and Regenerative Transponders

Linear Transponder Uplink: 435.030 - 435.120 MHz (90 KHz)
Linear Transponder Downlink: 145.880 - 145.970 MHz (inverted)
Output Power: 12 watts HF maximum.
Beacon : 145.880 MHz, CW telemetry.

RUDAK-II: Two onboard computers with IPS operating systems for packet radio (AX.25) (Mailbox, telecommunications experiment with Digital Signal Processing up to nearly 20 KHz, etc.) 1 MByte RAM disk. Four separate uplink channels.

Gain of satellite RX and TX antennas: 2.3 dBi each (dipoles)

Input sensitivity: < -125 dBm (435 MHz) for a C/No of 45 dBHz

SAT-RX-1: 435.016 MHz +-10 KHz 1200 bps, FSK, NRZIC/Biphase-M (JAS, PACSAT)
SAT-RX-2: 435.155 MHz +-10 KHz (AFC) 2400 bps, BPSK, Biphase-S
SAT-RX-3a: 435.193 MHz +-10 KHz (AFC) 4800 bps, RSM, NRZIC/Biphase-M
SAT-RX-3b: 435.193 MHz +-10 KHz (AFC) 9600 bps, RSM, NRZI (NRZ-S) + Scrambler
SAT-RX-4: 435.041 MHz +-10 KHz (digital AFC) RX for RTX-DSP experiments

The downlink can be switched to the following operating modes:
Transmit frequency: 145.983 MHz

Mode 1: 1200 bps, BPSK, NRZI (NRZ-S) (like FO-20)
Mode 2: 400 bps, BPSK, Biphase-S (AMSAT mode for OSCAR-13 beacon)
Mode 3: 2400 bps, BPSK, Biphase-S (planned for OSCAR-13)
Mode 4: 4800 bps, RSM, NRZIC (Biphase-M) (like 4800 bps uplink)
Mode 5: 9600 bps, RSM, NRZI (NRZ-S) + Scrambler (like 9600 bps uplink)
Mode 6: CW keying (only for special events)
Mode 7: FSK (F1 or F2B), e.g. RTTY, SSTV, FAX, etc (only for special events)
Mode 8: FM modulated by D/A signals from DSP-RISC processor (e.g. speech)

Power consumption: 14V @ 350 mA (max) = 4.9 W;
Standby: 80 mA (RUDAK without power amplifier)

RUDAK-2 is a joint project of AMSAT-U-ORBITA, the Adventure Clubs in Moscow and the AMSAT-DL/RUDAK Group in Marburg, Munich and Hannover.

[ANS would like to thank DB2OS and DJ0HC/KE6MN for providing this information about RUDAK-2]

/EX
SB ALL @ AMSAT $ANS-090.02
DO-17 RECOVERY EFFORTS CONTINUE

HR AMSAT NEWS SERVICE BULLETIN 090.02 FROM AMSAT HQ
SILVER SPRING, MD MARCH 31, 1990
TO ALL RADIO AMATEURS BT

N4HY Using DSP Techniques To Receive Mode S Packets From DOVE

This week AMSAT Ground Command Station N4HY accquired a Mode S receive only down converter in order to facilitate his efforts in uploading software to DOVE-OSCAR-17. However, due to a low index of modulation on the DOVE S Band transmitter, Bob has had to resort to using Digital Signal Processing (DSP) techniques in order to copy the packets transmitted on 2401.220 MHz. Another factor which has caused him to turn to DSP to upload software is the very high doppler shift present during Mode S passes for low-earth-orbiting (LEO) satellites. On a recent DO-17 pass that WD0E and WD0HHU monitored in the Denver, CO area, it was noted that there was about a 100 KHz shift in frequency from the beginning to the end of the pass at 2401 MHz! With a down converter and a 45 element loop yagi antenna obtained from Down East Microwave, Bob will have to be able to have sufficient signal-to-noise ratio (SNR) to succesfully complete the DOVE software upload process. Stay tuned to AMSAT HF/VHF Nets for further information on the return of DO-17 telemetry to 145.825 MHz.

/EX
SB ALL @ AMSAT $ANS-090.03
N6DBF TO COORDINATE DIAL-UP BBSS

HR AMSAT NEWS SERVICE BULLETIN 090.03 FROM AMSAT HQ
SILVER SPRING, MD MARCH 31, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Vice President for Operations, Courtney Duncan, N5BF, announces the appointment of John Wisniowski, N6DBF, Operational Coordinator for Dial-Up Bulletin Board System Activities. In this position, John will be formalizing and expanding the now loosely connected system of dial-up BBSs that carry AMSAT information on a regular basis into the "AMSAT BBS Network."

Systems belonging to the AMSAT BBS Network will be listed as official sources of AMSAT information (AMSAT News Service Bulletins, Orbital Elements, and related releases) in AMSAT publications and will coordinate with N6DBF to set up mechanisms for regular access to the information. Dial-up BBS operators who are now performing this sort of service or would like to be included in the AMSAT BBS Network are asked to contact:

John Wisniowski, N6DBF
1706 Roanoke St.
Placentia, California 92670

or leave a note for JOHN WISNIOWSKI on the DRIG/AMSAT BBS at 214-394-7438.

/EX
SB ALL @ AMSAT $ANS-090.04
STS-35 MISSION APPROACHING LAUNCH

HR AMSAT NEWS SERVICE BULLETIN 090.04 FROM AMSAT HQ
SILVER SPRING, MD MARCH 31, 1990
TO ALL RADIO AMATEURS BT

SAREX activities by WA4SIR to be the longest in Shuttle Program

Long standing AMSAT member Ron Parise, WA4SIR, is a Mission Specialist on the Space Shuttle mission STS-35 scheduled to be launched May 9, 1990 from Cape Canaveral. Ron will be carrying a fair amount of amateur radio equipment on this mission and there will be upwards of 120 hours for amateur operation during the 10 day mission.

Ron will operate both 2 meter FM voice as well as 2 meter AFSK packet. The packet station (an HK-21 "pocket-packet TNC" marketed by Heathkit) will transmit bulletins providing updates on the mission and will operate in a ROBOT mode where stations on the ground can connect to the shuttle TNC and obtain a QSO number to validate the contact. The ROBOT should be available for about 90 hours during the flight.

Ron is scheduled to operate the 2 meter voice station during his off hours (for a total of about 30 hours) and he will spend a fair amount of time talking with school classrooms around the world offering them the opportunity to talk directly with an astronaut abord the Space Shuttle. NASA has authorized

SAREX in order to "encourage youth to become excited about science and technology" and to publicize manned spaceflight to the general public.

This past week the amateur equipment to be used on the mission underwent EMI/EMC (Electro-Magnetic Interference/Electro-Magnetic Compatibility) tests. These tests are designed to determine the possibility of any interference the amateur equipment my inflict on any of the shuttle electronic systems. NASA has notified AMSAT that all the equipment passed the tests.

With SAREX on STS-35, Amateur Radio may have an opportunity to further the quest for international cooperation in space. Now that amateur radio activity on the MIR space station appears to have resumed, AMSAT is investigating whether there will be a mutual-visibility window between STS-35 and Mir for a first-ever Shuttle to Mir linkup. Adding to the excitement, the STS-35 Mission Commander is Vance Brand, who participated in the the Apollo/Soyuz program many years ago. Amateur Radio may get front page coverage if this history setting QSO is possible. As further details become available, they will be reported in the AMSAT News Service.

/EX
SB ALL @ AMSAT $ANS-090.05
NEW TRACKING PROGRAM AVAILABLE

HR AMSAT NEWS SERVICE BULLETIN 090.05 FROM AMSAT HQ
SILVER SPRING, MD MARCH 31, 1990
TO ALL RADIO AMATEURS BT

SATSCAN-II Now Available in North America

AMSAT-UK has announced the release of their latest satellite tracking program in North America. SATSCAN-II is written for PC compatible computers (XT or AT) and is now available to North American amateurs through Project OSCAR. SATSCAN-II was written by Trevor Stockill (G4GPQ) and is an update of the popular SAT-SCAN program used by many AMSAT-UK members. While in the graphics mode of operation, SATSCAN-II incorporates a graphics display of the world, in full color on an EGA screen. The world map includes a footprint of the coverage area provided by a particular satellite. A math co-processor will improve calculation speed of SAT-SCAN-II but it is not required for operation. CGA equipped PC's can use SATSCAN-II for output in non-graphical format.

SATSCAN-II is fully menu driven for easy operation. It also gives the user complete azimuth and elevation tracking information including squint angle data. Tracking information can be sent to a printer or to a disk file for easy transmission by packet radio, or reproduction in club newsletters. SATSCAN-II also provides the option to determine mutual visibility windows for up to four stations at once, including mutual squint angle data. Therefore, users will know when the best operation times will occur during their schedules.

Keplerian Elements can be imported into SATSCAN-II as a text file in one of three formats:

1 - typical AMSAT-NA multi-line format
2 - two line NASA element format
3 - DCE format as transmitted by UoSAT-OSCAR-11

In addition, Keplerian data may be entered by hand.

SATSCAN-II was originally obtained direct from AMSAT-UK, but is now available in North America from Project OSCAR. All funds received from the SATSCAN-II are directed to future Amateur Radio satellites. For additional information, contact Project OSCAR and include a Self-Addressed, Stamped Envelope.

Project OSCAR, Inc.
Post Office Box 1136
Los Altos, California 94023-1136

/EX
SB ALL @ AMSAT $ANS-090.06
AO-13 OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 090.06 FROM AMSAT HQ
SILVER SPRING, MD MARCH 31, 1990
TO ALL RADIO AMATEURS BT

AO-13 Transponder Schedule to 09May90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 207.6 and BLAT = 1.1 for 02Apr90

Only the Mode-S transponder and the Mode-B beacon will be on from
MA 195 to MA 200.

AO-10 is currently experiencing solar eclipses during major portions of it orbit and until further notice its transponder is not available for use.

/EX
SB ALL @ AMSAT $ANS-090.07
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 090.07 FROM AMSAT HQ
SILVER SPRING, MD MARCH 31, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970. All nets in the current cycle occur on Saturday U. S. time.

Date UTC Time Phs Mode NCS

01 Apr 90 0400 118 B N5BF
07 Apr 90 1300 212 B N5BF
15 Apr 90 0210 168 J/L N5BF
22 Apr 90 0400 127 B N5BF
28 Apr 90 1300 221 B N5BF

06 May 90 0145 168 J/L N5BF

/EX

Posted: Sat, Apr 7, 1990 6:39 PM GMT Msg: DGJA-4221-9026
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$097

SB ALL @ AMSAT $ANS-097.01
AMSAT AT DAYTON HAMVENTION

HR AMSAT NEWS SERVICE BULLETIN 097.01 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Planning To Be Present At Dayton Hamvention '90

AMSAT-NA Vice President of Field Operations, Jack Crabtree (AA0P) invites all radio amateurs to join AMSAT this year at the Dayton Hamvention on April 27-29, 1990. As has been the tradition for many years, AMSAT will have a booth and will be sponsoring Symposiums on Friday and Saturday. On Friday, the Symposium will focus on the Shuttle Amateur Radio Experiment-2 (SAREX-2) mission with speakers Roy Neal (N6DUE) and Bill Tynan (W3XO). They will be discussing the upcoming STS-35 mission with Ron Parise (WA4SIR) who will operate both 2M voice and packet radio. On Saturday, AMSAT-NA President and General Manager Doug Loughmiller (KO5I) will be the speaker for a Symposium titled "1990: The Year of The Amateur Radio Satellite." This discussion will give a complete run down of all the amateur satellites launched so far this year and what is being planned for the future. Also, Bob McGwier (N4HY) and Jan King (W3GEY) will give a summary of the MICROSAT program. Before and after these Symposiums, all radio amateurs are invited to come by the AMSAT booth to "talk to the experts." Many of the AMSAT-NA Officers and Board of Directors will be present throughout the Dayton Hamvention. Stay tuned next week to the AMSAT News Service (ANS) bulletins for further details about the AMSAT activities planned for the Dayton Hamvention.

/EX
SB ALL @ AMSAT $ANS-097.02
W5UN'S EME ARRAY DESTROYED

HR AMSAT NEWS SERVICE BULLETIN 097.02 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

Tornado Destroys W5UN's Huge EME Array

AMSAT-NA officials learned this week of the destruction of Dave Blanschke's (W5UN) world famous Earth-Moon-Earth (EME) moonbounce array due to a tornado that touched down at his QTH located near Houston, TX. Many will remember the January '89 QST article spotlighting Dave's EME system and the enormous effort he put into building the world's largest privately owned 2M EME array. Most recently, OSCAR users heard that W5UN assisted AMSAT when it needed all of the 32.5 dBi gain generating about 2 Megawatts EIRP from his moonbounce station to reset the On-Board Computer (OBC) of DOVE-OSCAR-17 (DO-17) three weeks ago. (Due to a software crash, DOVE'S 2M transmitter was overloading the command receiver.) The signal from W5UN's EME station was able to silence DOVE's 2M transmitter. After several tries, W5UN was able to send the reset command allowing N4HY and NK6K to regain control of DOVE and it's battery maintenance system. In all respects, W5UN's EME installation was an exemplary amateur radio station becuse of its ingenious design. W5UN suffered the nightmare that every amateur fears: Total destruction of an antenna system and the years of effort spent building an excellent station. AMSAT-NA would like to express its deepest regrets for W5UN's loss along with its greatest appreciation for his help during the critical period when the DO-17 OBC needed to be reset.

As a final note, W5UN will still be keeping EME schedules using the station of N5BLZ.

/EX
SB ALL @ AMSAT $ANS-097.03
FIRST 9600 BAUD TRAFFIC THRU UO-14

HR AMSAT NEWS SERVICE BULLETIN 097.03 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

High speed satellite data communication record set.

cmd:C G0K8KA v UOSAT3-1
cmd:*** CONNECTED to G0K8KA VIA UOSAT3-1 [04-Apr-90 22:12:03]

Hi Jeff - a world first??? >>>>
What say
Yes - a bit pedestrian, but what do you expect for a first cut...
Yes, but my tnc doesn't seem too happy with it!
Hmmm - shall I send you the file??? >>>>
I gotta check some asynchronous tlm, so will have to suspend the
pce for a bit. Sorry ....
Yes, try to send it. now>> (* Phew! *)
OK will send. (* So I did *)

This is the first transaction to be digipeated through Oscar-14 at 9600 baud between James Miller, G3RUH and Jeff Ward, G0K8KA. The date and time are 1990 Apr 04 at 2215 UTC, orbit number 1041. This is believed to be the fastest data transmission through an amateur satellite to date.

UoSat-D is on 9600 baud for about 1.5 minutes every 5 minutes, sometimes longer. This signal sounds very like an unsquelched background hiss. However the squelch will be triggered as normal. To determine if UO-14 is in 9600

baud mode look for d:1 in the LSTAT telemetry frame. This means the high speed digi is ON. d:0 means it is OFF. This is the same convention as in the Microsats because the same software is in use for these tests. The downlink frequency was 435.070 Mz, +/- 10 kHz doppler shift. As FM was used, only occasional manual adjustments were needed to the receiver. The uplink frequency used was 145.975 MHz.

Equipment at both ends was FT736R with TX audio direct connected to the varactor, and RX audio directly connected from the discriminator. James reports that the two non-destructive additions to the FT736R took about 30 minutes to implement. Using similar techniques, many of today's commercial transceivers can be modified to allow for similar high speed data communication. A 9600 baud full duplex modem is required to drive the tranceiver and a number of designs are commercially available at present. A comprehensive article describing the G3RUH design is published in the ARRL 7th Computer Networking Conference Papers, Oct 1988, pages 135-140. It can be obtained from ARRL, RSGB and other Society bookshops.

[AMSAT wishes to thank G3RUH for the information for this bulletin and also congratulates James and Jeff for their record setting accomplishment].

/EX
SB ALL @ AMSAT $ANS-097.04
ORBS$ BULLETIN CHANGES

HR AMSAT NEWS SERVICE BULLETIN 097.04 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

Satellite Keplerian Elements to be Broken into Additional Groups

AMSAT's Orbital Data Manager Dick Campbell, N3FKV, announced that this week's release of current orbital elements will be split into more categories. The bulletin ORBS-xxx.O (OSCAR) will contain AO-10, UO-11, RS-10/11, AO-13 and FO-20. These are the satellites with wide band transponders used predominantly for CW, SSB and RTTY communications. The bulletin ORBS-xxx.D (MICROS) will contain UO-14, AO-16, DO-17, WO-18, and LO-19. These satellites are "digital" in nature, using packet communication as the primary modulation technique. The bulletins ORBS-xxx.M (for Manned and Miscellaneous) and ORBS-xxx.W (for weather satellites) will continue to be published in their present format.

Dick indicated that this move is taken to further relieve congestion on packet circuits and allow shorter downloads for users who are interested in only one class of satellites.

/EX
SB ALL @ AMSAT $ANS-097.05
JAMSAT ELECTS NEW BOD & OFFICERS

HR AMSAT NEWS SERVICE BULLETIN 097.05 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

Japan AMSAT Organization (JAMSAT) Elects New Board of Directors & Officers

At the 1990 Annual Meeting of Japan AMSAT Association (JAMSAT) that was held on March 18, 1990 in Tokyo the following Board of Directors (BOD) were elected and will serve until 1992:

* JK1VXJ Moriyoshi Ohara
# JM1MCF Yuutai Katou
* JQ1HXT Shinichi Sudo
# JR1FIG Masaya Fukasawa
# JR1ING Youichi Kikukawa
# JR1SWB Mikiyasu Nakayama
# JA2PKI Takeo Okamoto
* JG3XOD Toshihiro Sugimoto
# JH3BJN Sumio Nakane
# JM3MAJ Hiroyuki Oohata
# JA6XKQ Yoshiyuki Takeyasu

Elected Board of Directors
* Nominated by elected Board of Directors

Officers for the 1990-1992 period are:

President - JA2PKI, Takeo Okamoto
Vice President - JR1SWB, Mikiyasu Nakayama
Vice President - JH3BJN, Sumio Nakane
Auditor - JH1CMP, Morizo Iseki

The Board of Directors has established the following goals that they will be working to achieve during the next two years:

1. Transfer of most clerical tasks from volunteer team to a professional organization.

2. Resumption of a membership recruitment campaign.

3. Participation in future OSCAR projects.

4. Improvement of satellite users support.

[ANS would like to thank JA3PKI for providing this information.]

/EX
SB ALL @ AMSAT $ANS-097.06
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 097.06 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970. All nets in the current cycle occur on Saturday U. S. time.

Date UTC Time Phs Mode NCS

15 Apr 90 0210 168 J/L N5BF
22 Apr 90 0400 127 B N5BF
28 Apr 90 1300 221 B N5BF
06 May 90 0145 168 J/L N5BF

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, or phone (301) 589-6062, or contact your local AMSAT Area Coordinator.

/EX
SB ALL @ AMSAT $ANS-097.07
AO-13 OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 097.07 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

AO-13 Transponder Schedule to 07May90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 207.8 and BLAT = 0.6 for 16Apr90

The Mode-B beacon will be ON from MA 195 to MA 200. Only the Mode-S transponder & the Mode-B beacon will be ON from MA 195 to MA 200. Beginning 07May90 there will be a transponder and attitude change on AO-13. During magnetorquing to BLON/BLAT 180/0 the transponders will be switched off from MA200 to MA060. After 09May90 a new schedule will be announced.

AO-10 is currently experiencing poor solar panel illumination angles and until further notice its transponder is not available for use. It is expected that this will continue for at least another 4 to 6 weeks.

/EX

2172. SSTV and the C-64

Newsgroup: rec.ham-radio
Date: 1990-04-08 15:32:58 UTC
From: rockwood@kean.ucs.mun.ca
Message-ID: <76843@kean.ucs.mun.ca>
Source record: 12235

Can anyone help me find some info on SSTV for the Commodore 64.
I have the Edwin Cox software from Viccomm from a few years
back, and I have the article from Ham Radio Magazine, also a
few years back. But I understand there has been some commercial
software available which included formats other than the 8.5
second black and white. Also neither of the two programs I have
now is totally satisfactory. The Expanded Vic-20 program which
Cox did was'nt too bad, but the C-64 program was terribly lacking.
Also neither of the programs I have now can toggle between receive
and transmit, another drawback.
Any help would be appreciated. Please E-Mail.
Art Rockwood VO1AX

2173. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-08 16:18:02 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <RsHBH1w161w@w8grt.fidonet.org>
Source record: 12230

neal@lynx.uucp (Neal Woodall) writes:

> MCL9337@TAMVENUS.BITNET writes:
>
> >One day last year "me 'n' the boys" (the other guys in the Texas A&M
> >Amateur Radio Club - W5AC) watched Die Hard on video and could not keep
> >ourselves from laughing at this.
>
> >The thing we couldn't get over was their blatant abuse of radio operation
> >procedure. For instance, the ability to interrupt someone while he is
> >talking on another radio. Full-duplex HTs??? Right.
>
> >As I said before, though, I'm sure for all Americans that have never touched
> >or used a radio it works. We just have to laugh and enjoy the inside
> >joke ourselves.
>
> Now you begin to understand how gun owners and other gun-knowledgeable people
> feel when people who know nothing about guns (except what they get from movie
> and TV) say things like, "All semi-autos should be banned because they can
> shoot over 600 rounds in a minute without reloading", or "semi-auto assualt
> rifles are evil."
>
> The only difference is that we gun owners must face these ignorant people
> because of the open hostility towards guns that is being whipped up by the
> media. It is lucky for you ham radio operators that you are not facing
> organized forces which exist for the sole purpose of banning your radios...
> at least not yet.

What blithering lunacy!! Ham radios don't kill children playing in their
schoolyard!!! If you don't see any difference between guns that kill and
radios that don't, then you yourself are part of the proof that guns MUST
be banned as soon as possible.

2174. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-08 16:20:44 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <0wHBH2w161w@w8grt.fidonet.org>
Source record: 12231

mdbomber@portia.Stanford.EDU (Matt Bartley) writes:

> In article <9004060731.AA03257@ucbvax.Berkeley.EDU> MCL9337@TAMVENUS.BITNET w
> >One day last year "me 'n' the boys" (the other guys in the Texas A&M
> >Amateur Radio Club - W5AC) watched Die Hard on video and could not keep
> >ourselves from laughing at this.
> >
> >In answer to your question about his knowing the police frequencies, he
> >didn't have to. Quite insultingly, the Kenwood radios used were supposedly
> >(ACK!) CBs!!! Early in the show, he gets on the roof of the building and
> >says "Channel 9" something or other... don't ask me why we are supposed to
> >swallow the idea that the police use CB radios, but I guess it works for the
> >uninformed public. Hey, they used them on the Dukes of Hazzard!

Since when is there only one Channel 9? Public service agencies with more
than one channel available commonly use their own channel designators for
tactical reference.

2175. Re: Where am I?

Newsgroup: rec.ham-radio
Date: 1990-04-08 16:26:54 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <J8HBH3w161w@w8grt.fidonet.org>
Source record: 12232

dvh@cci632.UUCP (David Hallidy) writes:

> In article <B48374BECDFFA01CC6@uwplatt.edu>, UCSBPM@UWPLATT.EDU ("Brian P. Mc
> > I am making QSL cards and am trying to find out what grid square
> > my home QTH is in. The city (village) is Sister Bay, WI
>
> Brian-
> I hope this helps. The QST article which describes how to determine
> in which Grid Square you reside, was titled "VHF/UHF Century Club
> Awards" by John Lindholm, W1XX and was published in the January, 1983
> issue on pages 49-51.
>
> By the way, there may be others interested in determining their grid
> locator, and I had to spend a fair amount of time looking through
QST
> indices to find the article, so I thought I'd post this to help their
> search, as well.

Several years ago someone uploaded to CompuServe's HamNet a program
GRID.BAS that Tom Clark, W3IWI, wrote to not only generate maidenhead grid
coordinates from latitude and longitude but also calculates range and
azimuth betwen two locations. It was still there the last time I looked.

2176. News From OSCAR-11 (07-Apr-90)

Newsgroup: rec.ham-radio
Date: 1990-04-08 16:46:14 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <260@ka2qhd.UUCP>
Source record: 12175
Cross-posted to: rec.ham-radio,sci.space

UOSAT 2 COMPUTER STATUS INFORMATION

FAD1 Operating System v2.0b
Today's date is 8 /4 /90 (Sunday)
Universal Time is 14 :20 :58
Auto Mode is selected

SPIN PERIOD IS - 281

Z MAG firings = 0
+ SPIN firings = 5
- SPIN firings = 1
RAM Wash Pointer at F67
WOD commenced 8 /4 /90 at 0 :0 :10
with channels 2 ,61 ,
Last cmd was 109 TO 0 WITH DATA 0

Attitude control initiated, mode 1

Digitalker active

**** UoSAT-OSCAR-11 BULLETIN 212 07 April 1990
UoSAT MISSION CONTROL CENTRE
University of Surrey, Guildford, Surrey, GU2 5XH, England

** UoSAT-OSCAR-14 ** (de G3YJO)

Preliminary tests have been carried out by G0/K8KA & G3RUH using the PACSAT Communications Experiment as a 9.6kbps digipeater, and early data has been received from the Cosmic Particle Experiment.

** UoSAT-OSCAR-15 **

The team at Stanford have succeeded in detecting local oscillator (LO) leakage from the UO-15 command receiver whilst the spacecraft was in eclipse - indicating that the on-board NiCd battery is indeed functioning. Tests to check the command system now follow.

** DOVE-OSCAR-17 ** (ASR)

AMSAT Command Station N4HY is using Mode S to upload software, however, due to a low index of modulation and high Doppler shift on the DOVE S-Band transmitter, DSP techniques are being used to copy the packets transmitted on 2401.220 MHz.

** RUDAK-2 ** (DB2OS & DJ0HC/KE6MN)

RUDAK-2 has now been integrated into a Soviet Geological research satellite, GEOS, scheduled to fly in July. RUDAK-2 will not only carry a Mode B linear transponder but also a variety of packet radio experiments with data rates from 400-9600 bps using various modulation schemes. It will be compatible with AX.25 protocols and those amateurs equipped for FO-20, PACSAT, LUSAT, AO-13 PSK telemetry, and UO-14.

Linear Transponder Uplink: 435.030 - 435.120 MHz (90 KHz)
Linear Transponder Downlink: 145.880 - 145.970 MHz (inverted)
O/P Power: 12 watts max.
Beacon : 145.880 MHz, CW telemetry.

Gain of satellite RX/TX antennas: 2.3 dBi each (dipoles)
Input sensitivity: -125 dBm (435 MHz) for a C/No of 45 dB/Hz

SAT-RX-1: 435.016 MHz +-10 KHz 1200 bps, FSK, NRZIC/Biphase-M (JAS, PACSAT)
SAT-RX-2: 435.155 MHz +-10 KHz (AFC) 2400 bps, BPSK, Biphase-S
SAT-RX-3a: 435.193 MHz +-10 KHz (AFC) 4800 bps, RSM, NRZIC/Biphase-M
SAT-RX-3b: 435.193 MHz +-10 KHz (AFC) 9600 bps, RSM, NRZI (NRZ-S) +Scrambler
SAT-RX-4: 435.041 MHz +-10 KHz (digital AFC) RX for RTX-DSP experiments

The downlink can be switched to the following operating modes:
Transmit frequency: 145.983 MHz

Mode 1: 1200 bps, BPSK, NRZI (NRZ-S) (like FO-20)
Mode 2: 400 bps, BPSK, Biphase-S (AMSAT mode for OSCAR-13 beacon)
Mode 3: 2400 bps, BPSK, Biphase-S (planned for OSCAR-13)
Mode 4: 4800 bps, RSM, NRZIC (Biphase-M) (like 4800 bps uplink)
Mode 5: 9600 bps, RSM, NRZI (NRZ-S) + Scrambler (like 9600 bps uplink)
Mode 6: CW keying (only for special events)
Mode 7: FSK (F1 or F2B), e.g. RTTY, SSTV, FAX, etc. (only for special events)
Mode 8: FM modulated by D/A signals from DSP-RISC processor (e.g. speech)

RUDAK-2 is a joint project of AMSAT-U-ORBITA, the Adventure Clubs in Moscow and the AMSAT-DL/RUDAK Group in Marburg, Munich and Hannover.

** $BID **

Please use BID $UOSAT.212 for PR BBS use.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2177. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-08 19:46:08 UTC
From: tsf@druhi.ATT.COM
Message-ID: <4734@druhi.ATT.COM>
Source record: 12176

To all you future extra classers out there:

For almost 30 years I was content with a general class license.
I listened to ARRL code practice now and then, just to see if
I could still copy 13wpm. And I worked mostly CW, because with limited
power, and using only indoor antennas, I wanted to get out as far
as possible.

Then someone kindly pestered me to try the ARRL CW contest. I got
hooked on contests. Then they pestered me some more to upgrade to
Advanced and Extra.

Two weeks ago I got a hamfest flyer that said a VE test session would be
held. So I dug in to the Advanced study guide, about an hour a night
after work. That wasn't too bad, so I got the Extra study guide too,
thinking, what the heck, get the written tests out of the way and then
really go for the code. I finished the extra stuff, and with two days
to go until the hamfest, I started in on the computer tutor :-).
I concentrated on QSOs sent at 25, spaced for 22wpm. The day of the
hamfest, I could copy about a half page without missing too much -
I couldn't do random words or code groups very well at all.

I got to the VE session, and the 20wpm test was first on the agenda.
They played a tape in a boom box at the front of a big empty room.
The test started, and I could hardly write. The QSO was a lot wordier
than the simulated QSOs I'd practiced on, but guess what.. they sounded
a lot like what I'd copied on the air for so many years. The code
sounded fast, but a LOT slower than the code I had copied during
CW contests.

The test finally ended, and they handed me the question sheet. I had
missed most of the word "carpenter" but I guessed. I had missed
the state "maine", but I had "m.in". I got those two guesses right,
and choked on the transmitting station's call (I put down the called
station's call!!). SO I PASSED WITH ONE WRONG!

Then two more miracles happened when I passed the Advanced and Extra
written tests.

The moral is: You can do it too!! Real QSO's (static, fading, poor
fists, unpredictable info), CW contest or two, and computer
tutors all seem to help. Also, stay tuned in during the test
as if you're copying your first rare DX or something. Get every
character you can - guesses count these days. GO FOR IT!

de N0GOS/AE with thanks to N2IC att!druhi!tsf Tom Fisher

2178. Icom 49a Mods...

Newsgroup: rec.ham-radio
Date: 1990-04-08 20:22:15 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <2715@ultb.isc.rit.edu>
Source record: 12227

I have an Icom 900a Super Multibander System, which I am trying to modify my 49a (440 Mhz) module for out of band tx/rx... I have removed the diode from the control head (and installed one where told to) and I can now make the display go from 420-470Mhz (approx.) but I cannot transmit out of band (the tx led turns on.) I believe that the module has a very narrow range and a person at icom mentioned retunning the VCO, but would not tell me any more.

Does anyone know how to complete the mod and shift the tx up a couple of MhZ? Has anyone done it?

Lance
p.s. no out of band mod flames please.
--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

2179. Trying to say Hi to an old friend

Newsgroup: rec.ham-radio
Date: 1990-04-08 21:00:01 UTC
From: phorgan@cup.portal.com
Message-ID: <28721@cup.portal.com>
Source record: 12233

If any ham operators run into n5ahd from Corpus Christ, Texas (probably on packet), say hi from Patrick Horgan please:)

Patrick Horgan phorgan@cup.portal.com

2180. Shuttle audio

Newsgroup: rec.ham-radio
Date: 1990-04-08 21:02:30 UTC
From: karn@ka9q.bellcore.com
Message-ID: <21894@bellcore.bellcore.com>
Source record: 12234

Posted: Sun, Apr 8, 1990 3:49 PM GMT Msg: LGJA-4222-2312
From: DCOWDIN
To: ANS
CC: NCS, AMSAT, IS, W1AW
Subj: SHUTTLE AUDIO REBROADCAST INFO

SB ALL @ AMSAT $ANS-098.01
SHUTTLE AUDIO REBROADCAST

HR AMSAT NEWS SERVICE BULLETIN 098.01 FROM AMSAT HQ
SILVER SPRING, MD APRIL 8, 1990
TO ALL RADIO AMATEURS BT

WA3NAN TO RE-BROADCAST HUBBLE TELESCOPE DEPLOYEMENT STARTING 4/10/90

On Tuesday, April 10, 1990 at 8:47 Eastern Daylight Time (EDT) the Shuttle Discovery will lift off carrying the most complicated un-manned spacecraft ever launched. The Hubble Space Telescope will lofted to an orbital altitude of 400 statute miles and will be deployed with a 28.5 degree orbital inclination. Radio amateurs will have an opportunity to hear all the excitement "live" from NASA thanks to the hams at the Goddard Amateur Radio Club (GSFC ARC) and the other NASA affiliated radio clubs, eg., W5RRR at JSC, W6VIO at JPL. The following frequencies will be used to re-broadcast the live audio during the six day mission:

3860 KHz
7185 KHz
14.295 MHz
21.395 MHz
28.650 MHz.

The Shuttle audio re-broadcast will start about ONE HOUR BEFORE LAUNCH and will only be in operation when the astronauts are awake. The astronauts work day will commence at around 3:00 A.M. EDT and they will turn in around 7:00 P.M. EDT. The Hubble Telescope will be deployed at 7:30 A.M EDT on Wednesday April 11, 1990. Amateurs and space enthusiasts might particularly want to listen during that time because it will be a period filled with a lot of activity. For those who wish to track the Shuttle for the purposes of visual contacts, Frank Bauer (KA3HDO), President of the Goddard Space Flight Center Amateur Radio Club (WA3NAN) says that every hour the orbital elements will be read by the GSFC club members who will be operating the station. AMSAT encourages all radio amateurs to listen to the live audio from the Shuttle during this history making flight.

[For those who would like to download more information about this Shuttle Mission, all are invited to check into the NASA sponored SPACELINK BBS at

(205) 895-0028. The phone number of the GSFC ARC hamshack is (301) 286-6673]

/EX

2181. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-09 00:27:32 UTC
From: rsj@wa4mei.UUCP
Message-ID: <248@wa4mei.UUCP>
Source record: 12240
Cross-posted to: rec.ham-radio,talk.politics.guns

jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:

>neal@lynx.uucp (Neal Woodall) writes:

>> MCL9337@TAMVENUS.BITNET writes:
>>
>> >One day last year "me 'n' the boys" (the other guys in the Texas A&M
>> >Amateur Radio Club - W5AC) watched Die Hard on video and could not keep
>> >ourselves from laughing at this.
>>
>> >The thing we couldn't get over was their blatant abuse of radio operation
>> >procedure. For instance, the ability to interrupt someone while he is
>> >talking on another radio. Full-duplex HTs??? Right.
>>
>> >As I said before, though, I'm sure for all Americans that have never touched
>> >or used a radio it works. We just have to laugh and enjoy the inside
>> >joke ourselves.
>>
>> Now you begin to understand how gun owners and other gun-knowledgeable people
>> feel when people who know nothing about guns (except what they get from movie
>> and TV) say things like, "All semi-autos should be banned because they can
>> shoot over 600 rounds in a minute without reloading", or "semi-auto assualt
>> rifles are evil."
>>
>> The only difference is that we gun owners must face these ignorant people
>> because of the open hostility towards guns that is being whipped up by the
>> media. It is lucky for you ham radio operators that you are not facing
>> organized forces which exist for the sole purpose of banning your radios...
>> at least not yet.
>
>What blithering lunacy!! Ham radios don't kill children playing in their
>schoolyard!!! If you don't see any difference between guns that kill and
>radios that don't, then you yourself are part of the proof that guns MUST
>be banned as soon as possible.

But ham radio operators are facing organized forces which are probably more
powerful than the anti-gun forces. These are the commerical groups that
covet our frequencies. They are better financed and work quietly in the
background (underground,under-table ??) and usually by the time we find out
what is going on it is too late to do much about it.

I also feel that you took the comments made by Neal wrong. My reading of his
comments were about the way that media handled the subject (radio) as opposed
to the way they handle the subject of guns. On last nights Connie Chung program

they covered the subject of guns in movies. Included in this discussion were quotes such as ".. if guns were once props in moves, they now enjoy star status themselves" and ".. box office power often comes out of the barrel of a gun." by Paula Zahn, Connies replacement this week. Could you imagine it if things were turned around and movies started showing ham radios being used by criminals and the media picked this and started publishing articles about how a small number of "hobbieists" are tying up "Millions" of dollars worth of commerical frequencies.

And also in reply to your comments about "blithering lunacy", guns don't kill children playing in schoolyards it is usually lunatics that are imitating what they see in the movies or on tv.

I think that any further discussions along these lines should be moved to talk.politics.guns.

--
Randy Jarrett WA4MEI
UUCP ...!gatech!wa4mei!rsj | US SNAIL: P.O. Box 941217
PHONE +1 404 493 9017 | Atlanta, GA 30341-0217

2182. Re^2: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-09 00:31:15 UTC
From: coffin@xroads.UUCP
Message-ID: <1040@xroads.UUCP>
Source record: 12243

jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:

>neal@lynx.uucp (Neal Woodall) writes:

>>
>> The only difference is that we gun owners must face these ignorant people
>> because of the open hostility towards guns that is being whipped up by the
>> media. It is lucky for you ham radio operators that you are not facing
>> organized forces which exist for the sole purpose of banning your radios...
>> at least not yet.
>
>What blithering lunacy!! Ham radios don't kill children playing in their
>schoolyard!!! If you don't see any difference between guns that kill and
>radios that don't, then you yourself are part of the proof that guns MUST
>be banned as soon as possible.

I cannot let Mr. Grubs blithering lunacy go here. Banning guns
will not (and has not) solved ANYTHING. It has (witness
Washington D. C. , murder capitol of the U. S., where guns ARE
banned. There was a specific purpose for including the 2nd
amendment in the Bill of Rights (the right to keep and bear
arms), and that prupose is even more valid today than ever.
(hint: it's not for "sporting purposes")

Agreed, Patrick Purdy deserves the maximum punishment, and his
name is pornography in our household, but banning guns is NOT
the answer.

BTW, there ARE organized groups dedicated to banning ham radio.
Witness the zoning restrictions in Colorado and "Deed
restrictions" recently discussed here.

Followups to talk.politics.guns please.

--
\ / C r o s s r o a d s C o m m u n i c a t i o n s
/\ (602) 941-2005 300|1200 Baud 24 hrs/day
/ \ hplabs!hp-sdd!crash!xroads!coffin

2183. Re: beginner projects for radio amateurs

Newsgroup: rec.ham-radio
Date: 1990-04-09 08:38:00 UTC
From: john@frog.UUCP
Message-ID: <13693@frog.UUCP>
Source record: 12242

In article <7784@b11.ingr.com>, bill@b11.ingr.com (Bill Welch) writes:
> I am fairly new to amateur radio (licensed last november), and am
> interested in building some simple "rigs". My main purpose is to
> gain some practical experience in working with transistors, analog
> circuits, and radio circuits in particular.
> I would like to hear from any of you that have similar interests,
> (especially you elmers out there :-).

I am currently working on putting together a transmitter and receiver for the brand-new 18Mc band; the transmitter is the 6W VXO-Controlled Transmitter in the 19XX Radio Amateur's Handbook (an invaluable reference which I didn't see on your list). The receiver will be a cobbled-together design based on the NE-602 RF-amp/mixer/oscillator chip. If you're interested (and if I make it work...) I can send you the design.

> I would also like to hear recommendations about books, magazines, etc.
> Also recommendations on mail-order part supply houses, as I am not close
> to any large metro areas. For example, a couple of the projects call
> for an audio transformer (10k to 2k), and I haven't had any luck finding
> it locally.

Someone else has started a thread on the topic of mail order houses on sci.electronics/rec.ham-radio, so perhaps they will have a more complete list. Here are the places I use:

(New parts)
Digikey
P.O.Box 677
Thief River Falls, MN 56701-9988
1-800-DIGI-KEY
No minimum, $3 shipping for under $25, discounts for over $100, weak on radio specific parts.

Circuit Specialists
P.O. Box 3047
Scottsdale AZ 85271-3047
1-800-528-1417
Minimum $15 (except none for check or money order), $3 shipping, fairly good selection of radio parts.

Amidon Associates
12033 Otsego Street
North Hollywood CA 91607
All those damned, mysterious T37-6 cores specified in construction articles which semi-baffle us "old farts" (even us young OFs) who want to see uH and n linear inches of m-inch coils?[1] Amidon (and others) makes them. Prices

from Amidon are a little higher than what one can find elsewhere, but they ship VERY fast -- I've gotten orders back in a week, and that's very nice.

Mouser Electronics Mouser Electronics Mouser Electronics
1433 Woodside Avenue 2401 Highway 287 North 12 Emery Avenue
Santee CA 92071 Mansfield TX 76063 Randolph NJ 07869
--> 1-800-34-MOUSER <--
$20 minimum (add $5 if under); shipping charges according to shipping method ("check or money order: add 10% -- credit or refund will be issued for any over-amount"); wide selection. They also ship quickly, but I've found them to be prone to discovering the need to back-order something between the phone call and the shipment...

Jameco Electronics
1355 Shoreway Road
Belmont CA 94002
(415) 592-8097
$25 minimum; shipping charges vary. Mostly they sell computer parts; they still carry a number of analog ICs and the usual resistors, capacitors, etc. Maybe if enough people try to buy analog stuff from them they'll abandon this digital fad and get back to real electronics. ;-) I've heard some people complain about their service, but I've had reasonably good luck (they goofed one order a bit, but sent the correct item promptly).

MCM Electronics
650 Congress Park Drive
Centerville OH 45459-4072
1-800-543-4330
$20 minimum ($25 charge); shipping varies, plus at least $2 handling. They cater mostly to repair technicians, so they don't have a lot of stuff you might expect to find, but they do have a lot of stuff you might not find anywhere else. Their salespeople have also been extremely helpful and friendly.

Crystek Corporation
2351/2371 Crystal Drive
P.O.Box 06135
Fort Myers, Florida 33906-9963
1-800-237-3061
$10 minimum for charges, shipping varies (and isn't heinous). They seem to be the least expensive crystal manufacturer. Crystals are like $6-$9 depending on frequency, form factor, and tolerance.[2]

JAN Crystals
2341 Crystal Drive
P.O.Box 06017
Fort Myers, Florida 33906-6017
1-800-JAN-XTAL
Almost identical to Crystek (including the address). Just a tad more expensive. The catalog I have shows more pre-made crystals for various commercial rigs (including some 2-meter transceivers), plus they have a "special" on amateur crystals in FT-243 holders (which actually is the same price as their regular cases for similar tolerance); Crystek didn't

seem to have FT-243 holders available (but I don't have their full catalog, and won't for a while, since they said they've run out for now...).

Radiokit
[alas, I can't find their catalog.]
Pelham NH
Radiokit has a number of kits (gee!), and some selection of parts, including a wide variety of VARIABLE CAPACITORS (which I've found to be as rare as hen's teeth. Now I know that good ones are as expensive, too...).

(Favorite surplus outfits)
Marlin P. Jones & Assoc.
P. O. Box 12685
Lake Park FL 33403-0685
(407)846-8236
No minimum (add $1 under $10), shipping like $2 plus UPS. Lots of electronics stuff, random other things (pressure gages, lenses, freon tank conversion kit, motors, etc.).

All Electronics Corp.
P. O. Box 567
Van Nuys CA 90408
1-800-826-5432
$10 minimum, $3.50 S&H. They lie; magnets aren't electronics. Other than that, they're a great place to deal with.

R&D Electronics
1224 Prospect Ave.
Cleveland OH 44115
1-800-642-1123 (tuesday through saturday)
$10 minimum (unless you're a school with a purchase order, in which case it's $25), S&H per UPS. Lots of motors, also a lot of electronics stuff. Seems like a more random collection than MPJ and All-Elect. above.

Hosfelt Electronics
2700 Sunset Boulevard
Steubenville OH 43952
1-800-524-6464
No minimum; $3.75 S&H under $101, $4.75 under $251, free above that. I think they're surplus; their catalog has that "random grab-bag" look, but they have a very well-stocked grab bag.

Surplus Sales of Nebraska
1315 Jones Street
Omaha Nebraska 68102
(402)346-4750
No minimum; at the moment, no catalog, for they are still preparing their next catalog, and have run out of their previous, so all I have is "Supplement 5A" from which I've used the order form... They say they have a wide selection of hard to find parts, and the index I have lists air-variable capacitors (which I've found hard to find) and B&W coil stock (oh boy! see [1] ;-). They also have bus seats available (get 'em while they're hot![3]).

Well, that's it for the sheaf of catalogs I grabbed. If I missed any really good ones, I'll post another article (or if someone announces that they are collecting this kind of info, I'll mail it to them).

Very 73, John Woods WB7EEL

[1] When I was starting out in ham radio, I was sort of puzzled by toroids, since I didn't know where to get them, and it also seemed kind of annoying to have to stock a zillion different types in order to be able to cobble up random projects. Now, at least, I know where to get them, and have stocked a dozen or so different types -- that still seems annoying, but less so once I sat down and tallied which types were used in, say, the 1988 Handbook...

[2] Crystals were another thing that I found intimidating when starting out. Don't worry, the folks at Crystek were certainly friendly, and I'm sure JAN is just as nice. Crystals are a bit expensive if you need more than a few, so don't plan on covering all of 10m with crystals spaced 1Kc apart...

[3] They bought a school bus for travelling to hamfests, and didn't need all the seats. So, with a big grin, they put the spare seats into the catalog.
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

2184. Litz wire again and how to solder it.

Newsgroup: rec.ham-radio
Date: 1990-04-09 09:37:53 UTC
From: Wickham.SBDERX@XEROX.COM
Message-ID: <900409-023757-5275@Xerox>
Source record: 12236

I spotted this whilst reading through the November 1985 RSGB Mag "Radio Communication"

Printed in Technical Topics, provided by G.H.Lucas G3TWE.

"Fill a small container with methylated spirits(a bottle cap is ideal) and light it. Place the end one inch or so in the flame to burn off the insulation., remove it and blow the burning insulation out. Next replace the wire in the flame and heat until the wire is red hot, then quench the wire rapidly by immersing it in the unburnt spirits, and remove quickly. The result is clean multi-strands of wire that may be twisted together, tinned and soldered in the conventional manner."

The term "Litz" was derived from the German Litzendraht (Litz - strand, draht - wire) and is correctly applied to conductors which are built up by successive stranding of wires or groups of wires in groups of three, each individual wire being insulated with enamel or silk, although often applied also to what are more correctly termed 'textile-covered bunched enamelled-copper wire conductors'. Litz wires were developed for use in which skin effect becomes significant."

There is a little more but that should be enough on the subject.
Please note I am not the expert - just repeating what was printed.

Regards,
Richard

g4jqb.sbderx@Xerox.com

2185. Re: Maidenhead Grid Square System

Newsgroup: rec.ham-radio
Date: 1990-04-09 11:14:22 UTC
From: jdg@hpqtdla.HP.COM
Message-ID: <3430002@hpqtdla.HP.COM>
Source record: 12251

If anyone's interested in this Maidenhead system and has a HP28 or HP48 handheld calculator, here are some routines that will workout the Maidenhead location from lat/long and vice-versa. Also routines to calculate great circle distances once you have the locator.

73
James

I have no professional connection with Hewlett-Packard's calculator operations other than as a user of their products.

Opinions expressed are my own, and are not intended to be an official statement by Hewlett-Packard Company
---
Name: James Gentles GM4WZP
Organization: Hewlett-Packard Queensferry Telecomunications Division
Email: jdg@hpqtdla.hpsqf.hp.com hp-sdd
Address: Station Road, South Queensferry, West Lothian, Scotland
---

QRA Locator Square Translator: The following procedures translate between the worldwide QRA (or ANB or Maidenhead, whatever its called) locator system used by Radio Amateurs.

->QRA Takes Latitude from stack level 2, and Longitude from level 1 and returns a string with the Locator. South and West are negative. The input should be in DD.MMSS format. The input is tested to ensure that it is +-90 and +-180 respectively. For example, take QTH C->R ->QRA gives "IO85HX" for my locator.

QRA-> Takes a string from the stack level 1 and returns the Latitude in level 2 and Longitude in level 1 of the square center. This is the inverse of ->QRA. The output is in DD.MMSS. Some error trapping is done on the input, but it is not foolproof.

Great Circle Distance & Bearings: Calculates the distance between your station and the remote station, also gives beam heading required.

GCIR Takes the output of QRA-> (Lat and Long) and uses the Lat and Long in QTH to compute the great circle distance and bearing from QTH to the stack Lat and Long. The distance is returned in Level 2, in Km. The bearing, in DD.MMSS from north (+E,-W) is returned in Level 1. This program assumes the earth is a perfect sphere (we all know this is an approximation as the earth is actually flat :-). This program uses the PRESERVE

routine given in the manual to ensure degrees mode is used.

QTH Must contain the complex number (Lat,Long) representing your
stations position.

ERAD Must contain the equatorial radius of the earth. I use:
6378.888
which is in Kilometers, thus the answer to GCIR is in Km,
you can use UNITS to change this constant if you wish.

Radio Horizon: Calculates the flat-band line of sight communication
distance at VHF.

HORIZ Returns the distance between a point on the earth and the
VHF radio 'horizon' given the height above sea level. The
height is taken from level 1, and the distance returned in
level 1, both will be in the same units as ERAD. e.g. For
914m ASL enter 0.914 to give an answer of 124.68 Km. Note
this is NOT the same as the line of sight horizon, as it
includes a correction of SQR(4/3) to allow for tropospheric
bending.

The Procedures:

```
->QRA Checksum BC9E
<< HMS-> 180 + SWAP HMS-> 90 + -> lo la
<< IF lo 0 < lo 360 > la 0 < la 180 > OR OR OR
THEN la 90 - lo 180 - "Lat/Long out of range" 1 DISP
2 WAIT ABORT
END
lo 20 / IP 65 + CHR
la 10 / IP 65 + CHR
lo 20 / FP 10 * IP 48 + CHR
la 10 / FP 10 * IP 48 + CHR
lo 2 / FP 24 * IP 65 + CHR
la FP 24 * IP 65 + CHR
>> + + + + +
>>
```

```
QRA-> Checksum 9E77
<<
<< "Not valid QRA" 1 DISP 2 WAIT 'er'
>> STO
DUP IF TYPE 2 <> THEN er PURGE ABORT END
DUP IF SIZE 6 <> THEN er PURGE ABORT END
-> q
<< 1 6 FOR i q i DUP SUB NUM 65 - NEXT
-> a b c d e f
<< 'b*10+(d+17)+f/24+1/48-90' EVAL ->HMS
'a*20+(c+17)*2+e/12+1/24-180' EVAL ->HMS
>>
>> 'er' PURGE
```

```
>>

GCIR Checksum 6369
<<
<< DEG HMS-> SWAP HMS-> QTH C->R HMS-> SWAP HMS->
4 ROLLD ROT -
DUP IF 180 > THEN 360 - END
DUP IF -180 < THEN 360 + END
IF DUP 0 == THEN .000001 + END ! ensures we dont divide by 0
-> lah laa dif
<< 'ACOS(SIN(lah)*SIN(laa)+COS(lah)*COS(laa)*COS(dif))' ->NUM
DUP 180 / pi * ERAD * ->NUM SWAP -> dis
<< 'ACOS((SIN(laa)-SIN(lah)*COS(dis))/(COS(lah)*SIN(dis)))'
->NUM
>>
IF dif 0 > THEN NEG END ->HMS ! correction for E or W of N
>>
>> PRESERVE ! in HP28 Operator Manual
>>

HORIZ Checksum 6E8B
<< ERAD * 8 * 3 / SQR
>>

ERAD 6378.388 ! in Km

QTH (55.5910 , -3.244) ! in DD.MMSS

Note <> not equal to
SQR square root
-> right arrow
pi symbolic constant for circumference/diameter of a circle
```

2186. Lo-Jack

Newsgroup: rec.ham-radio
Date: 1990-04-09 11:39:26 UTC
From: Pete_Simpson@DGC.MCEO.DG.COM
Message-ID: <9004091239.AA00049@adam.DG.COM>
Source record: 12237

CEO summary:
This system has been in operation for a couple of years here in Mass. One of my friends had it installed in his car. The way it works is that *you must first report your car stolen*. The police then enter the registration number into their stolen car computer system & the Lo-Jack people are linked into this system. They check to see if the VIN matches any of the ones they've installed transmitters in. If so, they start trying to activate the "transponder" in your car. There's a nationally allocated frequency for this (173.075 I think, I have it at home). If you listen to this frequency, you can hear something that sounds like packet...that's their activation signal. My friend was listening to his scanner one night and heard the local cops chasing a beaconing Lo-Jack equipped car. They found it and the thieves abandoned it and got away. The cops saw the thieves leaving the car!
Several drawbacks: (1) Nothing happens until you notice your car's gone. (2) Smart crooks leave the cars to cool off for a day or two before picking them up again. (3) You need a cop who knows how to DF.

2187. Re: Alf a Ham?

Newsgroup: rec.ham-radio
Date: 1990-04-09 12:21:54 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9004091229.AA27462@ti.com>
Source record: 12238

I did not see the episode in question as it aired, but caught it on my VCR. I watched it, then rewound it and checked the pattern he was sending.

He was sending on an MFJ-557 (like I use in my code classes!) and he definitely sent a W6 callsign. I could not tell the last two letters because they were run together. The last two letters were either SC or VR... I forget the first letter of the call I wrote down. When I looked in the callbook there was only one of the two calls listed.

The hand that was sending, I would say, definitely knew what it was doing.

Interesting.

--Bob West WA8YCD
Dallas Texas
RLWEST@FLOPN2.CSC.TI.COM

2188. Maidenhead Locators.

Newsgroup: rec.ham-radio
Date: 1990-04-09 12:30:41 UTC
From: hugh_davies.WGC1RX@XEROX.COM
Message-ID: <900409-053203-5445@Xerox>
Source record: 12239

In INFO-HAMS V90 #371,
zaphod.mps.ohio-state.edu!usc!pollux.usc.edu!kjh@tut.cis.ohio-state.edu
(Kenneth J. Hendrickson), says;

<...Somebody asked about the Maidenhead Grid Square Locater System. Here
are the details of how this system works. This system is in widespread
use in North America on VHF/UHF/SHF/EHF. I believe that it is also
catching on in Europe...>

Har, har, har!!!

Kenneth, it was *invented* in Europe. We have had a European wide locator
system for some years. It was called the "QRA locator" system. It suffered
from a number of shortcomings, in that it couldn't be extended world-wide,
and it was difficult to calculate distances between stations using it. The
Maidenhead system was design to supplant the QRA system, whilst providing
some upwards compatibility - the Maidenhead squares correspond with the old
QRA squares directly.

<...On higher
bands, (or maybe for other reasons), you might want to identify your
location more accurately...>

Like VHF contests using radial-ring scoring.

73,

Hugh Davies, G0CNR.
(IO91US. 71 squares in 16 countries on 144MHz)

2189. Re: Loading of Telephone Channels by Voice or Data

Newsgroup: rec.ham-radio
Date: 1990-04-09 16:34:15 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <10124@shlump.nac.dec.com>
Source record: 12246

In article <11965@cadnetix.COM>, rusty@cadnetix.COM (Rusty Carruth) writes...
>In article <12577606692.12.DEFRANCO@TOPS20.RADC.AF.MIL> DEFRANCO@TOPS20.RADC.AF.MIL (Carl DeFranco) writes:

>>Ironically, it is the true digital channels that can be multiplexed into
>>higher level datastreams to provide greater capacity per channel. While
>>one voice circuit requires the full 64 kbps, up to 6 9600 bps channels could
>>be multiplexed into the same data space.
>>Carl DeFranco
>>KB2JLY
>And, be fully prepared to pay MORE for a service which costs the telco LESS to
>supply than it does for them to supply voice lines for the modems. ---

C'mon gang, let's quit discussing the alleged merits of this chain
letter!

The FCC NEVER proposed a modem tax. They did once upon a time, years
ago, discuss a charge scheme that would have classified some services as
equivalent to long distance carriers. Some of those services were modem
based, some voice. The whole plan was killed, then a stake was put
through its heart, then it was cremated and buried under Cthulhu's
crypt.

Southwestern Bell, in an entirely different matter (see alt.cosuard, I
guess), decided that home dial-up BBSs were "business" users and thus
had to pay business line rates; that's being fought. But it too has
nothing to do with the way lines are muxed. BTW, the telco can't split
one voice channel into 6 9600's on a dial-up basis; they don't know
what your modem's doing, and have no right to intercede unless you
ask them to! A dial-up call today is a 3.1 kHz audio path. ISDN's a
different story; a path will be 64 kbps, OR 3.1 kHz audio, depending on
what you ask for.
fred k1io

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

2190. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-09 16:41:24 UTC
From: ken@argus.UUCP
Message-ID: <1718@argus.UUCP>
Source record: 12244

In article <RsHBH1w161w@w8grt.fidonet.org>, jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:
: What blithering lunacy!! Ham radios don't kill children playing in their
: schoolyard!!! If you don't see any difference between guns that kill and
: radios that don't, then you yourself are part of the proof that guns MUST
: be banned as soon as possible.

Sure they can, drop a heavy rig out the window on their heads, wire up the B+ voltages to their hearts, or strangle them with antenna wire. I don't think there is anything in the world that couldn't be misused to kill someone given inclination.

2191. Need Info for Microwave Modules Transverters

Newsgroup: rec.ham-radio
Date: 1990-04-09 16:59:48 UTC
From: rbono@necis.UUCP
Message-ID: <1226@necis.UUCP>
Source record: 12248

.
.
.

Can ANYONE help me??? A friend of mine and I own a Microwave Modules transverter... one is the 432 version, the other is the 144 version.

We bought these at a flea market without any manuals or schematics.

I have been able to get a partial copy of the manual for the 432 version, but it does not seem to match the unit that I have exactly. The manual references a single "input level" pot, and a jumper post pair that can be used to adjust for the input drive level of 1 to 500 mw. My unit has TWO (or appears to) potentiometers that seem to affect the output level and there is no jumper post pair to be found on the board.

The 144 version does seem to have a single pot and the jumper post pair that is mentioned in the manual that I have for the 432 unit...

Does anyone have a manual AND SCHEMATICS for these units???

If so, I would be interested in obtaining a copy of each....

Also... if anyone has one of these units for SALE (for any band)... please let me know, as we may be interested in obtaining more units.

Thank you,

Rich (NM1D)

--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

2192. More parts sources

Newsgroup: rec.ham-radio
Date: 1990-04-09 17:24:43 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9004091724.AA14086@cmr.ncsl.nist.gov>
Source record: 12256

Add to your list of parts sources.

International Crystal Manufaturing Co.
Oklahoma City.

I've always has very good luck with them. On my last $10 order they must have spent $6 in phone calls fixing a VISA problem in my order.
Now, THAT'S service.

RF Parts
see any QST for their address.

They are a source for a wide range of RF power transistors, power amplifier modules, ferrite cores, ARCO capacitors, etc.

ABSOLUTELY NO OFFICIAL ENDORSEMENT IS GIVEN TO THESE COMPANIES.

Bob W3OTC

2193. Microwave

Newsgroup: rec.ham-radio
Date: 1990-04-09 17:29:48 UTC
From: U009@CCIW.BITNET
Message-ID: <5A04090C1B2E00BC-MTACY830*U009@CCIW>
Source record: 12257

Something I have been wanting to write for a while... now I can get down
to it.

......t.cis.ohio-state.edu (Tom Hill, WA3RMX) writes:
>
> For those interested, here is a list of all the currently assigned
> U.S. microwave Ham bands (if I am still up-to-date):
>
> BAND SSB calling Freq
>
> 1240 - 1300 1296
> 2300 - 2310 & 2390 - 2450 2304
> 3300 - 3500 3456
> 5650 - 5925 5760
> 10000 - 10500 10368
> 24000 - 24250 24192
> 47000 - 47200 47040
> 75500 - 81000 80640 (I hope)
> 119980 - 120020 120000
> 142000 - 149000 144000
> 241000 - 250000 245760
> 300000 - up whatever you can manage

I have a poster on the wall listing ALL the allocations (neat colors too!)
for Canada published by the DOC. It shows the same allocations as you
document here. However, on looking at the TRC (rules) I note that there
are no amateur specifications above 24 GHz. I called a friend at the
local DOC to enquire about the discrepancy and was told that since no-one
had asked, there was no formal allocation. I suspect the wall chart was
drawn to illustrate the ITU allocations for the region. The basic stance
of the local office has been "a request for a formal interpretation means
work for us, and as we are short staffed, you might not get what you
think you deserve". The unspoken meaning is "do it, but if we get any
complaints, we might have to make a ruling".

This was brought home after I asked for a clarification of the rules for
902-928... it seems that since I am NOT an advanced amateur, I can NOT use
CW on this band, A3 and F3 only!!! So far no-one has complained about my
(albeit sloppy) code on this band!

So that little anecdote aside, there is a small group (10 or so) in the
{Hamilton, Toronto, Cambridge, London} Ontario area on 10 GHz FM and I
am working on integrating a 200 mw SSB Electronics transverter into a
rice-box all-mode mobile rig for the contest in August/September.
(Still looking for a SMA to waveguide transition too.)

Also wrt 300000 GHz and up, VE3LPP is interested in HeNe laser operations (best DX is 2Km at the moment). Great for the quick-and-dirty set up on a LOS path for the "lower" bands. (I know, I know... watch the eyes!)

Regards, Stu Beal, VE3MWM, (U009@CCIW.BITNET),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

2194. Antenna mounting question

Newsgroup: rec.ham-radio
Date: 1990-04-09 17:34:25 UTC
From: disbrow@skipper.dfrf.nasa.gov
Message-ID: <482@skipper.dfrf.nasa.gov>
Source record: 12247

Hi, I'm studying for my novice and I have a question maybe some
of you could answer.

I have a hand-me-down 18-ATV Hy-Gain vertical antenna (10-80 meters)
about 25' long. I'm thinking of mounting it on top of the house
to a vent pipe. There seem to be plenty of vent pipe mouning kits,
but I think they're really designed for a shorter TV antenna.
I'd really like to guy this thing higher than the base but some
of my OF friends say I shouldn't use anything conductive except
on the radials.

I was thinking of using a high test fishing line, but the
people at the fishing stores say this stuff stretches too much
because its monofilament.

I live in a high wind area where 70 knot gusts are not uncommon. I
really don't want that kind of torque on the vent pipe.

So how do you guy those verticals at a point other than the base?
Also, is it OK to use 22 guage wire for the radials?

Thanx,
Jim

-=-
"I'm only in this because I need plenty of money.
Without money I become dull, listless, and
have trouble with my complexion."

Humphrey Bogart in 'Beat the Devil'
-=-

2195. Wanted: Uniden HR2600 Mods

Newsgroup: rec.ham-radio
Date: 1990-04-09 17:55:59 UTC
From: jneher@tenorman.Sun.COM
Message-ID: <134172@sun.Eng.Sun.COM>
Source record: 12245

Hello,

I recently purchased a Uniden HR2600 mobile 10 meter
rig and am very happy with it. I've heard that it
is not to hard to boost it's power output by replacing
the final transistors and adjusting the ALC.
Does anyone have the particulars of these mod's?
Also, if there is any way of extending the receive range,
I'd be interested in that too.

Thanks in advance,

Jonathan Neher
N6XUI
N6XUI@mpbbs
sun!jneher

2196. Repeater on Space Station Freedom

Newsgroup: rec.ham-radio
Date: 1990-04-09 18:21:28 UTC
From: davet@tsdiag.ccur.com
Message-ID: <862@tsdiag.ccur.com>
Source record: 12241

Has anyone petitioned NASA to have the first Amateur repeater on Space Station Freedom? I'd love to have my call broadcast for all those extra-terrestrials to hear :-). Seriously, it'd be a great PR thing, and pretty nifty to show school kids, as well as being useful to us Amateur types. You could have all sorts of nifty packet stuff, experimental beacons, ATV, FM voice, etc. Imagine an all-mode radio station a la w1aw floating around up there. I'm sure NASA wouldn't mind an extra EVA or two to put up new antennas or adjust the linears :-) (Hehhhhhhllo.) It could even be attached to the outside of the station via a large mag-mount, so that it could be moved for station expansion or easy repair. Please post or E-mail you comments.

--

David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

2197. Re: CW: Where do you stand?

Newsgroup: rec.ham-radio
Date: 1990-04-09 20:24:38 UTC
From: msjohnso@ensub.Wichita.NCR.COM
Message-ID: <305@ensub.Wichita.NCR.COM>
Source record: 12249

> [much about proposed changes deleted...]
>the only thing standing in the way is an ocean of people
>that insist on paying lip service to an outdated notion...the notion that
>good communication/engineering skills are rooted in CW. It just ain't so...
> Notice I said notion, not mode! I'll continue to use CW as it's appropriate
>to do so, but only for the sheer entertainment value of working weak signal
>stuff...not everyone is so easily amused! ;-)

funny thing about proposal # 4 is, given human nature, it probably would
ENHANCE the lifetime of CW as a widely used mode, for exactly the reason
you state...entertainment value. I enjoy CW, was pretty good at it when I
used it regularly, but have to agree it isn't relevant. Besides, boring
conversations about the rig, the signal report, and so on can take place
in any language and using any mode. Only 1/2 :-) here; this I view as one
of the reasons for the decline of the hobby.

--
Mark Johnson WB9QLR/0 NCR Peripheral Products Division, Wichita KS
Mark.Johnson@Wichita.NCR.COM Opinions expressed here are the author's.
CIS 76670,1775

2198. Re: Amateur Radio is Enjoyable!

Newsgroup: rec.ham-radio
Date: 1990-04-09 20:35:10 UTC
From: msjohnso@ensub.Wichita.NCR.COM
Message-ID: <306@ensub.Wichita.NCR.COM>
Source record: 12250

In article <1990Apr3.235907.6231@NCoast.ORG> allbery@ncoast.ORG (Brandon S. Allbery) writes:
>My next thought was, of course, mobile. Ever try to fit a radio---ham, CB, or
>otherwise, aside from in-dashboard models---into a Ford Escort? It doesn't
>look too promising, unless there's one that will fit into the dashboard. So

I guess it depends on how badly you want to run mobile; I ran HF mobile from a Plymouth Horizon for about 2 years...with an IC-730 which isn't exactly a small radio. I built a wooden stand which sat over the hump in the floorpan and held the radio up at about a 30 degree angle so I could see and reach the controls. I still use the stand, but now in a Voyager. Only problem with HF mobile is that if you have a voice that tends to drive the rig to full PEP frequently, you can see the lights dim slightly on voice peaks :-(. Doesn't seem to really hurt anything, just runs the radio to its limits.

HF mobile, by the way, is great fun! 20m can be frustrating, but 15m DX right now is almost as good, sometimes even better, and 40m daytime ragchewing isn't too bad if you find the right conversation--it always seems to me that 40 in the daytime is populated by a bunch of old f*rts who've known each other for 40 years, and talk in a sequence of 5 minute monologues with about 1 second for you to get in edgewise.

Good luck with whatever setup you end up using!
--
Mark Johnson WB9QLR/0 NCR Peripheral Products Division, Wichita KS
Mark.Johnson@Wichita.NCR.COM Opinions expressed here are the author's.
CIS 76670,1775

2199. Re: Kenwood 721 Display Upgrade

Newsgroup: rec.ham-radio
Date: 1990-04-10 00:40:45 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500493@ux1.cso.uiuc.edu>
Source record: 12253

> Contact:
> Kenwood Customer Service
> (213) 639-7140
>
> One of those "wonderful" automated answering systems will answer. At
> some point you will be prompted for "Parts and Service". Select parts
> and service. Explain that you want the display upgrade for the
> TM-721. They accept check, money order, and major credit cards. When
> I ordered, it was $37 for the parts and $4 for shipping and handling.
> After six months of trying to read my old display during the daylight
> hours, I can hardly wait for this upgrade kit to arrive!

Hope and pray that the line is not busy. If it is, that "wonderful"
answering machine will tell you using an automated voice. The real
catch is that YOU STILL PAY FOR THE LONG DISTANCE CALL just to find
out you can't talk to anyone.

This is why I currently refuse to consider purchasing any Kenwood product.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2200. Re: Antenna mounting question

Newsgroup: rec.ham-radio
Date: 1990-04-10 01:32:13 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <41266@iuvax.cs.indiana.edu>
Source record: 12252

>I have a hand-me-down 18-ATV Hy-Gain vertical antenna (10-80 meters)
>about 25' long. I'm thinking of mounting it on top of the house...
>some of my OF friends say I shouldn't use anything conductive except
>on the radials.
>
>I was thinking of using a high test fishing line, but the people at
>the fishing stores say this stuff stretches too much because its
>monofilament.
>
>I live in a high wind area where 70 knot gusts are not uncommon.
>
>Thanx, Jim

Hams report good results using plastic "Weed Eater" (tm) string for supporting wire antennas, including 1750m transmitting antennas which are somewhat like Tesla coils and very sensitive to insulator leakage.

The stuff is very strong, and relatively inexpensive. I don't know about long-term stretch. The colored varieties are probably more resistant to sunlight deterioration.

--

Frank Reid W9MKV reid@ucs.indiana.edu

2201. Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-10 02:16:41 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9004100216.AA05940@tecnet1.jcte.jcs.mil>
Source record: 12258

neal@lynx.uucp (Neal Woodall) writes:
> MCL9337@TAMVENUS.BITNET writes:
>
> The only difference is that we gun owners must face these ignorant people
> because of the open hostility towards guns that is being whipped up by the
> media. It is lucky for you ham radio operators that you are not facing
> organized forces which exist for the sole purpose of banning your radios...
> at least not yet.

ndcvb!cartan!ndmath!nstar!w8grt!jim.grubs@iuvax.cs.indiana.edu (Jim Grubs)
repies:

What blithering lunacy!! Ham radios don't kill children playing in their
schoolyard!!! If you don't see any difference between guns that kill and
radios that don't, then you yourself are part of the proof that guns MUST
be banned as soon as possible.

I say:

I personally just wanted to say how much I enjoy seeing such a logical and
level headed response from Mr. Grubs. I had in the past believed that he
tended to go off half-cocked and misread what people were trying to say
with the result being a massive flame battle starting on this net over
matters not related in any way to ham radio. In short, that he just liked
to participate in hateful arguments.

It is nice to see that I was so totally wrong in my beliefs and that he
can offer such a thoughtful and calm response to another persons point of
view. I am sure all of you who read the above will agree. So let me say
in public how sorry I am to have felt this way and hopefully when I meet
this gent on the air I can tell him so ..... personally.

p.s. It will be hard to talk though... this tongue keeps pushing my cheek
so hard.... maybe we can have a CW QSO.

Mark Bitterlich
WA3JPY @ WB4UOU
mgb@tecnet1.jcte.jcs.mil

2202. Re: Aargh! Want address/info to get Heathkit catalog

Newsgroup: rec.ham-radio
Date: 1990-04-10 04:49:05 UTC
From: tad@ssc.UUCP
Message-ID: <638@ssc.UUCP>
Source record: 12259

In article <9004050713.AA04122@ucbvax.Berkeley.EDU>, wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
> Re Heath:
> >Try (800) 253-0570. Visa, Mastercard, and American Express.
> >It sure looks like the beancounters have gotten to Heath. Half the stuff
> >in the catalog is only available assembled, and the retail stores (actually
> >a seperate corporation to dodge the state sales taxes) seem to be mutating into
> >Apple Computer dealerships. The local store is even closed Saturdays.
> >On the plus side, they're back in the hi-fi stereo kit buisness.
>
> is a market void right now, and that they look into the high-end audio
> market in the areas of minimalist preamps and tube power amps. In both
> cases, I emphasized that they should first publicize their plans and
> talk to experts in the field and solicit user input, doing things like
> going to the ANARC and Monitoring Times conventions to talk to SWLs
> about radios, and talking with the staffs of The Absolute Sound nd
> Stereophile about audio gear. Maybe that approach will help them avoid

Uhhhhh.....The "Absolute Sound"?? Are you SURE? These are the guys who publish stuff about "skin effect" (at audio frequencies!) in speaker cable and other weirdness. Anyone looking for a laugh should check out Enid Lumley's monthly column. Recently this column claimed that folks who want "real" high fidelity should pay attention to the routing of power cords to the stereo system. I swear, I thought they were talking about microwave waveguides....warnings that sharp bends in the power cord could cause audio distortion! This magazine even suggested that the power cord be delicately suspended so that it didn't come in contact with any hard surfaces!
>
> As a side issue, does anyone out there know when Heath started? The
> catalog doesn't say. I expected to find some sort of advertising puffery

I think their first product was an airplane kit (not a model, a REAL airplane that you could build in your garage!) in the early 1950s. After that, I think their first electronic kit was an oscilloscope.

Does anyone remember their first personal computer? When I was a little kid in Berkeley about 30 years ago the father of a friend of mine had one. It was an analog computer, and was constructed on a big sloping console.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089

MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2203. Re: Cordless phone antennas question

Newsgroup: rec.ham-radio
Date: 1990-04-10 05:20:00 UTC
From: tad@ssc.UUCP
Message-ID: <639@ssc.UUCP>
Source record: 12260

In article <2640@ultb.isc.rit.edu>, wlw2286@ultb.isc.rit.edu (W.L. Ware) writes:
> I am interested in installing cordless phone antennas or the right
> length of wire in all the rooms of my house, so that I would get good
> coverage from room to room, and wouldn't have to put a phone in each
> room.
>
> Does anyone have any good suggestions about how to go about doing this?
> Like the best antenna length and how to connect them all up to the
> receiver?

Even in a large home, an unmodified cordless phone should work just fine.
Since there are many cordless phones that boast "1500 foot range", I
doubt if you would need a special antenna just for walking around the
house.

I modified one for my office for greater range. Not exactly legal, but
it works.

I bought one of those cute little cordless "LiteSet" units made by
Plantronics, and sold by DAK. I put the base on top of a metal filing
cabinet, and opened up the case....finding a ground connection on the
PC board where I connected a lead going to several ground radials.
I stretched two across the wall that the base unit and the cabinets
are up against, and stetched two more diagonally across the cabinets
and taped the extra length down over the corners. Then I took one more
wire, and attached it to the same place where the base unit antenna
was attached. Because the whip was short, I shorted out some of the
turns on the series inductor, since I was now using a full 1/4 wave
radiator. I took this wire and ran it vertically up the wall, terminating
it on a tack. The radials and the vertical element were each
5 feet long, which is about 1/4 wavelength on the transmit frequency
of the base unit.

This is a real handy device to have around the office. I can even
go for a walk out in the woods, and still take customer calls!

>
Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2204. WEFAX Pictures

Newsgroup: rec.ham-radio
Date: 1990-04-10 05:28:44 UTC
From: mcmahan@netcom.UUCP
Message-ID: <10762@netcom.UUCP>
Source record: 12254
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I am attempting to program a Weather Fax (WEFAX) interface for the Amiga computer, but don't know what the standard aspect ratios are. If someone out there knows what the standard height/width ratios are, and how many pixels across a standard line are normal, please reply to this message via E-mail.

-dave

2205. Re: Worthwhile non-amateur use of 902-9

Newsgroup: rec.ham-radio
Date: 1990-04-10 11:16:33 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500494@ux1.cso.uiuc.edu>
Source record: 12255

> The whole idea is that nobody has to enforce this! If you simply transmit on
> the frequencies where the wireless speakers are operating, pretty soon the
> owners of the wirless speakers are going to get upset at the interference and
> they will turn the wirless speakers off. In fact, they might get so upset at
> the interference, they will attempt to return the speakers for a refund.

What if they hear enough to identify who you are?

> Perhaps so, but the hams will be within the law, since the wireless
> speakers must accept any inteference. Just politely tell the owner of
> the wireless speakers than he should take a hike.

The ignorant member of the public is not going to notice that you are
polite; he is only going to notice that you are refusing to stop with
the interference (assuming he has identified you).

> Lawsuits of what kind? Civil suits on what grounds? Criminal charges....
> no way....you are within the letter of the law. Anyone foolish enough to
> file a civil suit will lose, and then you can counter sue for false and
> malicious lawsuits.

Unfortunately, you often have to front quite a large sum of money to defend
yourself even in a frivolous lawsuit that you could collect fees and costs
from when you win.

> OK, then don't broadcast to the owner of the speakers, just keep on
> boradcasting your normal stuff......he is still going to experience
> interference that will render his music unenjoyable!

If you know the interference is taking place, you better be prepared to
defend against the guys lawyer citing "INTENTIONAL interference" and saying
that since you knew the interference was taking place, despite the fact
you have a license, you have so many frequencies you could have chosen
a different one, and yet you chose to continue the interference.

(I'm playing devil's advocate here, just be prepared)

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2206. Re: How to achieve 20 WPM

Newsgroup: rec.ham-radio
Date: 1990-04-10 13:24:44 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12580699202.13.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 12274

Only one way: PRACTICE PRACTICE PRACTICE!!!!!!!!

2207. Re: SW popularity in USA

Newsgroup: rec.ham-radio
Date: 1990-04-10 14:06:09 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9004110706.AA07163@ucbvax.Berkeley.EDU>
Source record: 12275

>Another reason occurs to me because of my recent attempts to actually
>*buy* a shortwave radio. I found two amateur radio shops that could
>not care a lot less about SWL, and who didn't have anything for less
>that $600 anyway (seriously!), and exactly one store in a mall that had
>a couple of the Panasonics. (I'll leave aside Radio Shack for the
>moment, if you all don't mind :-) Nobody had a listing in the Yellow
>Pages, and the market looked almost completely dead. I know it's a
>chicken-and-egg thing, but I don't see how a young person is going to
>become aware of SW when the radios aren't to be found. They can get
>AM/FM radios practically out of cereal boxes, but SW receivers are some
>other strange thing they sell at Radio Shack. At least the latter
>have stayed in the market.

I will heartily second this and venture some comments on the issue. One aspect of the "chicken-and-egg"ness of the situation is that it appears there is absolutely NO "trade press" for the SWL marketplace (and, actually, for the amateur marketplace, too). I get a consumer-electronics dealer publication called "Audio-Video International" -- with a name like that it would be a natural to include a section on shortwave radio and ham gear, even if not in every issue at least quarterly or thereabouts. I've filled out comment cards and the "suggested article" section of their bingo cards for *years* with comments and suggestions that they institute at least some coverage of this marketplace, but they ignore the field.

I know of no dealer-oriented publication anywhere in the consumer electronics field that even acknowledges the existence of the SWL market or even the larger (or at least more-varied-product) ham market. I believe no ham or SWL manufacturer displays their wares at the CES trade shows (except for what portable SW radios might show up in the Sony or Panasonic displays).

With no trade press or "push" from the manufacturers encouraging retailers to get interested in serving this market, few, if any (who are not already interested in the field due to their own personal hobby), will make any effort to address this field. So there are few stores selling these products, and thus little awareness of them in the general public, who learn about goods and services mainly through advertising and no one is buying general-media ads for this stuff because the only dealers are small specialized or mail-order places who wither cannot afford to buy such ads or can't justify the expense on the expected return from such "cold" ads or "informational" ads.

As a side issue, the only periodical outside the electronics-hobbyist press I've even seen any detailed or worthwhile coverage of shortwave

radio in is "American Survival Guide", a survivalist monthly that has articles on ham gear and shortwave in amongst the ones on emergency medicine, food growing and storage, and weaponry. And that serves another limited-scope specialized audience, anyway. What we need is the same degree of coverage in the general media as they give to VCRs and camcorders -- not an awful lot, and not terribly accurate, but at least *something*.

Mentioning Radio Shack and other retailers who *do* attempt to sell SW reminds me of an amusing (or disenheartening :-) incident from about 17 or 18 or so years ago. I was at one of those "catalog outlet" type stores in central Illinois while on vacation -- one of those places that has a sample of everything displayed and you request what you want at an order window and the stuff comes out of the bowels of the warehouse in back or below in a bin on a conveyor. I was looking at some Nordmende SW radios and the guy who was waiting on me turned out to be the store manager. I tuned around on it and made some comments to my wife and the guy realized I knew something about shortwave and started asking questions. I explained a bit about what bands got the best reception at what times of day and the guy offered me a job then and there! I think I was the first person he had encountered who appeared to know anything at all about consumer electronics and SW in particular... :-) What this illustrates is that this is a kind of product that requires knowledge on the part of the salesperson, and that may be next to impossible to find these days -- the stores cannot afford to pay enough to the salespeople to keep anyone knowledgeable enough to sell the stuff; those people will find better jobs easily and quickly, and the markup and volume sold can't provide enough sales commission to support competitive pay. That situation won't change until the general level of technical knowledge in the population rises; since it appears to be headed down, instead, things are not likely to improve... Radio Shack makes some attempt to train its sales force, I suppose, but they have to emphasize the higher-volume and more profitable aspects, and the one or two SW radios they sell get left out. So you're not likely to find an SW-knowledgeable clerk at RS, either.

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

2208. Msg for John Adams, NW6H

Newsgroup: rec.ham-radio
Date: 1990-04-10 15:10:49 UTC
From: price@MARLIN.NOSC.MIL
Message-ID: <9004101510.AA03484@marlin.nosc.mil>
Source record: 12276

Apologies to the net.

John, tried to send e-mail to the address you gave us at
Winterail, but our mailer's not smart enough or something. Please
send me an e-mail msg and I'll reply by the return route.

Enjoyed meeting you this past weekend. Hope we can continue to
merge our ham radio, railroad, photo, and history hobbies.

73--Jim, K6ZH

ARPANET: price@nosc.mil

2209. Re: Kenwood 721 Display Upgrade

Newsgroup: rec.ham-radio
Date: 1990-04-10 16:01:05 UTC
From: paull@hplred.HP.COM
Message-ID: <7870002@hplred.HP.COM>
Source record: 12282

The last time I delt with Kenwood was to get a replacement
LCD for my TR-2500. As some of you might recall, the display had
a tendency to become unreadable after a few years. I called
Kenwood, told them about my problem (they were aware that the
LCD in the 2500 had this problem). The sent me a new LCD free,
no questions asked.

Rob Paull WE6B

2210. Re: Real People?

Newsgroup: rec.ham-radio
Date: 1990-04-10 18:32:11 UTC
From: mac@idacrd.UUCP
Message-ID: <664@idacrd.UUCP>
Source record: 12261

From article <12961@ucsd.Edu>, by brian@ucsd.Edu (Brian Kantor):
> Oh, I can't resist!...
>
> In article <23929@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>>GET ON THE AIR AND HAVE REAL QSO's WITH REAL PEOPLE.
>
> Oh my. We all know that hams aren't real people - most of us are
> social cripples who found ham radio so very very appealing because it
> - Brian

Yo Brian:

Ever been to Dayton? You can SOCIALIZE with the largest collection of
misfits ever put into one place. I have seen everything from guys with
plates in their skulls from WW II wounds with mag mounts on their head
to nearly naked vixens. WHAT A SHOW!!

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

2211. Re: PRO-34 scan speed mod wanted...

Newsgroup: rec.ham-radio
Date: 1990-04-10 18:52:46 UTC
From: ray@cs.rochester.edu
Message-ID: <1990Apr10.185246.11546@cs.rochester.edu>
Source record: 12265
Cross-posted to: misc.wanted,rec.ham-radio,rec.radio.shortwave

In article <11336.AA11336@heimat> sneakers@heimat.UUCP (Dan "Sneakers" Schein) writes:
>[-=-]
>
> Im in need of a mod for the Radio Shack PRO-34 to increase the -SLOW-
> scan speed. If you know of one, please send E-Mail.
>
> Sneakers

Yes, I'd like to know if anyone has such a mod. But please post it to the
net as there is likely to be a good audience for such a mod.

ray

2212. Re: INFO-HAMS Digest V90 #389

Newsgroup: rec.ham-radio
Date: 1990-04-10 19:30:30 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9004101930.AA26805@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 12277

Subject: Heathkit catalog

The airplane was the first heathkit and the scope was the first electronic kit. However I don't believe the big sloping console analog computer was their first. They also made a much smaller analog computer in a rectangular box that I used in high school. I recall the bigger unit becomming available after our unit was up and working and those who really knew how to use it wanted to upgrade, but the administrators said NO! I used to have one of the first scopes (serial no in the 20s), but the pots were too gummed up and it was too big for my limited needs. Years ago one of their catalogs had a history of the company. It was quite interesting.

-- Doug WA6VVV

2213. Re: Kenwood 940S vs Icom 765??

Newsgroup: rec.ham-radio
Date: 1990-04-10 19:32:55 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120113@hpcupt1.HP.COM>
Source record: 12273

Why just those two? Consider a well made and very fine transciever
from Ten-Tec. Two models to chose from in that price range. Service,
if needed, stands heads and shoulders above the rice-box send it in
and we will give you a quote variety. You can actually fix these
radios yourself. How novel.

For my money I would buy the American instead of the Japanese.

73's
Jim, WA6SDM @ AA4RE
jholly.hpcupt1.hp.com

2214. Re: Antenna mounting question

Newsgroup: rec.ham-radio
Date: 1990-04-10 19:46:50 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120114@hpcupt1.HP.COM>
Source record: 12272

Antennas West markets a very fine black dacron line for antennas. The black variety holds up good in the sun light. I think I paid around $20 for 200 ft. It's about 3/16 inch in diameter and has a 700 lb. breaking strength.

Antennas West
Box 50062-c
Provo, UT 84605
(801)-373-8425

The 22 ga would work for ground radials, but it is kinda light. Use somehing more around 18 ga or so. Don't forget that there is current flowing in the radials and the losses go up as the ground system becomes less efficient.

Jim, WA6SDM @ AA4RE
jholly.hpcupt1.hp.com

2215. Visitel for ham SSTV

Newsgroup: rec.ham-radio
Date: 1990-04-10 20:00:48 UTC
From: john@polygen.uucp
Message-ID: <694@bogart.UUCP>
Source record: 12262

In article <1423@gvgpsa.GVG.TEK.COM> John Kirby asks:

>I bought a Visitel picture telephone a couple of months ago to stay
>in visual contact with relatives. The thought occurred to me that
>it could also be the "poor man's" method of slow scan TV on ham.
>
>Questions:
>
>* has anyone tried it?
>* any complications?
>* is it compatible with any mode of existing "regular" slow scan TV/ham
> equipment?
>
> ....

>John Kirby

I have not tried a Visitel on the radio but I have serious doubts
that it could ever work. The details of the transmission format are
a little fuzzy in my brain but here is what I recall.

The image starts with a digital header containing synchronization
signals and information about the image size. After this there is NO
horizontal sync as in most ham SSTV formats.

The picture is composed of 96 x 96 pixels of 32 gray levels.
The pixel rate and audio carrier frequency are both 3579545/2048
per second. Gray levels are conveyed by a combination of phase and
amplitude modulation. 2 phases (180 degrees apart) and 16 amplitudes.
Each pixel is one audio cycle.

This is fine for a phone line or FM radio. Let's perform a thought
experiment about what would happen on SSB ...

Suppose your tuning was off by 20 Hz. The receiving end expects one
pixel per audio cycle and would gather the pixels at 1727 or 1767 per
second while the sender is producing them at 1747 per second.
The phasing would be all messed up. AGC and QSB would also mess up the
amplitude modulation of the audio carrier.

Several people have proposed using the Visitel for HF SSTV but I have
never heard of any success. I would be very interested in hearing
more about people's experiences with it.

If you would like to try SSTV at a low cost use your home computer.

* AEA has an interface for the Amiga for about $300.

* SPEC-COM has SSTV software for the Radio Shack COCO. I think it was about $40.

* A color SSTV program for the Atari ST is available from several user groups. It requires a simple interface that can be built for about $7. See 73, December 89 and January 90.

* I have a vague recollection of a product for the IBM PC from a company named something like Computer Systems Consulting. But it was only black & white. You don't see too many B&W pictures anymore.

In summary,
- The Visitel is not compatible with any of the ham SSTV modes.
- The Visitel modulation scheme can't be decoded by the usual Frequency to Voltage demodulators.
- I seriously doubt the Visitel would work over an SSB radio. (Please, someone - prove that I'm wrong!)

Color SSTV can be very expensive but it doesn't have to be anymore. If you must have 262,144 colors, spend $1295 on a Robot 1200C. If you want to make only a small investment to try something new, use one of the systems based on a home computer.

John Langner, WB2OSZ
mit-eddie!polygen!john

2216. Slow scan TV via the new Visitel Telephone devices

Newsgroup: rec.ham-radio
Date: 1990-04-10 20:05:30 UTC
From: john@polygen.uucp
Message-ID: <695@polygen.UUCP>
Source record: 12263

In article <1423@gvgpsa.GVG.TEK.COM>, John Kirby asks:

>I bought a Visitel picture telephone a couple of months ago to stay
>in visual contact with relatives. The thought occurred to me that
>it could also be the "poor man's" method of slow scan TV on ham.
>
>Questions:
>
>* has anyone tried it?
>* any complications?
>* is it compatible with any mode of existing "regular" slow scan TV/ham
> equipment?
>
> ....

>John Kirby

I have not tried a Visitel on the radio but I have serious doubts
that it could ever work. The details of the transmission format are
a little fuzzy in my brain but here is what I recall.

The image starts with a digital header containing synchronization
signals and information about the image size. After this there is NO
horizontal sync as in most ham SSTV formats.

The picture is composed of 96 x 96 pixels of 32 gray levels.
The pixel rate and audio carrier frequency are both 3579545/2048
per second. Gray levels are conveyed by a combination of phase and
amplitude modulation. 2 phases (180 degrees apart) and 16 amplitudes.
Each pixel is one audio cycle.

This is fine for a phone line or FM radio. Let's perform a thought
experiment about what would happen on SSB ...

Suppose your tuning was off by 20 Hz. The receiving end expects one
pixel per audio cycle and would gather the pixels at 1727 or 1767 per
second while the sender is producing them at 1747 per second.
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amplitude modulation of the audio carrier.

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never heard of any success. I would be very interested in hearing
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In summary,
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Color SSTV can be very expensive but it doesn't have to be anymore. If you must have 262,144 colors, spend $1295 on a Robot 1200C. If you want to make only a small investment to try something new, use one of the systems based on a home computer.

John Langner, WB2OSZ
mit-eddie!polygen!john

2217. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-10 20:44:45 UTC
From: hoenig@osage.csc.ti.com
Message-ID: <118877@ti-csl.csc.ti.com>
Source record: 12264

In article <RsHBH1w161w@w8grt.fidonet.org> jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:
>neal@lynx.uucp (Neal Woodall) writes:
>
>> MCL9337@TAMVENUS.BITNET writes:
>>
>> >One day last year "me 'n' the boys" (the other guys in the Texas A&M...
>>
>> Now you begin to understand how gun owners and other gun-knowledgeable...
>>
(Lots deleted to conserver space...)
>
>What blithering lunacy!!
^^^^^^^^^^^^^^^^^^^^^^^^
...And I quote you directly.

>Ham radios don't kill children playing in their schoolyard!!!

NEITHER DO GUNS!!! I have several guns in my house, and nary a one has
EVER gone out into any schoolyard and killed any child.
On the other hand; I assure you, I can kill you just as dead with my
TH75A, TM731A, TS440s, TH25A, or TM220A as I can with my S&W 357 Magnum,
my .38 Special, my .22 semi-automatic rifle, or my shotgun.

GUNS DO NOT KILL PEOOPLE! *PEOPLE* KILL PEOPLE!

>If you don't see any difference between guns that kill and
>radios that don't, then you yourself are part of the proof that guns MUST
>be banned as soon as possible.

This argument will be allowed to stand on its own (lack of) merit.

de Mike Hoenig, N5LTL, *RESPONSIBLE* gun owner.

"You can take my gun from me when you pry it from my cold, dead
fingers!"

2218. Oh Toto, I don't think we are in Wisconsin anymore...

Newsgroup: rec.ham-radio
Date: 1990-04-10 21:01:00 UTC
From: UCSBPM@UWPLATT.EDU
Message-ID: <AFFBBB9CF21F8010E1@uwplatt.edu>
Source record: 12278

Thanks for all the people who helped me with my grid square question.
Also, I wish to note that I am WELL AWARE that I am not at 40 degrees
it was a TYPO. The location I found was indeed 45 degrees, etc
{Sister Bay is grid EN65ke}

As for ALF, it was Melmacian (sp?) code, which sounded like "H"
in Morse code to me. There have been a few episodes where
Willy and or Alf uses the radio. If anyone saw part two
of that two parter (the one a week or so ago), please e-mail
me a synopsis (I missed it). [NOTE:I normally don't watch the
show, but I saw part 1 and am curious]

Well, I wasted enough bandwidth.
Brian P. McCarty N9IWP
internet:UCSBPM@UWPLATT.EDU
bitnet:drop the .EDU

2219. Computers and TS-440..Help!!

Newsgroup: rec.ham-radio
Date: 1990-04-10 23:55:06 UTC
From: rockwood@kean.ucs.mun.ca
Message-ID: <77086@kean.ucs.mun.ca>
Source record: 12266

Does anyone have any info on software available to control the
Kenwood TS-440S from an IBM compatible computer?
Would appreciate E-Mail.
Tnx.
Art Rockwood VO1AX

2220. Spring Flea at MIT HAM - COMPUTER SWAPFEST

Newsgroup: rec.ham-radio
Date: 1990-04-11 02:24:45 UTC
From: w1gsl@athena.mit.edu
Message-ID: <1990Apr11.022445.3455@athena.mit.edu>
Source record: 12270

***** 50 cent buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS

SPRING FLEA AT MIT
Sunday, April 15, 1989
9AM-4PM

Come to the city for a great flea - plenty of free parking.

MIT's semi-annual electronics and ham radio
flea will take place on the Sunday of Patriot's
Day weekend again this year.

There is tailgate space for over 200 sellers and
free, off-street parking for 1000 cars!

Buyers admission is $1.50 (you get 50c off if
you're lucky enough to have a copy of our add)
and sellers spaces are $6.00-each at the gate

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 4PM, with sellers set-up
time starting at 7AM. Have no fear of rain, a
covered tailgate area is available (6'8" clearance).

Talk-in: 146.52 and W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)

For more info / advanced reservations 617 253 3776

******** 50 cent buyers discount with hard copy of this notice ************

2221. CALL FOR VOTES - rec.arts.tv.cable

Newsgroup: rec.ham-radio
Date: 1990-04-11 03:04:39 UTC
From: mrapple@quack.UUCP
Message-ID: <5266@quack.UUCP>
Source record: 12267
Cross-posted to: news.groups,rec.arts.tv,rec.ham-radio,rec.radio.shortwave,sci.electronics

[followups to news.groups. crossposted to s.e r.h-r for technical reasons,
r.r.s because of satellite discussions]

After the disaster during the first week, voting has proceeded smoothly,
but at a pace which will not result in passage of the new group. The
current count is 19% no, 81% yes, with 36 votes received. If you want
this group to succeed, please vote for it, if you haven't already. I
believe this group will be a useful one, but 99 other people have
to agree. Please check the votes list. If your name is not there and
you have voted, please vote again. I will filter the dupes.

I've been told that many have sent mail to quack.uop.edu. quack is NOT
in the .uop.edu domain. Either use uop.edu!quack!... or ...%quack@uop.edu
or some such.

CHARTER: REC.ARTS.TV.CABLE

This group is for discussions pertaining in general to cable television,
and satellite television. Broadcast only issues should go to rec.arts.tv.
More specifically, discussions of technical, regulatory, programming,
and/or customer service/cost/quality issues are welcome.

Technical discussions of cable programming technology are welcome, which
is somewhat at odds to its placement in "rec," but this is proposed
simply because of the infeasability of placing the group elsewhere.
The original name rec.arts.tv.catv was objected to by several
because of the confusion over the designation "catv" meaning
community access TV instead of community antenna TV. Several have
objected to placing the group in rec.arts, but there have been no
alternative suggestions.

The newsgroups line would read:

rec.arts.tv.cable Discussion about cable and satellite television

This newsgroup would not be moderated. It distribution would be
world-wide.

To vote, send mail to:

uop.edu!quack!vote-no for no votes
uop.edu!quack!vote-yes for yes votes

A daemon will pick out the "From:" line and add it to a file. No reply
will be sent. Second call with vote list will be posted Tuesday the
3rd, and third call with vote list will be posted Tuesday the 10th.

The vote will end April 16, 2359 UTC, with the usual 5 day wait for
late mail.

Any personal mail may be sent to ...quack!mrapple, but votes sent there
will not be counted. Posted votes will not be counted.

Vote list as of 4/10/90, 0000 UTC:

From: "Ofer Inbar" <uop!chaos.cs.brandeis.edu!cos>
From: "William K. McFadden" <uop!RELAY.CS.NET!bill%videovax.tv.tek.com>
From: "curtis, jeffrey a" <uop!rodan.acs.syr.edu!jacurtis>
From: <uop!pws.bull.com!eli>
From: Andy Malis <malis@BBN.COM>
From: BRUCE EDWARDS <csusac!ucdavis!locke.hs.washington.edu!BRUCE>
From: Chad Fogg <cfogg@milton.u.washington.edu>
From: Dave Brennan <uop!DG-RTP.DG.COM!brennan>
From: Dave Ratcliffe <uop!uunet.UU.NET!compnect!dave>
From: Doug Blair <uop!obdient.chi.il.us!blair>
From: Floyd Miller <uop!PRC.Unisys.COM!starsend!floyd>
From: Ian Harding <uop!uunet!ukc.ac.uk!ih>
From: JENNIFER SANDERSON <pascal@nevada.edu>
From: Larry Setlow <uop!riacs!rutgers!cpac.washington.edu!pjt>
From: Peter B. Hayward <uop!tank.uchicago.edu!pbhx>
From: Ronald van Loon <rloon@praxis.cs.ruu.nl>
From: Terry J. Wood <uop!unix.cis.pitt.edu!tjw>
From: Tom Flynn <uop!RELAY.CS.NET!tomf%tekigm2.men.tek.com>
From: breault@garnet.berkeley.edu (Kirk Breault)
From: csusac!ucbvax!cwjcc.INS.CWRU.Edu!gatech!harvard!anselm!ebertran (Erik Bertrand)
From: mrapple (Nick Sayer)
From: uop!EBay.Sun.COM!duane (Duane Day, Sun I.R. Applications Support)
From: uop!GARP.MIT.EDU!henry (Henry Mensch)
From: uop!apldbio.com!jgro (Jeremy Grodberg)
From: uop!bongo!julian (Julian Macassey)
From: uop!cod.nosc.mil!scallon (Matthew C. Scallon)
From: uop!decwrl!mdcbbs!dev3f.mdcbbs.com!sandy
From: uop!en.ecn.purdue.edu!stevew (Steven L Wootton)
From: uop!gatech.edu!dekalb!tas (N. Tasova)
From: uop!gvlv3.GVL.Unisys.COM!ean (Ed Naratil)
From: uop!mtqua.att.com!asd (Adam Denton)
From: uop!netcom!netnews (NetCom Usenet Admin)
From: uop!oswego.oswego.edu!vermilye (Jon R. Vermilye)
From: uop!pilchuck.Data-IO.COM!jewell (Cal Jewell)
From: uop!riacs!rutgers!tc.fluke.com!moriarty (Jeff Meyer)
From: uop!sun!portal!cup.portal.com!HAVANAMOON
From: uop!ucdavis.ucdavis.edu!csusac!sactoh0!mholtz (Mark A. Holtz)
From: uop!uunet!dooma.prl.philips.nl!shanks
From: uop!uunet!hsi.com!rao (Ananth Rao)
From: uop!uunet.UU.NET!capmkt!bandy (Guru Drew)
From: uop!uunet.uu.net!xanadu!STella
From: uop!world.std.com!eliz (Elizabeth Lear)
From: uop!x102a.ess.harris.com!dsampson (sampson david 58163)
--

Nick Sayer - The Duck Pond public unix - 209-952-5347 (Telebit)
---------------------------------+---------------------------------
quack!mrapple@uop.edu !
...pacbell!sactoh0!quack!mrapple ! And now, The Fish Slapping Dance
N6QQQ (145.75 - TCP/IP soon) !

2222. Tubes needed

Newsgroup: rec.ham-radio
Date: 1990-04-11 04:17:39 UTC
From: wheatley@cbnewsk.ATT.COM
Message-ID: <2380@cbnewsk.ATT.COM>
Source record: 12280

I need the following tubes, which (i believe) are british
designations). If anyone can cross-reference or provide a source,
it would be appreciated

KTW61 or KTW62 or KTW63

X65 or X66

MHLD6 or DL63

Y61 or Y63 or 6U5

THanks!

Steve Ku9C
inuxz!wheatley
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

2223. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-11 05:44:59 UTC
From: alan@km4ba.UUCP
Message-ID: <136@km4ba.UUCP>
Source record: 12268

jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:

stuff deleted...
>> at least not yet.
>
>What blithering lunacy!! Ham radios don't kill children playing in their
>schoolyard!!! If you don't see any difference between guns that kill and
^^^^^^^^^^^^
No, California judicial systems that don't lock up criminals with a
history of violence are what killed those children in Stockton. If
Patrick Purdy had been left in jail the previous 6 times, they would
be alive now. (His own mother had him arrested once, and he has
assaulted police officers before as well)

Just when I thought it was safe for Jim to come out of the
kill file! You missed the point on the orig posting, (As usual!)
and are picking a poor "case" to discuss "blithering lunacy" about!

Alan Barrow km4ba

..!gatech!kd4nc!km4ba!alan

2224. FT-811 mods wanted.

Newsgroup: rec.ham-radio
Date: 1990-04-11 07:10:49 UTC
From: wells@uop.EDU
Message-ID: <2099@uop.uop.edu>
Source record: 12269

Hello, I've been following the radio modification thread for some time
but haven't seen any for my new radio.
So, if anyone knows how to modify the Yaesu FT-811 for extended tx/rx
please send e-mail or post a message.
I was a at a Ham Swap recently and someone was selling a modified FT-811
for some ridiculous price. Of course I asked him how to do it, he refused to
tell me, but offered to modify my radio for a fee! I wonder if he was a ham.
So anyway it looks like it is possible, I just need to know how.
Thank you for your time...

-Dan. wells@uop.edu KA6NGB

2225. Re: Alf a Ham?

Newsgroup: rec.ham-radio
Date: 1990-04-11 11:56:47 UTC
From: bower@hfsi.UUCP
Message-ID: <366@hfsi.UUCP>
Source record: 12271

In article <9004091229.AA27462@ti.com> rlwest@flopn2.csc.ti.com (Bob West, WA8YCD) writes:
>I did not see the episode in question as it aired, but caught it on my
>VCR. I watched it, then rewound it and checked the pattern he was sending.
>
>He was sending on an MFJ-557 (like I use in my code classes!) and he definitely
>sent a W6 callsign. I could not tell the last two letters because they were
>run together. The last two letters were either SC or VR... I forget the
>first letter of the call I wrote down. When I looked in the callbook there
>was only one of the two calls listed.
>
>The hand that was sending, I would say, definitely knew what it was doing.
>
>Interesting.
>
>
THis shouldn't be too hard to get. In almost every episode where they
are in the garage gives a glimpse of the call sign. It is on a nameplate
(call plate) like you can get at any hamfest or engravers on top the
radio. The ham operator in the show is supposedly mr Tanner.

Michael Bower - N4NMR Honeywell Federal Systems Inc.
uunet!hfsi!bower 7900 Westpark Dr. - MS 1007
703-827-3559 (o) 703-435-5081 (h) McLean, VA 22102

2226. I have this friend....

Newsgroup: rec.ham-radio
Date: 1990-04-11 12:07:35 UTC
From: k1te@lectroid.sw.stratus.com
Message-ID: <1063@lectroid.sw.stratus.com>
Source record: 12281

"I have this friend" with a wilson walkie talkie (15 yrs old) with
a very noisy scratchie volume control. "This friend" tried using
radio shack tuner cleaner on the volume and squelch control with
the result of no scratch, no noise, no audio.

Was is the best recovery from this dopey move? Degreaser? a
quick pass through the knits/gentle cycle (with no spin dry?)
Or my all time favorite, a gasoline rinse by candlelight.

Thanks for your patience and help. "Your friend" Bradshaw.

--
Bradshaw B. Lupton Jr.	================	NOTE: my employers will not
Stratus Computer, Inc.	k1te@stratus.com	let me use a soldering gun,
Marlboro, Ma 01752	================	pencil, or torch; How did
508 490 6484 / 480 8219(f)	/\/\/\/\/\/\/\/| they get so smart?

2227. No Code - My two cents worth

Newsgroup: rec.ham-radio
Date: 1990-04-11 13:30:13 UTC
From: ean@gvlv3.gvl.unisys.com
Message-ID: <631@gvlv2.GVL.Unisys.COM>
Source record: 12279
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Herewith follows my opinion on the so-called "NO CODE LICENSE"

In the beginning there was spark gap and CW, or to be more correct interrupted continuous wave (ICW). Therefore there was a need to test would-be amateur radio operators in rules, regulations, *AND* operating proficiency in ICW.

This is 1990. We have not only ICW available, but also AM, FM, SSB, NBFM, RTTY, PACKET, MCW, etc., etc.

Therefore, I propose that the amateur bands be broken up into exclusive segments for each mode of operation. No longer will CW be allowed anywhere in a band.

I also propose, that the would-be amateur radio operator be required to take a test for *HIS* mode of operation in addition to the required test in rules and regulations.

Call signs would be issued based on the mode of operation in order to police the bands. i.e. PA3xxxx for Packet License in the 3rd call area. CW3xxxx for CW License in the 3rd call area. etc. The prefix would designate the mode of operation. Naturally to avoid confusion with calls of other countries a complete world-wide re-issuance of call signs would be needed.

I think this would appease those who claim "my call is like my name, I don't want to change it." (shades of incentive licensing). But, just think, if you operate three different modes, you'll have three different calls.....just like a - first name - middle name - and last name.

Note to possible ARRL officials:

Please consider the above when next attending a League policy meeting. Thank you.

Ed Naratil, W3BNR @ N3LA.#EPA.PA.USA
ARRL LIFE Member, QCWA LIFE Member

2228. Re: Amateur Radio is Enjoyable!

Newsgroup: rec.ham-radio
Date: 1990-04-11 14:26:48 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9004111432.AA21922@ti.com>
Source record: 12283

> HF mobile, by the way, is great fun! 20m can be frustrating, but 15m DX right
> now is almost as good, sometimes even better, and 40m daytime ragchewing isn't

Wanna be on the RECEIVING end of a PILEUP ??

Take your MOBILE HF out to a county line, especially if one or both counties
is low in ham population... and check into one of the COUNTY HUNTERS' NETS.
(It's been 13-14 years, so I don't remember the freqs. on 75 and 20...)

Mobile HF is often more impressive to a non-ham, too, than 2 meters...

73, & good luck,

Bob ("I got those small car blues, too!") wa8ycd
RLWEST@FLOPN2.CSC.TI.COM

2229. TR2500 Service Manual.

Newsgroup: rec.ham-radio
Date: 1990-04-11 14:31:25 UTC
From: U009@CCIW.BITNET
Message-ID: <5A040B091D1000C9-MTACY830*U009@CCIW>
Source record: 12284

Miker:
Our mailer barfed. Send me direct your (snail) mailing address and I'll
send a photocopy of what I have.

Regards, Stu Beal, VE3MWM, (U009@CCIW.BITNET),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

2230. q

Newsgroup: rec.ham-radio
Date: 1990-04-11 14:50:53 UTC
From: debow@hpfcso.HP.COM
Message-ID: <7500018@hpfcso.HP.COM>
Source record: 12285

```
test
```

2231. how to achieve 20WPM?

Newsgroup: rec.ham-radio
Date: 1990-04-11 15:05:45 UTC
From: pascoe%edcd.dnet@GTE.COM
Message-ID: <9004111505.AA03950@bunny.gte.com>
Source record: 12286

In Message-ID: <35125@genrad.UUCP> Diana Syriac asks how common it is to be able to send code with either hand......

I am a mixed-mode operator (phone,CW,digital) but I particularly enjoy CW and always have. I know many CW operators and have encountered *very* few who can send with either hand. Most of the CW ops I know can send with only one hand and generally write with the same hand. This is particularly distracting when handling NTS traffic or operating a CW contest because one has to drop the pencil each time he needs to make an entry in the log. (Well, if you're using a computer contest logging program that sends CW for you this isn't true!) I send with my right hand and write left-handed, which is a real blessing.....

Dave Pascoe KM3T | Internet: pascoe@edcd.gte.com
| km3t%jjmhome@m2c.m2c.org
| UUCP: {harvard}!m2c!jjmhome!km3t
| Packet Radio: km3t @ k1ugm.ma.usa.na

2232. RE: How to achieve 20WPM?

Newsgroup: rec.ham-radio
Date: 1990-04-11 16:32:08 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9004111647.AA24598@ti.com>
Source record: 12287

Reference increasing code speed...

These are some general comments and/or observations after passing the test myself and working with about a dozen others at various speeds. Before you read this, review the meaning of the abbreviation "IMHO."

IMHO:

* PUSH A LITTLE. Listen to faster than you can copy and "push the envelope". I like to have my 20wpm folks listen to W1AW or whatever source at higher for a while and then slow to the target speed. W1AW sends at 35,30,25,20 (,15,10...) So we listen through 20 and quit. I tell 'em not to worry if they can't write it all down at 35 and 30 (I can't!) but LISTEN to aid concentration and quicken recognition. MOST of the observe they can hear "the", "and", "of" and other short, common words.

If you're using a computer, set the speed up to 25 for about five minutes. You'll do really rotten. Then slow down to no less than 20. It really sounds slower.

If you are still at 13 or so, trying to build toward 20, I recommend that you USE THE FARNSWORTH METHOD! It really does make a difference.

* BE REGULAR. Spend some time EVERY DAY. Even if just a little bit. It's tough between work, school, family, other activities, but it only needs last until you pass that test! (Unless you really get hooked on CW!) An hour a day is terriffic! Half an hour per day is good. Even only TEN MINUTES PER DAY EVERY DAY is better than ONE HOUR ONCE A WEEK. Sometimes it helps if you have someone else to work with, because the other person helps keep you on schedule, encourages you when you do well, rags on you when you slack off.

* CONCENTRATE. Keep up the pacing. I HAVE DIFFICULTY WITH THIS MYSELF. When you miss a character (or word) FORGET ABOUT IT. Don't spend time flustering over it while other characters (or words!) are still being sent. Leave a space or draw an underline or SOMETHING, but keep your concentration ON. Keep up with the speed. Some folks can hear the code but can't write fast enough.

If you have time afterward, maybe you can figure out what it was.

* SEND. The rules, or the popular interpretation of the rules, do not require you to send. I don't know of a VEC that tests sending, and the rules say you can't flunk for bad sending.

When you send, you are translating the code from the abstract letter symbol to a definite action. (You press the key for a short while, wait a short while and press the key for a three short whiles and wait three short whiles. That's an "A".)

If you're working by yourself, you don't really NEED an oscillator. You can tap on a table, steering wheel, your knee, etc. What you are learning to associate with the letter symbol is the muscle contraction (wrist motion). That's fairly personal. You can touch your nose because you "know" where it is. You learn an "A" because you "know" the pattern.

(most important!) DON'T GIVE UP! Some folks take longer than others. Some folks have more time to devote to it. Some folks are more committed (some say I *should* be! :-)) I really believe the part in the movie "Stand and Deliver" where the teacher talks about "ganess" (howzat spelled?) the *desire* to do what it takes. Self confidence makes a big difference. It's not "DON'T GIVE UP ON THE CODE," but "DON'T GIVE UP ON YOURSELF!"

TRUTH TIME:

OK, I admit it. When my 1-year, non-renewable Novice ticket was about to expire, I was *not* ready to pass the 13 wpm test. So I was a Technician for a few years. I FLUNKED THE 13 WPM TEST SEVEN -COUNT'EM- SEVEN TIMES AT THE FCC FIELD ENGINEER'S OFFICE IN PITTSBURGH. The EIGHTH time was a charm. A buddy and I worked together, harassing each other into not slacking off and encouraging other (maybe a little competetive?) and we both passed that day.

I kinda laid off the code for a while, and was even "out of" ham radio for a while (2m FM only) and on the 20th anniversary of my first Novice QSO I got sentimental and started messing around with code again. I was amazed how fast I was able to reinforce the code. Also, the new VE exams were, it seemed, easier. I sat down at the exam at a hamfest and thought, "Oh, what the heck! If I flunk it now, I can go take it again in three weeks at the session in Dallas!" NO PRESSURE. NO 30-DAY WAIT. NO INTIMIDATING FCC OFFICE. Whaddya know! I passed!

As a final, general observation, I would hazard the opinion that our worst obstacle is ourselves.

Good luck,

Bob West WA8YCD
Texins Amateur Radio Club
Dallas Texas
RLWEST@FLOPN2.CSC.TI.COM

2233. Re: Restricted Space Antennas...

Newsgroup: rec.ham-radio
Date: 1990-04-11 17:08:31 UTC
From: gene@uicsl.csl.uiuc.edu
Message-ID: <29400003@uicsl.csl.uiuc.edu>
Source record: 12288

Can't predict local interference results, but would recommend you try a
High-Q "Army-loop" type, or more specifically, the "Ted Hart" version of
the Army-loop....described in the latest ARRL Antenna Book (15th ed).
Ted Hart wrote that section. Instead of using large copper tubing as
they suggest, use low-cost aluminum lawn-edging...available in hardware
stores. It is about 4" wide and comes in rolls of 20' and 40'. You can
flatten out the corrugations. I have used this quick, easy, lo-cost
scheme in the attic of my garage on 20, 40, 80, and of course it can
be used on any of the bands except 160 which would be too large to be
practical indoors. (also a wider width 7"? is also available). A neat
trick is to overlap the ends at the top of the vertical loop and sandwich
stryrofoam dielectric in between to form the tuning capacitance. This
avoids losses by otherwise making connections to a tuning capacitor...
which is very important because the high-Q circulating currents may
approach 100 amps?. It must be high-Q (and of course narrow-band) to
perform properly. It is very easy to feed...just attach the shield of the
50-ohm feed coax to the bottom-center, and the center of the coax simply
extends 2' to 4' to experimentally get a perfect 1:1 SWR. It usually is
better to put some capacitance in series with this wire. It can be con-
sidered a "Gamma-match". Small alligator-clips can be used to clip on
to the aluminum. I used a double-layer 20' perimeter on 20 meters (dou-
bled a 40' roll). This provided extra layers at the open-top end to
sandwich in more sections of capacitance-overlap as required.
I have not gone back to try this scheme on 40 meters but may go back and
try it there...perhaps using the 7" width (I previously attached extra
metal sheets to get enough capacitance for 80 meters). I suggest that
if you use a double-layer for the 40' perimeter, you can separate the ends
at the top, fold them back in the form of a double "J"....do the same
on the other end, and when you mesh them together at the top, you will
be able to insert 5 pieces of styrofoam dielectric which should provide
sufficient capacitance without arcing across...certainly on 40 meters and
even possibly on 80 meters. You would however, probably be limited to
100 watts to avoid arc-over.
My 40/80 meter loop is 40' perimeter (7' high and 13' wide rectangle)
in the attic of my garage which even has aluminum siding on it. The
bottom of the loop lays directly on the wood attic floor...everything
else supported by nylon cords. I have tested this scheme quite a bit and
get very good results. I have also used 1000 watts sometimes, but
arc-over can be quite a problem if the spacing is too close. If you try
this and have good results, please report back to me, or to this net
because I feel a lot of people in limited circumstances (space or finance)
could benefit. Many people are not inclined to believe that it can work
so well (Read the ARRL ref. mentioned above for some encouragement).
By the way, if you have a grid-dipper, it can be pre-tuned by simply

shunting a 3' or 4' test-lead at the bottom of the loop. Put a 1-turn half-knot in it to insert the grid-dipper coil. (It may "look" like you're shorting out the test-lead with a big 4" wide dead short, but not-so be-cause of the Hi-Q. Alternately, you can "listen" in general-coverage and note where you get a "noise-peak", or if you're in the ham-bands, you can simply try loading it to experimentally adjust the Gamma for a perfect SWR.

By the way, in case you don't read the reference, I should emphasize that this is a "vertical-loop"...not horizontal. Round is best, octagon is second best, square is 3rd and rectangle is last (Wants to enclose as much "area" as possible for a given perimeter. Good luck!

2234. Re: Zero Beating

Newsgroup: rec.ham-radio
Date: 1990-04-11 17:08:37 UTC
From: gene@uicsl.csl.uiuc.edu
Message-ID: <29400004@uicsl.csl.uiuc.edu>
Source record: 12289

I'm glad you asked! This may not directly solve your problem on CW and
especially on a random frequency, but I am thinking of starting a campaign
to suggest how all "phone nets" can get on precisely the same frequency.
My suggestions are based on the assumption that the large majority of
tranceivers are digital/synthesized, read only to 0.1 Mhz on the main display,
and have the option of tuning in exactly 1 Khz steps where it necessarily
stops precisely on a full digit. My Icom 751 does this and I feel pretty sure
that other similar equipment does the same.
1. Have all nets agree to use a "full" digit (no 0.1 Khz fractions).
2. Have all participants leave their main tuning in the "1 Khz-step" mode
only, to step to the desired digit.
3. Henceforth, DO NOT TOUCH the main dial....use only RIT (Receive
Incremental Tuning, or whatever descriptive term is used).
Thus each person can set his RIT to suit his own personal taste with
only one setting and everyone will automatically suit "his ear"!
Of course all the above depends on the transceiver being precisely calibrated
to WWV, and I suggest the following:
1. Using the same 1 Khz-step mode only, set WWV upper-sideband on VFO A,
and WWV lower-sideband on VFO B so that you can quickly toggle between
them. BE SURE to have your RIT cleared to zero! (Alternately, I set
WWV 5 Mhz in Memory-channel 1 & 2, 10 Mhz in 5 & 6, 15 Mhz in 9 & 10,
using the gaps between sets so as not to accidentally toggle WWV on
two different frequencies, since the transceivers are not absolutely
perfect)
2. Now wait for WWV to send their "musical tone" (not preset during some
intervals), and simply "tweak" your calibrator until your ear tells you
that the two musical tones match, as you toggle quickly between upper
and lower sideband. I feel certain that almost everyone has a good
enough "ear" to recognize when the tones match!
By the way, if you thought you were good at tuning in speech
properly...try first "tweaking" your calibrator until you think
the voice sounds natural (do this before the tone test)...then
use the comparative-tone test and see how many cycles you missed.

Any disagreements? 73 W9RWZ

2235. Re: Re^2: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-11 18:38:53 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230018@hpfcdj.HP.COM>
Source record: 12290

Take it to talk.politics.guns, please.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

2236. Re: Repeater on Space Station Freedom

Newsgroup: rec.ham-radio
Date: 1990-04-11 18:50:39 UTC
From: fel@hpcuhb.HP.COM
Message-ID: <10510007@hpcuhb.HP.COM>
Source record: 12291

(Referring to amateur operation on Space Station Freedom)...

> It could
> even be attached to the outside of the station via a large mag-mount,
>
> David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.

Now that's MOBILE operation!

- Skip KK6HK

2237. CAP frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-11 22:22:44 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9004112239.AA03082@ti.com>
Source record: 12292

Would someone post the frequencies used by the Civil Air Patrol?

Thanks in advance,
Dube Todd N5PDK

P.S. I don't wanna talk on 'em; just listen to 'em.

2238. Lowfer Dummy Load (was Re: Antenna mounting question)

Newsgroup: rec.ham-radio
Date: 1990-04-11 23:43:51 UTC
From: markz@ssc.UUCP
Message-ID: <645@ssc.UUCP>
Source record: 12293

In article <41266@iuvax.cs.indiana.edu>, commgrp@silver.ucs.indiana.edu (BACS Data Communications Group) writes:
> Hams report good results using plastic "Weed Eater" (tm) string for
> supporting wire antennas, including 1750m transmitting antennas which
> are somewhat like Tesla coils and very sensitive to insulator leakage.
> Frank Reid W9MKV reid@ucs.indiana.edu

What combination of L-R or R-C would simulate the "standard" 160-190 Khz lowfer transmit antenna (15 Meter vertical, with some sort of top hat).

markz@ssc.uucp

2239. ARF and the other 3950 boys

Newsgroup: rec.ham-radio
Date: 1990-04-12 02:57:22 UTC
From: flash@lopez.UUCP
Message-ID: <1269@lopez.UUCP>
Source record: 12294

Will Martin, I saw your post, and thought I would give some of my own perspective on the ARF and other nets that can be heard on 3950 khz.

You either love this kind of amateur radio, or you hate it. I love it, obviously, as you can see from MY signature block, I participate in BOTH nets...

3950 has always been a different kind of frequency as long as I can remember. I once wrote an article (It is lost here somewhere) on the frequency that goes back to the 1960's when I first started listening to this fascinating frequency.

The Amateur Radio Forum, with NR9Q began about three years ago as a spinoff of the "Liberty Net" which is also heard on 3950. Jack had an idea for a more organized discussion group which would be topic oriented, and I would say the net has been quite a success, and has grown in concept to become my favorite net. Thursdays at 10 Eastern (9 central, and you can do the rest) the group gets together to discuss current events, and usually one particular topic.

More recently, Jack has begun to have on Guests, and the amateurs checking in can query them. The guests run the gamut of the political spectrum from the Louis Farakan camp to the David Duke camp... From a scientist at the field museum to a honcho from the ACLU.

I want to stress that these nets are NOT broadcasts. The hams are all in "point to point" communication, even though I know there are lots of SWL's tuned in because the nets are so interesting. Some pretty firey discussions have taken place.

ARF is a lot better than your regular "talk show" ... This is because of the nature of ham radio. There is no way to "hang up" on someone, so everyone gets their say, although there is a 3 minute time limit (hey try and get 3 minutes from Larry King!)...

ARF is not the only such net on 3950. You might also want to check out:
Freeman's Net (Thurs 10PM EST) NCS W9OAG
Devoted to Law, Constitution, History...

Liberty Net (Sat 10PM EST) NCS W1WCR
Devoted to current events and news

Christian Investigator Net (Mon 10PM EST) NCS WA9D
(IMHO Neither Christian Nor Investigative, but somewhat muddled)
A potpouri of somewhat confused religious discussions

Most nights in the late hours, you will hear many discussions on various topics from Psychic Phenomena to Gun Control on 3950. Often the discussions get heated, and it makes for what I consider GOOD HAM RADIO.

3950 is seldom boring. To really sample the frequency before you make up your mind, give it about a week or two of sample tune ins...

And YES you will hear "The Eccentric Old Hippie" from Marquette check in quite often.

When I am there, you will hear USENET discussed. I am the sysadmin of LOPEZ in real life.
--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

2240. ARF (oops I forgot)

Newsgroup: rec.ham-radio
Date: 1990-04-12 03:02:59 UTC
From: flash@lopez.UUCP
Message-ID: <1270@lopez.UUCP>
Source record: 12295

Will, you asked one question that I did not respond to in my previous posting...

The Saturday net on 14.313 is NOT a tape, it is a chance for folks who would not normally hear the net get a chance to participate.

You might realize that running a net on 14.313 is a challenge, since at the moment this frequency is a hot bed of confrontation, but that makes it an ideal place to hold a controvercial discussion group.

Mike WA9D has been trying to take over the frequency several saturdays in a row (THE DOG IS BACK FOLKS....)

Surprisingly there have been some GREAT saturday ARF groups...

Hope some of you folks will check in to the Thursday or Saturday ARF nets... the more the merrier....

Ham radio is a heck of a lot more than "Gud luck in the contest"...

73

Gary, WB8 Equal Opportunity Heckler....
--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ===============

2241. Satellite help wanted

Newsgroup: rec.ham-radio
Date: 1990-04-12 03:08:41 UTC
From: rambo@sun.acs.udel.edu
Message-ID: <10134@sun.acs.udel.edu>
Source record: 12296

Hi everyone,
I have been put in charge of a club project to work some satellite contacts this year during Field Day. I have access to about all of the necessary equipment (rigs, antennas, etc.) but I'm not too knowledgeable when it comes to working the satellites. We (the First State ARC, Wilmington, DEL) will probably settle on mode JL on OSCAR 13. I would like to know about anything that I should watch for, operating hints, etc. In other words, anything that might make this task a little easier for someone who mainly relies on the terrestrial modes of propagation at VHF. Thanks in advance.
73's de KA3KHZ

Doug Rambo KA3KHZ rambo@sun.acs.udel.edu
PO Box 126 KA3KHZ @ WB0JJX.DE.USA.NA
Claymont, DE 19703

University Of Delaware Class of Ninety-something

2242. Re: How does Novice upgrade in new prop

Newsgroup: rec.ham-radio
Date: 1990-04-12 05:50:58 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500495@ux1.cso.uiuc.edu>
Source record: 12297

> In article <34678@genrad.UUCP>, dls@genrad.com (Diana L. Syriac) writes:
> > With the new proposal, HOW DOES A NOVICE UPGRADE? It says that Novices will
> > be grandfathered in....and Techs too, but upgrading from Tech is not the
> > issue.
>
> With a CSCE for element 1A, a Communicator receives Tech. privileges.
>
> So to upgrade from a Novice, you take the Communicator test, and use
> your novice license to get a CSCE for element 1A. You then have
> a Technician equivalent, with a clumsy call, being required to use
> the /AC suffix when doing anything beyond the basic Communicator privileges.
>
> markz@ssc.uucp

This proposal by the FCC is basically going to mess up the entire process
of licensing hams other than General/Advanced/Extra. Perhaps THAT ITSELF
is intended by someone as an incentive to upgrade.

Still, since some people ONLY want the VHF/UHF privileges, they are not
interested in "upgrading" but will be stuck with signing some suffix for
the rest of their lives unless they got the Tech before the change (if we
less this foolish thing go on).

The confusion alone could further reduce the number of new hams entering
the hobby.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2243. Lojack security

Newsgroup: rec.ham-radio
Date: 1990-04-12 05:51:26 UTC
From: die@cpoint.UUCP
Message-ID: <4620@cpoint.UUCP>
Source record: 12298
Cross-posted to: rec.ham-radio,rec.radio.shortwave,rec.autos

In accord with my foolish but "traditional" role as one of the extreme lunatic fringe voices on Usenet who publically speaks the unspeakable about security issues created by clever seeming technology (and finds his articles republished without permission in what seems like almost every hacker/phreak publication as a consequence), I have some questions about Lojack security, now the subject has been broached on rec.ham-radio. (Lojack is a Boston based startup company btw).

Why is it not possible to detect a Lojack equiped car by looking for local oscillator leakage radiation from the command receiver ? I would think thieves would carry suitable receivers with them and either avoid cars radiating on the LO frequency or take special precautions when stealing them (like carting them off in a well shielded enclosed truck - a big Faraday cage). And certainly finding where the Lojack unit was hidden would be easier with a near field sniffer probe and an "S" meter on a receiver tuned to the LO.

And if you know the vehicle is Lojack equiped, why not simply jam the command frequency with a small portable transmitter ? I doubt the command signals from the the Lojack activation sites are anywhere near as powerful as even a few milliwatts radiated right next to the command receiver in the Lojack box (or into the vehicle wiring). And the potential of DF'ing the jamming (and thereby finding the thieves) might be greatly reduced by using lookthrough jamming (only turning the jamming transmitter on for a brief burst when a command packet from the Lojack activation sites is detected). I am sure there are optimum jamming modulations that disrupt the parity on a command packet and render it useless while still retaining a relatively low duty cycle and high off time to on time ratio.

And certainly the well equiped thief would want a receiver tuned to the homing frequency to warn him that the car he was stealing was broadcasting so he could ditch it and get away (after first disconnecting the car battery so the nicad in the Lojack unit would have a chance to run down and stop broadcasting if the police didn't find the car in time).

I suppose the Lojack scheme is useful in the face of these problems because most car thieves aren't very sophisticated. I understand, however, that the kind that steal expensive late model cars (what Lojack aims its marketing at) for parts ("chop shops") are pretty sophisticated and could be expected to use these approaches to defeat the system if it becomes at all common.

But still ...
--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

2244. Re: No Code - My two cents worth

Newsgroup: rec.ham-radio
Date: 1990-04-12 06:23:41 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500496@ux1.cso.uiuc.edu>
Source record: 12299

> Call signs would be issued based on the mode of operation in order
> to police the bands. i.e. PA3xxxx for Packet License in the 3rd
> call area. CW3xxxx for CW License in the 3rd call area. etc. The
> prefix would designate the mode of operation. Naturally to avoid
> confusion with calls of other countries a complete world-wide
> re-issuance of call signs would be needed.

How about just use calls like WPA3xxxx and WCW3xxxx?

> I think this would appease those who claim "my call is like my name,
> I don't want to change it." (shades of incentive licensing). But,
> just think, if you operate three different modes, you'll have three
> different calls.....just like a - first name - middle name - and
> last name.

So shall I just call you NARATIL? Or maybe WCW3BNRX?

Also, I would like to add a proposal that allows the use of a set of
very short calls for contest operation. The call W3 would be shared
by all contesters in area 3, for instance. Thus an exchange might
go like:

W3 UR 599 QRZ W9

Surely all contesters will love this since the time it takes to make a
contact will be shorter than ever before. And they can program both
calls into a memory unit just like they do now for the signal report.

Better yet, forget call areas and just go with W.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2245. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-12 07:18:36 UTC
From: steve@monu6.cc.monash.oz
Message-ID: <1990Apr12.071836.17112@monu6.cc.monash.oz>
Source record: 12300
Cross-posted to: sci.electronics,rec.ham-radio

In article <3368@optilink.UUCP> elliott@optilink.UUCP (Paul Elliott x225) writes:
>coiled kind) and in older telephone handset cords. It is not the same
>as Litz wire, since the individual conductors are not insulated (although

The individual strands of wire in Litz wire are NOT insulated from each other.
Litz wire is essentially LOTS AND LOTS A N D L O T S of very fine (and
sometimes silver-coated) wire all twisted together. Because of the greater
surface area of such wire, it is supposed to have less impedance at RF
frequencies than normal single strand wire. (or wire with only a few strands)
By the way, Litz wire tends to be VERY flexible as well due to the large number
of strands.

Steve

----_--_-_-_--_-__-_------_-__---_-___-_----_-____-_-_--__-_--_--___-_-_-_--__-_

Steve Balogh VK3YMY | steve@monu6.cc.monash.oz (...oz.au)
Chisholm Institute of Technology O^O | steve%monu6.cc.monash.oz@uunet.UU.NET
PO Box 197, Caulfield East U | ICBM: 37 52 38.8 S 145 02 42.0 E
Melbourne, AUSTRALIA. 3145 _/ |
+61 3 573 2266 (Ans Machine) |

2246. Re: Maidenhead Grid Square System

Newsgroup: rec.ham-radio
Date: 1990-04-12 08:36:27 UTC
From: bernerus@utcrt2.utc.chalmers.se
Message-ID: <798@vice2utc.chalmers.se>
Source record: 12301

Oh, mygod, PLEASE dont't re-misuse QRA for the Maidenhead grid locator.

QRA? -> "What is the *name* of your station."

We (here in Europe) have enough confusion already having to live with
TWO grid systems (the old one and the new one) The old one originally
misnamed the QRA-locator system later renamed the QTH-locator. The new
one here sometimes called the QTH-locator, sometimes called WW-loc or
LOC on CW.

Chris.

Christer Bernerus (SM6FBQ) ! E-mail:
University Technology Centre for Andrew (UTC) ! bernerus@utc.chalmers.se
Chalmers University of Technology
S-412 96 Gothenburg SWEDEN

2247. Re: how to achieve 20WPN ?

Newsgroup: rec.ham-radio
Date: 1990-04-12 13:09:24 UTC
From: waco@cbnewse.ATT.COM
Message-ID: <14172@cbnewse.ATT.COM>
Source record: 12302

In an article Diana Syriac writes:

>Something on a similar note.....how normal is it to be able to send code
>with either hand? I generally send code with my RIGHT hand, with an iambic
>keyer set for dashes on the thumb and dits on the forefinger (and yes, I've
>been told by many that I'm backwards!). I am LEFT handed, but I send with
>my RIGHT hand, so I can write with my left hand at the same time, if desired
>(which I sometimes do).

>But, when using someone else's iambic keyer wired the opposite way, I find
>that I can't use it with my right hand....but I CAN use it just slightly
>slower (1-2 wpm slower) with my LEFT hand....still with dashes on the thumb
>and dits on the forefinger. Again, I've tried using my left hand with my
>normal setup...and get confused easily, but with it wired exactly backwards
>from my normal mode, I can send just fine.

I had a right hand, left hand CW sending experience somewhat different
from this. Some years ago when I actually used to use CW on the bands,
I normally used my Heathkit keyer. However, I thought it was fun to use
a straight key and that I should keep up my proficiency with it. However,
after being used to the keyer, I had difficulty sending good code with
the key. The old right hand just would not work properly. My CW was
as good/bad as my handwriting (you wouldn't want to try to copy it). I
had a bright idea; why not try my left hand with the key. Much to my
amazement, I am not ambidextrous, I was able to send much better code
with my left hand. So, for a while when I used CW, I would use my right
hand for the keyer and my left hand for the straight key. It worked
pretty well for me. This is also a trick that can be used when someone
has developed a "bad fist" for CW. It amounts almost to starting over.
This offers the advantage of training the other hand correctly. It can
also be used to keep new hams from developing the habit of sending CW
faster than the ability to receive it. This is quite common. By using
the other hand, the speed will be slower, but more closely reflect the
receiving ability of the ham. Try it, you might like it!

Alas, I never use CW now, but should start practicing. My main objection
to CW is I cannot copy by ear and must write down each character. This
probably is a result of my code interceptor MOS in the Army Security
Agency when I copied coded number and letter groups at 40 - 45WPM. You
don't pick up word copying skills this way, just automatically type
the characters on the mill without ever even realizing what you are
copying unless you stop to actually read what you have typed. The only
exception to not knowing what you were copying was the ever present
"QSA ?" inquiries on the net. With it operating 24 hours a day every
day of the year, there were a lot of signal strength inquiries!!

John L. Broughton WB9VGJ
AT&T Bell Laboratories
1200 E. Warrenville Rd.
Naperville, IL 60566-7045
(708) 713-4319
john.l.broughton@att.com

2248. Heath Analog Computer (was: Re: INFO-HAMS Digest V90 #389)

Newsgroup: rec.ham-radio
Date: 1990-04-12 13:43:33 UTC
From: hoffman@speedy.cs.pitt.edu
Message-ID: <7359@pitt.UUCP>
Source record: 12303

In article <9004101930.AA26805@KRONOS.NISD.CAM.UNISYS.COM> doug@NISD.CAM.UNISYS.COM (Doug Hardie) writes:
>Subject: Heathkit catalog
>... However I don't believe the big sloping console analog computer was
>their first. They also made a much smaller analog computer in a rectangular
>box that I used in high school.

I just checked in one of my dusty closets here at Pitt and I found one
of the small ones. It's marked "Heatkit Educational Analog Computer,
Model EC-1". Obviously, we never throw *anything* out!

---Bob.
--
Bob Hoffman, N3CVL {allegra, bellcore, cadre, idis, psuvax1}!pitt!hoffman
Pitt Computer Science hoffman@cs.pitt.edu

2249. Re: No Code - My two cents worth

Newsgroup: rec.ham-radio
Date: 1990-04-12 13:55:19 UTC
From: fyfe@bgsuvax.UUCP
Message-ID: <5653@bgsuvax.UUCP>
Source record: 12304

From article <631@gvlv2.GVL.Unisys.COM>, by ean@gvlv3.gvl.unisys.com (Ed Naratil):
> Herewith follows my opinion on the so-called "NO CODE LICENSE"
>
> No longer will CW be allowed anywhere in a band.

It sounds like you think all bands (capabilities within the bands) are
created equal.

> Naturally to avoid confusion with calls of other countries a complete
> world-wide re-issuance of call signs would be needed.

I wonder which administrative body would like to tackle that nightmare!

Bob Fyfe
fyfe@andy.bgsu.edu

2250. Re: Aargh! Want address/info to get Heathkit catalog

Newsgroup: rec.ham-radio
Date: 1990-04-12 14:23:50 UTC
From: beams@norvax.UUCP
Message-ID: <489@norvax.UUCP>
Source record: 12305

>
> >As a side issue, does anyone out there know when Heath started? The
> >catalog doesn't say.
>
> Seems to me, Heath started out selling AIRPLANES! The founder
> died in a crash, I recall.
>
> --

A Heathkit catalog I received from them many years ago (maybe 20?) gave a short history of Heath. It said that Heath did indeed begin its corporate life as a vendor of airplane kits, specifically a monoplane called the Heath "Parasol." There is an example of the Parasol on display in the museum of the Experimental Aircraft Association in Oshkosh, Wisconsin. If memory serves me correctly, the article in the catalog indicated that the Heath Parasol was introduced circa 1929 and that Heath turned to electronic kits after World War II. Taking advantage of a glut of war-surplus electronic components, Heath introduced a reasonably-priced oscilloscope kit.

If this chronology is correct, I must wonder what Heath did during the Depression. Was the market for airplane kits sufficiently large during those difficult times to sustain Heath? Or was Heath in another business between the airplane kits and the electronic kits? By the way, the catalog article to which I refer reproduced a photograph of a Parasol in flight.

Could you imagine how the instruction manual for a Heathkit airplane would have been written? Something like:

( ) Attach inner aileron hinge to left wing with 1/4-20
x 1 1/4 bolts, lockwashers, and nuts at locations
CA and CB (see Fig. 64a, foldout from page 229). Do
not tighten at this time; hardware will be tightened
after installation of aileron.

And the first line of the "Operation" section undoubtedly would have read:

Note: Operation of your Heath Parasol requires that you have
a valid pilot's license. Information concerning pilot licensing
may be obtained from any branch of the Federal Aviation Admini-
stration.

I wonder if Heath sold their airplane kits with the same slogan--you know, the one which says:

"We won't let you fail!"

:-) :-) :-) :-) Dave, KK9Y

--
UUCP: ...seismo!uwvax!astroatc!norvax!beams
US Mail: David Beams / Norland Corporation / Fort Atkinson, WI 53538-8999
Registered Professional Thaumaturgist -- Hours by Appointment Only

2251. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-12 14:35:29 UTC
From: fyfe@bgsuvax.UUCP
Message-ID: <5654@bgsuvax.UUCP>
Source record: 12306

From article <136@km4ba.UUCP>, by alan@km4ba.UUCP (Alan Barrow):
> jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:

> No, California judicial systems that don't lock up criminals with a
> history of violence are what killed those children in Stockton. If
> Patrick Purdy had been left in jail the previous 6 times, they would
> be alive now. (His own mother had him arrested once, and he has
> assaulted police officers before as well)
> Alan Barrow km4ba

Please, PLEASE!!! get this stuff out of rec.ham-radio. As you read above
it is difficult to know that this discussion has anything to do with
ham radio. If you care to continue, please do it via e-mail! I, as others
have also suggested, want to PROMOTE AMATUER RADIO - not discuss guns..

Bob Fyfe
fyfe@andy.bgsu.edu
KA8YWQ

2252. Re: CAP frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-12 15:21:54 UTC
From: john@anasaz.UUCP
Message-ID: <2016@anasaz.UUCP>
Source record: 12307

In article <9004112239.AA03082@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
]Would someone post the frequencies used by the Civil Air Patrol?
]
]Thanks in advance,
]Dube Todd N5PDK
]
]P.S. I don't wanna talk on 'em; just listen to 'em.

143.75, 143.9, 148.15, 149.925

--
John Moore (NJ7E) mcdphx!anasaz!john asuvax!anasaz!john
(602) 951-9326 (day or eve) long palladium, short petroleum
7525 Clearwater Pkwy, Scottsdale, AZ 85253
Support ALL of the bill of rights, INCLUDING the 2nd amendment!

2253. Re: Kenwood 721 Display Upgrade

Newsgroup: rec.ham-radio
Date: 1990-04-12 15:40:43 UTC
From: singer@n6tfx.almaden.ibm.com
Message-ID: <1500@ks.UUCP>
Source record: 12308

I ordered two upgrades on April 2; they arrived on April 11th, UPS
brown label. Read the instructions *carefully* -- they shipped a
revised page two with mine.

Now to find the time to install them....
--
David Singer (singer@ibm.com, SINGER at ALMADEN, n6tfx@n6tfx.ampr.org,
N6TFX @ N6LDL.#NOCAL.CA.USA, ...uunet!ibmarc!singer, or
(408) 927-2509 -- take your pick! Opinions are mine.)

2254. Re: Lojack security

Newsgroup: rec.ham-radio
Date: 1990-04-12 15:41:01 UTC
From: C.Dennison@newcastle.ac.uk
Message-ID: <1990Apr12.154101.19146@newcastle.ac.uk>
Source record: 12309

In article <4620@cpoint.UUCP> die@cpoint.UUCP (David I. Emery) writes:
>
> In accord with my foolish but "traditional" role as one of the
>extreme lunatic fringe voices on Usenet who publically speaks the unspeakable
>about security issues created by clever seeming technology (and finds
>his articles republished without permission in what seems like almost every
>hacker/phreak publication as a consequence), I have some questions about
>Lojack security, now the subject has been broached on rec.ham-radio.
>(Lojack is a Boston based startup company btw).
>

What is a btw?

+ Computing Science Dept, University of Newcastle | All opinions expressed +
+ Newcastle upon Tyne, UK, NE1 7RU (091 265 2486) | are mine and mine alone! +
+ ARPA: C.Dennison@newcastle.ac.uk | Chris Dennison +
++

2255. Re: Lojack security

Newsgroup: rec.ham-radio
Date: 1990-04-12 15:46:12 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Apr12.154612.29157@Neon.Stanford.EDU>
Source record: 12310

In article <4620@cpoint.UUCP> die@cpoint.UUCP (David I. Emery) writes:

>...I have some questions about
>Lojack security, now the subject has been broached on rec.ham-radio.
>(Lojack is a Boston based startup company btw).

[several methods of defeating Lo-Jack car-finding, ...deleted]

The trouble with being technical is that we miss the true essence of the Lo-Jack invention. The purpose of Lo-Jack (company) is to create a lot of consumer interest, make a great splash, go public, and get out with a lot of money, Surely, David, living in Boston should make you more sensitive to that... :-)

There is more than one way to make money on stolen cars.

Marc Kaufman (kaufman@Neon.stanford.edu)

2256. Re: Lowfer dummy load

Newsgroup: rec.ham-radio
Date: 1990-04-12 16:29:25 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <41627@iuvax.cs.indiana.edu>
Source record: 12311

>In article <41266@iuvax.cs.indiana.edu>, commgrp@silver.ucs.
>indiana.edu writes:
>>Hams report good results using plastic "Weed Eater" (tm) string for
>>supporting wire antennas, including 1750m transmitting antennas which
>>are somewhat like Tesla coils and very sensitive to insulator leakage.
>>Frank Reid W9MKV reid@ucs.indiana.edu

>What combination of L-R or R-C would simulate the "standard" 160-190
>Khz lowfer transmit antenna (15 Meter vertical, with some sort of top
>hat).
>markz@ssc.uucp

Most lowfer transmitters are designed for 50 ohm output; ordinary
dummy loads work. Very roughly, a 30-foot vertical with 20'tophat
might look like 400 pf in series with 75 ohms, and require 1.8 mh to
resonate. Loading coils are usually coupled to the transmitter by a
tap or link, and are tuned with a variometer (a few turns on a
rotatable form inside the main coil, such that their inductance adds
or subtracts from the total inductance).

--

Frank W9MKV reid@ucs.indiana.edu

2257. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-12 16:52:05 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250143@hpnmdla.HP.COM>
Source record: 12312

Two comments on learning code and passing the code test:

A very effective way to get your speed up is to get involved with CW traffic handling. This way you actually get practice copying ON PAPER rather than just in your head. If you don't know the frequency of your local section traffic net, ask your ARRL section manager (address in the front of every issue of QST).

When you take the test, there is a little-known clue that can help you figure out the parts you missed. Every letter, number and standard punctuation mark must be used at least once in the text. If you copy a callsign as WA_XYZ and you can see that no other 6's have been used in the text, then you know it must be WA6XYZ. Ditto for letters. The unusual letters (Q, X, Z) are hard to use in the text so usually end up on one of the callsigns.

Al N1AL

2258. Re: Trunk-mountable mobile rigs and car thieves

Newsgroup: rec.ham-radio
Date: 1990-04-12 17:27:07 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250144@hpnmdla.HP.COM>
Source record: 12313

Re: trunk-mounted radios.

I have an old Drake UV-3 144/220/440 MHz radio with romote control head option. It allowed me to mount the rather large radio in my Volkswagen beetle under the rear seat next to the battery (short power leads) with the control head mounted in the glove box. I put a lock on the glove box so that, not only is the unit hard to see, it's hard to get to.

Al N1AL

2259. Re: Vacuum tubes

Newsgroup: rec.ham-radio
Date: 1990-04-12 17:43:23 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250145@hpnmdla.HP.COM>
Source record: 12314

> As far as present uses, probably not many- sockets are difficult,
> if not impossible to find, and there are better tubes available
> in terms of ease of biasing, stability, etc. (these tubes, because
> of their construction, DO NOT lend themselves to Grounded- Grid
> operation, thus presenting problems with instability).

Many years ago, (like 20!) I built a grounded-grid linear using a pair
of 304TL's. It was a single band unit designed to generate around 1000W
at 3 MHz for an experiment being done by a grad student in the Physics
Dept at Wesleyan Univ (Conn) where I was a student at the time.

I don't remember what we did to stabilize it, but I don't think it was
anything special. I do remember the power supply was a surplus unit
rated at 1800 Volts 1+ Amps REGULATED. (C-V transformer)
It took 4 men and a boy to lift the power supply, but it worked great.

Al N1AL

2260. IC-02AT mods

Newsgroup: rec.ham-radio
Date: 1990-04-12 18:34:56 UTC
From: dls@ccird1.uucp
Message-ID: <DLS.90Apr12133456@ccird1.uucp>
Source record: 12315

Can someone enlighten me to the various IC-02AT mods out there?

Thanks.
--

Darren Swartzendruber CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII
KB2JJO CC CC CC CC II II COMPUTER
CC CCC CC CC CCC CC IIII IIII CONSOLES,
dls@cci632.UUCP CC CCCCCCC CC CCCCCCC IIII IIII INCORPORATED
rochester!rit!cci632!dls CC CCC CC CC CCC CC IIII IIII
uunet!ccicpg!cci632!dls CC CC CC CC II II An STC Company
uunet!rlgvax!cci632!dls CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII

2261. Worlds Best Scanner ANntenna and who REALLY makes it

Newsgroup: rec.ham-radio
Date: 1990-04-12 19:36:29 UTC
From: flash@lopez.UUCP
Message-ID: <1272@lopez.UUCP>
Source record: 12316
Cross-posted to: rec.radio.shortwave,rec.ham-radio

There be egg on this hoser's face. My recent posting regarding the MONITENNA model 5094 stated it is made by Motorola.

This is, of course, wrong. I was brain dead at the time of posting, and am not responsible for my actions.

The antenna is made by CHANNEL MASTER.

It is STILL the best scanner antenna you can buy. it runs rings around a $100 discone (albeit without the wide bandwidth, but in practice it picks up just dandy on frequencies that are not listed in its coverage specs)

The antenna is $40 from a dealer here, I am sure you can find it anywhere now that you know who REALLY makes it. (or write me and I can give you tha name of the local dealer who will mail it to you)

Sorry for the confusion.

I now have TWO of these antennas. I am getting stuff I never knew existed before. I have them at 40 feet and all I can say is WOW....

(Grove's catalog says it is the best antenna, but Grove does not ship it because it is so big, about 5 feet, but it goes fine UPS, I guess Grove's problem is finding storage space)

The antenna comes like an umbrella and includes all hardware, even comes with coax and a plug.

It is a MOTOROLA plug. I think that is where the brain files got linked, and I gave the wrong manufacturer.

Will you EVER forgive me....

Duh.
ZZ

--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

2262. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-12 22:35:08 UTC
From: jeffw@midas.WR.TEK.COM
Message-ID: <2243@wrgate.WR.TEK.COM>
Source record: 12317
Cross-posted to: sci.electronics,rec.ham-radio

In article <1990Apr12.071836.17112@monu6.cc.monash.oz> steve@monu6.cc.monash.oz (Steve Balogh) writes:

>The individual strands of wire in Litz wire are NOT insulated from each other.
>Litz wire is essentially LOTS AND LOTS A N D L O T S of very fine (and
>sometimes silver-coated) wire all twisted together. Because of the greater
>surface area of such wire, it is supposed to have less impedance at RF
>frequencies than normal single strand wire.

Oh, really? And how can it have greater (electrical) surface area if all the surfaces are in electrical contact? What keeps the current inside the fine wires and away from the bundle's surface? (Especially if it's silver plated.)

Maybe usage varies in different parts of the world, but around here Litz wire is most definitely made up of many fine wires all enamel-insulated from each other, with each wire brought out to the surface periodically. I had a funny feeling about this, due to some unanswered questions about proximity effect (my experience with Litz wire has been limited to few experimental switching-supply designs), so I looked it up in a couple of electronics dictionaries as well. They both indicated specifically that the wires are individually insulated.

Jeff Winslow

2263. Re: CAP frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-13 02:15:40 UTC
From: bmp@hpcupt1.HP.COM
Message-ID: <7120115@hpcupt1.HP.COM>
Source record: 12318

148.150 Narrow FM, Baudot RTTY, Two-tone sequential pagers
123.10 AM
4.585 SSB

We don't have a lot of frequencies so some are multi-purpose.

There are others, but these are the most common in California.

Brian Perkin

2264. Re: beginner projects for radio amateurs

Newsgroup: rec.ham-radio
Date: 1990-04-13 05:29:00 UTC
From: john@frog.UUCP
Message-ID: <13843@frog.UUCP>
Source record: 12319

Some additional information, as promised:

Radiokit (store is located at:)
P.O.Box 973 15 Londonderry Rd.
Pelham NH 03076 Londonderry NH 03053
(603) 437-2722
No minimum ($3 service charge if under $20), many kits, lots of J. W. Miller chokes & coils, B&W coils, RF switches, Millen variable capacitors, lots of parts in general. They seem to want $1 for the catalog.

BCD Electro
P. O. Box 450207
Garland TX 75045-0207
(214) 343-1770
$1 for 1-year subscription to catalogs, no minimum, $0.95 for under $30, $2.90 shipping. Surplus electronics, pretty random looking assortment. I haven't ordered from them (yet).

Oak Hills Research
P.O.Box 250
Luther MI 49656
This is W1FB (Doug Demaw). Send a SASE for a flyer. When last I got a flyer, he had a number of random parts aimed at QRP rig building; he also has a couple of kits for QRP transmitters.

Newark Electronics
Send catalog requests to:
Newark Electronics
ATTENTION CATALOG DEPARTMENT
4801 N. Ravenswood Ave.
Chicago IL 60640-4496
They don't have a single mail address or phone; instead, one is supposed to call the closest of three pages worth of branch offices. I don't feel like typing in the entire list (it's copyrighted, anyway :-), so send email for your "local" distributor, or you can try calling one of the above numbers... They have a $25 minimum order; while they are a Real Distributor, and are probably most comfortable with gigantic orders, they say they welcome every customer, regardless of size, and were certainly happy to take my $30 order recently. They carry LOTS of stuff; in particular, semiconductors from Motorola, RCA, Sprague, TI, American Power Devices, Fagor, GE, International Devices INC, Intersil, International Rectifier, Precision Monolithics, Powerex, and others. They are very complete, except, of course, for my favorite scarce item, the air-variable capacitor...

And lastly, check out

NUTS & VOLTS MAGAZINE
P. O. Box 1111
Placentia CA 92670
1-800-783-4624 (subscriptions)
~80 pages each month of nothing but electronics classified ads. Individual issues are $2.00 (at least, that's the price on the cover), subscriptions are (third class mail, USA:) $12/1 year, $21/2 years, $60/life, (first class mail USA) $20/1 year, (Canada/Mexico) US$22, (other foreign, air mail) US$55. A subscription also entitles you to one free classified ad of 40 words.

I think I've run out. Anyone else?

--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

2265. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-13 07:26:09 UTC
From: kjh@pollux.usc.edu
Message-ID: <24073@usc.edu>
Source record: 12320

In article <391@foobar.hf.intel.com> jim@foobar.UUCP (WA7LDV) writes:
>In article <23929@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>>It's just that simple. You'll find that the fastest people are in the
>>novice band. The next fastest are in the general class portion, just
>>above the extra class portion.
>Not in my experience. The fastest have always been in the bottom 25 kc.
>or just above there.

In my experience, the only place to find people using 40 wpm+ cw is in the US novice bands. These people are not necessarily novices. Also IMHO, the people just above the US extra CW only bands usually are going about 20-30 wpm. I have found most extras creeping along at only 15-18 wpm, in the extra CW only bands.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2266. Re: CAP frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-13 11:46:37 UTC
From: dls@genrad.com
Message-ID: <35234@genrad.UUCP>
Source record: 12321

In article <9004112239.AA03082@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>Would someone post the frequencies used by the Civil Air Patrol?
>
>P.S. I don't wanna talk on 'em; just listen to 'em.

Well, it's probably ok to LISTEN on them....just be sure you realize that
it is illegal to transmit on them unless you are a member of the Civil Air
Patrol AND you have a CAP ROP card. Keep in mind the frequencies are used
for communications for search and rescue (among other things), so interference
would be troublesome.

148.15, 143.9, 149.925, 26.62

There are a couple others, but I don't have my papers handy and the one used
the most (around here....not necessarily country wide) is 148.15.

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

2267. WB2OPA LogMaster Demo at Dayton

Newsgroup: rec.ham-radio
Date: 1990-04-13 13:28:13 UTC
From: afy@cbnewsh.ATT.COM
Message-ID: <9576@cbnewsh.ATT.COM>
Source record: 12322

The WB2OPA LogMaster HF logging system for IBM PCs and compatibles will
be demo'ed at the Sensible Solutions booth (#474), at the Dayton HamVention.

Amongst its many features are

o Automatic beam headings.

o QSO alert indicator to tell you if you need the QSO based on country,
state, prefix, cq zone, itu zone or any combination for the
current frequency and mode.

o Auto dupe checking.

o Metric to english/ english to metric conversion calculator.

o Prints high quality QSL cards.

o Keeps award statistics.

o User configurable.

o And much, much more.

Please drop by and say hello!

2268. WANTED: ALL band Portable Receiver

Newsgroup: rec.ham-radio
Date: 1990-04-13 14:50:26 UTC
From: weber@cg-atla.agfa.com
Message-ID: <8595@cg-atla.agfa.com>
Source record: 12323

(sorry for any violations to this net's protocol)

WANTED:

Portable all-band receiver (like the old Zenith Trans-Oceanic)
Should be rugged and run off internal batteries.
Ability to run off external 12vdc (ship's power) would be a plus.
Normal broadcast FM, common short wave and ham freq a must.
Marine VHF would be a plus but not required.

I will use it for entertainment and WWV reception this summer on my
summer off from work (gone sailing).

I'm not able to find too many reasonable NEW ones about. I know about
Radio Shack at $200 & $90 but have always been underwelmed by their products.
Their $200 radio seems ok, but not great (not at $200).

Offers & ideas......

Jeff Weber
(508)658-0200 x7026
(603)431-6057 home
weber@cg-atla.afga.com
uunet!samsung!cg-atla!weber
wang!cg-atla!weber

2269. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-13 15:40:56 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <41761@iuvax.cs.indiana.edu>
Source record: 12324
Cross-posted to: sci.electronics,rec.ham-radio

>In article <1990Apr12.071836.17112@monu6.cc.monash.oz>
>steve@monu6.cc.monash.oz (Steve Balogh) writes:
>>The individual strands of wire in Litz wire are NOT insulated from
>>each other. Litz wire is essentially LOTS AND LOTS A N D L O T S
>>of very fine (and sometimes silver-coated) wire all twisted
>>together. Because of the greater surface area of such wire, it is
>>supposed to have less impedance at RF frequencies than normal single
>>strand wire.

Jeff Winslow replies:
>Oh, really? And how can it have greater (electrical) surface area if
>all the surfaces are in electrical contact? What keeps the current
>inside the fine wires and away from the bundle's surface? (Especially
>if it's silver plated.)

>Maybe usage varies in different parts of the world... I looked it up
>in a couple of electronics dictionaries as well. They both indicated
>specifically that the wires are individually insulated.

Stranded wire has less skin-effect resistance than the equivalent
solid wire, but much more than true litz wire with individually-
insulated strands.

Some large/expensive stereo speaker cables are being marketed as
"Litz" and are made of many very fine (but not individually insulated)
strands.

Skin-effect resistance can be significant in large-diameter conductors
at audio frequencies. Whether it makes noticeable difference over the
length of speaker cables is another interminable argument for
rec.audio (like the one about mercury-filled plastic tubes which were
supposed to give your speakers a more "fluid" sound. :-)

Here's a list of AWG copper wire sizes and their "critical
frequencies" (frequency above which skin effect causes resistance to
be significantly greater than DC resistance). I don't know the
criteria for "significantly greater." The table partially reproduced
below was in the Canadian LF/VLF newsletter _Northern Observer_ issue
#9 (April 1989).

AWG dia. critical
size mm freq.
---
1 7.35 586 Hz
2 6.54 738

4 5.19 1017
6 4.12 1.87 kHz
8 3.26 2.97
10 2.59 4.72
12 2.05 7.50
14 1.63 11.9
16 1.29 19.0
20 .812 48.0
22 .644 76.3
28 .321 307
32 .202 775
36 .127 1.96 MHz
40 .080 4.96

In addition to skin effect, wire resistance can increase by "proximity effect" where a strong magnetic field forces the current toward one side of the conductor. That's a reason why some cyclotron magnets are wound with flat "wire."

--

Frank Reid W9MKV reid@ucs.indiana.edu

2270. Re: CAP frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-13 17:18:23 UTC
From: hammock@mars.jpl.nasa.gov
Message-ID: <3384@jato.Jpl.Nasa.Gov>
Source record: 12325

As I recall, an easy way to get the 26.62 frequencies was to use an old
crystal controlled CB radio and swap the channel 10 Tx and Rx crystals.
(I used to be communications officer for our squadron back in Virginia.)

AMIGA /// | hammock@mars.jpl.nasa.gov Telos - Jet Propulsion Laboratory - NASA
/// | KC6HUR >>> Space reseved for future use <<<
\\\/// |--
\XX/ C= | "When I want your opinions, I'll give them to you!" - Mock

2271. Re: No Code - My two cents worth

Newsgroup: rec.ham-radio
Date: 1990-04-13 17:29:01 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <3eukH1w161w@w8grt.fidonet.org>
Source record: 12326

phil@ux1.cso.uiuc.edu writes:

> W3 UR 599 QRZ W9
>
> Surely all contesters will love this since the time it takes to make a
> contact will be shorter than ever before. And they can program both
> calls into a memory unit just like they do now for the signal report.
>
> Better yet, forget call areas and just go with W.

Well, we could have the letter 'K' followed by your first and last initial,
followed by your Zip code. [:-)

2272. RFI

Newsgroup: rec.ham-radio
Date: 1990-04-13 22:06:00 UTC
From: taylord@hw-4h63.UUCP
Message-ID: <49c90e07.147ae@hw-4h63.UUCP>
Source record: 12177

Since I am better acquainted with this 'posting' of news, I would
like to ask for advice on the same referenced subject. However,
I would like to know if anyone out there knows an attorney I
may consult on the ref. subject. Also, does anyone imagine what
grounds there is for a lwsuit against me--that my rig causes
very anoying RFI even when the stereeo is not on? (Realize
I understand the reasons for this RFI but that the neighbor
is not cooperating). I've already contacted the FCC field
office here in Arizona (Douglas) and forwarded a full report,
including a history on this case as well as details of what
I've done to my gear. I have no interference problems in my
household--I dare not (the XYL..know what I mean?).

So......wat say de WA6PBJ

2273. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-14 00:40:31 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500497@ux1.cso.uiuc.edu>
Source record: 12178

Why is it that the ability to copy Morse Code onto paper is the desired goal?
Are there any cases of need to copy voice onto paper?

Well, of course one would copy radiograms onto paper, whether sent by voice
or sent by Morse Code. And there is a provision on the code test whereby
a minute of solid copy passes the test.

I just don't see why I need to be burdoned with the concept of actually
copying code to paper. What is wrong with copying code in your head just
like you do voice?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2274. Re: Lo-Jack

Newsgroup: rec.ham-radio
Date: 1990-04-14 00:40:39 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500498@ux1.cso.uiuc.edu>
Source record: 12179

> Several drawbacks: (1) Nothing happens until you notice your
> car's gone. (2) Smart crooks leave the cars to cool off for a day or
> two before picking them up again. (3) You need a cop who knows how to
> DF.

Nothing happens unless the police decide to pull up your VIN number,
act like it is reported stolen, and proceed to track your location
and movement.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2275. Re: Lo-Jack

Newsgroup: rec.ham-radio
Date: 1990-04-14 03:53:48 UTC
From: johnd@ka2qhd.UUCP
Message-ID: <268@ka2qhd.UUCP>
Source record: 12180

Gee I wonder if we could interest the police in mutual DF practice. 8-)

73 de ka2qhd

--

UUCP: rutgers!petsd!tsdiag!ka2qhd!johnd or johnd@ka2qhd.uucp

2276. Re: ARRL Insurance

Newsgroup: rec.ham-radio
Date: 1990-04-14 09:40:57 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500499@ux1.cso.uiuc.edu>
Source record: 12181

> Does the ARRL insurance cover mobile rigs if they are thieved while
> in someone else's car? Quoting from the info pamphlet "Your
> equipment & accessories are covered in your car as well as your home."

Apparently not. Don't loan equipment or even borrow equipment as it is
not covered under these circumstances by this policy. Some homeowners
or renters policies will cover things under some circumstances that the
ARRL policy will not. You need to shop for your insurance both on the
basis of rates AS WELL AS ON THE BASIS OF TERMS. You need to see the
actual policy wording. Insurance salemen don't like to get this information
to you until you are sold, though, so you will need to push them for it.

> Can I schedule general purpose test gear like scope's, dmms?

I doubt it. The plan does cover computer hardware associated with
your amateur station, and up to $1000 worth of software (provided of
course you list the items and pay the appropriate premium).

> Whenever I try to phone the administraters of the plan,
> A.H. Wohlers & Co, to ask them directly, I always get a busy signal.

Which number are you calling? Of course I bet they are real busy these days.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2277. arrl

Newsgroup: rec.ham-radio
Date: 1990-04-14 15:30:43 UTC
From: gws@n8emr.UUCP
Message-ID: <1481@n8emr.UUCP>
Source record: 12182

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ RTTYDX $RTDX1304
RTTY DX Notes, 1of3, 4/13/90

RTTY DX Notes for Weekending 13th April 1990.
Part 1 of 3.
BID: $RTDX1304

I would like to repeat some comments that I have made before. It
concerns the removal of the Bulletin Identification Number (BID
number) of these notes. It has been reported that in some instances
the BID number has been removed and replaced with a local BID number.
This has caused confusion, and some bbs suffer the multiple delivery
of the DX notes with different BID numbers. Please only pass on the
received BID number. If you cannot do this, then allow someone else
who can pass on the correct BID to do so. Then of course we have the
stations who remove the opening stanza and the credits as well as the
signoff, and pass the notes along as (my) DX notes for the week.
Chaps, if you think that you can do a better job, please let me know
and I will let you do the whole thing. A happy Easter to you all.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, JA1ACB, JA1BLV, OD5NG,
TG9VT, VK2EG, W1DA, W2JGR, W0LHS and the Tri-State DX Association VHF
packet cluster. Thank you all for your information and interest. May
you all have a happy and DXing Easter.

Bandpass:

Friday 6:
SU1HN 14085 at 0046Z QSL
TA3D 14088 at 0115Z QSL
5N8ALE 14089 at 0520Z
BY1QH 14085 at 1340Z
VS6VC 14083 at 1350Z
YB0PHM 14084 at 1410Z
YL1WR 14090 at 1530Z
FR5FI 14088 at 1645Z
HI8BG 14089 at 2225Z
ZD9TR 14089 at 2250Z

Continued in part 2.
/EX
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SB RTTYDX @ RTTYDX $RTDX1404
RTTY DX Notes, 2of3, 4/13/90

RTTY DX Notes for Weekending 13th April 1990.
Part 2 of 3.
BID: $RTDX1404

Saturday 7:
TU4IK 14088 at 0015Z
EA9MY 14082 at 0415Z
TJ1MW 14084 at 0630Z
BY9GA 21086 at 0906Z Z23
HI8BG 14083 at 1105Z
ZS8MI 14086 at 1310Z
UM8MU 21090 at 1410Z
NH2/KD7P 21089 at 1420Z
A51JS 21084 at 1520Z
A41KC 14090 at 1737Z
BV4VB 21086 at 1815Z
ZP5FGS 21086 at 1820Z
LY1BYL 21084 at 1823Z
SV9ADO 14091 at 1958Z

Sunday 8:
EA9MY 14083 at 0433Z
CE0ZIG 14083 at 0435Z
UO4OWQ 14088 at 0510Z
A51JS 28084 at 1258Z
BV4VB 14080 at 1410Z
9J2AL 28092 at 1753Z
5V7DP 28093 at 1753Z
J28TY 14085 at 1921Z
UA9WJ 14086 at 2020Z
FM5WD 14082 at 2300Z QSL

Monday 9:
LY2WW 14086 at 0155Z
TU2AK 14086 at 0200Z
V44KW 14090 at 0405Z
KP2N 14083 at 0415Z QSL
SV2WT 14075 at 0620Z FEC
BY1QH 14086 at 1305Z
J28TZ 21090 at 1424Z
TL8TM 21090 at 1425Z
XV0SU 14083 at 1626Z QSL/Note
UY5EG 21089 at 1630Z
JX9CAA 14084 at 1712Z
FM5BX 14088 at 2056Z
ZP6XDW 21088 at 2325Z

Tuesday 10:
TA3D 14085 at 0030Z

UW0TM 14092 at 1245Z
XV0SU 14082 at 1530Z
RF6FC 14094 at 1742Z
4U1UN 14091 at 2115Z QSL
PZ1BS 14090 at 2124Z QSL
BY1QH 14086 at 2350Z
SU1HN 14086 at 2355Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX1504
RTTY DX Notes, 3of3, 4/13/90

RTTY DX Notes for Weekending 13th April 1990.
Part 3 of 3.
BID: $RTDX1504

Wednesday 11:
FM5WL 14088 at 0340Z
RF6FC 14088 at 0410Z
SV2WT 14085 at 0526Z
S92LB 14086 at 0707Z QSL
TA3D 21089 at 1453Z
YI1BGD 14094 at 1700Z QSL
YV0AA 14085 at 2050Z QSL
SU1HN 14081 at 2245Z
PZ1BS 14090 at 2355Z

Thursday 12:
HH2BZ 14085 at 0045Z
UA9YE 14085 at 0315Z
YV0AA 14087 at 0420Z
XV0SU 21082 at 1415Z

QSL Information:

SU1HN is Hamed Hassar, Box 1578, Alf Naskah, Cairo, Egypt.

TA3D is at Box 963, Ismir, Turkey.

FM5WD QSLS via W3HNK.

KP2N cards go to K8OHC.

XV0SU says to QSL to Box 308, Moscow 103009, USSR.

4U1UN was operated by NA2K, and he will look after the cards.

PZ1BS says to QSL to Box 831, Paramaribo, Surinam.

S92LB QSL address is Box 147, Sao Tome.

YI1BGD says to QSL to Box 7075, Baghdad.

YV0AA will QSL via Box 2285, Caracas 1010-A Venezuela.

Notes Of Interest:

ZL1AMO: It was reported that ron would be active from this week for a two week stint on ZK2RW, but so far no sign of him.

Jarvis should start this weekend with the call of either AH3C/KH5J or AH3C/KH1J, from the 13th through to the 23rd. No reports so far.

XV0SU: Alex reports that Spratly should start up next weekend for a two week operation.

Remember the St. Peter and St. Pauls Rocks operation last year signing ZY0SY? They had only 37 contacts before their computer blew up. So far they have received only 22 cards. If you worked them and have not received a card, send your request to Natal DX Group, CP597, 59021 Natal RN, Brasil.

Nothing has been heard from Burma as yet. Keep your fingers crossed.

Have a happy Easter with lots of good DX.

GL DE DX1 (VK2SG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA
/EX
SB DAYTON @ RTTYDX $KT7H0413
Digital Suite at Dayton!

BID: $KT7H0413

Looking for a place to meet fellow packet and RTTY hams at the Dayton Hamvention? On Friday night I will be hosting the Digital Suite in room 425 at the Downtown Stouffers. This will also be a place for USENET and Fidonet (landline BBS) hams who have been looking for a Dayton meeting spot.

This will be for Friday night only, BYOB, non-smoking. If you forget the room number (425), look for signs next to the elevator in the lobby.

DON'T FORGET! STOUFFERS, ROOM 425, FRIDAY APRIL 27TH!

73,

Tad
KT7H @ N7HFZ.WA.USA.NA
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

2278. Re: Repeater on Space Station Freedom

Newsgroup: rec.ham-radio
Date: 1990-04-14 17:57:07 UTC
From: hburford@enprt.Wichita.NCR.COM
Message-ID: <636@enprt.Wichita.NCR.COM>
Source record: 12183

davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:

>Has anyone petitioned NASA to have the first Amateur repeater on Space
>Station Freedom? I'd love to have my call broadcast for all those
>David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.

I like the idea! I would be in support of such a project. There
are some issues, however ....
1. Since it is Amateur radio, there will certaintly be some
antenna height restrictions imposed <g>
2. Since it is Amateur radio, it will be the first thing to be
blamed for TV problems everywhere.
3. Unless it is promoted well, everyone will call it a CB.
4. It will be necessary to have a control operator onsite.
5. How do you handle phone patches? MCI would like a per mile
charge for long distance.

- keep us posted on your proposal status ...
hb
--
Harry Burford - NCR Peripheral Products Division, Printer Products
PHONE: 316-636-8016 TELEX: 417-465 FAX: 316-636-8889
SLOWNET: 3718 N. Rock Road, Wichita KS CALL: KA0TTY
C-$erve: 76367,151 SS: 9.5 Harry.Burford@Wichita.NCR.COM

2279. Re: Litz wire (long)

Newsgroup: rec.ham-radio
Date: 1990-04-14 20:00:08 UTC
From: mmm@cup.portal.com
Message-ID: <28932@cup.portal.com>
Source record: 12184
Cross-posted to: sci.electronics,rec.ham-radio

Do the people who invent these snake-oil audio scams ever get rich?
I was just thinking that exposure of some speaker wire to intense radiation might shoot some imperfections into the crystal lattice, to create more conduction between layers of copper atoms. Just the thing to get a deeper, more thundering bass and to sharpen the points on those highs.

2280. TS930s Problem

Newsgroup: rec.ham-radio
Date: 1990-04-14 20:33:51 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <635.26279072@weyr.FIDONET.ORG>
Source record: 12185

I have a TS930s with antennae tuner. Lately, as I am sending cw I have noticed that the ALC starts to drift lower so I turn up the carrier and it keeps drifting down until I lose that ALC. Can anyone give me any suggestions as what to look for or do? PS: I have never had to turn the carrier up to maximum. Sooner or later I fid a point usually a little over half way where the length of the QSO is less than the drift. Also, if I do not key the transceiver for a while the ALC is up to high and I have to turn

the carrier down. I have soem ideas about the problem but I would like some other opinions. Thanks!

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

2281. Re: WANTED: ALL band Portable Receiver

Newsgroup: rec.ham-radio
Date: 1990-04-14 21:41:23 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <28936@cup.portal.com>
Source record: 12186

ALL BAND PORTABLE RECEIVER
You might wish to give the Sangean ATS-803A a try. Sangean has come a long way over the past year. This portable --generally-- lists for around $189.00. Complete with keypad, memories, BFO and clock. Also manual tuning as well as "keypad tuning." An excellent performer for the price. This --of course-- is just my opinion.

P.S. Digital frequency readout is standard.

Havana Moon

2282. DAYTON!

Newsgroup: rec.ham-radio
Date: 1990-04-15 01:14:28 UTC
From: tad@ssc.UUCP
Message-ID: <651@ssc.UUCP>
Source record: 12187
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.ham-radio.swap,rec.radio.shortwave

USENET MEETING PLACE AT DAYTON HAMVENTION

It's that time of year again! Year after year we see postings on
USENET asking, "Where can USENET radio afficinados get together for
an old fashioned eyeball at the Dayton Hamvention?"

In 1990 we have a place of our own.

Come to the Digital Suite on Friday, April 27 at the downtown Stouffers
Hotel, room 425. I have a large suite reserved for packet, RTTY, USENET
and Fidonet hams, so we can all get together and see what each other
looks like (scary!).

This is at Stouffers, where many of the DX clubs host the infamous
hospitality suites. . .where you can gab with famous DX and contest
hams until the wee hours. And now we have our own hospitality suite!

Show up after 8pm, room 425, downtown Stouffers in Dayton, April 27th.

BYOB and non-smoking, please.

See you there!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2283. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-04-15 01:31:14 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9004150738.AA15465@ucbvax.Berkeley.EDU>
Source record: 12188

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #678 -
Alouette 1
1 00424U 62B-A 1 90 98.16856241 .00000362 00000-0 42367-3 0 2695
2 00424 80.4674 355.1073 0024381 90.7097 269.6838 13.67325560373121
ATS 3
1 03029U 67111 A 90 88.80489108 -.00000075 00000-0 99999-4 0 3113
2 03029 13.1000 21.8559 1511727 213.1891 136.3776 1.00274601 82004
Cosmos 398
1 04966U 71 16 A 90102.00402487 .00108106 17240-4 62599-3 0 7487
2 04966 51.5228 43.7976 2327137 23.3986 345.7391 10.93973445584411
Starlette
1 07646U 75010 A 90101.91374004 .00000004 00000-0 50503-4 0 245
2 07646 49.8249 59.9883 0205530 332.3424 26.6702 13.82135511766618
LAGEOS
1 08820U 76039 A 90102.18364844 .00000002 00000-0 00000 0 0 377
2 08820 109.8573 332.5293 0044648 252.2409 107.3591 6.38664229 69726
GPS-0001
1 10684U 78020 A 90101.12234615 .00000008 00000-0 99999-4 0 3576
2 10684 63.6880 91.6185 0116117 199.2933 160.2345 2.00557311 74506
GPS-0002
1 10893U 78 47 A 90 99.10000304 -.00000025 00000-0 00000 0 0 1092
2 10893 64.4124 332.5554 0163045 25.7026 335.1583 2.00547357 87288
SeaSat 1
1 10967U 78064 A 90102.05752185 .00001279 00000-0 48631-3 0 2608
2 10967 108.0122 183.7062 0000909 193.1678 166.9347 14.35550629616963
GPS-0003
1 11054U 78093 A 90100.89109535 -.00000025 00000-0 00000 0 0 1920
2 11054 63.9615 328.8143 0086643 115.0366 245.9456 2.00566557 84330
Nimbus 7
1 11080U 78098 A 90101.26897922 .00000168 00000-0 18146-3 0 6409
2 11080 99.2005 7.6971 0008291 264.8578 95.1628 13.83416710578787
GPS-0004
1 11141U 78112 A 90 99.99003455 .00000008 00000-0 00000 0 0 3046
2 11141 63.6912 91.5388 0060440 316.7113 42.8221 2.00560461 83012
GPS-0005
1 11690U 80 11 A 90 98.13598337 .00000009 00000-0 00000 0 0 9237
```

```
2 11690 64.1768 93.6804 0113107 204.4244 155.0494 2.00556724 88830
GPS-0006
1 11783U 80 32 A 90101.43692891 -.00000025 00000-0 00000 0 0 804
2 11783 63.7533 328.3681 0152658 60.8102 300.7395 2.00573818 72981
GOES 5
1 12472U 81049 A 90101.85784366 -.00000228 00000-0 99999-4 0 8481
2 12472 3.3103 76.7031 0002992 319.4139 40.7173 1.00239924 31583
DE 1
1 12624U 81 70 A 90101.09885031 -.00000007 00000-0 -25216-3 0 3617
2 12624 89.0569 148.5417 6210691 304.5676 11.5886 3.51023492259767
SME
1 12887U 81100 A 90102.15851303 .00037141 00000-0 76883-3 0 5575
2 12887 97.6476 145.8081 0001209 225.4580 134.6596 15.45690236471054
Salyut 7
1 13138U 82 33 A 90101.62597941 .00051677 00000-0 66344-3 0 1507
2 13138 51.6018 280.0038 0000189 230.2491 129.9163 15.58596241454458
Cosmos 1383
1 13301U 82 66 A 90100.14716778 .00000181 00000-0 20150-3 0 5437
2 13301 82.9358 350.6481 0028155 351.9105 8.1586 13.67816197388373
LandSat 4
1 13367U 82 72 A 90102.96242164 .00000692 00000-0 16315-3 0 2837
2 13367 98.1718 166.7535 0002523 2.0360 358.0842 14.57141287411806
IRAS
1 13777U 83 4 A 90 97.39232616 .00000091 00000-0 75356-4 0 7311
2 13777 99.0309 295.2728 0012469 218.1125 141.9158 13.98757444 37049
Cosmos 1447
1 13916U 83 21 A 90 94.42929210 .00000237 00000-0 23985-3 0 6815
2 13916 82.9407 66.5827 0038459 347.7414 12.2807 13.74024884352545
TDRS 1
1 13969U 83 26 B 90101.84800313 -.00000208 00000-0 00000 0 0 9445
2 13969 4.3199 66.6757 0006902 263.4646 96.1837 1.00274607 92418
GOES 6
1 14050U 83 41 A 90 97.05742603 .00000122 00000-0 00000 0 0 1062
2 14050 2.0506 79.0541 0005316 223.2840 137.2487 1.00263415 9550
OSCAR 10
1 14129U 83 58 B 90 84.27862046 -.00000064 00000-0 00000 0 0 4622
2 14129 25.9479 212.4769 5985025 129.1636 301.2066 2.05882684 23004
GPS-0008
1 14189U 83 72 A 90 98.52442907 .00000007 00000-0 99999-4 0 7367
2 14189 63.3315 90.0702 0146830 219.5314 139.3840 2.00708845 49365
LandSat 5
1 14780U 84 21 A 90102.98908661 -.00000498 00000-0 -10562-3 0 1042
2 14780 98.2115 164.0118 0003626 115.1103 245.0493 14.57089561325225
UoSat 2
1 14781U 84 21 B 90 99.59599845 .00001872 00000-0 35652-3 0 6525
2 14781 97.9554 154.3796 0013847 103.2959 256.9785 14.65141902325925
GPS-0009
1 15039U 84 59 A 90101.58998716 .00000006 00000-0 00000 0 0 8778
2 15039 63.0410 89.1868 0021706 243.8643 115.9032 2.00611894 42705
Cosmos 1574
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1 15055U 84 62 A 90 98.99259340 .00000160 00000-0 16169-3 0 8355
2 15055 82.9580 113.3276 0027485 152.0332 208.2308 13.73340470290573
GPS-0010
1 15271U 84 97 A 90101.98502460 -.00000025 00000-0 00000 0 0 7736
2 15271 63.2533 327.9578 0105147 325.8530 33.5336 2.00573632 39828
Cosmos 1602
1 15331U 84105 A 90102.34094288 .00003611 00000-0 49905-3 0 2052
2 15331 82.5355 61.9233 0022128 182.1216 177.9857 14.77722030298368
NOAA 9
1 15427U 84123 A 90100.26606308 .00000440 00000-0 25928-3 0 5025
2 15427 99.1673 98.5241 0014847 196.4215 163.6476 14.12511720274399
Cosmos 1686
1 16095U 85 86 A 90101.81834009 .00044454 00000-0 57190-3 0 5444
2 16095 51.6030 279.0397 0000888 252.3257 107.8861 15.58607847255582
GPS-0011
1 16129U 85 93 A 90100.66029037 .00000007 00000-0 00000 0 0 4516
2 16129 63.8477 90.0816 0122348 149.8802 210.8354 2.00510904 33002
Mir
1 16609U 86 17 A 90101.66933349 .00046273 00000-0 52017-3 0 5264
2 16609 51.6177 305.5989 0013467 18.6371 341.5624 15.62018693237713
SPOT 1
1 16613U 86 19 A 90101.69883050 .00000832 00000-0 40893-3 0 8349
2 16613 98.7045 177.0430 0001579 69.1579 290.9878 14.20021087 54493
Cosmos 1766
1 16881U 90102.44872688 .00002246 00000-0 31263-3 0 9153
2 16881 82.5234 120.9548 0020485 201.4610 158.5770 14.77256534199446
EGP
1 16908U 86 61 A 90 96.51913600 .00000014 00000-0 39817-3 0 1734
2 16908 50.0086 116.3154 0011133 15.7496 344.3683 12.44386633165932
NOAA 10
1 16969U 86 73 A 90101.50545581 .00000710 00000-0 32812-3 0 3631
2 16969 98.6062 130.9285 0014480 102.2384 258.0417 14.23539254185121
MOS-1
1 17527U 87 18 A 90102.65274862 .00003767 00000-0 28293-2 0 4666
2 17527 99.1093 176.0362 0000440 100.0135 259.9018 13.94851949160125
GOES 7
1 17561U 87 22 A 90100.74693282 -.00000045 00000-0 99999-4 0 4646
2 17561 0.0871 110.0491 0006011 260.1427 349.8267 1.00273118 4741
Kvant-1
1 17845U 87 30 A 90101.79727795 .00046295 00000-0 52017-3 0 486
2 17845 51.6179 304.9562 0013658 17.6317 342.5065 15.62027076237736
DMSP B5D2-3
1 18123U 87 53 A 90102.95502312 .00000683 00000-0 37873-3 0 5216
2 18123 98.8213 294.4280 0014124 205.6561 154.3916 14.13959427145187
RS-10/11
1 18129U 87 54 A 90101.95344549 .00000169 00000-0 17470-3 0 965
2 18129 82.9310 17.4593 0010784 309.0284 50.9941 13.72076996140363
Meteor 2-17
1 18820U 88 5 A 90101.77359111 .00000235 00000-0 20079-3 0 2146
2 18820 82.5397 43.2463 0017091 146.6814 213.5425 13.84312561110991
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DMSP B5D2-4
1 18822U 88 6 A 90102.94867977 .00000718 00000-0 34624-3 0 4388
2 18822 98.6578 343.3034 0007710 95.8487 264.3569 14.21362904113554
AO-13
1 19216U 88 51 B 90 98.16789877 -.00000112 00000-0 99999-4 0 849
2 19216 57.0155 160.8093 6926959 224.6613 52.5253 2.09702913 13932
OKEAN 1
1 19274U 88 56 A 90101.93748684 .00004531 00000-0 64264-3 0 7064
2 19274 82.5182 220.0379 0021368 343.2000 16.8742 14.76671000 95145
Meteor 3-2
1 19336U 88 64 A 90101.63487582 .00000391 00000-0 99999-3 0 4044
2 19336 82.5242 324.5006 0017687 115.1884 245.0975 13.16886816 82194
NOAA 11
1 19531U 88 89 A 90101.89290250 .00000789 00000-0 45509-3 0 2182
2 19531 98.9763 50.1507 0013278 109.9378 250.3224 14.11533812 79619
TDRS 2
1 19548U 88 91 B 90 98.92819893 .00000131 00000-0 99999-4 0 825
2 19548 0.0335 107.5560 0001861 284.6891 327.7704 1.00276112 4754
Cosmos 2001
1 19796U 89 11 A 90101.39725311 -.00001022 00000-0 99999-4 0 4274
2 19796 63.1225 101.3900 7118183 319.8897 4.9881 2.00642581 8467
GPS BII-01
1 19802U 89 13 A 90101.65668806 .00000016 00000-0 99999-4 0 758
2 19802 55.0618 200.0320 0058197 160.4952 199.7551 2.00563097 8413
Akebono
1 19822U 89 16 A 90101.79789272 .00012157 00000-0 85186-3 0 5081
2 19822 75.1508 271.1407 4196948 264.0034 48.1678 7.07146111 28723
Meteor 2-18
1 19851U 89 18 A 90 99.55871903 .00000190 00000-0 16080-3 0 1614
2 19851 82.5180 283.1388 0012985 193.5725 166.5065 13.83954825 56075
TDRS 3
1 19883U 89 21 B 90101.55989628 -.00000235 00000-0 99999-4 0 601
2 19883 0.0606 40.1272 0002589 290.7068 29.2278 1.00270212 3227
GPS BII-02
1 20061U 89 44 A 90101.34146011 -.00000032 00000-0 00000 0 0 575
2 20061 54.7434 18.5382 0082110 173.4588 186.6613 2.00561748 6159
Nadezhda
1 20103U 89 50 A 90 99.62677150 .00000094 00000-0 93990-4 0 919
2 20103 82.9614 335.5469 0036262 228.5417 131.2624 13.73578247 38301
GPS BII-03
1 20185U 89 64 A 90101.31106473 .00000016 00000-0 99999-4 0 525
2 20185 54.9301 200.9079 0025945 148.3528 211.8362 2.00559930 4722
Activnyi
1 20261U 89 80 A 90101.66634036 .00004121 00000-0 12933-2 0 3825
2 20261 82.5887 270.7834 1259879 128.7424 243.3375 12.43505059 24323
Activnyi RB
1 20262U 89 80 C 90101.52514552 .00001451 00000-0 45186-3 0 1560
2 20262 82.5878 270.8926 1262127 129.1293 242.9012 12.43087097 24304
Magion 2
1 20281U 89 80 B 90102.13074436 .00003733 00000-0 11647-2 0 3966
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2 20281 82.5875 270.4392 1259714 127.6097 244.6201 12.43707464 24382
GPS BII-04
1 20302U 89 85 A 90 98.04952754 -.00000029 00000-0 99999-4 0 496
2 20302 54.6795 319.9210 0038640 318.4403 41.3077 2.00568329 3341
Meteor 3-3
1 20305U 89 86 A 90 99.86183889 .00000068 00000-0 16336-3 0 738
2 20305 82.5487 266.1874 0016493 135.7622 224.4820 13.15855139 21960
COBE
1 20322U 89 89 A 90 99.54712035 .00004526 00000-0 30017-2 0 707
2 20322 99.0176 110.4849 0007516 190.7528 169.3474 14.01745106 19879
Kvant-2
1 20335U 89 93 A 90 99.87955389 .00025457 00000-0 29121-3 0 1660
2 20335 51.6177 314.6284 0013782 12.9597 356.6121 15.61873618 21085
GPS BII-05
1 20361U 89 97 A 90 96.34540844 .00000015 00000-0 99999-4 0 201
2 20361 54.9654 143.1808 0056126 63.3667 297.3041 2.00578504 2282
SPOT 2
1 20436U 90 5 A 90 98.63382949 .00000523 00000-0 26331-3 0 886
2 20436 98.7118 174.0451 0001079 99.2394 260.8957 14.20017830 10875
UO-14
1 20437U 90 5 B 90 97.22713134 -.00000298 00000-0 -11084-3 0 469
2 20437 98.6980 173.5339 0011972 6.1936 353.9352 14.28545574 10730
UO-15
1 20438U 90 5 C 90 97.23882879 .00000505 00000-0 21838-3 0 393
2 20438 98.7042 173.5404 0010965 8.6464 351.4873 14.28318895 10733
PACSAT
1 20439U 90 5 D 90 97.71241468 .00000788 00000-0 32935-3 0 382
2 20439 98.7109 174.0751 0012372 4.5554 355.5683 14.28654650 10802
DO-17
1 20440U 90 5 E 90 97.71059459 .00000838 00000-0 34893-3 0 315
2 20440 98.7110 174.0777 0012473 4.5127 355.6104 14.28693461 10804
WO-18
1 20441U 90 5 F 90 97.28452834 .00000573 00000-0 24353-3 0 273
2 20441 98.7034 173.6555 0012716 7.0264 353.1062 14.28797453 10744
LO-19
1 20442U 90 5 G 90 98.12125644 .00000777 00000-0 32352-3 0 346
2 20442 98.7064 174.4989 0013204 3.7794 356.3462 14.28868160 10868
GPS BII-06
1 20452U 90 8 A 90 90.57842283 -.00000000 00000-0 99999-4 0 280
2 20452 54.6144 259.1483 0034707 60.1881 300.1645 2.00566396 1283
MOS-1B
1 20478U 90 13 A 90 98.80510911 .00000116 00000-0 99999-4 0 1310
2 20478 99.1928 169.3034 0000783 150.6088 209.4667 13.94832467 8462
FO-20
1 20480U 90 13 C 90 93.62525126 .00000132 00000-0 34767-3 0 208
2 20480 99.0483 154.1880 0540612 217.3591 138.8750 12.83124235 7181
1990 013D
1 20491U 90 91.10108480 -.00000030 -30695-4 0 225
2 20491 99.0478 153.6359 0469989 211.7563 145.4383 13.02710974 6364
Soyuz TM-9
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1 20494U 90 14 A 90 95.97463192 .00045741 00000-0 52136-3 0 674
2 20494 51.6179 334.3324 0012978 358.0134 1.9930 15.61674117 8394
1990 015C
1 20498U 90 81.09953213 0.00059706 13764-2 0 454
2 20498 41.6300 68.4127 0038152 27.2360 333.0469 15.40934956 5476
Raduga 25
1 20499U 90 81.06833755 0.00000001 10000-3 0 400
2 20499 1.4006 274.1312 0004873 103.7390 255.0465 1.00264606 352
1990 016D
1 20502U 90 16 D 90 84.10001850 .00000154 00000-0 99999-4 0 126
2 20502 1.4209 273.2174 0037369 64.0442 295.2518 1.00014886 405
Nadezhda 2
1 20508U 90 17 A 90 89.53681993 .00000248 00000-0 25568-3 0 143
2 20508 82.9505 117.9024 0043573 203.0499 156.8713 13.73193454 4217
1990 017B
1 20509U 90 87.68788679 0.00000347 35298-3 0 296
2 20509 82.9522 119.2241 0041578 186.2581 173.8063 13.74435282 3967
OKEAN 2
1 20510U 90 18 A 90 96.05608297 .00002176 00000-0 33554-3 0 469
2 20510 82.5286 164.1322 0020919 144.5079 215.7564 14.72879997 5458
1990 018B
1 20511U 90 89.05320873 0.00001995 30621-3 0 194
2 20511 82.5291 170.5611 0021053 166.6080 193.5693 14.73029041 4424
Progress M3
1 20513U 90 20 A 90 95.97459514 .00078138 00000-0 88165-3 0 460
2 20513 51.6179 334.3267 0013639 350.5949 9.2094 15.61698303 5637
INTELSAT-6
1 20523U 90100.96800550 0.00004099 28640-3 0 428
2 20523 28.3488 344.3797 0017616 182.0975 177.9594 15.02633047 4329
Cosmos 2060
1 20525U 90100.69870729 -.00013778 -22504-3 0 570
2 20525 65.0268 347.2528 0009688 266.1194 93.8733 15.52032661 4204
Cosmos 2061
1 20527U 90 99.94546430 0.00000132 13565-3 0 166
2 20527 82.9400 196.2923 0030061 214.2625 145.6587 13.71242583 2874
1990 023B
1 20528U 90 99.77814692 0.00000601 64237-3 0 316
2 20528 82.9442 196.3942 0024394 203.1142 156.8904 13.72637463 2846
GPS BII-07
1 20533U 90100.10966631 -.00000032 0 147
2 20533 55.0255 18.6840 0033549 99.0456 261.3412 2.00592366 238
1990 025C
1 20535U 90100.07785315 0.00203000 16933-4 24817-2 0 267
2 20535 37.5888 4.6427 6010911 213.6248 87.1530 4.12767559 632
1990 026A
1 20536U 90100.67029856 -.00000999 28262-2 0 236
2 20536 62.8571 22.7209 7366685 318.2869 4.7570 2.00642076 298
1990 026B
1 20537U 90100.83262635 0.01323241 12192-4 17767-2 0 279
2 20537 62.7576 331.9552 0186041 120.5532 241.4402 15.80879498 2220
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1990 026C
1 20538U 90100.68530820 0.47393758 43559-4 36126-3 0 505
2 20538 62.7866 331.1544 0026737 120.1400 240.4755 16.50512695 2222
1990 026D
1 20539U 90 99.06138484 0.00001284 99954-2 0 72
2 20539 63.0309 22.6946 7343501 318.5213 4.7233 2.02986616 286
Offeq 2
1 20540U 90101.11071547 0.00574246 -10530-4 20537-2 0 192
2 20540 143.2265 141.6288 0916981 121.2674 248.0382 14.06216133 1075
1990 027B
1 20541U 90101.09628460 0.00968086 -11282-4 32128-2 0 162
2 20541 143.2240 141.7283 0896704 121.7538 247.7651 14.11661232 1074
1990 028A
1 20546U 90100.59929431 0.00010573 84763-3 0 132
2 20546 94.1492 179.2810 0133172 207.1945 152.2398 14.93359077 717
1990 028B
1 20547U 90 99.92407027 0.00002163 16827-3 0 108
2 20547 94.1477 178.9286 0128303 212.5970 146.7242 14.95193136 611
1990 029A
1 20549U 90 97.07860095 -.00000006 0 64
2 20549 73.9797 249.2392 0017441 270.4692 88.4247 12.47013557 123
1990 029B
1 20550U 90100.04077674 -.00000006 0 94
2 20550 73.9802 245.3258 0009036 303.5239 56.4962 12.48995555 493
1990 029C
1 20551U 90100.00877147 -.00000007 0 84
2 20551 73.9803 245.2489 0049153 79.7320 280.9272 12.59478307 498
1990 029D
1 20552U 90100.01415842 -.00000007 0 53
2 20552 73.9800 245.2599 0039657 88.1151 272.4444 12.57707560 493
1990 029E
1 20553U 90 99.93956716 -.00000006 0 62
2 20553 73.9802 245.3572 0030759 82.5172 277.9375 12.56042683 482
1990 029F
1 20554U 90 99.70547261 -.00000006 0 69
2 20554 73.9795 245.7278 0021662 80.1735 280.1765 12.54314661 455
1990 029G
1 20555U 90 96.67559983 -.00000007 0 35
2 20555 73.9838 249.7718 0012245 67.5011 292.8498 12.52591944 70
1990 029H
1 20556U 90100.03546736 -.00000007 0 67
2 20556 73.9809 245.3163 0002445 92.6218 267.5116 12.50727201 491
1990 029J
1 20557U 90100.94141506 0.00001049 95280-2 0 89
2 20557 73.9833 244.4160 0147839 266.8358 91.5752 12.22740936 594
1990 030A
1 20558U 90101.10098148 -.00000192 10000-3 0 78
2 20558 0.2617 6.7782 0122391 217.7771 134.4341 0.99373696 66
1990 030B
1 20559U 90 99.60516748 0.00026683 80558-2 0 55
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2 20559 31.2305 22.9242 7330446 180.2061 179.3345 2.21865383 58
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2284. * SpaceNews 16Apr90 *

Newsgroup: rec.ham-radio
Date: 1990-04-15 02:02:12 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <269@ka2qhd.UUCP>
Source record: 12189
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0416

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SpaceNews
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MONDAY APRIL 16, 1990

SpaceNews is published and distributed weekly around the world on USENET
and Amateur Packet Radio. It is available for unlimited distribution.

* RUDAK-2 *
===========
RUDAK-2 has now been integrated into a Soviet Geological research satellite,
GEOS, scheduled to fly in July. RUDAK-2 will not only carry a Mode B linear
transponder but also a variety of packet radio experiments with data rates
from 400-9600 bps using various modulation schemes. It will be compatible
with AX.25 protocols and those amateurs equipped for FO-20, PACSAT, LUSAT,
AO-13 PSK telemetry, and UO-14.

Linear Transponder Uplink: 435.030 - 435.120 MHz (90 KHz)
Linear Transponder Downlink: 145.880 - 145.970 MHz (inverted)
O/P Power: 12 watts max.
Beacon : 145.880 MHz, CW telemetry.

Gain of satellite RX/TX antennas: 2.3 dBi each (dipoles)
Input sensitivity: -125 dBm (435 MHz) for a C/No of 45 dB/Hz

SAT-RX-1: 435.016 MHz +-10 KHz 1200 bps, FSK, NRZIC/Biphase-M (JAS, PACSAT)
SAT-RX-2: 435.155 MHz +-10 KHz (AFC) 2400 bps, BPSK, Biphase-S
SAT-RX-3a: 435.193 MHz +-10 KHz (AFC) 4800 bps, RSM, NRZIC/Biphase-M
SAT-RX-3b: 435.193 MHz +-10 KHz (AFC) 9600 bps, RSM, NRZI (NRZ-S) +Scrambler
SAT-RX-4: 435.041 MHz +-10 KHz (digital AFC) RX for RTX-DSP experiments

The downlink can be switched to the following operating modes:
Transmit frequency: 145.983 MHz

Mode 1: 1200 bps, BPSK, NRZI (NRZ-S) (like FO-20)
Mode 2: 400 bps, BPSK, Biphase-S (AMSAT mode for OSCAR-13 beacon)
Mode 3: 2400 bps, BPSK, Biphase-S (planned for OSCAR-13)
Mode 4: 4800 bps, RSM, NRZIC (Biphase-M) (like 4800 bps uplink)
Mode 5: 9600 bps, RSM, NRZI (NRZ-S) + Scrambler (like 9600 bps uplink)
Mode 6: CW keying (only for special events)
Mode 7: FSK (F1 or F2B), e.g. RTTY, SSTV, FAX, etc. (only for special events)
Mode 8: FM modulated by D/A signals from DSP-RISC processor (e.g. speech)

RUDAK-2 is a joint project of AMSAT-U-ORBITA, the Adventure Clubs in Moscow and the AMSAT-DL/RUDAK Group in Marburg, Munich and Hannover.

[From DB2OS and DJ0HC/KE6MN via OSCAR-11]

* STS-31 NEWS *
==========
NASA managers set April 25 as the new target launch date for STS-31. This date is based on the decision to remove and replace Auxiliary Power Unit (APU) No. 1 on Space Shuttle Discovery and to allow time for recharging the Hubble Space Telescope (HST) batteries. The decision to replace APU #1 comes after examination of the APU controller by the manufacturer, which verified that no problems existed within the controller.

A new APU will serve as the replacement APU on Discovery. The recharging of the HST batteries will be accomplished by removing the batteries from the telescope and charging them in a laboratory. This allows the batteries to be serviced under the most favorable conditions while HST remains in the clean environment of the shuttle's cargo bay.

[From: Ron Baalke @ The Jet Propulsion Lab]

* WELCOME ABOARD! *
==========
Interested in learning more about the Amateur Radio Service? For information on licensing requirements and operating privileges, write:

The American Radio Relay League
225 Main Street
Newington, Connecticut 06111
U.S.A.

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ...uunet!masscomp!ocpt!tsdiag!ka2qhd!kd2bd
AX.25 : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple, neat and wrong." -- H.L. Mencken

2285. DAYTON!

Newsgroup: rec.ham-radio
Date: 1990-04-15 09:38:58 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500500@ux1.cso.uiuc.edu>
Source record: 12190

Dayton is getting closer. Here are the suggested frequencies whereby rec.ham-radio and info-hams people can communicate. Of course there will be lots of QRM especially at the Hara Arena on 2 meters. Three frequencies are suggested just in case someone is stuck on one band.

223.600
445.600
145.600

If you can get on 223.600, that should be the first place to try. Second will be 445.600, and finally if you must and can get through, go for 145.600. The first of these frequencies was suggested a while back and I added the UHF suggestion then. With this posting I am adding the 2 meter suggestion for those stuck on that band.

PL 118.8 (2B)

If you can transmit a PL/CTCSS tone, I suggest everyone use 118.8 hz (2B). That way those of us who can do tone squelching can cut out some of the QRM. This will be especially useful for those who are stuck on 2 meters.

Outside of the Hara Arena, simplex might not hit everybody. Perhaps you can try all three bands depending on your capabilities. The fallback is to call on repeaters. I suggest the primary keyword to say and to listen for be "usenet". Others such as "rec ham radio", "fidonet", and "info hams" might work, but might also be a bit more misleading to others. Due to the low number of repeaters for the significan ham crowd in Dayton, suggesting a particular one would probably be futile.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2286. 2-meter Au Beacon

Newsgroup: rec.ham-radio
Date: 1990-04-15 14:24:06 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9004170705.AA25939@ucbvax.Berkeley.EDU>
Source record: 12191

VHFers:

The W9IP/BCN Aurora beacon has changed frequency. It is now
transmitting in the new 2-meter beacon band, at 144.294. Please
pass the word to other VHFers who might use the beacon for Aurora
propagation monitoring.

The beacon runs about 40 watts output, CW,
to a 5-element beam which is pointed north. The site is on a fine
hilltop about 10km from my QTH in Canton, NY (grid FN24). Transmission
is unattended, signing "de W9IP/BCN FN24" followed by about 5 seconds of
tone. The signal has a slight chirp. Reception reports are welcome.

2287. Re: Repeater on Space Station Freedom

Newsgroup: rec.ham-radio
Date: 1990-04-15 16:07:41 UTC
From: rfc@briar.philips.com
Message-ID: <91844@philabs.Philips.Com>
Source record: 12192

In article <636@enprt.Wichita.NCR.COM> hburford@enprt.Wichita.NCR.COM (Harry Burford) writes:
>davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>
>>Has anyone petitioned NASA to have the first Amateur repeater on Space
>>Station Freedom? I'd love to have my call broadcast for all those
>>David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
>
>I like the idea! I would be in support of such a project. There

If one of the astronauts is a ham, maybe he might have the repeater pair put into his spacesuit radio, for occasional ragchews? Of course, he can't spend much time talking, he has his work to do.
73s

2288. RFI to Entertainment Devices

Newsgroup: rec.ham-radio
Date: 1990-04-15 19:00:44 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <XZNoH1w161w@w8grt.fidonet.org>
Source record: 12193

By: Thomas Nofsinger
To: REC.HAM-RADIO
Re: RFI to Home Entertainment Apparatus

If the guy is using coax to go to his speakers, run the coax through a paper towel tube (core), placed as close to the speaker as possible. Cap one end of the tube and then fill the tube with metal filings &/or steel wool. Then cap the other end. This should make a fair RF choke (see page 40-6 in the 1990 ARRL Fanbook, Fig. 6 for an idea of how this may look. Chapter 40 is the Interference section.) I have done this, and the more metal you can pack in around the coax the better. Also, line the inside of the speaker with metal sheilding of some kind. Tom Nofsinger, N5FHZ.
--- RemoteAccess 0.02
* Origin: Master Control - multi-line * Dallas * (214)238-1805 (1:124/5107)

2289. Re: Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-15 19:39:44 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <XsPoH1w161w@w8grt.fidonet.org>
Source record: 12194

hoenig@osage.csc.ti.com (Mike Hoenig) writes:

> In article <RsHBH1w161w@w8grt.fidonet.org> jim.grubs@w8grt.fidonet.org (Jim G
> >neal@lynx.uucp (Neal Woodall) writes:
> >
> >> MCL9337@TAMVENUS.BITNET writes:
> >>
> >> >One day last year "me 'n' the boys" (the other guys in the Texas A&M...
> >>
> >> Now you begin to understand how gun owners and other gun-knowledgeable...
> >>
> (Lots deleted to conserver space...)
> >
> >What blithering lunacy!!
> ^^^^^^^^^^^^^^^^^^^^^^^^
> ...And I quote you directly.
>
> >Ham radios don't kill children playing in their schoolyard!!!
>
> GUNS DO NOT KILL PEOOPLE! *PEOPLE* KILL PEOPLE!

With guns, most commonly....

> >If you don't see any difference between guns that kill and
> >radios that don't, then you yourself are part of the proof that guns MUST
> >be banned as soon as possible.
>
> "You can take my gun from me when you pry it from my cold, dead
> fingers!"

I rest my case....

2290. Re: CAP frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-15 19:47:30 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <V6PoH2w161w@w8grt.fidonet.org>
Source record: 12195
Cross-posted to: rec.ham-radio,rec.radio.shortwave

HAVANAMOON@cup.portal.com (Havana - Moon) writes:

> In response to a recent request for CAP frequencies, I am posting the
> following listing:
> --
>
> CAP FREQUENCIES
>
> 2371 kHz
> 2374
> 4464.5
> 4467.5
> 4504.5
> 4507.5
>
> 4582 (Emergency Calling Frequency)
>
> 4585
> 4599.5
> 4602.5
> 4627
> 4630
> 7635
> 7918.5
> 14905
> 20873
> 26620
>
> 7635 |
> 7918.5 | These frequencies are shared with the USAF in some regions
> 14905 |

Most USAF MARS and CAP HF assignments are shared with and secondary to the
USAF Air Training Command.

2291. Help: Looking for ON7LG

Newsgroup: rec.ham-radio
Date: 1990-04-15 21:54:55 UTC
From: junglee@thoth.Princeton.EDU
Message-ID: <15372@phoenix.Princeton.EDU>
Source record: 12196

I am looking for an old friend of mine whom I lost
contact with 8 years ago while I was living in Korea.
His name is Geert and his Belgian call-sign was ON7LG.
He was working with ITT as an system engineer in Korea.

Could anyone who knows him help me to meet him again?
Please e-mail me if you could help me.
Thanks. 77&88.

Jung Lee (HL1SD)

mail: Electrical engr.
Princeton University
Princeton,NJ 08544
USA

2292. Packet Activity in Minnesota

Newsgroup: rec.ham-radio
Date: 1990-04-15 23:01:50 UTC
From: rkaplan@csb1.nlm.nih.gov
Message-ID: <11989@nlm-mcs.arpa>
Source record: 12197

I will shortly be moving to Rochester, Minnesota (about 80
miles south of Minneapolis/St. Paul, and I was wondering
how active the local packet community there is. If
anyone out there is from around that region, please
e-mail me with some info. Thanks.

Richard N4VRB

2293. TM-701A mods

Newsgroup: rec.ham-radio
Date: 1990-04-15 23:11:14 UTC
From: pascoe%edcd.dnet@GTE.COM
Message-ID: <9004152311.AA01164@bunny.gte.com>
Source record: 12198

I would like to get in touch with any hams who have experience with mods on the Kenwood TM-701A dual-band mobile radio. Please e-mail.

Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com
| km3t%jjmhome@m2c.m2c.org
| UUCP: {harvard}!bunny!edcd.gte.com!pascoe
| {harvard}!m2c!jjmhome!km3t
| Packet Radio: km3t @ k1ugm.ma.usa.na

2294. International Fame

Newsgroup: rec.ham-radio
Date: 1990-04-15 23:19:20 UTC
From: julian@bongo.UUCP
Message-ID: <126@bongo.UUCP>
Source record: 12199

Someone in Japan sent me the April Issue of CQ Ham Radio. It came with
a small booklet Called "HAM Packet Radio News". In page 8 of this
booklet there is an English headline thats says:

Packet Radio in JA N3EUA Bdale Garbee

The rest of the page is in Japanese hieroglyphics. Is this the same
Bdale as posts to this news group? Does he write in Japanese?

I think we should be told.

Yours
--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

2295. Weather Satellite Frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-15 23:23:53 UTC
From: crisp@mips.COM
Message-ID: <37920@mips.mips.COM>
Source record: 12200

Can someone please post a listing of the frequencies of the polar orbiting weather satellites? Ones of interest include the NOAA series and the METEOR series as well as others in the 137mhz band.
Thanks

--
Making the world safe for technocracy.

2296. Earcom (Lear Siegler)

Newsgroup: rec.ham-radio
Date: 1990-04-15 23:38:51 UTC
From: julian@bongo.UUCP
Message-ID: <127@bongo.UUCP>
Source record: 12201

A couple of years ago I paid $2.00 for a brand new Lear Siegler "Earcom" control box. It was such a deal, I couldn't pass it up, even if I didn't have a radio to use it with. It came in a Poly bag, but had no documentation or wires.

An Earcom is a device much beloved of SWAT teams and the Secret Service. It uses an earpiece of the "Shove it in yer ear" type that was the standard when hearing aids had tubes. The earpiece is connected to a belt mounted box (The Earcom unit). The Unit is then plugged into a walkie-talkie. Now you can hear in the earpiece, and when you want to talk, you push a momentary toggle switch which keys the radio and allows the earpiece to be used as a mike. I don't know how bad these things sound. I am pretty sure that they would be amusing in VOX mode cos burps, swallows etc should key the mike.

Anyhow, I do not have the earpiece, I need specs or a source. I would also like the pinout for the 4 pin Amphenol connector that seems to go to the radio. The earpiece would plug into an RCA audio jack. The thing seems to be powered by a standard 9V battery (PP9).

So if you have info, phone numbers, sources etc I would be delighted. The Numbers on the Unit are: Model 1105 Serial 4981HW Logo is LSI. Box is blue anodized aluminium.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

2297. QEX April 90

Newsgroup: rec.ham-radio
Date: 1990-04-16 01:23:41 UTC
From: gws@n8emr.UUCP
Message-ID: <1491@n8emr.UUCP>
Source record: 12202

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
```

QEX - The ARRL Amateur Radio Experimenter's Exchange
Gateway Column, Edited By Stan Horzepa, WA1LOU, April, 1990 - P 1 of 5

NEW TNC 2 FIRMWARE AVAILABLE

Tucson Amateur Packet Radio (TAPR) released TNC 2 firmware version 1.1.7. This new firmware release offers significant changes and enhancements including:

o Prioritized acknowledgment (PriACK) protocol

o Improved channel access methods (similar to "persistence")

o Improved compatibility when running AX.25 V1 (T3 may be disabled)

o Filtering to inhibit monitoring of NET/ROM, ROSE, TCP/IP and other networking packets

o Improved transmit timers (time- and/or character-based) and quick-release of PTT at the end of a frame

o Pre-frame synchronization of zeroes instead of flags for reduced TXDELAY (to permit other stations to lock onto your transmissions faster)

o No dead-time between frames during multi-frame transmissions

o Improved KISS operation in the full-duplex mode (for Microsat and other applications)

o Improved RR/RNR buffer to provide "full-handling" for less channel congestion

o Improved modem demodulator calibration facilities

o Additional error (Health) counters

o Documentation of the format and location of the default parameters in EPROM for those who prefer a custom EPROM instead of trusting battery-backed RAM for remote site locations

Details of this new release of firmware is available from TAPR at PO Box 12925, Tucson, AZ 85732, telephone 602-749-9479. The firmware is also available as a binary file that may be downloaded from CompuServe's HamNet.

from Lyle Johnson, WA7GXD via CompuServe's HamNet

PACKET-RADIO SATELLITES STATUS REPORT

DO-17 Popular On 2-Meters;
AO-16 and LO-19 Cross-Band Digipeating

Week seven at the AMSAT satellite factory finds each satellite closer to full commission for general use. DO-17 continues to excite newcomers to the world of amateur satellites with its ease of telemetry reception. Anyone with a 2-meter FM receiver tuned to 146.825 MHz, a 1/4-wave ground-plane antenna, and a standard TNC can receive telemetry packets from DO-17. By listening from 0800 through 1300 and 1900 through 2400 local time, several DO-17 passes may be monitored.

DO-17 transmits packets for approximately 2.5 minutes followed by an "off period" of approximately 30 seconds. As is true with each of the Microsats, the telemetry offers 59 telemetry points and the AMSAT Software Exchange has programs available that translate the data points into more easily recognizable information, ie, battery voltage, solar cell current, etc.

AO-16 and LO-19 have been available for digipeating packets. Numerous stations have successfully connected to "DX," as far as VHF-packet-radio operations are concerned, via these two birds. The store-and-forward capabilities of AO-16 and LO-19 have yet to be enabled, pending further testing.

The modulation protocol on these two birds requires using an external 1200-baud PSK modem instead of the FSK modem that is standard in commercial TNCs. To access AO-16 or LO-19 requires approximately 100-watts EIRP FM. Your downlink receiver must be set to USB or LSB. To digipeat through AO-16, you must use the address "PACSAT-1"; to digipeat through LO-19, use the address "LUSAT-1." The downlink and uplink frequencies of AO-16 and LO-19 are as follows:

AO-16:
downlink 437.025, 437.050 MHz
uplink 145.900, 145.920, 145.940,145.960 MHz

LO-19:
downlink 437.150, 437.125 MHz
uplink 145.840, 145.860, 145.880, 145.900 MHz

First TCP/IP Microsat QSO?

Bob McGwier, N4HY, and Jon Pearce, WB2MNF, lay tentative claim to the first Microsat TCP/IP QSO. They were on the 0307 pass of LUSAT on March 3. Since they were both calling each other, they had two Telnet and one FTP sessions. To use the satellite as a digipeater, the NET ARP entry is ARP ADD (your call sign) AX25 (your call sign) LUSAT-1 (for LUSAT, of course). You also need a ROUTE for (your call sign) to your KISS port.
(Continued Next Message)

PACKET-RADIO SATELLITES STATUS REPORT (Continued)

WO-18 Shoots The World

Chris Williams, WA3PSD, reports that the Ground Command Station at Weber State University (WSU) is receiving pictures from space daily. This past week, the best picture taken was of the coastline of British Columbia near Vancouver Island. Since Weberware 1.0 can recover the color in pictures from the imaging data stored in memory, the oceans show up with the proper hues as seen by the camera. Initially, it was difficult for the WSU students to pinpoint the area snapped by the camera, but checking the satellite tracking software and the time the lens shutter was opened, they figured out that it was the BC coastline. The camera on WO-18 can only take a 170-square mile picture when looking straight down, so, at times, one has to be very good at geography to figure out what the pictures represent.

The integration of horizon sensor readings into the picture taking software on-board WO-18 will indicate when the satellite is pointing at the earth. The software is being changed so that pictures will only be taken at those times. This will mean an end to pictures of deep space or the sun.

WO-18 may be heard on 437.100 MHz (+/- 10 kHz for Doppler shift). The alternate frequency is 437.075 MHz.

WA3PSD also announced that the beta test version of the picture processing software, Weberware 1.0, will be sent to a group of carefully chosen software testers, who will perform intensive checks of the software. If no major bugs are discovered, radio amateurs can expect Weberware 1.0 to be available from the AMSAT Software Exchange approximately the first week of April. WA3PSD wants to emphasis that the priority at WSU is taking care of WO- 18. Second priority is getting the image processing software finished. The students at WSU are working as quickly as possible to get this very complicated program into a user friendly state. Weberware 1.0 will run on IBM\R AT clones equipped with EGA or VGA monitors.

Because of the instant popularity of WSU's efforts in building the Webersat, many grade school and high school students from the greater Ogden and Salt Lake City areas are showing up at the Ground Command Station to experience the care and feeding of an OSCAR satellite. The WSU students have enthusiastically embraced the job of explaining to all the finer details of WO-18 and its many on-board scientific experiments. Hopefully, many of these young people will not only become interested in Amateur Radio, but also start thinking about space.

The Webersat team encourages all radio amateurs to continue to save picture data and telemetry from WO-18. To receive a beautiful QSL card from WSU, send your QSL card, a copy of WO-18 telemetry and an SASE to Chris Williams, WA3PSD, Eng Tech Bldg, #236, Weber State University, Ogden, UT 84408-1805.

FO-20 In Full Mode

FO-20 is now operating in "full mode," ie, both transponders (JA and JD) are functioning. If necessary, the transponders will be shut down on Wednesdays. If the JD transponder are shut down, all posted messages will be discarded

without warning.

UO-15 Problem Undergoing Diagnosis

Volunteers at the Stanford Research Institute (SRI) have been working with the University of Surrey (UoS) to find what is preventing UO-15 from downlinking telemetry. Martin Sweeting of the UoS reported that SRI is making a 150-foot dish antenna and its sophisticated signal processing equipment available to figure out if any of the sub-systems on UO-15 are still operational. SRI has aided UoS in the past by using the same dish to uplink a signal of "sufficient strength" to overcome the desensing of UO-9's command receiver by its 2-meter transmitter.

SRI is trying to receive the local oscillators' signals on board UO-15. The calculated received signal strength of UO-15's LOs is approximately -160 dBm. A trial run receiving LO signals from the healthy UO-14 was successful, although it required signal analyzers using FFT techniques to provide a 1-Hz resolution bandwidth over a 5-kHz bandwidth to discern the signals. SRI now will try to locate UO-15's LO signals and, from the results of those efforts, the UoS's engineering team will determine if it is possible to "pull the cork" on UO-15's transmitter.

from AMSAT News Service, CompuServe's HamNet, and Jon Pearce, WB2MNF

QEX - The ARRL Amateur Radio Experimenter's Exchange
Gateway Column, Edited By Stan Horzepa, WA1LOU, April, 1990 - P 3 of 5

TAPR ANNUAL MEETING REPORT

The annual meeting of Tucson Amateur Packet Radio (TAPR) occurred on February 24-25 in Tucson. The board of directors met on February 23 and announced the results of the election for the board with the following members being elected to three-year terms: Tom Clark, W3IWI; Pete Eaton, WB9FLW; Don Lemley, N4PCR; Harold Price, NK6K; and Dave Toth, VE3GYQ. The board also selected the following as TAPR's officers for one year terms: Lyle Johnson, WA7GXD, president; Harold Price, NK6K, executive vice president; Bob Nielsen, W6SWE, vice president/member services; and Greg Jones, WD5IVD, secretary/treasurer.

Saturday morning, there were talks on Microsat by Doug Loughmiller, KO5I; TAPR version 1.1.7 TNC 2 software by Lyle Johnson, WA7GXD; TCP/IP by Phil Karn, KA9Q; HF packet-radio diversity by Steve Hall, WM6P; high-speed networking by Bdale Garbee, N3EUA; and the OMNITRACS communications vehicle by Franklin Antonio, N6NKF. The afternoon session had talks on TexNet by Harry Ridenour, N0CCW, who mentioned that TexNet is now available as firmware for the TNC 2. Other topics included Great Lakes (GL) Net by Jay Nugent, WB8TKL; a 56k-bit/s repeater by Doug Yuill, VE3OCU; ARRL happenings by ARRL Southwest Division Director Fried Heyn, WA6WZO, and ARRL headquarters' Jon Bloom, KE3Z.

Amateur Radio manufacturers in attendance also made presentations. DRSI presented their K3MC "Awesome I/O Card," a 56001-based DSP PC packet-radio card, which will operate at 24 MHz. It includes a 16-bit A/D converter

on-board and will cost approximately $400. PacComm talked about their PSK-1 modem, which is a fully-assembled modem for satellite work, and the G3RUH modem. Kantronics presented their Data Engine (DE), the DVR 2-2 VHF transceiver, and the 2/70 power amplifier for the DVR 2-2. WA7GXD reported on the progress of the TAPR packetRADIO.

Outgoing TAPR president Andy Freeborn, N0CCZ, closed the meeting with the financial report for 1989. Afterward, Pete Eaton, WB9FLW, presented Andy with a plaque from TAPR expressing the organization's appreciation for all Andy's work over the years and especially for his service as president.

from Andy Freeborn, N0CCZ, via CompuServe's HamNet,
and Steve Goode, K9NG, via The CAPRA Beacon

SAREX-2 TESTED

In late February, the Shuttle Amateur Radio Experiment #2 (SAREX-2) packet-radio station underwent extensive testing at the Marshall Space Flight Center in Huntsville, Alabama, according to AMSAT Area Coordinator Ed Stluka, W4QAU. This testing was in conjunction with the training of STS-35 Payload Specialist Ron Parise, WA4SIR, in the use of the ASTRO-1 experiment, which will be primary payload on that shuttle mission. The primary payload, ASTRO-1, will be used to conduct astronomical experiments. During several days of testing, radio amateurs in the Huntsville area were able to connect to WA4SIR and to receive a QSO number.

This special packet-radio station will fly on STS-35 on May 9, 1990, and will give each radio amateur who connects to WA4SIR a QSO number confirming the contact. When the connecting station sends in a QSL card and the contact number, the station will receive a beautiful QSL card commemorating this "Ham In Space" shuttle flight.

The SAREX-2 packet-radio station has a Motorola 2-meter FM handheld transceiver with 5 watts output, a Heathkit HK-21 TNC 2, and a Grid laptop computer with a 40-Mbyte hard disk drive to store the calls of the stations connecting to WA4SIR during the nine-day mission. The specially written software, which will be running the SAREX-2 packet-radio station, allows completely unattended operation and logging of the calls of the connecting stations. It will also prevent duplicate QSO numbers from being sent.

Although no digipeating will be allowed through SAREX-2, connecting to this packet-radio station will be like any terrestrial packet-radio contact. Just use your TNC with your 2-meter transceiver, and everything else is the same. After you have connected and received your QSO number from WA4SIR, on subsequent orbits you can monitor the SAREX-2 message beacons that will be sent periodically. The message beacons will contain information about the flight of STS-35 and other interesting items.

from AMSAT News Service

PACKET-RADIO DISTRIBUTED BBS OPERATIONAL

The February issue of the Association of Computing Machinery's Communications features a long article from a group at MIT who have implemented a "distributed" BBS as a "Community Information System" (the Boston Community Information System or BCIS) using packet radio and personal computers.

The way the system works is simple. Data from The Associated Press, the New York Times and even feeds from USENET are "broadcast" via an SCA subchannel on a local FM broadcast station at 4800 bauds using FSK. Local packet-radio adapters (TNCs) receive the data using a protocol that is much simpler than AX.25 or TCP/IP. They pass the data on to the user's personal computer, which sees if it is of interest to the user by checking it against a "filter" list generated by the user. If it qualifies, it stores the data on the personal computer's disk and the user can retrieve it using database-style query techniques. This process is called the "simplex" portion of the system, which overall is called a "polychannel" system.

Should a user query for something not in the local disk database, an autodial modem accesses a "local" database server to ask for the requested information (this is the "duplex" portion). Because the local users have no authorization to initiate transmissions on a commercial broadcast channel, dial-up modems are used.

The idea sounds a lot like the distributed ham PBBS in use in Japan. Which leads us to the $64 question: why can't our local ham PBBSs work in a similar fashion with our current PBBSs becoming "servers" (and even gateways to USENET or the Internet)? These would be accessible directly by packet radio instead of dial-up modems and our local TNC/computer combinations would become the recipients of data of interest to us.

from Bill Meahan, WA8TZG

AMIGA, ATARI AND UNIX VERSIONS OF KA9Q'S TCP/IP SOFTWARE AVAILABLE

Version 900214 of the KA9Q TCP/IP software package for the Commodore Amiga computer may be obtained by downloading it from Data Library 9 (DL9) of CompuServe's HamNet. Its file name is AMIGAN.ZOO.

The latest PE1CHL release of the KA9Q TCP/IP software package for the Atari ST computer may be obtained from Mike Curtis, WD6EHR, 7921 Wilkinson Ave, North Hollywood, CA 91605-2210 by sending two blank double-sided or three blank single-sided disks, a postage- paid, self-addressed disk mailer and a note stating your needs.

The UNIX version of the KA9Q TCP/IP software package is available via anonymous FTP from host vax.cs.pitt.edu in the file pub/ka9q/net-unix.cpio.Z.

from Julian Macassey, N6ARE, and Bob Hoffman, N3CVL

W1HUE AND POLI CHANGE ADDRESSES

Larry East, W1HUE, the US distributor of "APR," the public domain packet-radio terminal program for the Apple\R II family of computers, has the following new address: PO Box 51445, Idaho Falls, ID 83405-1445. (APR may be obtained by sending Larry a blank 5-1/4 or 3-1/2 inch disk and a postage-paid, self-addressed disk mailer.)

Packeteers Of Long Island (POLI) have the following new address: PO Box 11, Jericho, NY 11753.

from Larry East, W1HUE, and Alex Mendelsohn, AI2Q

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PBBS RESTRUCTURING

(The following is in response to Barry McLarnon's article entitled "Restructuring of the Packet Bulletin Board System Proposed" that appeared in the January 19 issue of Gateway.)

Barry McLarnon's article was right on the money. It points to something I have been after for several years, ie, adoption of the RFCQ822/1022/X.400 standard internal headers for packet-radio messages.

In the past, the From: and the PRMBS's reply To: fields have shown their usefulness. If we try to assemble our bulletin distribution system into a USENET-like system, we need to add the field Newsgroups: to the internal headers. Also, if we can add a Keywords: field, if desired. The point is that we will not need massive software recoding each time we want to add a feature. We only have to add a field.

The PRMBS code already has "mail" and "message sweeper" functions that performs some of the "readnews" function of USENET. I only have to add code to allow it to select and reject articles by newsgroups.

For now, I suggest that we extend the To field. We can put in an internal header with a well defined (20 or more bytes long) field name for the newsgroup, eg, "space.amsat.microsat" or "space.amsat.dove," and use the convention of a major group name with a maximum of six characters, eg, AMSAT. A message that is forwarded to a system as follows:

SB SPACE @ ALLUSA < N4HY $AMSQ700

would be rejected if a system does not want "SPACE" stuff (it would be nice to have the ability to reject subparts of that thread, but that cannot be done without the code getting cumbersome). The sending system does not have to know what newsgroups each system will accept or reject. Instead, the receiving SYSOP configures the system to accept/reject any group. It can be done better, but this is what is possible in the immediate future. (I could add and activate this feature into PRMBS in less than a week and it would have no impact on the network in terms of incompatibility.)

One problem is that in many areas there is insufficient decentralization and linear progressions for mail passing. If some SYSOPs decide not to accept a certain newsgroup, it would stop the distribution of the group. To avoid

this, I would add code to PRMBS to allow generation of the redistributed messages, but hide the original from view on the rejecting system until those messages were fully distributed.

This turns us to the problem of network topology. We have to do more "hubbing," ie, getting more, lower powered stations clustered around one or two more powerful stations that talk to similar stations and distribute the mail on backbone channels and onto secondary backbone channels to clusters, who allow users to log on via a third channel.

from Brian Riley, KA2BQE

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail or or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS or IP address 44.88.0.14.)

The deadline for each installment of Gateway is the tenth day of the month preceding the issue date of QEX.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

2298. 300 bps modem for HF use?

Newsgroup: rec.ham-radio
Date: 1990-04-16 01:57:36 UTC
From: dennis@gpu.utcs.utoronto.ca
Message-ID: <1990Apr16.015736.8983@gpu.utcs.utoronto.ca>
Source record: 12203

I have been endowed with a small amount of end-of-budget-year money and would like to use it to buy a modem to decode the FSK transmitted by CHU. CHU transmits this using the (telephone) standard 2225/2025 Hz frequency pair at 300 bps.

I have built several modems to do this in the past from standard 300 bps modem chipsets with good results, but would like to improve on this. Can anyone recommend a commercial 300 bps modem which is explicitly designed for high frequency radio use?

Note that other than effective filters and some control over the carrier detect delay, I'm really looking for something quite stupid. Things like multimode packet controllers and the like probably wouldn't be suitable since I need something which introduces predictable delays. Good quality analog parts followed by very little in the way of digital circuitry would make me very happy.

Thanks,

Dennis Ferguson
University of Toronto

2299. Re: CAP frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-16 03:15:04 UTC
From: tad@ssc.UUCP
Message-ID: <653@ssc.UUCP>
Source record: 12204

In article <9004112239.AA03082@ti.com>, dube@cpdvax.csc.ti.com (DUBE TODD) writes:
> Would someone post the frequencies used by the Civil Air Patrol?
>
> Thanks in advance,
> Dube Todd N5PD

Here is some CAP frequency info from the 88 Grove SW Directory. This is
abbreviated.

MHz regions/use

2.371 USA
2.374 USA
4.4645 1
4.4675 1,2,4
4.5045 8
4.5075 3,5
4.582 Emergency/Calling
4.585 2, Puerto Rico
4.5995 7
4.6025 3
4.627 6
4.63 6
7.635 1,3,4,5 and USAF
7.9185 1,2,3,5,6,7,8 and USAF
14.905 1,2,6,7,8 and USAF
20.873 4, Puerto Rico
26.62 USA

Regions:

1 Northeast
2 Middle East (actually Mid-Atlantic states)
3 Great Lakes
4 Southeast
5 North Central
6 Southwest
7 Rocky Mountain
8 Pacific

Net Control is KJ9885 (tac call HEADCAP) at Hamilton AFB, Alabama.

This is condensed. If you want callsigns and net schedules, buy
Grove's Shortwave Directory

Tad Cook
Seattle, WA

Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2300. Re: Lojack security

Newsgroup: rec.ham-radio
Date: 1990-04-16 03:21:23 UTC
From: tad@ssc.UUCP
Message-ID: <654@ssc.UUCP>
Source record: 12205

In article <1990Apr12.154101.19146@newcastle.ac.uk>, C.Dennison@newcastle.ac.uk (C. Dennison) writes:
> In article <4620@cpoint.UUCP> die@cpoint.UUCP (David I. Emery) writes:
> >
> >Lojack security, now the subject has been broached on rec.ham-radio.
> >(Lojack is a Boston based startup company btw).
> >
>
> What is a btw?
> + Computing Science Dept, University of Newcastle | All opinions expressed +

The abbreviation "btw" stands for BY THE WAY, an American colloquialism
and figure of speech. I think in "British" the expression is "By the by."
I have no idea if there is a different equivalent Aussie expression.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2301. Re: Repeater on Space Station Freedom

Newsgroup: rec.ham-radio
Date: 1990-04-16 06:22:50 UTC
From: karn@ka9q.bellcore.com
Message-ID: <22202@bellcore.bellcore.com>
Source record: 12206

>Has anyone petitioned NASA to have the first Amateur repeater on Space
>Station Freedom? I'd love to have my call broadcast for all those
>David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.

I know this is a sexy idea at first glance, but I'm afraid that if you looked at it more closely you'll find that it's not as nifty as you might think.

First of all, it is almost certain that the US space station will be launched into a low altitude 28.5 degree inclination orbit (that is, if it is ever launched at all.) This orbit (which is also used by the majority of shuttle flights) requires the minimum energy to reach from Cape Canaveral. Given the proposed mass of the station you can bet they'll pick the most economical orbit possible.

Unfortunately, this orbit has very poor coverage of the continental US. Only the southern part of the US will ever see it more than a few degrees above the horizon, and of course passes would be quite short.

There has been a proposal for amateur radio aboard the space station, but it would be for a Phase IV *user* station, not a repeater. In other words, amateur radio would have its own TDRS system. This would give nearly 50% coverage with just a single satellite.

If you want to talk through a repeater in space, there are already plenty up there to choose from, and they are in much better orbits than that proposed for the space station. Oscar 10, Oscar 13 and FO-20 have analog repeaters, and of course there are also the microsats for digital communications.

Phil

2302. Re: Litz wire again and how to solder it.

Newsgroup: rec.ham-radio
Date: 1990-04-16 07:28:17 UTC
From: ritchie@hpldola.HP.COM
Message-ID: <12120036@hpldola.HP.COM>
Source record: 12207

>
>For real, Litz (as in wire) is short for _Litzendraht_. I don't speak
>German or whatever language that is, so don't know if it's a proper
>name or has other meaning.
>
>Frank W9MKV reid@ucs.indiana.edu
>----------

According to my Castell's German Dictionary, Litzendraht is "stranded
wire, flex.". "Litze" means "braid,cord,lace,piping;strand (of wire)."

Dave N4DJS

I just *knew* this thing would come in handy again some day :-> .

2303. Multi-Mode TNCs

Newsgroup: rec.ham-radio
Date: 1990-04-16 11:17:00 UTC
From: hfair@PAXRV-NES.NAVY.MIL
Message-ID: <9004170702.AA25736@ucbvax.Berkeley.EDU>
Source record: 12208

Several have sent me messages on this subject. I have tried to respond directly but guess I cannot figure out my E-mail system. Here is what I was trying to send.

I am no expert on multi-mode tnc's, but I can relate what little I know. I have a PK-232 and use it on packet and RTTY. The PK-232 coupled with the Pakratt software is very easy to use on packet and works quite well. Some purists have found problems with the PK-232 on packet, but I have not experienced problems at my level of useage. The PK-232 and software also work well on RTTY (I include Baudot, ASCII, and AMTOR in this category) but actual performance is a bit of compromise. The PK-232 does not use the standard 2125/2295 tone set for 170 Hz shift. It uses instead 2110/2310 for 200 Hz shift. Purists argue that this compromise tone set hurts the PK-232 in weak signal detection, etc., but in most situations performance appears normal. I suspect that in a pile-up a good detector will pick out the true tone set easier that the 200 Hz tone set--meaning that the compromise occurs at both the receiving and transmitting ends. I have seen few cases where I think the PK-232 let me down. There are lots around, they are well-supported, and the software is very good.

The KAM, with which I have no direct experience, appears to be a very nice unit, and a very small unit. The tone sets are true and they look (on a scope) and sound great over the air. I have heard nice comments about the KAM. I have also heard that it takes a while to learn to use it and the related software, but that may have been an isolated opinion. If I were buying a multi-mode tnc today, I would seriously consider the KAM---but I would solicit first hand info from KAM users before going ahead. Seems there are AEA people and there are Kantronics people and they are heavily polarized. Word on the street is that Kantronics really knows their stuff, and they are very helpful if you have to call for assistance.

Hope this helped. 73, Steve , K4FJ.

2304. Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-04-16 14:23:37 UTC
From: tbabst@x102c.harris-atd.com
Message-ID: <3466@trantor.harris-atd.com>
Source record: 12209

I want to know if there are standards for the manual coding of Morse code.
In particular, what are the dot, dash, inter-character and inter-word
lengths.

Sorry if this is a well-known question -- I'm not a ham.
Please E-mail your replies, as this is probably not of general interest.
Thank you.

2305. Re: ARRL Insurance

Newsgroup: rec.ham-radio
Date: 1990-04-16 14:56:09 UTC
From: mikey@pnet01.cts.com
Message-ID: <2254@crash.cts.com>
Source record: 12210

I'm curious if anyone has tried to insure a repeater. I would have to pull a figure of $5,000.00 out of the hat. The dollars invested doessn't quit make the limit, but the hours, hours, hours are not reflected in bucks. If our box were to receive the wrath of the Gods, I would go simple simon with a rice-box repeater and an 850 controller. 5K would not go far.

****
Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com
PO Box 460, Lakeside, CA ARPA: crash!pnet01!mikey@nosc.mil
92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey
****

2306. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-16 15:19:39 UTC
From: bobc@hplsla.HP.COM
Message-ID: <5720064@hplsla.HP.COM>
Source record: 12211

>/ hplsla:rec.ham-radio / bobc@hplsla.HP.COM (Bob Cutler) / 10:24 am Apr 6, 1990 /
>I plan on taking the 20wmp test next week. For me, getting my speed up
^^^ wpm
>hasn't been too painful. (FLAME PROTECTION ON) I've learned to copy
>code using computer programs only. (FLAME PROTECTION OFF). I generally
>practice 30-45 minutes a night, and have been doing so for the last 2 weeks.
>

I passed! The biggest problem that I had with the test was that it didn't start out with the sending station sending 'CQ CQ CQ ...'. Instead, it started out with the recieving station responding to the CQ and giving his name. My computer program always started out with CQ. Even the Kenwood starts out with CQ! Well, by the time I figured out what was going on I had missed quite a bit. Fortunately they didn't ask for the call signs or I'd be taking the test again.
--

Bob Cutler
KE7ZJ/AE
Lake Stevens Instrument Division
Hewlett-Packard

2307. Re: ARF (oops I forgot)

Newsgroup: rec.ham-radio
Date: 1990-04-16 15:46:03 UTC
From: mac@idacrd.UUCP
Message-ID: <675@idacrd.UUCP>
Source record: 12212

From article <1270@lopez.UUCP>, by flash@lopez.UUCP (Gary Bourgois):
>
> Ham radio is a heck of a lot more than "Gud luck in the contest"...
>

Far be it from me to deny you your 1st amendment rights but IMHO it can't be a heck of a lot less than the drivel that ARF and its attendees espouse on that net. My boss was at my house and his son wishes to be an amateur. That anti-semitic drivel made an excellent introduction to amateur radio. I beat a hasty retreat to the OSCAR satellite, where I work three satellites in four different modes in 30 minutes. Thank god there is some intelligence in ham radio someplace.

The birds sold the kid in fifteen minutes. DAMN why can't people keep their stupid prejudices to themselves and off ham radio.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

2308. Tower Info Needed

Newsgroup: rec.ham-radio
Date: 1990-04-16 16:39:28 UTC
From: dvh@cci632.UUCP
Message-ID: <35996@cci632.UUCP>
Source record: 12213
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

I'm posting this for a friend with no net access.

WANTED

Engineering Drawings and Installation Instructions for an
E-Z Way Crank-Down/ Tilt-Over tower, Model RBS-50 (circa
1969).

E-Z Way Towers, Inc. of Tampa, Florida is no longer in business.

Drawings and instructions are needed for a height variance
and building permit in the village in which I reside, in
upstate New York.

Thanks in advance for any help from the net.

73, Doug McManus KB2IAY

Anyone with any of this information, PLEASE email me, or call me (collect
if you must) at (716) 272-1582 in the evening, or write me at:

2118 W. Jefferson Rd.
Pittsford, NY 14534

Doug (or I) will pay the necessary costs of reproduction of these
documents. Please help if you can.

Thanks, 73 Dave Hallidy KD5RO/2

2309. Maidenhead Grid on CMS/VM

Newsgroup: rec.ham-radio
Date: 1990-04-16 18:54:46 UTC
From: TCOMGRD1@OUACCVMB.BITNET
Message-ID: <9004170716.AA26631@ucbvax.Berkeley.EDU>
Source record: 12214

Date: 16 April 1990, 14:50:33 EDT
From: pete TCOMGRD1 at OUACCVMB
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL at MIL

I am posting this here because my mail keeps getting rejected by CORNELLC....

To: James Gentles (jdg@hpqtdla.hpsqf.hp.com)

I read your post to the info hams mailer and was hoping you have informati
on for a program to compute Maidenhead Grid Co-ordinates on a CMS/VM machine. I
f you know someone or have personally such a program, or ANY infomation, please
send it to me.
Thanks!
Pete Simpson
TCOMGRD1@OUACCVMB.BITNET
"No Job, No Food, No Disclaimer!"

Anyone who has information on this please reply!
Pete

2310. CALL FOR VOTES - rec.arts.tv.cable FAILS

Newsgroup: rec.ham-radio
Date: 1990-04-16 21:41:41 UTC
From: mrapple@quack.UUCP
Message-ID: <5282@quack.UUCP>
Source record: 12224
Cross-posted to: news.groups,rec.arts.tv,rec.ham-radio,rec.radio.shortwave,sci.electronics

[followups to news.groups. crossposted to s.e r.h-r for technical reasons,
r.r.s because of satellite discussions]

At the end of the scheduled vote period for rec.arts.tv.cable, it
appears the group has failed. 51 yes votes were received, 9 no votes.
Although this represents a 85%:15% ratio, the requisite 100 vote
differential was not achieved. Please check the vote list below.
If your vote is not present, please send mail to me personally
and I will correct the list. If there are significant differences
after 5 days, I will post a corrected list.

Thanks to those who voted. C'est la vie.

If your vote is not listed, please send mail to nsayer@uop.edu or
uop.edu!quack!mrapple. The vote daemon has been removed.

Vote list as of 4/17/90, 0000 UTC:

YES:

From: "Ofer Inbar" <uop!chaos.cs.brandeis.edu!cos>
From: "William K. McFadden" <uop!RELAY.CS.NET!bill%videovax.tv.tek.com>
From: "curtis, jeffrey a" <uop!rodan.acs.syr.edu!jacurtis>
From: <uop!ihlpm.att.com!meade>
From: <uop!pws.bull.com!eli>
From: Andy Malis <malis@BBN.COM>
From: BRUCE EDWARDS <csusac!ucdavis!locke.hs.washington.edu!BRUCE>
From: Chad Fogg <cfogg@milton.u.washington.edu>
From: Dave Ratcliffe <uop!uunet.UU.NET!compnect!dave>
From: Doug Blair <uop!obdient.chi.il.us!blair>
From: Floyd Miller <uop!PRC.Unisys.COM!starsend!floyd>
From: JENNIFER SANDERSON <pascal@nevada.edu>
From: Larry Setlow <uop!riacs!rutgers!cpac.washington.edu!pjt>
From: Mike Scanlon <uop!RELAY.CS.NET!scanlon%interlan.interlan.com>
From: Peter B. Hayward <uop!tank.uchicago.edu!pbhx>
From: Ronald van Loon <rloon@praxis.cs.ruu.nl>
From: Terry J. Wood <uop!unix.cis.pitt.edu!tjw>
From: Tom Flynn <uop!RELAY.CS.NET!tomf%tekigm2.men.tek.com>
From: Wes Morgan <uop!riacs!rutgers!ms.uky.edu!morgan>
From: breault@garnet.berkeley.edu (Kirk Breault)
From: csusac!ucbvax!cwjcc.INS.CWRU.Edu!gatech!harvard!anselm!ebertran (Erik Bertrand)
From: mrapple (Nick Sayer)
From: uop!EBay.Sun.COM!duane (Duane Day, Sun I.R. Applications Support)
From: uop!GARP.MIT.EDU!henry (Henry Mensch)
From: uop!bobm (Bob Marrow)

From: uop!cod.nosc.mil!scallon (Matthew C. Scallon)
From: uop!en.ecn.purdue.edu!stevew (Steven L Wootton)
From: uop!gatech.edu!dekalb!tas (N. Tasova)
From: uop!gvlv3.GVL.Unisys.COM!ean (Ed Naratil)
From: uop!mtqua.att.com!asd (Adam Denton)
From: uop!mtuxo.att.com!chris (Christopher R Riley)
From: uop!naucse.cse.nau.edu!rrw (Robert Wier)
From: uop!netcom!netnews (NetCom Usenet Admin)
From: uop!oswego.oswego.edu!vermilye (Jon R. Vermilye)
From: uop!pilchuck.Data-IO.COM!jewell (Cal Jewell)
From: uop!riacs!rutgers!cmcl2!dasys1!kenzo (Kenny Garson)
From: uop!sun!portal!cup.portal.com!Eric_Daniel_Schatz
From: uop!sun!portal!cup.portal.com!HAVANAMOON
From: uop!uunet!dooma.prl.philips.nl!shanks
From: uop!uunet!hsi.com!rao (Ananth Rao)
From: uop!uunet.UU.NET!capmkt!bandy (Guru Drew)
From: uop!uunet.uu.net!xanadu!STella
From: uop!world.std.com!eliz (Elizabeth Lear)
From: uop!x102a.ess.harris.com!dsampson (sampson david 58163)
From: csusac!ucbvax!whuts.att.com!jim
From: woody <uop!contact!djcl>
From: uop!uunet!lso.win.tue.nl!wsinrn (Rob J. Nauta)
From: Gary L Dare <gld@cunixd.cc.columbia.edu>
From: uop!Futures.COM!scott (Scott Boyd)
From: uop!uunet!infodn.rmi.de!hikaru (Walter Doerr)
From: Hal J. Miller <uop!PRC.Unisys.COM!cassini!hal>

NO:

From: "Steven V. Christensen" <uop!uceng.UC.EDU!schriste>
From: Dave Brennan <uop!DG-RTP.DG.COM!brennan>
From: Ian Harding <uop!uunet!ukc.ac.uk!ih>
From: uop!apldbio.com!jgro (Jeremy Grodberg)
From: uop!bongo!julian (Julian Macassey)
From: uop!decwrl!mdcbbs!dev3f.mdcbbs.com!sandy
From: uop!riacs!rutgers!tc.fluke.com!moriarty (Jeff Meyer)
From: uop!ucdavis.ucdavis.edu!csusac!sactoh0!mholtz (Mark A. Holtz)
From: uop!omni.com!bob (Bob Weissman)
--
Nick Sayer - The Duck Pond public unix - 209-952-5347 (Telebit)
---------------------------------+---------------------------------
quack!mrapple@uop.edu ! Disclaimer:
...pacbell!sactoh0!quack!mrapple ! "I ain't gonna touch it, but the
N6QQQ (145.75 - TCP/IP soon) ! title alone gets two snaps up."

2311. Re: DAYTON!

Newsgroup: rec.ham-radio
Date: 1990-04-16 21:59:56 UTC
From: rusty@cadnetix.COM
Message-ID: <12050@cadnetix.COM>
Source record: 12215

In article <30500500@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>Dayton is getting closer.

Anybody know when next year's dayton is? I've got to try to make it next year!
(I cannot do it this year, no planning --> no money --> no trip :-)
('-->' is 'implies')) ^^^^^
(no, I think I mean :-(

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

2312. Dirty, Noisy, Scratchy Pots

Newsgroup: rec.ham-radio
Date: 1990-04-16 22:10:15 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9004162217.AA12037@ti.com>
Source record: 12216

Brad Lupton's story about trying to fix a bad potentiometer is all too true; and I'm sure most of us have encountered this problem at least once.

The problem with today's stuff, and especially with the Asian products, is that the things are just simply cheap-cheap-cheap! Few pieces of equipment outside mil-spec stuff can afford the luxury of the old A-B pots that would work virtually forever. I have an expensive color TV from one of Japan's premier TV manufacturers, whose pots (every one!) have become noisy after a just a couple of years. AND SOME OF THEM SELDOM GET MOVED.

The noise and scratchiness is caused by the wearing-away of the carbon deposited on the pot itself. Continuous friction of the sliding contact on the carbon weait away. Cheap pots with thin coatings, poorly-deposited coatings, poorly-prepared coatings, or incorrect slider pressure and design give it up very quickly.

It is unfortunate, but the only remedy for the problem is just to replace the pot. Spraying them with tuner cleaners and solvents more often than not make the problem worse by causing the resistive material to further erode and melt away. Remember, these solvents are made to clean metallic contacts in switches and are pretty potent.

When your pots start giving you problems, they are worn out and need replacing. And be very careful what you spray into your expensive, quality pots.

73,
Dube Todd N5PDK

2313. StarTrek and Packet Radio

Newsgroup: rec.ham-radio
Date: 1990-04-16 22:20:02 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <4VRqH1w161w@w8grt.fidonet.org>
Source record: 12217

```
(318) Sat 14 Apr 90 5:00p
By: Jack Palladay
To: UseNet
Re: Re: Packet Seminar
St:
--------------------------------------------------------------------------------
@EID:7a8d 148e8800
In a message to All <04-12-90 19:38> Barry McLarnon DGBT/DIP wrote:

>From: barry@DGBT.CRC.DND.CA (Barry McLarnon DGBT/DIP)
>Newsgroups: rec.ham-radio.packet
>Subject: Re: Packet at Trenton???
>Message-ID: <9004111438.AA16595@dgbt.crc.dnd.ca>
>Date: 11 Apr 90 14:38:29 GMT
>Sender: daemon@ucbvax.BERKELEY.EDU
>Organization: The Internet

>mode. Hear N4HY tell
>how he used DSP and a Commodore 64 at work to decode the
>digital signals in
>"Star Trek IV" (I THINK it was a C64 - I remember that it
>started with a "C").

I had to smile when I read this. The computer used was a Cray which
compared to a C64 is like comparing roller skates to a Porsche 959 and
even that may be too narrow a comparison.

73 de Jack, N9ICE

--- QuickBBS 2.64 (Eval)
* Origin: KB9BVN...Home of Fidonet HAM/PACKET Digest (317)882-9330 (1:231/30)
@PATH: 231/30 160 157/200 234/100
```

2314. Re: Kenwood 721 Display Upgrade

Newsgroup: rec.ham-radio
Date: 1990-04-16 23:08:43 UTC
From: flloyd@L1-A.West.Sun.COM
Message-ID: <752@west.West.Sun.COM>
Source record: 12218

In article <1500@ks.UUCP> singer@ibmarc.uucp (David Singer) writes:
>I ordered two upgrades on April 2; they arrived on April 11th, UPS
>brown label. Read the instructions *carefully* -- they shipped a
>revised page two with mine.

Yeah, I got a revised page 2 as well. It seems that they found it necessary to tell the installer to be sure and remove the sticky protective shipping plastic from the front of the display. I suppose it would look awfully funny if you didn't. I wonder how many people forgot to :-).

The display kit is very nice, and pretty simple. The whole affair measures about 1.5" by 3" by half an inch thick. Only one flat ribbon cable to solder in place, and it has about 10 conductors on it. The tricky part is that they're about 2mm apart and must be float soldered onto the pads on the circuit board. Getting the old one off was no sweat (of course!). I'm pretty handy with a soldering iron and was able to do it using a 40-watter. A finer tip would'a been nice but a little patience was all it took. Total replacement time cover to cover was about 30 minutes.

The new display is completely readable in open sunlight, even when the operator is wearing sunglasses. There is still a small problem with glare from the shiny glass (plastic) window faceplate, but I'm sure that many rigs must have this problem too. At night, I find it almost too bright and am glad that the panel dim function is available.

I'm really pleased with Kenwood on this affair. They recognized their mistake and they are selling the fix for next to nothing. The replacement display contains the complete LCD panel with controller chips and driver circuitry. As an ordinary replacement part one could imagine that it would cost a lot more.

I've heard that HRO will send your rig off to Kenwood and let them do it all for $50! Given the cost of everything else these days, I consider it a bargain.

BTW, someone mentioned recently that their TS440 had a cheap screw-in SO-239 connector on the back that spun around and shorted out their rig. My brand-new TS-440 has the regular, old-style SO-239 with the square plate and 4 screw holes (only 2 screws in, however :-). I'll stand by Kenwood, since it's evident that they do listen to their customers and they do make reasonable attempts to correct their mistakes. Incidentally, I'm told that the TS-440 is now the best selling HF rig of all.

-fred

--
| Fred Lloyd AA7BQ flloyd@West.sun.com |
| Sun Microsystems, Inc. ...sun!flloyd |
| Phoenix, AZ |

2315. Pirates, Pirates, Everywhere!

Newsgroup: rec.ham-radio
Date: 1990-04-16 23:15:16 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29017@cup.portal.com>
Source record: 12223
Cross-posted to: rec.radio.shortwave,rec.ham-radio

An incredible weekend of Pirate activity was logged on Los Numeros beginning at 2345 UTC on 4/14 and extending through 0345 UTC on 4/16. Sixteen (!) different Free Air Broadcasters were logged with various snippets of programming, signal strength and antenna heading tests, and plain old ordinary kibbitzing on 7415 kHz.

Logged were the following stations:

WRFI (Radio Free Intelligence) East Coast Pirate Radio
WXZR Radio Gannymead (?)
The Revolutionary Voice of Plainville KBFA
Radio USA Samurai Radio
Voice of Monotony Voice of the Mountains
Rockabilly Radio Radio Outlaw
East Coast Beer Drinker Radio Free Papacia (?)
4th of July Radio WPRA

Programming was relayed across the country to others participating in the Teleconferencing who were unable to 'hear' in the classic sense. What an event!!

Havana Moon

*--

| Havana Moon's *LOS NUMEROS* * HAVANAMOON@cup.portal.com |
| PO Box 149 * sun!portal!cup.portal.com!HAVANAMOON |
| Briarcliff Manor, NY 10510 * 1:272/39 (FidoNet) |

2316. IC-3210A Mods

Newsgroup: rec.ham-radio
Date: 1990-04-16 23:16:40 UTC
From: skaggs@nsslsun.gcn.uoknor.edu
Message-ID: <1990Apr16.231640.12494@uokmax.uucp>
Source record: 12221

I'm looking for any mods that are available for the 3210A. Would like to
1) outband the transmitter
2) enable the cross band repeat function
3) expand receive as far as possible
4) whatever else is available!

Any help/guidance/direction appreciated. Can ftp if files already available elsewhere.

Prefer email to keep down bandwidth. 73 de Gary.

Gary Skaggs Internet: skaggs@nssl.gcn.uoknor.edu
National Severe Storms Laboratory (The Tornado People)
"The Government can speak for itself (usually), and NO, I don't want to be like Gary England (Amway(tm) salesman and alleged 'TV meteorologist') !"

2317. Re: DAYTON!

Newsgroup: rec.ham-radio
Date: 1990-04-17 00:36:40 UTC
From: wb8foz@mthvax.cs.miami.edu
Message-ID: <1990Apr17.003640.26344@mthvax.cs.miami.edu>
Source record: 12222

Also, in the market, check out #2409. We are in the second row, behind
Radio's Hack.

Since it is outdoors, you can smoke. I however reserve the right
to walk away if you get it near me, however...

CU there....

--
A host is a host from coast to coast.....wb8foz@mthvax.cs.miami.edu
& no one will talk to a host that's close.....(305) 255-RTFM
Unless the host (that isn't close).....pob 570-335
is busy, hung or dead.....33257-0335

2318. Re: Alf a Ham?

Newsgroup: rec.ham-radio
Date: 1990-04-17 00:56:05 UTC
From: roskos@IDA.ORG
Message-ID: <1990Apr17.005605.17730@IDA.ORG>
Source record: 12225

bower@hfsi.UUCP (Michael Bower Comm.) writes:

> The ham operator in the show is supposedly mr Tanner.

Yes, if you recall, the way Alf originally chose Willie Tanner's garage to crash into in the pilot episode was the Willie made contact with Alf on his Ham radio. I forget the exact story, but I think Alf was having trouble with his spacecraft and sent out a distress signal which Willie picked up.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

"Mike and Angelo painted sixteen chapels lying on their backs."

2319. Re: GOES Down Converter

Newsgroup: rec.ham-radio
Date: 1990-04-17 01:21:31 UTC
From: roskos@IDA.ORG
Message-ID: <1990Apr17.012131.17819@IDA.ORG>
Source record: 12226
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Jay_Appell@es.UUCP writes:

>Can anyone suggest sources for a down converter for GOES reception ?

Spectrum International, Inc.
POB 1084
Concord, MA 01742

1691-LY Loop Yagi Antenna, $75
MMG 1691 Preamp, $250
MMK 1691 1691->137.5 MHz downconverter, $330

As you can see, it's expensive. You will also need an AM demodulator;
a PK232 won't work.

>I currently
>intercept the GOES photos from 8080 Norfolk WX and haven't found other
>sources.

Those pictures are originally from GOES TAP, a leased phone line /
commercial satellite service. I'm not sure what the direct GOES
pictures look like, though they are available. I don't know how well
the Loop Yagi works; I've never found anyone who had one and used it
(only a few people who said they had them but hadn't started using
them). The Spectrum International antenna is supposedly hard to build:
it consists just of aluminum pieces that you have to bend into loops and
fasten onto the long "pole" of the antenna at the proper places. The
NOAA bulletins say you need a dish antenna for GOES. I'd be interested
in hearing from anyone who uses the Loop Yagi with GOES.

You might want to try receiving pictures directly from the polar
satellites when they go by overhead; it costs a lot less and requires a
much smaller antenna. You also get much better detail (because the
satellite is so much closer), although without the superimposed maps.

>I would like to receive wirephotos, but I am unable to locate a
>frequency for this that is active. I am located in New England.
>Thanks in advance for your comments.

There used to be an AP station in New England that sent wire photos, but
it seems not to work any more. There used to be a station from Buenos
Aires that sent news photos; the station was for DyN (Diarios y
Noticias) and had a logo that looked like a thumbprint. They were on
11451.00 at 0200Z on 5/7/88, the last time I logged them. I heard what
sounded like a Press Fax station on 5149.41 on this past March 28th
while trying to find TDM stations, but didn't try printing it.

Press Fax frequencies I used to have in my radio:

17673.70 LSB AP, New York
11478.50 USB DyN?
11449.65 USB DyN

If you look through Gilfer's "Confidential" Frequency List, you will find a number of stations marked "AP New York" -- this is how I found the AP stations originally. The pictures tend mostly to be of people kicking soccer balls, and unknown political figures giving speeches. The last time I checked, though, they weren't on. They used to operate on alternate hours during the evening.
--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

"Mike and Angelo painted sixteen chapels lying on their backs."

2320. Re: how to achieve 20WPM ?

Newsgroup: rec.ham-radio
Date: 1990-04-17 01:36:30 UTC
From: roskos@IDA.ORG
Message-ID: <1990Apr17.013630.17903@IDA.ORG>
Source record: 12327

bill@b11.ingr.com (Bill Welch) writes:

>I have spent a lot of time trying to increase my speed, and
>am not too pleased with the results.

One thing to bear in mind: if you are trying to work "up" to a certain speed you may be going at it the wrong way. You need to form a mental mapping between the sounds and the letters being received or sent, independent of any mnemonic device. If you use any sort of mnemonic device to remember the code, or you have to "think" at any time about it, there will be a much lower upper-bound on the fastest speed you can recognise or send. It is like reading; you don't spell out each word individually and figure it out from that, you recognize each word by its pattern. This is why people say "the only way to do it is to practice," because with practice you make this association. But you can learn faster if you start out by consciously avoiding doing anything that will hinder you later.

My personal opinion (yours may differ :-)) is that you should start out learning the code fast. This prevents you from using any mental "crutches" or mnemonic devices and forces you to form the group associations from the start. Otherwise you are likely to (possibly unwittingly) learn memory-aids that won't work above a certain speed.

--
Eric Roskos (roskos@IDA.ORG or Roskos@DOCKMASTER.NCSC.MIL)

"Mike and Angelo painted sixteen chapels lying on their backs."

2321. TCP/IP in anticomputers

Newsgroup: rec.ham-radio
Date: 1990-04-17 04:53:44 UTC
From: cep4478@ultb.isc.rit.edu
Message-ID: <2800@ultb.isc.rit.edu>
Source record: 12333

O.K. Let's look at this problem, then: out here, NEDA has a large network of NET/ROM (actually, TheNet) systems which works moderately well, but even the guys who founded it admit that it's a temporary hack and it SHOULD be replaced by IP. (And these guys are operating on heresay; they're not IPers at this time).

So, at a networking meeting (over pizza, naturally :-)) it came up that the entire network should be converted to IP. The problem is that doing so would alienate probably three-quarters of the users of the network.

Now, it doesn't seem fair to say "tough" to the end-users, and it doesn't seem reasonable to say to them "if you want to use the network, you have to go through an AX.25<->TCPIP gateway (like GRI or RGV)". At the same time, when it comes down to it, I don't think we have the resources out here to build two parallel networks (one TheNet, one IP). (I've tried the NOS stuff to route IP through net/rom, seems rather kludgey to me [no offense, I'm not being critical here, it just seems like a hack of a theoretical idea]).

I'm the FIRST guy to say [CENSORED] 'em if they want to keep their C64's and CP/M Shoeboxes forever ... but now, I'm thinking in terms of my own interests and what will get IP less of a "clique".

73's Chris
--
Christopher E. Piggott, N2JGW cep4478@ultb.isc.rit.edu
President n2jgw@n2jgw.ampr [44.69.0.1]
Rochester Institute of Technology N2JGW @ WB2WXQ
Amateur Radio Club K2GXT CEP4478@RITVAXA.BITNET

2322. ANS: Weather Satellite Frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-17 05:11:33 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9004170511.AA23221@tecnet1.jcte.jcs.mil>
Source record: 12331

>zaphod.mps.ohio-state.edu!mips!max!crisp@tut.cis.ohio-state.edu
>(Richard Crisp) writes:

>Can someone please post a listing of the frequencies of the polar orbiting
>weather satellites? Ones of interest include the NOAA series and the METEOR
>series as well as others in the 137mhz band.
>Thanks

137.13 Russia, experimental .. not often heard.
137.15 Russia, Meteor 1 Not been heard from for quite awhile. Presumed dead.
137.30 Russia, Meteor 2-17 & 2-18
137.40 Russia, Meteor 2-16
137.50 USA NOAA-10
137.62 USA NOAA-9 & 11
137.80 China Died shortly after launch ... talk of another one in 90
137.85 Russia, Meteor 3-2 and Japan (unconfirmed)

Wefax Geosynchronous

1691 MHz.

All freqs. are for APT formatted pictures.

Frequency info originally received from Vanguard Labs BBS.

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

2323. Die Hard... laughing, that is!

Newsgroup: rec.ham-radio
Date: 1990-04-17 05:46:29 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9004170546.AA24329@tecnet1.jcte.jcs.mil>
Source record: 12332

> GUNS DO NOT KILL PEOOPLE! *PEOPLE* KILL PEOPLE!

ndcvb!cartan!ndmath!nstar!w8grt!jim.grubs@iuvax.cs.indiana.edu (Jim Grubs)
sez:

With guns, most commonly....

> >If you don't see any difference between guns that kill and
> >radios that don't, then you yourself are part of the proof that guns MUST
> >be banned as soon as possible.
>
> "You can take my gun from me when you pry it from my cold, dead
> fingers!"

I rest my case....

Mr. Grubs, you are incorrect (again). The most common way for PEOPLE TO KILL PEOPLE is in an automobile and usually after they have been drinking. Since this forum is not one to discuss drunk driving or gun control, your message and this reply are not necessary to this net, nor are they desired by the majority as can be seen by recent postings asking that they stop. However, about the time it starts to die down a little, UP GOES THE FLAG with another Jim Grubs posting.

It is really hard to avoid an argument when what one says is referred to as "blithering lunacy". And then you go ON to add more fuel to the fire with obviously incorrect statements like the one you just made above.

Can't you just let it go? Please?

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

2324. ICOM computer interface info

Newsgroup: rec.ham-radio
Date: 1990-04-17 07:05:24 UTC
From: TWB0@LEHIGH.BITNET
Message-ID: <9004170705.AA25922@ucbvax.Berkeley.EDU>
Source record: 12328

Subject: ICOM computer interface protocol (long)
From: carlc@tekgen.TEK.COM (Carl Clawson)
Date: 15 Mar 88 21:51:28 GMT
[Via KA2UGQ]

A recent poster inquired about the computer interface on the newer ICOM rigs. I recently got my hands on the information, and I thought I'd pass it along to the net.

I will be glad to hear about any corrections or additions to this material. I have not extensively tested all of these codes -- my trusty KAYPRO went to lunch on me in the middle of the job -- so there may be some "gotchas" that I haven't yet discovered. I have tested enough of them to be reasonably sure that I know what's going on.

73 de

Carl Clawson, N7KBV | Tektronix Laboratories
(503) 627-6304 | carlc@tekgen.CSC.TEK.COM

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Computer Control of ICOM Amateur Gear

Carl Clawson, N7KBV

General Description

Several ICOM products feature a built-in computer interface connected to a 1/8" phone jack on the rear panel. However, ICOM gives no information about this interface in the instruction manuals that I've seen. The information exists within ICOM, and my dealer managed to get it for me.

This interface, called the "CI-V" by ICOM, is standard on the following models: 735, 761, 275, 375, 475, and R7000. Earlier models used the CI-IV parallel interface, which can be connected to CI-V by ICOM's UX-14 converter. Models using the CI-IV are the 751, 271, 471, 1271, and R71. The information I got from ICOM was written with the 735 in mind, but a listing of a BASIC program to control the R7000 was appended. I believe it will help with the other models, too. The control codes and data format should be the same for all of them.

The computer interface allows you to do such things as:

- Set and read the frequency and modulation mode

- Set VFO A, VFO B, or memory mode

- Select memory channel

- Store displayed frequency into memory

- Transfer displayed memory-mode frequency to a VFO

Even without a computer, you can run a cable between the remote control jacks of two rigs, and whenever the frequency or modulation mode of either is changed, the other will track it if possible. (If the rigs have incompatible frequency coverages, like the 735 and R7000, funny things can happen.)

The interface is bi-directional, using TTL levels on a single line for sending and receiving serial ASCII data. You may need an appropriate hardware interface to convert, for example, RS232 to TTL. (I understand that Commodore computers have TTL inputs and outputs so that no interface is needed with them.) I used the Motorola MC1488 and MC1489 chips powered by two 9-volt batteries to interface to my RS232 line. Appendix 1 lists the pinouts used for this interface. If you'd rather buy something, ICOM sells the

model CT-17 level converter for RS232.

The interface uses a "carrier-sense, multiple-access with collision detection" local area network protocol, so that multiple rigs can be connected in parallel without difficulty. Thus, you can use the same RS232 line and level-converter interface to control many rigs. Each rig must have a unique address, which is set by internal jumpers. Each model comes factory preset to its own address, which is 04 for the 735 and 08 for the R7000. Appendix 2 has information on the jumper settings.

I will use the words "receive" and "send" to refer to data transmission. Thus a "receiver" isn't necessarily an R7000; it's any device receiving data from the CI-V bus. I will use the word "rig" to mean an ICOM product using the CI-V interface.

Data Format

The rigs send and receive data in variable length packets, which are formatted as follows:

Byte # Contents

1 hex 'FE' (i.e. 11111110 binary, 254 decimal)
2 hex 'FE'
3 <RX>

4 <TX>
5 <Code>
6-n <BCD data of variable length>
n+1 hex 'FD'

The two hexadecimal FE bytes signal the beginning of a packet, and the FD byte signals the end. <Code> is the control code sent by the computer to the rig, which determines the action that the rig will take. In some cases, the receiving rig will include a control code in its response to the sender; see the section "Control Codes and Responses" below. <TX> is the address of the device sending the data, and <RX> is the address to which the data is being sent. When a rig responds to a data packet, it addresses that response to the <TX> in the packet. Thus, if your computer requests a rig to report its frequency, it will address that report to the computer and other rigs will ignore the data. (Of course, the computer can lie about its address and trick one rig into talking to another!) Your computer should use its own unique, non-zero address on the network. I will assume in the examples that the computer is at address 02. There are two control codes that can cause any rig on the network to respond when sent with <RX>=0; I discuss these

below.

Bytes #6 through #n contain any data required by the control code, in BCD format with 2 decimal digits per byte. Frequency data is sent starting with the byte containing the 1-Hz and 10-Hz digits. These digits are sent even if they are not used by the rig, so that the data format is the same for all rigs regardless of their frequency coverage and resolution. For example, consider the frequency 25.13244 MHz. This is broken up into two-digit groups:

25 13 24 40

It is then coded in BCD. In other words, consider each digit group to be a hexadecimal number instead of decimal. The decimal values of these BCD digit groups are 2x16+5=37, 1x16+3=19, 2x16+4=36, and 4x16+0=64. Now send these groups, starting with the least significant. The complete data packet will be, in hexadecimal,

FE FE <RX> <TX> <Code> 40 24 13 25 FD

If you have more than one rig on the network you may occasionally receive a sequence of 5 bytes of hex 'FC'. This is the "jammer code" used by a rig to indicate that a collision has occurred. Each rig, when sending, monitors the interface. If it does not receive exactly what it sent,

then a collision occurred, i.e., another rig was sending data at the same time. If a rig detects a collision when sending a packet, it will wait until the network is idle, then send the jammer code. A rig that receives this code will realize that a collision has occurred and ignore the previously received packet. Because the ICOM remote control ports are bi-directional, your computer will receive everything it sends, so you can check for collisions from your computer, too.

Control Codes and Responses

Most of the following codes are addressed to a specific rig, which addresses an acknowledgement packet to the <TX> contained in the control packet. The first two codes, 00 and 01, can be sent to the "group call address" of 00, in which case any rig will receive them without sending an acknowledgement. These two codes are sent in this way by any rig when its mode or frequency is changed by manual control, and are received by any rig on the network. This allows a number of rigs to track each other in frequency and mode without computer intervention. Rigs can be inhibited from sending and receiving group call packets by an internal

jumper. See Appendix 2 for more details. These codes can also be sent with a specific, non-zero <RX>, in which case they will be received by the addressed rig even if the group call function is disabled.

00 Set frequency. See above for format of frequency data. See code 05 below for more details.

01 Set modulation mode. One or two data bytes are required to indicate the mode desired.

Data Mode

00 LSB
01 USB
02 AM
03 CW
04 RTTY
05 FM
05 00 SSB (R7000)

02 Report tuning range. No data required. The rig will report its frequency limits in the format

FE FE <RX> <TX> 02 <upper limit> 2D <lower limit> FD

(Hex 2D is the ASCII hyphen.) According to ICOM, some rigs report the lower limit first.

03 Report frequency. No data required. The addressed rig returns its displayed frequency to the sender in the format

FE FE <RX> <TX> 03 <Frequency> FD

04 Report modulation mode. No data required. The addressed rig returns its mode to the sender using the codes listed above. Rigs with selectable bandwidth return an additional byte indicating the bandwidth. The format of the response is

FE FE <RX> <TX> 04 <Mode> <Bandwidth> FD

The bandwidth codes are:

Data Bandwidth

01 Width 1 (widest)
02 Width 2 (narrower)
03 Width 3 (narrowest)

05 Set frequency. The data format is given above. If the data contains fewer digits than the rig uses, the digits sent will be changed and the rest will remain the same. If the rig receives valid frequency data within its tuning range, it responds with a packet containing the data "FB":

FE FE <RX> <TX> FB FD

If it didn't like the data, it responds with the data "FA":

FE FE <RX> <TX> FA FD

These acknowledgement codes are used by all following commands.

The 735 responds to out-of-range frequency data by sending the "FA" acknowledgement and: 1) If the frequency it receives is less than 0.1 MHz, it sets its frequency to 0.1 MHz, 2) If it received 4 bytes of frequency data that is more than 30 MHz, it sets itself to 30 MHz, and 3) If it received more than 4 bytes of frequency data, the data is ignored.

06 Set modulation mode. If one byte is sent, it sets the mode per the above table. If two bytes are sent, the second is the IF bandwidth.

07 Set VFO status. If no data is sent, the rig changes from MEMORY mode to VFO mode. If data 00 or 01 is sent, the rig sets VFO A or VFO B respectively.

08 Set memory channel. If no data is sent, the rig changes from VFO mode to MEMORY mode. If BCD channel data is sent, the rig changes to that memory channel.

09 Store displayed frequency and mode into displayed memory channel. No data required.

0A Write frequency and mode from displayed memory channel to a VFO. No data required.

Examples

I will give a few examples of codes and responses for the 735. The 735 is at address 04 and the computer is at 02. First, let's find out what's in memory channel 1 (code 08 to set the channel, and code 03 to read the frequency). Assume the 735 has the frequency 7.12750 MHz stored in memory #1.

- 6 -

Computer to 735:

FE FE 04 02 08 01 FD

735 to computer:

FE FE 02 04 FB FD

Computer to 735:

FE FE 04 02 03 FD

735 to computer:

FE FE 02 04 03 00 75 12 07 FD

Now let's change the frequency and mode to 14.02500 MHz USB (codes 05 and 06).

Computer to 735:

FE FE 04 02 05 00 50 02 14 FD

735 to computer:

FE FE 02 04 FB FD

Computer to 735:

FE FE 04 02 06 01 FD

735 to computer:

FE FE 02 04 FB FD

Now store the changed result back into memory #1. This channel is already displayed, so we need only the store com-

mand, code 09.

Computer to 735:

FE FE 04 02 09 FD

735 to computer:

FE FE 02 04 FB FD

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Appendix 1 -- RS232 to TTL converter

This is an easily built converter that will run your ICOM gear from a standard RS232 line. It can be built in an hour or two for about $10. The converter uses two inexpensive, widely-available chips -- the Motorola MC1488 line driver and MC1489 line receiver. The only other components needed are a box, connectors, a power switch, and a couple .01 or .1 capacitors to bypass the power supply leads. I used two 9V batteries for power. Power for the 1488 can be +-9 to +-15 volts, and the 1489 requires +5 to +10 volts. With a suitable DC-DC converter chip and a 78L05 or 78L08, you could power the circuit off of your 13.8-V supply. Or, if you're clever, figure out a way to trickle charge two 9V nicads off of your RS232 line.

The pinouts are as follows:

For the 1488 -

Pin Connect to

1 -V
2 ICOM remote jack center conductor
3 RS232 pin 3 (RD)
7 Ground
14 +V

For the 1489 -

Pin Connect to

1 RS232 pin 2 (TD)
3 ICOM remote jack center conductor
7 Ground
14 +V

Ground pin 7 of the RS232 line and the outer conductor of the ICOM remote jack, and you're on line.

- 8 -

Appendix 2 -- Jumper Selections

There are jumpers in the ICOM rigs to set the device address, baud rate, and to enable the group call feature. You must look on the schematic to find them. The jumper to enable the group call feature is called the "transceive" bit by ICOM, and may be labeled with "TRV" on the schematic. The others are labeled "DBn" on the 735 and R7000; look for something similar. The rigs are factory-set to 1200 baud, transceive enabled.

I have specific information from ICOM on the 735 jumpers, and for the R7000 I have a likely guess based on the 735 codes and the schematic.

For the 735 -

The jumpers use lines labeled DB0 through DB5 at connector J22 on the PL board. Lines DB0 through DB2 set the device address. Line DB3 is the transceive enable. The baud rate is controlled by DB4 and DB5 according to

DB4 DB5 Baud

0 0 undefined
1 0 9600
0 1 1200
1 1 300

The 735 is set at the factory to address 04.

For the R7000 -

The jumpers use lines DB0 through DB7 at connector J17 on the logic board. The address is set by DB0 through DB4, DB5 is the transceive enable, and the baud rate is set by DB6 and DB7. The factory address is 08.

If you have any other rig, you can determine its address by hooking it up to your computer and changing the frequency or modulation mode manually. You will receive a group call packet that contains as its 4th byte the address of the rig.

.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
Thomas Brown, KA2UGQ BITNET: twb0@lehigh.bitnet
Lehigh University Box 855 ARPA: twb0%lehigh@ibm1.cc.lehigh.edu
Bethlehem, PA 18015 UUCP: ..!att!twb0@lehigh.bitnet
(215) 758-1200 AX.25: ka2ugq@ka2ugq.nj.usa.na (145.01 MHz)

Stress: The confusion caused when one's mind overrides the desire to choke the life out of someone who desperately deserves it.

2325. KENWOOD computer interface info

Newsgroup: rec.ham-radio
Date: 1990-04-17 07:10:31 UTC
From: TWB0@LEHIGH.BITNET
Message-ID: <9004170710.AA26272@ucbvax.Berkeley.EDU>
Source record: 12329

Subject: TS440S Interface Information
[Via KA2UGQ]

A recent posting asked about the TS400 Interface.

I just came across the following which describes how to build
one yourself and save big $$. I do not know the source of
the article.

Mark C. DiVecchio 10435 Mountain Glen Terrace, San Diego, CA 92131
K3FWT Home of PC-VT and LPTx 619-549-4056
sdcsvax!man!wolf!markd Bulletin Board 619-549-3927

Kenwood Computer Interface Instructions

These Instructions are TS-440 specific, but the basics also apply
to the TS-940, TS-811 and TS-711.

It is possible to save yourself a few dollars and lose nothing in
quality by buying the parts to upgrade your Kenwood radio for computer
control. Just purchase the parts were you find them and install them
using the instructions in the Radio's Manual.

IC 54 is a uPD-8251-AC Serial Communications Interface.
Commonly called an 8251A ($1.89 Mail Order)
IC 55 is a TC-4040-BP 12 Stage CMOS Divider.
Commonly called a 4040 ($0.69 Mail Order)

The IC-10 Interface Kit from Kenwood Contains ONLY these two parts
and less instructions than are in this file. The only thing you are
going to miss, is the $22+ price tag on the IC-10 Kit.

Signals are TTL levels (NOT RS-232)
Baud rate is 4800 (1200 Opt.)
Format is ASCII Serial; 1 Start, 8 Data, 2 Stops

The Baud rate may be changed to 1200 Baud by removing jumper W50 and
installing a jumper from the left pad to the center pad as viewed from
the front of the radio. This will become obvious once you have the
radio opened up. Many other Baud rates are possible, just look at the
schematic.

As long as you are in the radio, lift D-60 to enable the 10 Hz.
display. The main tuning knob is varing this digit, so you might as
well see it. It also helps when using RIT/XIT as the RIT/XIT display

does not resolve the 0.01 KHz. digit. This Modification is in the Radio's Book.

Not in the book is the fact that if you lift D-80 and do an MPU reset, you will be able to transmit on any frequency between 1.5 and 30.0 MHz. This means you will be able to work the Mars nets, Etc. Do not transmit out of band. It is illegal even if it is accidental.

Some computers use TTL levels on their serial ports. If so, here is a time when you will not have to convert it to RS-232.

The IF-232 Interface from Kenwood is a 1488 and a 1489 chip in a box. These are an RS-232 Quad Line Driver and Receiver and are available at Radio Shack for $1.29 Each. Here is an easy project that will save you a lot over the $69+ Kenwood price of the IF-232 Interface. The 1488 needs a + and - supply. Unregulated + and - 12vdc is just fine. Get the +5 vdc for the 1489 by putting a 7805 regulator on the +12 vdc supply. 100 ma. is about the max you'll draw, so the smallest transformer you can find will still be plenty large. Don't forget to series up two of each gate to cancel the inversion that the 1480's produce.

ACC-1 Connector Use a 6 Pin DIN Connector.
(Radio Shack $1.29)
Pin Signal Comments

---

1 Gnd Signal Ground
2 TXD Serial Data from Radio to Computer
3 RXD Serial Data from Computer to Radio
4 CTS Computer Ready; (Radio Input)
5 RTS Radio Ready; (Radio Output)
6 No Connection

Pins 4 and 5 may be left Unconnected.

***** Command Description for Kenwood Computer Interface *****

Auto Information

AIn;
The Radio Will Send the Status Info Automatically
Whenever the Operator Manually Varies any Function
on the Radio which is Covered in the IF; Command
Where n = 0 for Auto Info OFF
1 for Auto Info On

The Status Information Will be Sent in the Form :
As defined in the IF; Command

Display Memory

DMnnnn;

This is a Factory Diagnostic Function
and is of no practical use to the operator

The Contents of the MPU Memory will be Read
Where nnnn = MPU Address (0000 Thru FFFF (HEX))

The Contents of the MPU Memory Will be Sent in the Form :
DMnnnn-aabbccddeeffgghhiijjkk;
Where nnnn = MPU Address (0000 Thru FFFF (HEX))
aa~~kk = Hex Number Pairs Of Next 16 Locations

Down

DN;
The Frequency or Memory Channel
Will Decrement One Step

Frequency VFO A / VFO B Request

FA;
FB;
The Frequency in the Selected VFO Will be Read

The Frequency Will be Sent in the Form:
FAggmmmkkkhhh; or
FBggmmmkkkhhh;
Where gg = GHz. Value
mmm = MHz. Value
kkk = kHz. Value
hhh = Hz. Value

Frequency VFO A / VFO B Select

FAggmmmkkkhhh;
FBggmmmkkkhhh;
The VFO Selected Will be Set to the Frequency Defined
Where gg = GHz. Value (May be sent As 00 or Spaces)
mmm = MHz. Value
kkk = kHz. Value
hhh = Hz. Value

Function Select

FNn;
The Function Defined Will be Selected
Where n = 0 for VFO A
1 for VFO B
2 for MEMORY

Identify Model Request

ID;
The Model of the Radio Will be sent in the Form :

ID00n;
Where : n = 1 for a TS-940 (*)
n = 2 for a TS-811 (*)
n = 3 for a TS-711 (*)
n = 4 for a TS-440

Read Information Request

IF;
The Status Information Will be Sent in the Form :
IFggmmmkkkhhh snnnzrx yytdfcp
Where gg~~hhh = Value as defined in FA Command
s = "+" or "-" Value of RIT/XIT
nnn = Value of RIT/XIT (n.nn kHz.)
z = "0" (Not Used in TS-440)
r = Value as defined in RT Command
x = Value as defined in XT Command
yy = Memory Channel No.
t = 0 for Receive
1 for Transmit
d = Value as defined in MD Command
f = Value as defined in FN Command
c = Value as defined in SC Command
p = Value as defined in SP Command

Lock Knob

LKn;
The Manual Frequency Control Functions Will be Disabled
Where n = 0 for Lock OFF
1 for Lock ON

Memory Channel Select

MCxmm;
The Memory Channel Defined Will be Selected
Where: x = Don't Care (Use "0" or Space)
mm = Memory Channel No. (00 thru 99)

Mode Select

MDn;
The Mode Defined Will Be Selected
Where: n = 1 for LSB
2 for USB
3 for CW
4 for FM
5 for AM
6 for FSK

Memory Read

MRnxrr;
The Memory Channel Defined Will be Read
Where: n = 0 for RX VFO
1 FOR TX VFO (Split Channels Only)
x = Don't Care (Use "0" or Space)
rr = Memory Channel No. (00 thru 99)

The Memory Information will be sent in the Form :
MRn rrggmmmkkkhhhdz ;
Where: n = 0 for RX VFO
1 FOR TX VFO (Split Channels Only)
rr = Memory Channel No. (00 thru 99)
gg~~hhh = Value as defined in FA Command
d = Value as defined in MD Command
z = "0" (Not Used in TS-440)
(Note: Four trailing Spaces)

Memory Write

MWnxrrggmmmkkkhhhdzxxxx;
The Memory Selected Will be Set to the Frequency Defined
Where: n = 0 for RX VFO
1 for TX VFO (Split Channels Only)
x = Don't Care (Use "0" or Space)
rr = Memory Channel No. (00 thru 99)
gg~~hhh = Value as defined in FA Command
d = Value as defined in MD Command
z = "0" (Not Used in TS-440)

RIT/XIT Clear

RC;
The RIT/XIT will be set to 0.00 kHz.

RIT/XIT Down

RD;
The RIT/XIT will Decrement by 0.01 KHz. (10 Hz.)

RIT/XIT UP

RU;
The RIT/XIT will Increment by 0.01 KHz. (10 Hz.)

--

Mark C. DiVecchio 10435 Mountain Glen Terrace, San Diego, CA 92131
K3FWT Home of PC-VT and LPTx 619-549-4056
sdcsvax!man!wolf!markd Bulletin Board 619-549-3927

.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
Thomas Brown, KA2UGQ BITNET: twb0@lehigh.bitnet

Lehigh University Box 855 ARPA: twb0%lehigh@ibm1.cc.lehigh.edu
Bethlehem, PA 18015 UUCP: ..!att!twb0@lehigh.bitnet
(215) 758-1200 AX.25: ka2ugq@ka2ugq.nj.usa.na (145.01 MHz)

Stress: The confusion caused when one's mind overrides the desire to
choke the life out of someone who desperately deserves it.

2326. YAESU computer interface info

Newsgroup: rec.ham-radio
Date: 1990-04-17 07:11:34 UTC
From: TWB0@LEHIGH.BITNET
Message-ID: <9004170711.AA26313@ucbvax.Berkeley.EDU>
Source record: 12330

Subject: CAT Interface for Yaesu 727
Path: ..!JUNE.CS.WASHINGTON.EDU!bcn (Clifford Neuman @ The ARPA Internet)
[Via KA2UGQ]

I have seen many requests for information on this over the past year
or so. At one of our local hamfests, Yaesu had a 1 sheet handout on
how to use CAT on the 727. That handout follows. I have not tried
this myself (yet). Note that the levels are not standard RS-232, but
should be fairly easily converted.

The following information is from Yaesu. There are some errors picked
up by KB7ABA which are noted in the approriate place. I have not yet
tried using this. de N1DMM.

FT-727R CAT System Interfacing and Control

This information describes the hardware and software requirements of
the CAT (Computer Aided Tranceiver) System in the FT-727R.

Connections

Four connections are used by the CAT SystemL three at the CAT jack,
illustrated below, and one (Signal Ground) ar the outer contact of the
MIC or EAR jack.

DO NOT SHORT THE OUTER CONTACT OF THE CAT JACK TO GROUND!!!

[Diagram of the CAT plug:

Looks like a stereo audio jack of the appropriate size.

The outer sleeve is +6 to +12 V DC (Battery Voltage) I do not think
this line needs to be connected.

The middle contact is the Serial KeyCode Input.

The center contact is the Serial Meter Output (00h to 0Fh).

See the manual for further description.]

Data Format:

All serial data consists of single byte binary codes sent at 4800
baud, TTL levels, with two INVERTED stop bits and one INVERTED start
bit.

Key Codes:

CAT Control consists of duplication the keystrokes that can be made on
the tranceiver keypad by sending the corresponding keycodes to the
Serial Keycode Input contact of the CAT jack. The most significant
four bits (MSD) correspond with the key column and the least
significant four bits (LSD) correspond with the key row. The Function
key (on the side of the tranceiver) is simulated by setting bit 7.
Results are identical to those described for manual operation in the
FT-727R Operating Manual. Serial Meter Output is sent approximately
every 100 ms while receiving.

[Table for the codes. The lines in [] are the original values in the
Yaesu handout, and are followed by the corrected lines as determined
by KB7ABA. Remove the lines in [] to see what sould be the right table.]

[{ FUNC F E D C B]
{ FUNC 8 9 A B C
MSD {
[{ NORM 7 6 5 4 3]
{ NORM 0 1 2 3 4

LSD
V

E +RPT SIMP -RPT PMS P SET
1 2 3 V ^

D SAV T T DEC T SET TX M S/CH
4 5 6 M MR

B SAVE T ENC SCAN MC Shift
7 8 9 C <=>

7 LOCK BATT BEEP DUP Step
* 0 # V/U D

.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
Thomas Brown, KA2UGQ BITNET: twb0@lehigh.bitnet
Lehigh University Box 855 ARPA: twb0%lehigh@ibm1.cc.lehigh.edu
Bethlehem, PA 18015 UUCP: ..!att!twb0@lehigh.bitnet
(215) 758-1200 AX.25: ka2ugq@ka2ugq.nj.usa.na (145.01 MHz)

Stress: The confusion caused when one's mind overrides the desire to
choke the life out of someone who desperately deserves it.

2327. Re: V31BB QSL INFO

Newsgroup: rec.ham-radio
Date: 1990-04-17 12:41:28 UTC
From: waco@cbnewse.ATT.COM
Message-ID: <14268@cbnewse.ATT.COM>
Source record: 12338

This past weekend I worked V31UK who had come over from the mainland to Jim's QTH and was operating from V31BB's station. I listened to several of his QSOs and he discussed his own QSL habits and problems. He also talked about Jim's QSLing. He claims Jim has difficulty in keeping up with his QSLing. Apparently V31BB is very active and, judging from David's discussions, does QSL, albeit slowly.

I cannot speak for V31BB and my opinion on his operating practices (low) has not changed. However, it appears that his intention to QSL is to do so.

Having been involved in chasing DX for a number of years, I have learned not to become too anxious for QSL cards to appear in my mailbox. I sometimes wait months before sending out cards and have found that some expected cards never arrive, but many arrive months or even years after a contact. It is not uncommon not to receive a QSL from a station. It is frustrating when you need a country confirmed. However, when looking back through my log, there are many unconfirmed contacts that, at the time of the contact, seemed like a sure thing. Usually, the only sure thing for receiving a QSL is from a bona fide DXpedition or a contact with a Soviet ham, with the exception of the only Albanian contact I have had.

Belize is not a "rare one" and if you really need it, just keep tuning the dial; it will show up (if this is true, why do I still need Albania and Kaliningrad?, hi, hi). You don't need to work V31BB to get a contact.

John L. Broughton WB9VGJ
AT&T Bell Laboratories
1200 E. Warrenville Rd.
Naperville, IL 60566-7045
(708) 713-4319
john.l.broughton@att.com

2328. (none)

Newsgroup: rec.ham-radio
Date: 1990-04-17 12:45:18 UTC
From: BUSH@S51.Prime.COM
Message-ID: <9004180715.AA23666@ucbvax.Berkeley.EDU>
Source record: 12219

ANNOUNCING THE 1990
MASSACHUSETTS QSO PARTY

DATE/TIME: 0000Z 5 May 90 to 2400Z 6 May 90

OBJECTIVE: Work as many hams in as many
Massachusetts counties as possible
during the 48 hour period.

MODES: CW, and Phone (No cross-mode, repeater
or packet contacts)

BANDS: All amateur frequencies from 160 meters
through 10 meters.

SUGGESTED CW: 15 kHz up from the bottom of the
FREQUENCIES: General class subbands (eg., 7040,
14040, etc.)
SSB: 25 kHz up from the bottom of the
General class phone bands (eg. 3875,
7250, 14250, etc.
ALSO: Novice & Technician subbands:
80/40/15/10 meter CW
and 10 Meter Phone (28.315)

EXCHANGE: RS(T) and:
Massachusetts Stations: County
All others: State, Province,
or Country (DX)

OTHER: Work stations once per band and mode. MA
to MA contacts are allowed. Portable or
mobile MA stations may be worked again if
they change counties.

SCORING: 1 Point per phone contact
2 Points per CW contact
5 points if you work club station W1TKZ

Multiply to points by the multiplier

Multiplier for MA stations= total number
of states, provinces, DX countries and
MA counties.

Multiplier for non-MA stations= number
of MA counties (max = 14)

SUBMISSION: Logs to WARS by 06 Jun 90.

SPONSOR: Wellesley Amateur Radio Society
MA QSO Party
211 Washington Street
Wellesley Massachusetts 02181

2329. Die Hard... laughing, that is! (really guns)

Newsgroup: rec.ham-radio
Date: 1990-04-17 12:56:16 UTC
From: ptb@MBUNIX.MITRE.ORG
Message-ID: <9004171256.AA29773@mbunix.mitre.org>
Source record: 12342

To all you people who do not want guns: Isn't it interesting that one of the first things Mr. Gorbachev did when Lithuania seceeded was to confiscate all of the weapons from the Lithuanian citizenry. Maybe he did not want them able to withstand the red army....

The lesson that I take from this is that an armed citizenry keeps a tyrant at bay through the fear of an armed uprising.

Yes, I too am appalled at the violence in our cities (especially Boston lately), but the responsible use of guns is a very strong deterrant to tyranny as well.

I am not in the NRA. I do not have a gun, and probably never will in my own home. But I am sympathetic with what they are saying....

Where there is a will, there is a way....

Disclaimer: This mailgram only represents the opinions of the author. It does not necessarily represent the views of MITRE or its sponsors.

English: Peter T. Baldwin
Arpa: ptb@mbunix.mitre.org
Snail Mail: Mitre Corp, MS K306, Burlington Rd, Bedford, Ma. 01730
Voice: Peter!

2330. Visitel for SSTV

Newsgroup: rec.ham-radio
Date: 1990-04-17 15:11:17 UTC
From: john@polygen.uucp
Message-ID: <698@polygen.UUCP>
Source record: 12220

In article <1423@gvgpsa.GVG.TEK.COM> johnk writes:

>I bought a Visitel picture telephone a couple of months ago to stay
>in visual contact with relatives. The thought occurred to me that
>it could also be the "poor man's" method of slow scan TV on ham.
>
>Questions:
>
>* has anyone tried it?
>* any complications?
>* is it compatible with any mode of existing "regular" slow scan TV/ham
> equipment?
>
> ....

>John Kirby

I have not tried a Visitel on the radio but I have serious doubts
that it could ever work. The details of the transmission format are
a little fuzzy in my brain but here is what I recall.

The image starts with a digital header containing synchronization
& calibration signals and information about the image size. After
this there is NO horizontal sync as in most ham SSTV formats.

The picture is composed of 96 x 96 pixels of 32 gray levels.
The pixel rate and audio carrier frequency are both 3579545/2048
per second. Gray levels are conveyed by a combination of phase and
amplitude modulation. 2 phases (180 degrees apart) and 16 amplitudes.
Each pixel is one audio cycle. Black and white are both full
amplitude and opposite phase. Gray levels are lower amplitude with
medium gray being the lowest amplitude.

This is fine for a phone line or FM radio. Let's perform a thought
experiment about what would happen on SSB ...

Suppose your tuning was off by 20 Hz. The receiving end expects one
pixel per audio cycle and would gather the pixels at 1727 or 1767 per
second while the sender is producing them at 1747 per second, producing
a badly slanted picture. The phasing of one pixel per audio cycle
would be all messed up. QSB of propagation and AGC of the receiver
would also corrupt the amplitude modulation of the audio carrier.

Several people have proposed using the Visitel for HF SSTV but I have
never heard of any success. I would be very interested in hearing
more about people's experiences with it.

If you would like to try SSTV at a low cost use your home computer.

* AEA has an interface for the Amiga for about $300. I've never
seen this in operation but it sounds very impressive from
everything written about it.

* SPEC-COM has SSTV software for the Radio Shack COCO. I think it
was about $40. This might be related to the article in
the November & December 1984 issues of 73 Magazine.

* A color SSTV program for the Atari ST is available from several
user groups. It requires a simple interface that can be built for
about $7. See 73 Magazine, December 1989 and January 1990.

Even if you're not interested in the Atari ST, you should get
a copy of this article. It contains a brief tutorial on how
color pictures are transmitted and pointers to other sources
of information on ham TV.

* I have a vague recollection of a product for the IBM PC from a
company named something like Computer Systems Consulting.
But it was only black & white. You don't see too many
B&W pictures anymore.

* See QST, August 1985, for information on SSTV for the old 8 bit
Atari computers.

* There are probably others which weren't well publicized.

In summary,
- The Visitel is not compatible with any of the ham SSTV modes.
- The Visitel modulation scheme can't be decoded by the usual
Frequency to Voltage demodulators.
- I seriously doubt the Visitel would work over an SSB radio
because it was designed for a communication medium with
much different properties.
(Please, someone - prove that I'm wrong!)

Color SSTV can be very expensive but it doesn't have to be anymore.
If you must have 262,144 colors, spend $1295 on a Robot 1200C. If you
want to make only a small investment to try something new and interesting,
use one of the systems based on a home computer.

John Langner, WB2OSZ
mit-eddie!polygen!john

home: 115 Stedman St.
Chelmsford, MA 01824 (USA)
(508) 256 6907

2331. AOR AR-1000

Newsgroup: rec.ham-radio
Date: 1990-04-17 16:19:50 UTC
From: rats@ihuxz.UUCP
Message-ID: <9004171619.AA26273@ucbvax.Berkeley.EDU>
Source record: 12334

Has anyone tried out the new AOR AR-1000 portable scanner?

This a 1000 channel handheld that covers all the standard PSB
frequencies as well the 800 Mhz band. It has 40 chan/sec scan
capability. It was advertised in the RSGB "Radio Communications"
magazine under both the AOR designation and private labeled
under the "Nevada" name.

2332. Need info on Kenwood Rmt Control!

Newsgroup: rec.ham-radio
Date: 1990-04-17 16:35:57 UTC
From: billp@billp.UUCP
Message-ID: <800@billp.UUCP>
Source record: 12339

I am building a controller for my club's Repeater/Remote-Base. I know, hams aren't suppose to be into building things anymore... What we don't want to build are the remote controlled radios. We've looked at the ICOM 900 series radios and the Kenwood radios. The Kenwood radios interface through the mic connector on one or two leads, the ICOM is a stack of pins!

The problem is that Kenwood is being real tight lipped about the protocols used between there control heads and the radios. I even offered to sign a non-disclosure agreement. They just aren't interested.

Before I spend the money on a control head I'll never use and weeks of time spoofing the protocol myself, I'd like to find out if there is someone out there in Usenet land that's already done it and is willing to share.

Any help or pointers would be greatly appreciated.

-Bill Putney {ames|pacbell|tymix|oliveb}!unet!billp
or billp@NET.COM or (415)780-5309

2333. Re: TCP/IP in anticomputers

Newsgroup: rec.ham-radio
Date: 1990-04-17 16:43:09 UTC
From: brian@ucsd.Edu
Message-ID: <13137@ucsd.Edu>
Source record: 12335

Locating 'telnet' in the TNC isn't the right approach. I see no reason why your local tcp/ip network node can't support a telnet server for AX.25 connections. With such, joe-dumb-terminal-ham would connect to the node, as he does now with net/rom, and request a connection to a distant node, as he does now with net/rom, and get a nice reliable high-speed network connection to the other end, as he occasionally does now with net/rom. He can even do uploads and downloads, using whatever error-full protocol he currently uses, since telnet can be completely transparent if desired. In other words, for him, there's no difference!

But the tcp/ip network will let the advanced packet operator/researcher do much much much more, since such a person can generate the IP packet for whatever he is doing (telnet, ftp, smtp, snmp, digital voice, weber pictures, etc. etc.) in his shack computer and send it into the network through the very same network node.

Thus this kind of configuration is a complete win for all concerned. I think the improved performance of the resulting network will sell many people on upgrading from dumb-terminal status to sophisticated ham computer user - which they can't do with the existing net/rom network.

There will, of course, always be many who don't upgrade - those who seem to think that the box they bought is good enough, or else it wouldn't be sold. They're the same people who refuse to install an $11 mod that would incredibly improve their TNC's performance. If they can use the network, they're happy.

For the average user of a ham network, whether it runs tcp/ip or net/rom (or even ROSE, ecch) isn't important. For the advanced user, tcp/ip offers the most flexible networking environment currently available.
- Brian

2334. Re: TS930s Problem

Newsgroup: rec.ham-radio
Date: 1990-04-17 16:51:16 UTC
From: dvh@cci632.UUCP
Message-ID: <36037@cci632.UUCP>
Source record: 12347

In article <635.26279072@weyr.FIDONET.ORG>, katz@weyr.FIDONET.ORG (sylvan katz) writes:
> I have a TS930s with antennae tuner. Lately, as I am sending cw I have noticed that the ALC starts to drift lower so I turn up the carrier and it keeps drifting down until I lose that ALC. Can anyone give me any suggestions as what to look for or do? PS: I have never had to turn the carrier up to maximum. Sooner or later I fid a point usually a little over half way where the length of the QSO is less than the drift. Also, if I do not key the transceiver for a while the ALC is up to high and I have to tur

n
>

You didn't mention how old your 930 is, but I suspect it's probably got a serial number something like 32xxxxx or lower (the first two numbers are the important ones here). Anyway, there was a problem with the early 930's with ALC drift, caused by flexure of the PA printed circuit board. Sounds weird, but true. As the PA board heats up with long transmissions, particularly on CW, the board flexes and the rivets which are used on the board to provide ground feedthroughs from one side to the other don't always make real good contact with both sides of the board. When the board cools down, it flattens out and the problem goes away, until the next time you transmit. Under certain conditions of hot board and high RF currents on the board grounds, it may not be possible to get full power out of the PA.

The fix is: CAREFULLY remove the PA assembly from the radio (not fun), and EVEN MORE CAREFULLY remove the PA board from its heatsink. Be sure to observe that under certain of the transistors which are bolted to the 'sink are some insulating pads- very important to get them back in the right places, or ZAP! when you turn it on. With the board in your hand, observe that there are a number of locations (maybe as many as 20- I don't precisely remember, last time I fixed one was in '84) where there are small rivets going through the board to tie the grounds together. Some of these places include the areas around the Emitters of the Final Transistors (the MRF422's) and around the Emitters of the Drivers. Solder each of these points, making sure that the solder REALLY FLOWS at each joint of a rivet and the board. Don't be afraid to get the board good and hot- you want all that green coating around the joint to fall off so you can get a good solder connection. Make sure you do this at all such areas, also reheat any suspicious-looking joints around the rest of the PA board. After you do this, you can put it back together- use heatsink grease under each device, including the Finals. Screw the devices securely back down to the heatsink, and re-install the assembly in the radio. This should have cured the ALC drift problem.

WARNING: If you are not comfortable with this work, DON'T ATTEMPT IT! You can, if not careful and somewhat skillful, really F**K up the radio! Also, Kenwood Service has a Service Bulletin on this problem, which may provide more detail on the locations of the feedthroughs and other important stuff I may have forgotten. I'd suggest contacting them at least for the bulletin and maybe for a quote on them doing the job- they may have a flat charge for this, the added benefit being they will also do the other standard service updates to the unit for no additional charge (there are a lot of things that got updated in the early 930's).

I used to be Sales/Service Manager for Texas Towers and did a lot of out of warranty work on Kenwood Equipment, that's how I know about this fix- also, I had one of the first 930's in the States, in addition to the one I currently own (bought well after they had fixed all the early production problems).

Hope this has helped. Dave KD5RO/2

2335. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-04-17 17:06:17 UTC
From: michael@fe2o3.UUCP
Message-ID: <347@fe2o3.UUCP>
Source record: 12336

In article <3466@trantor.harris-atd.com> tbabst@x102c.ess.harris.com (Babst TA 64837) writes:
>I want to know if there are standards for the manual coding of Morse code.
>In particular, what are the dot, dash, inter-character and inter-word
>lengths.
>
The April 1990 edition of QEX (from ARRL) has an article by Jon Bloom,
KE3Z which explains it all. It includes equations for timing etc.

UUCP: uunet!mimsy!{arinc,fe2o3}!vk2bea!michael

```
_ _ _ _
Amateur | VK2BEA (Australia) ' ) ) ) / //
Radio | G4NYV (United Kingdom) / / / o _. /_ __. _ //
Stations| NV3Z (United States) / ' (_<_(__/ /_(_/|_</_</_
```

Michael Katzmann
Broadcast Sports Technology.

2336. Re: Lo-Jack

Newsgroup: rec.ham-radio
Date: 1990-04-17 18:13:16 UTC
From: bmp@hpcupt1.HP.COM
Message-ID: <7120116@hpcupt1.HP.COM>
Source record: 12349

Has anyone tried to DF this signal? I can see potential for
volunteers in police or sheriff's reserves getting drawn
from the ham or search and rescue community or vice versa.

Brian Perkin
N6RSW
and Civil Air Patrol

2337. Need QSL Route

Newsgroup: rec.ham-radio
Date: 1990-04-17 18:18:55 UTC
From: sawyer@twg.com
Message-ID: <4001@gollum.twg.com>
Source record: 12337

Does anybody have a direct QSL route for UJ8JCQ? It's taken me a while to finally dig out a Tadzik contact, and I just can't stand the thought of sending this one to Box 88. Any help would be appreciated.

Bruce, AA6KX

2338. Re: RFI to Entertainment Devices

Newsgroup: rec.ham-radio
Date: 1990-04-17 19:47:38 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120117@hpcupt1.HP.COM>
Source record: 12348

The steel wool route probably works, but Radiokit sells ferrite beads
to fit both RG-58 and RG-8 sized coax. These work like a champ and
would look better. The address is:

Radiokit
P.O. box 973-c
Pelham, NH 03076

603-437-2722

73's
Jim, WA6SDM @ aa4RE
jholly.hpcupt1.hp.com

2339. SUBSCRIBE

Newsgroup: rec.ham-radio
Date: 1990-04-17 20:38:00 UTC
From: EE469APROF@ROSEVC.Rose-Hulman.EDU
Message-ID: <AA7EC537E9BF20999E@ROSEVC.Rose-Hulman.Edu>
Source record: 12345

```
SUBSCRIBE INFO-HAMS JOHN K9CUN DERRY ROSE-HULMAN INST OF TECHNOLOGY
```

2340. Die Hard revisited

Newsgroup: rec.ham-radio
Date: 1990-04-17 23:47:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9004180722.AA23889@ucbvax.Berkeley.EDU>
Source record: 12344

Some soul wrote....

>To all you people who do not want guns: Isn't it interesting that one
>of the first things Mr. Gorbachev did when Lithuania seceeded was to

My only reply to this is....

STOP! STOP! STOP!

STOP THIS BARRAGE OF STUPIDITY NOW! WHY MUST THIS NEWS GROUP BE INUNDATED
WITH THESE PEDANTIC RANTINGS? IF ITS NOT 220 MHZ, NOT CW TESTING THEN ITS,
OF ALL THINGS, GUNS.

ENOUGH.

IF YOU FEEL SO STRONGLY, GET THE INET ADDRESSES OF OTHERS WHO ARE
INTERESTED AND CARRY THIS ON YOURSELVES.

Thank you. I'll now revert to my normal, quite, understanding self.

Bob, N5GNA

2341. Re: TCP/IP in anticomputers

Newsgroup: rec.ham-radio
Date: 1990-04-18 04:55:53 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1877@rsiatl.UUCP>
Source record: 12341

cep4478@ultb.isc.rit.edu (C.E. Piggott) writes:

>O.K. Let's look at this problem, then: out here, NEDA has a large
>network of NET/ROM (actually, TheNet) systems which works moderately
>well, but even the guys who founded it admit that it's a temporary
>hack and it SHOULD be replaced by IP. (And these guys are operating
>on heresay; they're not IPers at this time).

>So, at a networking meeting (over pizza, naturally :-)) it came up
>that the entire network should be converted to IP. The problem is
>that doing so would alienate probably three-quarters of the users of
>the network.

Let me risk being labeled a heretic and play devil's advocate for a moment.
What I see implied above is a bit of "Let's fix something that's not broke".
When one transitions from experimenter (The tcp/ip community) to service
provider (BBS, node, digi owner - anyone who grabs a chunk of a public
resource and offers a service to the community.), he should pay particular
attention to the user community and their needs (Brian Kantor will debate
this point but nontheless :-).

Let's look at some realities. The first is that in general, 1200 bps
L/WANs are going to de de rigeur for quite some time to come. Sure
we mentally and verbally masterbate about faster modems but the
combination of many factors, not the least of which is all the commercial
vendors racing headlong toward proprietary protocols, conspire to make
1200 baud, in some few cases, 2400, the lowest common denominator.

Given that reality, one must admit to the next one - IP at 1200 baud sucks.
Especially in a properly engineered RF environment (full duplex, no
digipeaters) ordinary AX.25 beats the pants off of IP for what most
users use packet for - mainly keyboard chatting and BBS browsing. It is
neither our duty nor our right to tell a user that his particular form of
packet enjoyment, say, keyboarding, is improper. Our duty as service
providers is to provide the facilities our users want and introduce new
technology wherever and whenever it is appropriate. A TheNet network
talking to chat hubs such as Packet Cluster or the like provides just
what most ham users want.

Even for file transfers, I've found it faster to take a binary and
uuencode it, put it on my BBS as a message and let it forward to
my recipient than to attempt an FTP of the same file. And remember
that this is on a properly engineered RF network.

In terms of an average non-computer-professional user, the combination of
poor performance, buggy code, "Read the f*cking source code" for

documentation, a poor user interface and a generally elitist attitude among some of the experienced users and implementors pretty much eliminates IP from consideration. (We all know that these problems are not unique to Phil's package but it is the point of discussion at the moment.)

It is sometimes hard for us bleary-eyed hackers that many hams have no interest in the gee-whiz aspect of packet and simply want to use it as a tool to facilitate other aspects of the hobby. This is most emphatically NOT the "appliance operator" syndrome. The DX packet cluster network here in Georgia is an example. This is a network of "chat hubs" that link to each other and provide a large roundtable environment as well as messaging and several other features of particular interest to DX ops. The network is implemented with a commercial package written by someone at DEC (and yes, it is just as buggy as the PD stuff but you have to pay money for it and you don't get source.) It comes with nice user docs and can be configured by a non-hacker. This network was built independently of the state packet group, GRAPES, mainly I think, because the DXers felt that we are too experimentally oriented for their needs.

Your typical user on this network is a serious DX operator. He has bought a computer, TNC and radio and dedicated it to cluster operation. He nails up a link to the nearest hub and leaves it there more or less forever. That's as far as his interest goes. He'd never know the difference between an MTU and AXHANG much less care. In short, he is a USER. I'm personally quite gratified to see this purely end-user application develop even if it did happen outside of the normal channels.

I've strayed quite a bit from your immediate question and I know I've gored quite a few sacred oxes (let the bellowing begin!). The theme is simply, find out what your users want and then try to provide them with that service. I've found that users are usually at least aware of some aspects of the state of the art and will accept the change necessary to enjoy new stuff just as soon as there is some likelyhood that more time can be spent using as opposed to debugging the technology.

We have the same situation as in the commercial world. There is a place for basic research (IP, 56kbps, ethernet-over-{microwave,laser,carrier pigeon}, and the like). Then there is applied development where the product of basic research is "productized" and delivered to the user body (consumer). Both are essential, equally important and almost never mix well together. It is important to realize the distinction and then to realize what it is you are providing. If you are nailing up digis, nodes, bbs's, servers and the like, you are a service provider. If on the other hand, you put up an experimental network using gnats as carriers and tell everyone that they are welcome to participate whenever and however the system works, you engaged in research.

So find out what your users want and proceed accordingly.

73 John

>Now, it doesn't seem fair to say "tough" to the end-users, and it
>doesn't seem reasonable to say to them "if you want to use the network,
>you have to go through an AX.25<->TCPIP gateway (like GRI or RGV)".
>At the same time, when it comes down to it, I don't think we have the
>resources out here to build two parallel networks (one TheNet,
>one IP). (I've tried the NOS stuff to route IP through net/rom,
>seems rather kludgey to me [no offense, I'm not being critical here,
>it just seems like a hack of a theoretical idea]).

>I'm the FIRST guy to say [CENSORED] 'em if they want to keep their
>C64's and CP/M Shoeboxes forever ... but now, I'm thinking in terms
>of my own interests and what will get IP less of a "clique".

>73's Chris
>--
>Christopher E. Piggott, N2JGW cep4478@ultb.isc.rit.edu
>President n2jgw@n2jgw.ampr [44.69.0.1]
>Rochester Institute of Technology N2JGW @ WB2WXQ
>Amateur Radio Club K2GXT CEP4478@RITVAXA.BITNET
--
John De Armond, WD4OQC | We can no more blame our loss of freedom on congress
Radiation Systems, Inc. | than we can prostitution on pimps. Both simply
Atlanta, Ga | provide broker services for their customers.
{emory,uunet}!rsiatl!jgd| - Dr. W Williams | **I am the NRA**

2342. Spelling flame

Newsgroup: rec.ham-radio
Date: 1990-04-18 05:38:26 UTC
From: brian@ucsd.Edu
Message-ID: <13156@ucsd.Edu>
Source record: 12340

Yes, I know one is not supposed to issue spelling flames. However....

Let me briefly point out that an article containing misspelled words and poor grammar has much less impact than one that does not.

This is because, to the reader who notices the flaws, the article with poor grammar or misspelled words reflects a lack of orderly thought on the part of the poster. Thus the reader naturally questions the validity of the poster's ideas and information: "If he can't spell it or turn out an understandable sentence, why should I believe whatever it is he's trying to say?"

And that brings up another point: sometimes the text is so garbled as to obscure or completely mask the poster's meaning. You and I have seen articles on here that were completely undecipherable because the poster's thoughts were completely obscured behind his inability to express them.

Allowance, of course, must be made for those for whom English is not their native language. But those articles are rarely a problem since the posters of those articles usually take extra care to ensure the understandability of what they've said. What is so saddening is that there seem to be people posting here who are computer-literate but otherwise barely able to write their native language.

So please, to ensure that your postings have the greatest possible value to the readers of this group, take just a moment to check for typographical errors, to look up the spelling of words you aren't sure of, and most of all, to read what you have said over just one more time to make sure that it really says what you want it to say.

We will all thank you.
- Brian

2343. 10m propagation

Newsgroup: rec.ham-radio
Date: 1990-04-18 07:02:01 UTC
From: mdbomber@portia.Stanford.EDU
Message-ID: <11309@portia.Stanford.EDU>
Source record: 12343

I got my novice and tech licences a couple weeks ago and have been enjoying myself greatly on the 10m HF band. I've had some real surprises in the past couple days while operating at the ham radio club station (W6YX).

I've been aiming the beam antenna out over the Pacific Ocean to try making contacts overseas in that direction. Several times, I've been aimed toward Hawaii or Japan and called CQ, and had a ham in Alabama, Mississippi, Tennessee, etc answer it. After I lock it in, I'll rotate the antenna around to face that way. If they're talking while I rotate it, I'll notice I have, typically a 5 by 0 signal from them, then as it rotates north it fades and gets noisy, then as it swings toward them, the signal jumps up to a 5 by 8. That's happened a number of times. Also I once was aimed at Hawaii calling CQ and someone in the United Kingdom answered, but I wasn't able to lock him in. Again behind my antenna.

After I've been back for a while and thought about it, it sounds like I was transmitting out west and the signal was going around the planet and reaching someone to the east, and vice versa when I received! This is really strange as I never thought long path propagation would be possible on 10 meters since it is a daytime band, and to do long path the signal has to cross all the way across the dark side of the earth. But it seems to have been happening. Has anyone else noticed this on 10m?

Oh, I also made my first overseas contacts today. ZK2KY in Niue, an island in the South Pacific, and VK2CX in Nelson Bay, Australia. Looking forward to more fun!

--
Internet: mdbomber@portia.stanford.edu Matt Bartley
Bitnet: mdbomber%portia@stanford.bitnet 73, KC6JRG
Kirk: "Spock! Where the hell's that power you promised?"
Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

2344. Re: Repeater Amps

Newsgroup: rec.ham-radio
Date: 1990-04-18 11:14:48 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500501@ux1.cso.uiuc.edu>
Source record: 12346

Why is it necessary to have repeaters with so much power?

I can see it if it is a repeater with a wide area of remote receivers.

But if it is a repeater with a common antenna for transmit and receive,
then 250 watt transmit will make it heard wider than it can be hit from
the average 25 to 50 watt mobile station.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2345. Re: 10m propagation

Newsgroup: rec.ham-radio
Date: 1990-04-18 11:34:24 UTC
From: daver@wpi.wpi.edu
Message-ID: <11818@wpi.wpi.edu>
Source record: 12350

> was transmitting out west and the signal was going around the planet and
> reaching someone to the east, and vice versa when I received! This is
> really strange as I never thought long path propagation would be possible
> on 10 meters since it is a daytime band, and to do long path the signal
> has to cross all the way across the dark side of the earth. But it
> seems to have been happening. Has anyone else noticed this on 10m?

Sorry, but what is probably happening is your beam ant. is not truly
uni-directional. Some of the directors will be acting as reflectors and vice
versa.

`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'`'

David Ritchie | "If anyone doubts my veracity, I can only say I pity his
daver@wpi.wpi.edu | lack of faith." - Baron Munchasen
~~~~~~
~~~~~~

2346. Re: Need info on Kenwood Rmt Control!

Newsgroup: rec.ham-radio
Date: 1990-04-18 14:34:27 UTC
From: kirk%enterprise@Sun.COM
Message-ID: <134538@sun.Eng.Sun.COM>
Source record: 12355

From article <800@billp.UUCP>, by billp@billp.UUCP (Bill W. Putney):
> I am building a controller for my club's Repeater/Remote-Base. I know,
> hams aren't suppose to be into building things anymore... What we don't
> want to build are the remote controlled radios. We've looked at the
> ICOM 900 series radios and the Kenwood radios. The Kenwood radios
> interface through the mic connector on one or two leads, the ICOM is
> a stack of pins!
>
> The problem is that Kenwood is being real tight lipped about the protocols
> used between there control heads and the radios. I even offered to sign
> a non-disclosure agreement. They just aren't interested.
>
> Before I spend the money on a control head I'll never use and weeks of
> time spoofing the protocol myself, I'd like to find out if there is
> someone out there in Usenet land that's already done it and is willing
> to share.
>
> Any help or pointers would be greatly appreciated.
>
> -Bill Putney {ames|pacbell|tymix|oliveb}!unet!billp
> or billp@NET.COM or (415)780-5309

I don't know what the problem is with Kenwood USA. I was in need of the same
information awhile back and got the same response from the USA office. After
searching around and asking many people I finally came across a fellow in Ga.
that was able to get the information faxed to him from Japan. They were more
than happy to give it to him. They sent the information the next day no less.
I was able to get a copy from him but have not been able to implement it yet.

I would suggest contacting Kenwood Japan.

'Captain' Kirk DeHaan net - kirk@sun.com
Sun Microsystems Inc. packet - n6sxr.ampr.org
cis - 73427,1657

2347. Re: Need info on Kenwood Rmt Control!

Newsgroup: rec.ham-radio
Date: 1990-04-18 14:56:09 UTC
From: mikey@pnet01.cts.com
Message-ID: <2290@crash.cts.com>
Source record: 12351

I too have had some ideas on using to remote support offered via the mic connector, but at high price for the RC-10 controller, this project has languished. I would like to interface a separate UHF receiver/transmitter to my TM-321 (220Mhz.) so as to operate cross-band (like the new crop of dual-banders) in full duplex. All this to be done out of the car to enhance my fringe area coverage via my UHF walkie.

So if you have any info, please pass it along, Email or Usenet.

| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2348. Re: Repeater Amps

Newsgroup: rec.ham-radio
Date: 1990-04-18 15:16:03 UTC
From: mikey@pnet01.cts.com
Message-ID: <2291@crash.cts.com>
Source record: 12352

phil@ux1.cso.uiuc.edu writes:
>
>Why is it necessary to have repeaters with so much power?
>
>I can see it if it is a repeater with a wide area of remote receivers.
>
>But if it is a repeater with a common antenna for transmit and receive,
>then 250 watt transmit will make it heard wider than it can be hit from
>the average 25 to 50 watt mobile station.
>
>
>--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
><phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

I would say that in 250 watts may get you 100 to the base of the antenna after losses from duplexer, long feed line, and having less than the rated output. 250 maybe when operating at full input power and using 13.8 volts. Our system users a 120 watt Mirage repeater amp, running 73 watts output to the duplexer, 55 watts out of the duplexer through 50 feet of 1/2" hardline. Our receiver is .18 microvolts for 12 Db Sinad, .24 through the duplexer. This combination is fairly balanced when using a 25-30 watt mobile transceiver with a 3 DB gain antenna. But when using a portable, we tend to get into the repeater receiver better than hearing it. Due to ignition pulse noise, man-made noise, rubber antennas and inside car operation, we could benefit from more power to fill in the marginal areas. We do have one satellite receiver and one remote receiver to help the portables along.

If you have a clear repeater channel (a seldom enjoyed luxuary in Sandy Eggo now adays) then the more power the better. Same in mobile operation. I seldom run "low power" in the car (unless operating Simplex) as I want a full quieting signal into the repeater as much as possible. It's inconsiderate and irritating to repeat white noise for all other listeners to hear.

| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2349. Re: StarTrek and Packet Radio

Newsgroup: rec.ham-radio
Date: 1990-04-18 16:08:36 UTC
From: mac@idacrd.UUCP
Message-ID: <681@idacrd.UUCP>
Source record: 12353

From article <4VRqH1w161w@w8grt.fidonet.org>, by jim.grubs@w8grt.fidonet.org (Jim Grubs):
> >how he used DSP and a Commodore 64 at work to decode the
> >digital signals in
> >"Star Trek IV" (I THINK it was a C64 - I remember that it
> >started with a "C").
>
> I had to smile when I read this. The computer used was a Cray which
> compared to a C64 is like comparing roller skates to a Porsche 959 and
> even that may be too narrow a comparison.
>
> 73 de Jack, N9ICE

Barry and I know each other quite well and I think his obvious (to me) tongue in cheek was missed. The computer used was a Cray-2. It has 256 megawords of 64 bit memory and four processors running in parallel. The Cray Research Corp has done a good job of achieving reasonable parallel performance with little in the way of hardware support for it. The Cray was used as a software demodulator running the `optimal' FSK demod. This is

bandpass filter, hard limiter, bandpass filter, discriminator of your favorite variety. I chose filter/slicer (its simple). I chose not to do the clock recovery on the Cray and let the Crayette (KA9Q's little grey cells) do the clock recovery and NRZI decoding.

73
Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

2350. Using VISITEL's for Slow-scan TV on ham

Newsgroup: rec.ham-radio
Date: 1990-04-18 19:41:21 UTC
From: johnk@gvgpsa.GVG.TEK.COM
Message-ID: <1460@gvgpsa.GVG.TEK.COM>
Source record: 12354

I'm posting this article for John Langner who tried to respond to my
earlier article but "news" wasn't being cooperative ... John Kirby

---
Earlier article...

>I bought a Visitel picture telephone a couple of months ago to stay
>in visual contact with relatives. The thought occurred to me that
>it could also be the "poor man's" method of slow scan TV on ham.
>
>Questions:
>
>* has anyone tried it?
>* any complications?
>* is it compatible with any mode of existing "regular" slow scan TV/ham
> equipment?
>
> ....

>John Kirby

=====

Follow-up....

I have not tried a Visitel on the radio but I have serious doubts
that it could ever work. The details of the transmission format are
a little fuzzy in my brain but here is what I recall.

The image starts with a digital header containing synchronization
signals and information about the image size. After this there is NO
horizontal sync as in most ham SSTV formats.

The picture is composed of 96 x 96 pixels of 32 gray levels.
The pixel rate and audio carrier frequency are both 3579545/2048
per second. Gray levels are conveyed by a combination of phase and
amplitude modulation. 2 phases (180 degrees apart) and 16 amplitudes.
Each pixel is one audio cycle.

This is fine for a phone line or FM radio. Let's perform a thought
experiment about what would happen on SSB ...

Suppose your tuning was off by 20 Hz. The receiving end expects one
pixel per audio cycle and would gather the pixels at 1727 or 1767 per
second while the sender is producing them at 1747 per second.
The phasing would be all messed up. AGC and QSB would also mess up the

amplitude modulation of the audio carrier.

Several people have proposed using the Visitel for HF SSTV but I have never heard of any success. I would be very interested in hearing more about people's experiences with it.

If you would like to try SSTV at a low cost use your home computer.

* AEA has an interface for the Amiga for about $300.

* SPEC-COM has SSTV software for the Radio Shack COCO. I think it was about $40.

* A color SSTV program for the Atari ST is available from several user groups. It requires a simple interface that can be built for about $7. See 73, December 89 and January 90.

* I have a vague recollection of a product for the IBM PC from a company named something like Computer Systems Consulting. But it was only black & white. You don't see too many B&W pictures anymore.

In summary,
- The Visitel is not compatible with any of the ham SSTV modes.
- The Visitel modulation scheme can't be decoded by the usual Frequency to Voltage demodulators.
- I seriously doubt the Visitel would work over an SSB radio. (Please, someone - prove that I'm wrong!)

Color SSTV can be very expensive but it doesn't have to be anymore. If you must have 262,144 colors, spend $1295 on a Robot 1200C. If you want to make only a small investment to try something new, use one of the systems based on a home computer.

John Langner, WB2OSZ
mit-eddie!polygen!john

2351. capacitors at vhf

Newsgroup: rec.ham-radio
Date: 1990-04-18 22:48:01 UTC
From: washer@unisoft.UUCP
Message-ID: <2928@unisoft.UUCP>
Source record: 12356
Cross-posted to: sci.electronics,rec.ham-radio

I am attempting to build a low power fm transmitter. The
circuit calls for NPO ceramic caps, however these little buggers
are quite difficult to locate. The local radio shop suggested
that I substitute silver-mica, however I have been told that silver
micas 'fail' at much over 50MHz. The circuit in question will run
88Mhz (part 15) and then be adapted to 144MHz (ham band).

Any ideas on where to locate NPO's are what to use as a substitute??

BTW - the values are 330pF, 0.1uF, 0.001uF

Thanks in advance es 73's

- jim washer KK6GQ
UniSoft Corp
(415)420-6410 x137
uunet!unisoft!washer washer@unisoft.com

2352. Re: capacitors at vhf

Newsgroup: rec.ham-radio
Date: 1990-04-19 17:01:31 UTC
From: dvh@cci632.UUCP
Message-ID: <36100@cci632.UUCP>
Source record: 12357
Cross-posted to: sci.electronics,rec.ham-radio

In article <2928@unisoft.UUCP>, washer@unisoft.UUCP (Jim Washer) writes:
> I am attempting to build a low power fm transmitter. The
> circuit calls for NPO ceramic caps, however these little buggers
> are quite difficult to locate. The local radio shop suggested
> that I substitute silver-mica, however I have been told that silver
> micas 'fail' at much over 50MHz. The circuit in question will run
> 88Mhz (part 15) and then be adapted to 144MHz (ham band).
>
> Any ideas on where to locate NPO's are what to use as a substitute??
>
> BTW - the values are 330pF, 0.1uF, 0.001uF

Jim- NPO ceramic capacitors are generally used in a circuit
because of their retention of a fairly constant capacitance over
temperature, NOT because they are particularly better-suited at
VHF than other types. (that came out a little more confused-sounding
than I thought it would, but I think you get the picture). Silver
Mica capacitors work EXTREMELY WELL at the lower to middle VHF
frequencies. The only real warning is that the breakdown voltage
ratings of these capacitors can be more easily exceeded at VHF than
maybe some other types of caps, but their value is stable and their
self-resonant frequency is generally high.

Typically, you'd use an NPO ceramic in a frequency-determining
circuit (such as an oscillator) or other circuit where the caps'
characteristics need to be stable over temperature. However, there are
other types of temp-compensating caps (N470, N750 to name two) which
are also popular, but have very different temperature coefficients.
Their drift (characterized by type) can be used to stabilize an oscillator
which is drifting in the opposite direction.

If the circuit in question is not an oscillator, or
something equally critical, then probably almost any ceramic cap
or silver mica will work fine.

I hope this helps and doesn't confuse you more.

Dave H. KD5RO/2

2353. RE: INFO-HAMS Digest V90 #348

Newsgroup: rec.ham-radio
Date: 1990-04-20 12:09:00 UTC
From: ARYEH@ILJCT.BITNET
Message-ID: <9004250212.AA23761@ucbvax.Berkeley.EDU>
Source record: 12358

I am wondering if any of the microwave fans out in netland can provide me with info, references, etc. on any use of the spectrum 100 GHz and up. Do such frequencies require methods that are very different from 24 GHz systems?

73,

--Aryeh Weiss (4X/KA1PB)

2354. Computer Interfaces

Newsgroup: rec.ham-radio
Date: 1990-04-20 13:51:15 UTC
From: anderson@skvax1.csc.ti.com
Message-ID: <9004201611.AA25740@ti.com>
Source record: 12359

I have noticed several recent postings on the computer interfaces to YAESU and ICOM equipment, and was wondering if someone will also post the information for KENWOOD.

Also, would anyone be able to critique the pros and cons of any or all of these interfaces.

Thanks

John Anderson N5OPY

2355. help identifying an object

Newsgroup: rec.ham-radio
Date: 1990-04-21 01:32:14 UTC
From: cyganski@wpi.wpi.edu
Message-ID: <11971@wpi.wpi.edu>
Source record: 12362
Cross-posted to: sci.physics,sci.electronics,rec.ham-radio

I am appealing to the net to help me determine the identity
of an object several of which were found at the scene of a crime (No Joke!).
I suspect that the object is related to a scientific or engineering
application hence the appeal to these groups.

The object is a cylinder of glazed white ceramic with a diameter
and a length both 7/16 of an inch.

If you have any idea of the applications or origin of such an object
please e-mail me directly as this information may be valuable in
tracking down the perpetrators. Thankyou very much in advance for
any assistance you can offer.

David Cyganski
cyganski@wpi.wpi.edu

2356. help identifying an object

Newsgroup: rec.ham-radio
Date: 1990-04-21 04:27:33 UTC
From: cyganski@wpi.wpi.edu
Message-ID: <11976@wpi.wpi.edu>
Source record: 12363
Cross-posted to: sci.physics,sci.electronics,rec.ham-radio

My appeal for information regarding the possible identity of a
ceramic object connected with a crime has yielded a great deal
of response already but so far no success. The suggestions that
have already been mailed suggest certain clarifications are needed.

The object is a "solid" cylinder of glazed (or perhaps polished)
white ceramic with a diameter and a length both 7/16 of an inch.
There are no markings on the object and no holes of any sort or
any obvious means for mounting. All the surfaces have a similar
smooth texture while the two edges are slightly and smoothly rounded.
(All in all it bears a striking resemblance to a mini-marshmallow
of the sort one puts in hot chocolate.)

One respondent asked whether or not the object is magnetic. It is not.
It is certainly not a ferrite and in my best estimation is a ceramic
closely resembling that used in electrical standoffs. Several
respondents suggested that it is a standoff but the lack of any means
for mounting it or anything to it seems to preclude this.

Lastly, these objects were used as projectiles. Is it
possible that these represent some standard ammunition for a gun
of a sort that I have never encountered before?

Again, if you have any idea of the applications or origin of such an object
please e-mail me directly as this information may be valuable in
tracking down the perpetrators. Thankyou very much in advance for
any assistance you can offer.

David Cyganski (WA1IMI)
cyganski@wpi.wpi.edu

2357. Re: HATE MONGERING MUSHBRAINS

Newsgroup: rec.ham-radio
Date: 1990-04-21 18:11:55 UTC
From: news@portia.Stanford.EDU
Message-ID: <11462@portia.Stanford.EDU>
Source record: 12360

From: paulf@jessica.Stanford.EDU (Paul Flaherty)
Path: jessica!paulf

I couldn't pass this one up...

In article <1990Apr21.060104.20254@lopez.UUCP> arf@lopez.UUCP (Jack Schmidling) writes:
> However, I will take this opportunty to help you understand
> why I consider about 95% of hams, "MUSHBRAINS".

Well, I see you're into digging your own grave. That's useful.

> Most of us can do that with a power meter and SWR bridge.

Which might test your LO, but not much else. You won't learn anything about
band conditions that way. Of course, it wouldn't bother us if your
BROADCASTING was done into a dummy load (a fitting term)...

> ARF: A real crushing flood of feedback, huh?

You should have seen my mailbox after my previous posting.

> ARF: The kind that gets all glassy-eyed when asked anything
> more controversial than "how's my smoke?"

Ham radio is supposed to be apolitical and noncontroversial. That's tradition,
the law, and common sense. Amateur Radio is an international political
football, and some of us havn't forgotten the recordings that anti - ham
administrations played of operations like ARF during WARC '79.

> ARF: Congrats Bob, however there is more to hamming than
> just what your particular narrow interest happens to be.

A cube of sugar in a vat of sulfuric acid.

> You do your thing, I do mine. That's what is supposed to
> make it fun, not a source of conflict.

This is the sort of moral philosophy that fundamentally wrong. It pretends
that "our things" won't conflict. Moreover, it equalizes all actions,
eliminating the concept of right and wrong, or any gradiation between.
"I'm okay, you're okay". Yeah, riiiight.

> ARF: The major deterent to Oscar use is money not IQ and anyone
> who has done it knows that.

I've built OSCAR stations for less than the cost of an HF rig. They don't
have all the bells and whistles like autotracking and automatic Doppler,
but that just means that the op has to have a little upstairs. With the
advent of the pacsats, one can get involved for under $100.

> I lost interest for the same
> reason I lost interest in ham radio in general, its just
> plain boring.

So you've decided to spice things up by becoming the Geraldo of 80m???

> On the Amateur Radio Forum, one can engage his brain in a
> debate on any topic (except ham crap) and hang in there till
> the sun comes up.

ARF is not debate. It's one - sided tabloid hucksterism. Debate is a
structured, BALANCED discussion of relevant issues. Debaters take well
reasoned, persuasive positions, granting arguments when proven wrong.
Debaters do not indulge in personal attacks, unless so attacked. The
junior and senior high school kids that I coach and judge in debate abide
by those rules.

> If you find that a poor use of ham
> spectrum, then I am afraid I find your kind, a poor use of
> human tissue.

Nice try. I know ninth - grade ghetto kids who throw better insults.
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

2358. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-04-21 20:37:18 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9004220702.AA18721@ucbvax.Berkeley.EDU>
Source record: 12361

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #681 -
Alouette 1
1 00424U 62B-A 1 90106.14449276 .00000222 00000-0 25670-3 0 2715
2 00424 80.4664 347.2452 0024551 72.0267 288.3557 13.67327334374212
ATS 3
1 03029U 67111 A 90 88.80489108 -.00000075 00000-0 99999-4 0 3113
2 03029 13.1000 21.8559 1511727 213.1891 136.3776 1.00274601 82004
Cosmos 398
1 04966U 71 16 A 90109.21834840 .00109246 17005-4 61478-3 0 7636
2 04966 51.5229 26.0109 2321080 36.7465 337.1976 10.95487257585200
Starlette
1 07646U 75010 A 90108.05972562 -.00000043 00000-0 13825-4 0 262
2 07646 49.8256 35.7376 0205602 352.6495 7.1399 13.82135324767460
LAGEOS
1 08820U 76039 A 90109.23025621 .00000002 00000-0 00000 0 0 423
2 08820 109.8527 334.9416 0044284 250.8774 108.7137 6.38663193 70174
GPS-0001
1 10684U 78020 A 90109.10016616 .00000008 00000-0 99999-4 0 3605
2 10684 63.6816 91.3524 0115689 198.8734 160.6832 2.00556599 74665
GPS-0002
1 10893U 78 47 A 90105.08364811 -.00000025 00000-0 00000 0 0 1105
2 10893 64.4089 332.3719 0162947 25.7268 335.1280 2.00547306 87409
SeaSat 1
1 10967U 78064 A 90107.21409022 .00001053 00000-0 40785-3 0 2646
2 10967 108.0086 194.3387 0000072 253.8254 106.2900 14.35557679617702
GPS-0003
1 11054U 78093 A 90104.87976378 -.00000025 00000-0 00000 0 0 1941
2 11054 63.9590 328.6889 0086113 115.1377 245.8229 2.00566651 84413
Nimbus 7
1 11080U 78098 A 90106.25930630 .00000151 00000-0 16622-3 0 6417
2 11080 99.2005 12.5767 0008160 250.2183 109.8090 13.83418079579474
GPS-0004
1 11141U 78112 A 90108.96490347 .00000008 00000-0 00000 0 0 3101
2 11141 63.6741 91.2846 0060660 316.2108 43.3095 2.00559778 83194
GPS-0005
1 11690U 80 11 A 90108.60679715 .00000009 00000-0 00000 0 0 9253
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2 11690 64.1815 93.3452 0113493 204.2889 155.1592 2.00556558 89049
GPS-0006
1 11783U 80 32 A 90108.91533431 -.00000025 00000-0 00000 0 0 897
2 11783 63.7424 328.1366 0148644 60.4760 301.0342 2.00574331 73139
GOES 5
1 12472U 81049 A 90106.84568444 -.00000226 00000-0 99999-4 0 8503
2 12472 3.3258 76.5733 0002731 319.4670 40.7581 1.00238534 31637
DE 1
1 12624U 81 70 A 90108.22137326 .00000009 00000-0 -18609-3 0 3648
2 12624 89.0759 148.5013 6209119 302.1968 12.2323 3.51022798260013
SME
1 12887U 81100 A 90109.66648628 .00044488 00000-0 89873-3 0 5667
2 12887 97.6426 153.7194 0002296 157.9428 202.1915 15.46361441472218
Salyut 7
1 13138U 82 33 A 90109.63889480 .00054974 00000-0 68545-3 0 1630
2 13138 51.6035 239.7366 0000595 327.7730 32.3082 15.59345562455706
Cosmos 1383
1 13301U 82 66 A 90108.70571153 .00000152 00000-0 16672-3 0 5446
2 13301 82.9354 344.3785 0027657 328.7150 31.2348 13.67817871389547
LandSat 4
1 13367U 82 72 A 90108.11255504 .00000363 00000-0 85690-4 0 2874
2 13367 98.1707 171.8043 0002762 343.9130 16.2016 14.57139763412557
IRAS
1 13777U 83 4 A 90108.55115501 .00000438 00000-0 32833-3 0 7356
2 13777 99.0310 306.2616 0012429 184.5311 175.5781 13.98768568 38606
Cosmos 1447
1 13916U 83 21 A 90108.26500818 .00000161 00000-0 15928-3 0 6849
2 13916 82.9416 56.3528 0037609 309.0650 50.7175 13.74028158354443
TDRS 1
1 13969U 83 26 B 90101.84800313 -.00000208 00000-0 00000 0 0 9445
2 13969 4.3199 66.6757 0006902 263.4646 96.1837 1.00274607 92418
GOES 6
1 14050U 83 41 A 90109.02602434 .00000122 00000-0 99999-4 0 1161
2 14050 2.0728 79.4913 0007491 211.5516 148.8074 1.00267683 9673
OSCAR 10
1 14129U 83 58 B 90107.09513685 .00000012 00000-0 00000 0 0 4633
2 14129 25.9625 208.7658 5976985 135.3757 292.1127 2.05880525 23479
GPS-0008
1 14189U 83 72 A 90109.48559841 .00000007 00000-0 99999-4 0 7451
2 14189 63.3441 89.7163 0148060 219.0534 139.9077 2.00708867 49583
LandSat 5
1 14780U 84 21 A 90109.71871563 .00001014 00000-0 23492-3 0 1106
2 14780 98.2103 170.6453 0002753 94.7763 265.3786 14.57115260326206
UoSat 2
1 14781U 84 21 B 90109.22528228 .00002143 00000-0 40644-3 0 6545
2 14781 97.9560 163.6983 0014085 74.5343 285.7508 14.65184891327339
GPS-0009
1 15039U 84 59 A 90109.06710618 .00000006 00000-0 00000 0 0 8873
2 15039 63.0903 88.9239 0022041 242.8650 116.9454 2.00613001 42858
Cosmos 1574
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1 15055U 84 62 A 90107.95391887 .00000142 00000-0 14082-3 0 8379
2 15055 82.9574 106.7198 0028178 127.3072 233.0659 13.73342387291802
GPS-0010
1 15271U 84 97 A 90107.96783500 -.00000025 00000-0 00000 0 0 7758
2 15271 63.2523 327.7666 0104756 325.8383 33.5484 2.00574055 39941
Cosmos 1602
1 15331U 84105 A 90108.90903598 .00003863 00000-0 53301-3 0 2080
2 15331 82.5327 55.8338 0022502 160.8456 199.3675 14.77774567299336
NOAA 9
1 15427U 84123 A 90108.34122854 .00000576 00000-0 33264-3 0 5045
2 15427 99.1678 106.7859 0015337 173.3188 186.8198 14.12522196275533
Cosmos 1686
1 16095U 85 86 A 90108.86978047 .00119814 00000-0 14769-2 0 5512
2 16095 51.6041 243.6081 0001636 334.5919 25.1853 15.59300109256688
GPS-0011
1 16129U 85 93 A 90109.63735600 .00000007 00000-0 00000 0 0 4567
2 16129 63.8526 89.8225 0122067 149.8668 210.8542 2.00511339 33186
Mir
1 16609U 86 17 A 90109.66467052 .00056246 00000-0 61125-3 0 5390
2 16609 51.6167 265.2259 0013644 45.6942 314.5089 15.62800180238968
SPOT 1
1 16613U 86 19 A 90108.67445677 .00001078 00000-0 52424-3 0 8406
2 16613 98.7030 183.9067 0001544 54.2772 305.8537 14.20033977 55480
Cosmos 1766
1 16881U 86 55 A 90109.42529209 .00003088 00000-0 43042-3 0 9232
2 16881 82.5205 114.4831 0021950 176.2899 183.8495 14.77303400200479
EGP
1 16908U 86 61 A 90 96.51913600 .00000014 00000-0 39817-3 0 1734
2 16908 50.0086 116.3154 0011133 15.7496 344.3683 12.44386633165932
NOAA 10
1 16969U 86 73 A 90109.58846945 .00000692 00000-0 32009-3 0 3654
2 16969 98.6060 138.8356 0014738 80.6109 279.6735 14.23550301186270
MOS-1
1 17527U 87 18 A 90108.67822013 .00000312 00000-0 25820-3 0 4736
2 17527 99.1100 181.9867 0000555 71.8521 288.2727 13.94851057160964
GOES 7
1 17561U 87 22 A 90106.73044257 -.00000046 00000-0 99999-4 0 4701
2 17561 0.0997 97.4646 0013747 245.7002 16.9344 1.00274470 4809
Kvant-1
1 17845U 87 30 A 90108.83337476 .00048684 00000-0 53248-3 0 572
2 17845 51.6197 269.4298 0014341 46.5196 313.7429 15.62684622174889
DMSP B5D2-3
1 18123U 87 53 A 90105.99782577 .00000725 00000-0 40165-3 0 5244
2 18123 98.8214 297.4311 0014196 196.8915 163.1792 14.13964617145614
RS-10/11
1 18129U 87 54 A 90108.88113505 .00000083 00000-0 84167-4 0 1032
2 18129 82.9300 12.3433 0010466 287.3094 72.6888 13.72079252141318
Meteor 2-16
1 18312U 87 68 A 90105.99259182 .00000219 00000-0 18868-3 0 3927
2 18312 82.5594 339.5995 0014041 67.2744 292.9899 13.83632168134381
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Meteor 2-17
1 18820U 88 5 A 90105.74892515 .00000232 00000-0 19773-3 0 2154
2 18820 82.5403 40.0874 0017435 135.9341 224.3216 13.84314289111547
DMSP B5D2-4
1 18822U 88 6 A 90105.97564903 .00000745 00000-0 35884-3 0 4410
2 18822 98.6577 346.2712 0007751 88.5723 271.6342 14.21368081113984
AO-13
1 19216U 88 51 B 90107.22718718 -.00000161 00000-0 99999-4 0 870
2 19216 57.0410 159.3492 6931849 225.2854 51.5551 2.09704352 14121
OKEAN 1
1 19274U 88 56 A 90108.84901738 .00006055 00000-0 85852-3 0 7139
2 19274 82.5178 213.6310 0020835 319.5620 40.4257 14.76732120 96163
Meteor 3-2
1 19336U 88 64 A 90107.63707644 .00000392 00000-0 99999-3 0 4090
2 19336 82.5453 320.2830 0017975 99.7197 260.5867 13.16886413 82982
NOAA 11
1 19531U 88 89 A 90108.05981911 .00000826 00000-0 47477-3 0 2209
2 19531 98.9774 56.3199 0013208 93.3319 266.9373 14.11542098 80481
TDRS 2
1 19548U 88 91 B 90106.90620808 .00000131 00000-0 99999-4 0 830
2 19548 0.0836 54.7981 0001931 350.1664 315.0104 1.00276957 4835
Cosmos 2001
1 19796U 89 11 A 90108.87342124 -.00001019 00000-0 99999-4 0 4413
2 19796 63.1411 100.4423 7115356 319.8904 5.0341 2.00629467 8610
GPS BII-01
1 19802U 89 13 A 90101.65668806 .00000016 00000-0 99999-4 0 758
2 19802 55.0618 200.0320 0058197 160.4952 199.7551 2.00563097 8413
Akebono
1 19822U 89 16 A 90109.43407065 .00020797 00000-0 14718-2 0 5190
2 19822 75.1362 267.4315 4194601 259.1784 52.2662 7.07469211 29266
Meteor 2-18
1 19851U 89 18 A 90105.63171137 .00000189 00000-0 16080-3 0 1633
2 19851 82.5166 278.2951 0014448 174.5317 185.5963 13.83955433 56919
TDRS 3
1 19883U 89 21 B 90106.54616291 -.00000235 00000-0 99999-4 0 619
2 19883 0.0667 31.5154 0002589 299.4183 29.0615 1.00268426 3273
GPS BII-02
1 20061U 89 44 A 90107.32450673 -.00000032 00000-0 00000 0 0 582
2 20061 54.7480 18.2924 0082503 173.5582 186.5725 2.00561703 6277
Nadezhda
1 20103U 89 50 A 90108.07664561 .00000123 00000-0 12050-3 0 944
2 20103 82.9600 329.3181 0036428 204.3235 155.6205 13.73580372 39467
GPS BII-03
1 20185U 89 64 A 90101.31106473 .00000016 00000-0 99999-4 0 525
2 20185 54.9301 200.9079 0025945 148.3528 211.8362 2.00559930 4722
Activnyi
1 20261U 89 80 A 90109.63200394 .00004329 00000-0 13588-2 0 3935
2 20261 82.5898 265.7267 1259560 110.7662 263.2803 12.43562862 25313
Activnyi RB
1 20262U 89 80 C 90109.89601302 .00001680 00000-0 52347-3 0 1570
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2 20262 82.5900 265.5815 1262206 110.2458 263.8695 12.43114855 25347
Magion 2
1 20281U 89 80 B 90109.61237911 .00005444 00000-0 17006-2 0 4074
2 20281 82.5884 265.6876 1259354 110.7200 263.3261 12.43776601 25311
GPS BII-04
1 20302U 89 85 A 90103.03517635 -.00000029 00000-0 99999-4 0 532
2 20302 54.6900 319.7179 0040810 310.9800 48.3615 2.00561961 3442
Meteor 3-3
1 20305U 89 86 A 90107.92169786 .00000038 00000-0 88330-4 0 769
2 20305 82.5471 260.4960 0017076 115.9703 244.3183 13.15854596 23022
COBE
1 20322U 89 89 A 90109.11158545 .00004594 00000-0 30422-2 0 729
2 20322 99.0187 119.9420 0007754 164.3787 195.7622 14.01834000 21219
Kvant-2
1 20335U 89 93 A 90108.76940963 .00048666 00000-0 53248-3 0 1755
2 20335 51.6188 269.7522 0013172 40.8396 319.3463 15.62697536 22475
GPS BII-05
1 20361U 89 97 A 90104.32207962 .00000015 00000-0 99999-4 0 222
2 20361 54.9643 142.8632 0056713 60.9293 299.6943 2.00577879 2449
SPOT 2
1 20436U 90 5 A 90108.63928929 .00000779 00000-0 38401-3 0 1023
2 20436 98.7106 183.8958 0001147 100.7860 259.3460 14.20032731 12291
UO-14
1 20437U 90 5 B 90109.83443853 -.00000791 00000-0 -30752-3 0 559
2 20437 98.6894 186.0998 0010933 328.6493 31.4049 14.28553472 12537
UO-15
1 20438U 90 5 C 90108.23698605 .00000389 00000-0 17186-3 0 434
2 20438 98.7028 184.5073 0010912 332.9002 27.1625 14.28326623 12309
PACSAT
1 20439U 90 5 D 90101.28423749 .00000597 00000-0 25351-3 0 409
2 20439 98.7103 177.6380 0011936 355.9543 4.1512 14.28656053 11313
DO-17
1 20440U 90 5 E 90101.28231988 .00000649 00000-0 27385-3 0 332
2 20440 98.7105 177.6413 0012157 355.7267 4.3784 14.28695269 11316
WO-18
1 20441U 90 5 F 90108.06890258 .00000550 00000-0 23387-3 0 314
2 20441 98.7049 184.4204 0012387 336.5363 23.5290 14.28808816 12283
LO-19
1 20442U 90 5 G 90101.27239403 .00000607 00000-0 25635-3 0 366
2 20442 98.7064 177.6445 0013107 356.1235 3.9789 14.28869171 11318
GPS BII-06
1 20452U 90 8 A 90103.54117547 .00000000 00000-0 99999-4 0 313
2 20452 54.6181 258.6046 0031593 42.5005 324.8619 2.00878562 1549
MOS-1B
1 20478U 90 13 A 90109.63662366 .00000846 00000-0 65541-3 0 1478
2 20478 99.1913 180.0920 0001042 129.3621 230.7735 13.94845811 9972
FO-20
1 20480U 90 13 C 90101.18898750 .00000074 00000-0 21541-3 0 228
2 20480 99.0471 160.3287 0540923 200.2148 157.6770 12.83125257 8156
1990 013D
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1 20491U 90 99.62639391 0.00000379 76242-3 0 254
2 20491 99.0481 160.7986 0470810 191.7301 167.2548 13.02717578 7470
Soyuz TM-9
1 20494U 90 14 A 90108.83337805 .00048698 00000-0 53248-3 0 832
2 20494 51.6205 269.4302 0013799 45.0629 315.2340 15.62703495 10406
1990 015C
1 20498U 90 81.09953213 0.00059706 13764-2 0 454
2 20498 41.6300 68.4127 0038152 27.2360 333.0469 15.40934956 5476
Raduga 25
1 20499U 90 81.06833755 0.00000001 10000-3 0 400
2 20499 1.4006 274.1312 0004873 103.7390 255.0465 1.00264606 352
1990 016D
1 20502U 90 16 D 90 84.10001850 .00000154 00000-0 99999-4 0 126
2 20502 1.4209 273.2174 0037369 64.0442 295.2518 1.00014886 405
Nadezhda 2
1 20508U 90 17 A 90107.38855265 .00000134 00000-0 13224-3 0 221
2 20508 82.9492 104.7366 0045282 153.1318 207.2196 13.73197116 6665
1990 017B
1 20509U 90 87.68788679 0.00000347 35298-3 0 296
2 20509 82.9522 119.2241 0041578 186.2581 173.8063 13.74435282 3967
OKEAN 2
1 20510U 90 18 A 90108.89574109 .00002511 00000-0 38723-3 0 612
2 20510 82.5266 152.3174 0021864 105.7819 254.5805 14.72935184 7341
1990 018B
1 20511U 90 89.05320873 0.00001995 30621-3 0 194
2 20511 82.5291 170.5611 0021053 166.6080 193.5693 14.73029041 4424
Progress M3
1 20513U 90 20 A 90108.76942038 .00048700 00000-0 53248-3 0 624
2 20513 51.6177 269.7553 0014443 42.6822 317.5523 15.62691448 7635
INTELSAT-6
1 20523U 90 21 A 90108.87166598 .00007500 00000-0 53421-3 0 500
2 20523 28.3479 292.5844 0016913 267.4443 92.5911 15.02668043 5514
Cosmos 2060
1 20525U 90 22 A 90109.59081454 .00009183 00000-0 15561-3 0 771
2 20525 65.0272 317.1972 0010096 267.5080 92.3513 15.52037015 5582
Cosmos 2061
1 20527U 90 23 A 90108.04488224 .00000118 00000-0 12060-3 0 195
2 20527 82.9406 190.3306 0030310 191.0676 168.9818 13.71244104 3984
1990 023B
1 20528U 90 23 B 90107.28619896 .00000383 00000-0 40438-3 0 343
2 20528 82.9417 190.8494 0024834 180.2038 179.9069 13.72639558 3876
GPS BII-07
1 20533U 90 25 A 90106.09181043 -.00000032 00000-0 00000 0 0 166
2 20533 55.0542 18.4398 0034301 99.3828 261.0299 2.00592776 354
1990 025C
1 20535U 90 25 C 90108.98409874 .00213228 16945-4 24598-2 0 356
2 20535 37.6037 358.2327 5984417 222.2562 71.6084 4.16988491 1009
1990 026A
1 20536U 90 26 A 90108.64498540 -.00002256 00000-0 -21004-1 0 379
2 20536 62.9344 21.4993 7365110 318.3598 4.7472 2.00624894 452
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1990 026B
1 20537U 90 26 B 90109.68250342 .02917281 40186-4 12958-2 0 444
2 20537 62.7477 297.4607 0099738 120.8422 240.2949 16.10700131 3634
1990 026D
1 20539U 90 26 D 90108.42152150 .00000105 00000-0 -71130-3 0 144
2 20539 63.0581 21.2621 7340909 318.5658 4.7846 2.03000401 476
Offeq 2
1 20540U 90109.17333213 .00761119 -11840-4 24141-2 0 352
2 20540 143.2119 183.8238 0873204 179.3963 180.7861 14.17451417 2210
1990 027B
1 20541U 90 27 B 90109.18490436 .01067270 -13067-4 30949-2 0 289
2 20541 143.2161 184.5508 0833212 180.7000 179.5953 14.27490540 2229
PegSat
1 20546U 90 28 A 90109.57184099 .00023436 00000-0 16622-2 0 255
2 20546 94.1400 184.0145 0146753 177.5035 182.7031 14.96332619 2057
1990 028B
1 20547U 90 28 B 90109.09281600 .00004199 00000-0 32302-3 0 168
2 20547 94.1479 183.7950 0130643 179.5329 180.6119 14.95259307 1989
Cosmos 2064
1 20549U 90 29 A 90108.06869249 .00000034 00000-0 28102-3 0 86
2 20549 73.9806 234.6754 0017320 253.7845 106.1302 12.47017375 1497
Cosmos 2065
1 20550U 90 29 B 90108.04985648 -.00000006 00000-0 00000 0 0 126
2 20550 73.9820 234.6728 0008866 291.1021 68.9093 12.48997637 1494
Cosmos 2066
1 20551U 90 29 C 90108.03065424 -.00000007 00000-0 00000 0 0 106
2 20551 73.9811 234.3695 0049249 67.3732 293.2526 12.59478413 1501
Cosmos 2067
1 20552U 90 29 D 90108.04733506 -.00000007 00000-0 00000 0 0 77
2 20552 73.9806 234.4011 0039643 75.7822 284.7631 12.57707525 1508
Cosmos 2068
1 20553U 90 29 E 90108.06302571 -.00000007 00000-0 00000 0 0 85
2 20553 73.9817 234.4108 0030718 69.8035 290.6319 12.56042945 1508
Cosmos 2069
1 20554U 90 29 F 90108.07937328 -.00000006 00000-0 00000 0 0 80
2 20554 73.9819 234.4797 0021644 67.4385 292.8956 12.54314845 1505
Cosmos 2070
1 20555U 90 29 G 90108.09578265 .00000561 00000-0 36110-2 0 61
2 20555 73.9822 234.4705 0013115 52.8085 307.4242 12.52584912 1501
Cosmos 2071
1 20556U 90 29 H 90108.03347703 -.00000007 00000-0 00000 0 0 81
2 20556 73.9813 234.6449 0002461 74.2002 285.9324 12.50727606 1494
1990 029J
1 20557U 90 29 J 90108.22245256 .00001050 00000-0 95280-2 0 134
2 20557 73.9835 235.1961 0147778 255.9491 102.5093 12.22758391 1485
AsiaSat-1
1 20558U 90 30 A 90109.13167367 -.00000306 00000-0 99999-4 0 164
2 20558 0.1739 299.6773 0000832 185.8615 234.4734 1.00271476 142
1990 030B
1 20559U 90 30 B 90109.48357219 .00018332 00000-0 60083-2 0 134
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2 20559 31.2372 19.5510 7325719 185.4494 156.2472 2.22243952 278
1990 032A
1 20566U 90 32 A 90109.66589261 .00234187 10196-4 31048-3 0 171
2 20566 62.7998 13.8195 0111584 112.0779 249.2285 15.95205180 1263
1990 032B
1 20567U 90 32 B 90109.68057188 .02828460 41009-4 11824-2 0 241
2 20567 62.7792 13.3463 0060103 107.0137 253.8647 16.17896254 1278
1990 033A
1 20568U 90 33 A 90109.63069357 .00404878 84607-4 47762-3 0 174
2 20568 64.7652 138.8939 0032434 91.3067 269.2336 16.07132671 944
1990 033B
1 20569U 90 33 B 90105.99176095 .20516931 37953-4 28167-3 0 129
2 20569 64.7642 152.1514 0014918 63.6752 297.0444 16.47971347 362
1990 034A
1 20570U 90 34 A 90108.10165968 -.00000335 00000-0 99999-4 0 53
2 20570 0.0720 341.1698 0027547 152.9965 226.2681 1.00297754 01
1990 034B
1 20571U 90 34 B 90108.17478112 .00004004 00000-0 71109-3 0 46
2 20571 22.7543 330.7129 0629132 206.1351 150.5996 13.81925507 585
1990 034C
1 20572U 90 34 C 90107.42025446 -.00003490 33438-4 99999-4 0 77
2 20572 18.9011 358.6833 7400890 181.1666 174.4526 2.16008597 75
1990 035A
1 20573U 90 35 A 90109.69027465 .00109686 39364-5 15014-3 0 100
2 20573 82.3625 348.9721 0049299 82.3784 278.3072 16.03593954 389
1990 035B
1 20574U 90 35 B 90108.36855446 .13619672 -57633-5 44393-3 0 97
2 20574 82.3495 350.4855 0026504 120.0589 240.5689 16.41587453 179
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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2359. Re: TCP/IP in anticomputers

Newsgroup: rec.ham-radio
Date: 1990-04-22 00:34:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500506@ux1.cso.uiuc.edu>
Source record: 12364

What's the possibility of hacking the TNC code to refuse connections from another node that has its window size at other than 1 when its own is set to 1?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2360. Re: Kenwood 721 Display Upgrade

Newsgroup: rec.ham-radio
Date: 1990-04-22 00:41:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500507@ux1.cso.uiuc.edu>
Source record: 12365

The ability for almost all the radios on the market to detect a low-battery condition is terribly inadequate.

Not only should they be able to tell you when the battery is low by both visual and/or audible means (user settable), but there should also be a "mode" whereby the voltage is shown on the display. How hard would it be to get 1/2 volt accuracy (which is about all you need in this situation, if that) anyway?

If it comes as a plug option, then I'd also want better accuracy (1/20 volt) and a current meter, too.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2361. Re: ARF and Jack Piddling

Newsgroup: rec.ham-radio
Date: 1990-04-22 03:08:50 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <FLe1H1w161w@w8grt.fidonet.org>
Source record: 12369

mac@idacrd.UUCP (Robert McGwier) writes:

>
> An open letter to Jack Schmidling: The title was just to get his
> and your attention ;-). I do not read and am unsubscribed to
> soc.culture.jewish. He sent his hate mail to this group so I send
> ONE response to it. Please follow up elsewhere, preferably by
> email.
>
> Schmidling:
>
> I urge you to think of the hurt that you cause with this ARF business.
> Have you no conscience at all? Hate has no place in a hobby
> such as amateur radio (like it had a place anywhere).
>
> I am sure after reading your illiterate reply to me, and most net rec.ham-
> radio people being literate enough to know who I am, your bankrupt
> philosophy and intellect have come shining through. As for being

And they say the code test keeps out the riff-raff....

2362. ARRL Letter 09-Apr-90

Newsgroup: rec.ham-radio
Date: 1990-04-22 03:09:41 UTC
From: gws@n8emr.UUCP
Message-ID: <1496@n8emr.UUCP>
Source record: 12367

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
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ARRL TO FCC -- W1AW OPERATIONS NOT PART OF THE DISPUTE

On October 11, 1989, FCC Special Services Division Chief Robert H. McNamara wrote to a number of amateurs seeking comments and information on phone patches, information bulletins and over- the-air telegraphy practice. The letter requested information and insight that could bring a resolution to "the unfortunate continuing over-the-air dispute that takes place on the 20 meter band...which is jeopardizing international goodwill..." The letter asked a number of questions on these topics.

ARRL's response was submitted on November 15, by Counsel Chris Imlay, N3AKD, in behalf of W1AW Trustee, John Lindholm as well as the ARRL. In it, Imlay made observations and recommendations as requested in NcNamara's letter. At the urging of FCC staff, the League in the mid-1970s developed the eleven-point "Phone Patch and Autopatch Guidelines" that appears in The FCC Rule Book (Eighth Edition) at page 13-15. These guidelines have stood the test of time, and are generally accepted as a useful supplement to the Commission's Rules.

The League believes that the definition of the term "information bulletin" contained in the Commission's Rules should be strictly applied and enforced.

With regard to telegraphy practice, the only guidelines needed are to ensure that the purpose of the transmissions is to provide telegraphy practice and not to engage in one-way transmissions that otherwise would be illegal:

- The text should not be randomly generated, since such practice material is readily available via other media.

- The text should be taken from a published, readily available source to facilitate checking accuracy of copy.

- The text should relate in some way to Amateur Radio.

- The text should not be sent repeatedly.

In a letter dated December 21, 1989, McNamara stated that 45 replies were received in response to his letter and that although the responses "contained somewhat conflicting information and views, they were helpful in understanding the issues so that a course of action could be selected." McNamara stated that it appeared that the intensity of the debate has

subsided and that most of those participating in it have recommitted themselves to the basic principles of the amateur service by attempting to resolve such disputes off the air.

He stated that the disputes are centered in three main areas: phone patch communications on the HF bands, information bulletins and telegraphy practice transmissions. McNamara stated that the replies "...confirm that misuse of an important amateur service frequency band was having a major negative impact upon the service. They clearly show that the amateur service was not fully cooperating in selecting transmitting channels and in making the most effective use of the amateur service frequencies as required by Section 97.101(b)."

McNamara stated there were two general views for a solution in the responses. One, that the amateur community should be allowed to solve the problem internally. The second that the Commission should mount a massive enforcement effort. McNamara said the second approach was not possible due to enforcement priorities and budget constraints; if direct Commission intervention proved to be necessary it would be in the form of additional restrictions that may affect all amateur operators. Mr McNamara said "In view of the above, we will afford the amateur community the self-regulation opportunity suggested. To implement this plan, we suggest you and the managers of eight other amateur service organizations.. consider submitting a joint plan for the problem resolution within the amateur community." McNamara suggested that this plan be developed by July 1, 1990.

In a March 19 letter to the FCC, the ARRL stated that, according to letters received by the FCC in this matter, there is no basis for the operations of W1AW to be included in any further discussion. Letters received by the FCC from amateurs indicated that the amateur community clearly hold the W1AW transmissions of code practice and bulletins in the highest regard. There was not a single dissenting statement to be found in the file and thus no purpose to be served by having W1AW operations included in further discussions aimed at resolving the dispute on 20 meters.

As one correspondent put it, "...regarding the telegraphy practice...[and] W1AW...I have a hard time understanding that it is a problem." The ARRL agrees and stated that it does not believe that the W1AW trustee should be a party to the FCC requirement that those involved submit a plan of resolution.

The League did not discount the seriousness of the central issues of the dispute, nor the harm to the Amateur Radio Service and to the public which has resulted from the continuing on-the- air confrontations between amateurs holding differing views. Thus, the ARRL's letter of November 15, 1989, which contains a number of specific suggestions in this regard, was sent to the FCC.

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ARRL FILES REPLY COMMENTS IN GENERAL DOCKET 89-554

On March 16, the ARRL submitted its reply comments to the FCC's inquiry relative to its preparation for WARC-92. In it the League said that it was gratified to note the absence of comments proposing the reallocation of existing Amateur Radio bands to other services. ARRL noted that a number of commenters representing high-frequency broadcasting (HFBC) interests appear to be seeking expansion of their allocations by about 50%. ARRL said that this additional spectrum might not be needed if the HFBC service adopted single-sideband instead of double-sideband amplitude modulation as its standard and that FCC should consider expansion of HFBC only after it had embraced this and other spectrum conversation techniques.

The League noted that Motorola's forecast for 800 MHz of new spectrum for land mobile in the 1-3 GHz range was "jolting" if not unsurprising. ARRL suggested that some portions of the UHF TV spectrum be considered for reallocation. The increased use of cable, videotape and other spectrum conservation techniques has, in the League's opinion, lessened the need for some of the television spectrum allocations in the UHF region. ARRL agreed with comments made by the American Petroleum Institute which said that while there is a shortage of land mobile spectrum... the situation is aggravated by the operational and technical inefficiencies in use in their current spectrum assignments.

ARRL EXECUTIVE COMMITTEE MEETS

The Executive Committee (EC) of the American Radio Relay League met on March 10 in Washington, DC. Among EC actions were:

- Authorization to file comments in PR Docket Numbers 89-599 and 89-552 regarding the establishment of a Personal Emergency Locator Transmitter Service in the 220-222 MHz band and implementation of the 220-222 MHz land mobile allocation into Part 90 of the FCC rules respectively.

- Appointment of a special working group to evaluate the FCC NPRM in PR Docket 90-55 against the ARRL petition for a codeless class of amateur license, RM-6995 with the objective of developing a strawman ARRL position for distribution to the Board before the next Executive Committee meeting.

- Moved to request a 30-day extension for the filing of reply comments on RM-7248, the League's petition to establish limited segments for automatic control of digital HF transmissions.

The Executive Committee also reviewed the status of a number of ongoing FCC, international and organizational matters as well as ARRL and IARU preparations for WARC-92. The full text of the Minutes will appear in the May issue of QST.

ARRL FILES COMMENTS IN PR DOCKET 89-599

On March 20, the ARRL filed its comments with the FCC in its proposal to establish a Personal Emergency Locating Transmitter Service (PELTS) in the 220-MHz band. The ARRL said this proposal is premature because the FCC's proceeding in PR Docket 87-14 to reallocate the 220-222 MHz band from the amateur to the land mobile service is not final. The League noted that should the FCC's decision to reallocate the 220-222 MHz band be ultimately

reversed there will be no frequency allocation for the private land mobile radio service and that no further action should be taken in this proceeding until the Commissions's allocations orders are affirmed on appeal, and any and all judicial appeals are exhausted.

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STS-35 MISSION APPROACHING LAUNCH

Ron Parise, WA4SIR, is a Payload Specialist on the Space Shuttle mission STS-35 scheduled to be launched May 9, 1990 from Cape Canaveral. The ARRL Educational Activities Department now has a SAREX teacher's package which includes lesson plans, resource material, informational videotapes and more. You can obtain the package by sending a 10-13-inch envelope with $1.25 postage affixed to EAD at ARRL HQ.

Ron will operate both 2-meter AFSK packet as well as 2-meter FM voice. The packet station (an HK-21 "pocket-packet TNC" marketed by Heathkit) will transmit bulletins providing updates on the mission and will operate in a ROBOT mode where stations on the ground can connect to the shuttle TNC and obtain a QSO number to validate the contact.

Ron is scheduled to operate the 2-meter voice station during his off hours and he will spend the majority of his time talking with school classrooms around the world offering them the opportunity to talk directly with an astronaut aboard the Space Shuttle. NASA has authorized SAREX in order to "encourage youth to become excited about science and technology" and to publicize manned space flight to the general public.

This past week the amateur equipment to be used on the mission underwent EMC (electromagnetic compatibility) tests. These tests are designed to determine the possibility of any interference the amateur equipment may inflict on any of the shuttle electronic systems. NASA has notified AMSAT that all the equipment passed the tests.

With SAREX on STS-35, Amateur Radio may have an opportunity to further the quest for international cooperation in space. Now that Amateur Radio activity on the MIR space station appears to have resumed, AMSAT and ARRL are investigating whether there will be a mutual-visibility window between STS-35 and MIR for a first- ever Shuttle to MIR linkup. Adding to the excitement, the STS-35 Mission Commander is Vance Brand, who participated in the the Apollo/Soyuz program many years ago. Stay tuned to AMSAT and ARRL bulletins as further details become available.

INTERNATIONAL MARCONI DAY

Under the sponsorship of the Cornish Radio Amateur Club, "International Marconi Day" will be held on Saturday, April 21 1990, (0000-2400 UTC).

During this event, approximately 14 stations in 8 countries will be active in the General class portion of 6 HF bands. Each station will represent a location of historical importance in the life of Guglielmo Marconi, a pioneer of transatlantic communication.

All amateurs are invited to participate in this annual event, first held in 1978. A special award designed around a 1912 Marconi Company Wireless stock certificate is available to all stations confirming contacts with 10 or more of the special event stations. To receive the certificate send a copy of the logs and 10 IRCs or $5.00 US to Cornish Radio Amateur Club, Box 100, Truro, Cornwall, TX1 1RX, United Kingdom.

SA-AMSAT BACAR MISSION 90/1 SUCCESSFUL

On March 10, SA-AMSAT launched three balloons carrying Amateur Radio (BACAR) to a height of nearly 50,000 feet above sea level.

BACAR was equipped with an RTTY telemetry unit providing information such as current altitude and rate of climb. The telemetry transmitter's output was in the 2-meter band. Also aboard was a monochrome CCD camera feeding a video transmitter operating on local UHF TV broadcast channel 35 (583.25 MHz). The South African licensing authority was petitioned by SA-AMSAT to use the commercial television frequency so that youth groups and young amateurs without amateur equipment could participate.

The local weather bureau provided tracking support and other logistical assistance. Seconds after BACAR started to ascend, reports of good quality video were received. Later in the flight video reception was reported from as far as Pietersburg, South Africa, a city over 300 kilometers from the launch site.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

2363. RTTY DX Notes, 4/20/90

Newsgroup: rec.ham-radio
Date: 1990-04-22 03:11:35 UTC
From: gws@n8emr.UUCP
Message-ID: <1497@n8emr.UUCP>
Source record: 12368

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ RTTYDX $RTDX2004
RTTY DX Notes, 1of3, 4/20/90

RTTY DX Notes for Weekending 20th April 1990.
Part 1 of 3.
BID: $RTDX2004

I was going to say something about the Region 1 IARU Conference held
in Spain recently. Listening to the wails of anguish from the packet
operators when their demands for extra frequencies were rejected 18 to
9, makes one wonder if they going to realize the problems of their
system on the HF bands. Maybe we should rethink the system, and come
up with something that can stand a little QRM.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, JA1ACB, JA1BLV, OD5NG,
TG9VT, VE3JPC, VK2EG, W1DA, W2JGR, W6/G0AZT and the Tri-State DX
Association VHF packet cluster.

Bandpass:

Friday 13:
KP2BH 14083 at 0035Z
ZP5FGS 21088 at 0130Z
YV0AA 14088 at 0320Z QSL
ZK2RW 14086 at 0625Z QSL
XV0SU 21086 at 1057Z
FR5ZD 14086 at 1141Z
CT3FF 14083 at 1615Z
EA9MY 21087 at 1710Z
3W3RR 21082 at 1838Z
TA3D 14089 at 2223Z
9Y4GC 14091 at 2245Z

Saturday 14:
YV0AA 7085 at 0100Z
PZ2BZ 14083 at 0230Z
FR5ZD 14079 at 0345Z FEC
ZK2RW 21084 at 0421Z
S92LB 14087 at 0445Z
CE0ZIG 14086 at 0600Z
NH2/KD7P 14087 at 0605Z
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RI0IU 14087 at 0610Z
6W6JX 21082 at 1013Z
9K2EC 21072 at 1210Z
YI1BGD 21095 at 1255Z
3W3RR 21084 at 1347Z
TA1AR 14089 at 1520Z
VS6VC 21085 at 1521Z
HV3SJ 21083 at 1800Z
FM5BX 14086 at 2201Z
3X1SG 14082 at 2334Z

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX2104
RTTY DX Notes, 2of3, 4/20/90

RTTY DX Notes for Weekending 20th April 1990.
Part 2 of 3.
BID: $RTDX2104

Sunday 15:
YV0AA 14085 at 0300Z
PZ1BS 14074 at 0310Z FEC
UY5EG 14081 at 0335Z
5N8ALE 14083 at 0621Z
ZK2RW 14088 at 0930Z
HI8BG 14087 at 1258Z
KP2BH 14087 at 1300Z
CT3BX 28089 at 1425Z
DU1RP 21090 at 1616Z
YC1YMH 21080 at 1920Z
TR8JLD 21094 at 2150Z QSL
FM5WU 14082 at 2220Z QSL
YS1SW 21090 at 2223Z

Monday 16:
HV3SJ 14089 at 0110Z
SU1HN 14086 at 0115Z
8P6SH 14082 at 0310Z
FR5ZD 14089 at 0445Z
TR8JLD 21084 at 0838Z
YC1YMN 21079 at 1814Z
OY9JD 21092 at 1825Z
ZD9RT 14086 at 1825Z QSL/NOTE
AH3C/KH5J 21084 at 2312Z QSL

Tuesday 17:
UW3UQ 14086 at 0140Z
SU1HN 14083 at 0218Z
JY9SR 14082 at 0400Z
TR8JLD 14090 at 0642Z
9H1GP 14087 at 2230Z

HI8BG 14087 at 2240Z
CU2CB 14086 at 2350Z
BZ4CQ 21085 at 2355Z

Wednesday 18:
ZP6EM 14081 at 0028Z
ZK2RW 21087 at 0337Z
UI8FM 14088 at 1931Z
AH3C/KH5J 28087 at 2120Z
TR8JLD 14089 at 2245Z
CU2CB 14083 at 2300Z

Thursday 19:
SV5TS 14092 at 0008Z
BZ4CQ 21091 at 0622Z
UQ2HO 21087 at 1045Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX2204
RTTY DX Notes, 3of3, 4/20/90

RTTY DX Notes for Weekending 20th April 1990.
Part 3 of 3.
BID: $RTDX2204

QSL Information:

YV0AA will QSL via YV5AJ, the radio club in Caracas.

ZK2RW, Ron will QSL from his home address of ZL1AMO.

HI8BG says to send his cards to Box 163-9, Santo Domingo, Dominican Republic.

FM5WU collects his cards from F6FNU.

TR8JLD QSLS via AK1E.

ZD9RT says to QSL via the ZD9 buro or ZS3WJJ (see notes).

AH3C/KH5J will QSL via OH2BN as soon as the logs arrive.

Notes Of Interest:

First, Spratly is active on CW, but nothing reported on RTTY as yet, but they say that they will be on RTTY soon. Crossed fingers.

ZD9RT or ZD9TR is a bit of a mystery. He says to QSL via the ZD9 buro, there is not one, or to QSL via ZS3WJJ who is not listed in the 1990 call books. Work first worry later.

S2 Bangaladesh, should start soon, if all goes well, though Jim Smith has not been heard for the past week. But keep hoping.

ZS8MI, Marion Island operator has returned home so his cards should be available soon, we hope.

Nothing has been heard about the Cocos Island TI9 operation of late. One wonders what is happening, if anything?.

Some say that the cards for JT0DX are starting to appear. Others say not. This also applies for the TT8AG cards, but hope never dies.

To those going to Dayton, have a good time and dont talk too much.

GL DE DX1 (VK2SG) via TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA
/EX
SB DAYTON @ RTTYDX $KT7H$0421
Digital Suite at Stouffers

Digital Suite at Dayton!

Just a reminder. . . .all packet, RTTY, USENET, and Fidonet hams are invited to a party Friday night during the Dayton Hamvention in suite 425, at Stouffers Hotel, 5th & Jefferson in downtown Dayton.

Come to room 425 after 8pm. BYOB, no smoking.

73,

Tad
KT7H @ N7HFZ.WA.USA.NA
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

2364. GOES Rebroadcast

Newsgroup: rec.ham-radio
Date: 1990-04-22 08:46:08 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9004220846.AA19197@tecnet1.jcte.jcs.mil>
Source record: 12366

I have recently developed an interest in weather satellite reception and have been reading everything I can on the subject, including the info that gets posted here from time to time.

I ran across some information that I have never seen posted before, so I thought I would share it with all the others out there that are enthused about image reception.

It seems that you don't need as much equipment as you might imagine to receive images from the GOES geosynchronous birds. These satellites send a lot of data back to Earth, but most people are messing with the WEFAX stuff, but even then you are looking at a downconverter and various other stuff that I won't go into detail on here.

Anyway... what I found out was that there is a REBROADCAST of these signals on TVRO satellite Spacenet-3 Transponder 17. What you need to do is grab the baseband video out of the TVRO receiver and run it over to your general coverage HF rig. Tune the HF rig for the following freqs:
1.9315 MHz GOES EAST
1.8840 MHz GOES WEST
1.5720 Mhz Weather Charts

This rebroadcast seems to be in an HF WEFAX format with 120 LPM and what appears to be an IOC that also agrees with HF. I used my scan converter with AM detection and had best results receiving the signals with the HF receiver in FM mode. I still have not really deduced just what IS the best way to receive this stuff... but that is mainly because I really have no expertise yet and am just hacking at it. Be that as it may, I DID get pictures. I would say that I don't have enough IF bandwidth and that may be preventing really GREAT picture reception... but it does work!

So if you are into weather satellites and happen to have a TVRO system, this is definitely worth investigating! If anyone has the real details on this rebroadcast, I sure would like to hear from you.

Mark Bitterlich
WA3JPY @ WB4UOU
mgb@tecnet1.jcte.jcs.mil

2365. Re: No audio on Icom 900a with 29a module

Newsgroup: rec.ham-radio
Date: 1990-04-22 22:04:43 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <4361@kd4nc.UUCP>
Source record: 12372

In article <2847@ultb.isc.rit.edu> wlw2286@ultb.isc.rit.edu (W.L. Ware) writes:
>HELP!
>
>I have an Icom 900a w/29a module and I am getting no audio output during
>rx. However during tx audio gets sent. The amplifier in the control unit
>obviously works because I get a turn on thud.

The turn on "thud" only indicates that power is being applied to the
audio section. It does not necessarily indicate that the audio section
is good.

First try some simple checks. When you adjust the volume control, does
the bargraph track? When you adjust the squelch does the channel busy
led come on at any point? If the bargraph tracks your control system
is probably ok and if the squelch led works the receiver is probably
ok. Now if you have or can borrow another band unit, you should check
if that works. If it does, the problem is in the 29a band unit interface.

The receive audio path of this radio is as follows:
Audio from the detector in the band unit is fed to an interface unit
called the "front end unit" inside the band unit. There it is converted
to balanced and placed on the bus (the ribbon cable tying the band units
and the control units together. In the control unit the audio is pulse
code modulated and multiplexed onto the data stream going out the fiber
optic cable to the other control box. In the front control box it is
demuxed and decoded passed through a mute switch and a gain control
stage then sent to the output amplifiers through a routing system depending
on whether you have the band unit selected as main or sub. If main is
selected the audio drives spkr 1 jack, but if sub is selected audio
first drives spkr2 jack and if a spkr is not plugged in, then loops to
the main jack. So try selecting your suspect band unit as "sub" since
the audio goes through a different output amplifier. If this fails, your
problem is probably in the digital audio chain.

Hope this is useful
Gary KE4ZV

2366. Used Kenwood R5000

Newsgroup: rec.ham-radio
Date: 1990-04-22 22:20:07 UTC
From: sami@quiche.cs.mcgill.ca
Message-ID: <3205@calvin.cs.mcgill.ca>
Source record: 12371
Cross-posted to: rec.ham-radio,rec.radio.shortwave

What is a reasonable price to pay for a used Kenwood R5000?
Other than exchange differences, are there differences between
US and Canadian prices? I have the impression that US prices are lower.

Thanks, in advance.

--
Sami Boulos sami@softeng.cs.mcgill.ca
McGill University
School of Computer Science

2367. Need unobvious 2 meter antenna...

Newsgroup: rec.ham-radio
Date: 1990-04-22 23:00:03 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <2870@ultb.isc.rit.edu>
Source record: 11984

I need to build/buy a highly unobtrusive 2 meter antenna for my base.

I was considering putting it underground, any ideas?

Lance

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

2368. Lots of Questions

Newsgroup: rec.ham-radio
Date: 1990-04-23 00:59:01 UTC
From: DXANDY@WIDENER.BITNET
Message-ID: <5A0416133A080312-MTABWIDENER*DXANDY@widener>
Source record: 12370

Message id: 5A040F0F251F01AF-MTABWIDENER
Personal name: DXANDY
Organization unit: BITNET
Private domain: WIDE
Administrative domain: ATTMAIL
Country: US

To: RFC-822: infohams@taunivm
Organization unit: WIDENER-MG
Private domain: WIDE
Administrative domain: ATTMAIL
Country: US
BCC: Personal name: DXANDY
Organization unit: BITNET
Private domain: WIDE
Administrative domain: ATTMAIL
Country: US
From: Personal name: DXANDY
Organization unit: BITNET
Private domain: WIDE
Administrative domain: ATTMAIL
Country: US

Subject: Lots of Questions

------------ Letter Body Part 1 - Text ------------

Hello All!
I have recently had my interest in Ham Radio rekindled and I have
decided to go ahead and take the exams. I plan to go for the General Class
licence some time in May. I have been looking around at all the equipment that
is available and I have about one million and one questions. So if you don't
mind I would like to ask you a few!

I plan to spend around $1500 and I am most interested in the HF bands and
DXing. A few people I have talked to have recommended the Kenwood TS-440S.
If anyone has any thoughts on this rig I would really appreciate hearing them.
If you have any other recommendations, I would also be very interested in them.

As far as antennas are concerned, some people have told me that I will do
just fine with a simple vertical antenna. Others have said that it is worth
investing in a beam. What kind of antennas would you recommend? If I get a
beam, will I also need a rotator? Is it worth the extra cash? I have seen
a lot of adverts for antennas, some of which say that they are pretuned for a
particular band, or that they can automatically switch from one band to
another. Will I need an antenna tuner if I use one of these antennas?

One final question (for now anyway!!), I know all this infomation will
be in a book somewhere, so if anyone could recommend a good book too, I will
be very grateful.

If you send your mail directly to me, I will summerize to the net.

Thanks in advance,
Andy Greenshields [dxandy@widener.BITNET]

** END OF MESSAGE **

2369. Re: 10m propagation

Newsgroup: rec.ham-radio
Date: 1990-04-23 01:06:11 UTC
From: cs421s05@uhccux.uhcc.hawaii.edu
Message-ID: <7397@uhccux.uhcc.hawaii.edu>
Source record: 12376

Yep, long-path propagation DOES occur on 10 meters. I have worked a number of Europeans from Hawaii via the South path, about 26,000 miles, using a vertical 1/4 wave and 100 watts. The antenna was mounted on the South side of a condo, with complete blockage of the short path signals. Generally the contacts took place well after dark here in Honolulu, as late as 11 or 12 pm. It's easy to tell when the band is going to open to Europe via long path, since there is an obvious progression of propagation: first we'll hear the ZL's and VK's, then VK6, then ZS, then Europe as the evening goes on.

10 meters is an amazing band.

Aloha es GL de KJ9U/KH6

john_shalamskas-uhmanoa.uhplato.bitnet

2370. Re: Microwave oscillator sources

Newsgroup: rec.ham-radio
Date: 1990-04-23 02:15:46 UTC
From: kjh@pollux.usc.edu
Message-ID: <24254@usc.edu>
Source record: 11987

In article <1583@unsvax.NEVADA.EDU> storkus@arrakis.nevada.edu.uucp (Mike Storke (N7MSD)) writes:
>P.S. I got a hold of a surplus house that has traveling wave tubes for 2-4 gigs
>and 8-9.6 gigs. Can the 8-9.6 be used at the 10 gig ham band? A friend of
>mine said no because they are *very hard* to tune-he says they're something
>like a helical antenna at their center frequency. Any info appreciated as
>always, Mike

Yes, you can probably use these TWTs successfully at 10 - 10.5 GHz!!!
TWTs have very wide bandwidth. You probably won't get the rated gain
out of them, but you will probably get useable gain (>= 5dB). I have
done this on X-band. You will probably want to use a very strong
electromagnet, even stronger than the original one used in the
amplifier (if you are starting with a whole amplifier). This will yield
higher effeciency.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2371. pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-23 02:26:53 UTC
From: kjh@pollux.usc.edu
Message-ID: <24255@usc.edu>
Source record: 11988

In article <877@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>In article <30500502@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>>Also remember that PULSE emissions are not permitted on the 10 Ghz band,
>>but you all knew that, right? [Ed: USA regulation]
>
>Here's a picky little question that's been bugging me for a while:
>
> what's the difference between so called Pulse operation and
> N0N? Where is the line drawn between Fast N0N and Pulse?
> Any rules of thumb out there? Anyone care?

In pulse operation, the duty cycle is usually less than 1%. I would
suggest perhaps (duty cycle <= 2%) == pulse, (duty cycle > 2%) != pulse.

On another note, I would like to see the restriction on pulse emissions
in our X-band lifted. (I know why it's there; if you want to know, just
think about what you could do with a mobile transmitter with a "pulse"
frequency carefully chosen. However, the law is toothless, because a
string of dits at the same carefully chosen rate has the same effect.)
If we could use pulse on X-band, we could achieve very long distance
communication reliably over very long (over the horizon) distances.
This would be an excellent technology to build a high speed inter-city
packet backbone with. Oh well, we can still do this legally at 9cm or
6cm or 11mm.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2372. Re: TCP/IP in anticomputers

Newsgroup: rec.ham-radio
Date: 1990-04-23 06:31:48 UTC
From: karn@ka9q.bellcore.com
Message-ID: <22437@bellcore.bellcore.com>
Source record: 11978

In article <30500506@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>What's the possibility of hacking the TNC code to refuse connections from
>another node that has its window size at other than 1 when its own is set
>to 1?

You'd have to do it heuristically. If you delay your acks a bit, you'll know that a sender's MAXFRAME is greater than 1 when you see a second frame come in before you have transmitted the ack for the first frame.

I should say it would be a bad idea to actually implement such a rule. As much as I'd like to see people run AX.25 in stop-and-wait mode, I think the Robustness Principle is more important.

Simply stated, the Robustness Principle says "Be conservative in what you send, liberal in what you accept from others". Come to think of it, that's not bad advice to the participants in a certain flame war already consuming this newsgroup...

Phil

2373. AMBC DX test 4/29/90

Newsgroup: rec.ham-radio
Date: 1990-04-23 07:53:46 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <278@ka2qhd.UUCP>
Source record: 12373
Cross-posted to: rec.ham-radio,rec.radio.shortwave

```
sb swls@allbbs $dxtst850
AM DX Test 4/29/90

There will be an AM DX test conducted by WHDH on 4/29/90 @ 0105-0130 EDT.
The test will consist of voice, RTTY, packet, and slow-scan TV lasting
25 minutes. The station is a 50 KW operating on 850 KHz. in Boston.
Again this at 1:05-1:30 AM EDT on the 29th. Anyone wishing to QSL this event
can send thier report to:
WHDH
c/o Engineering Dept.
441 Stuart Street
Boston, MA 02116
```

2374. AMBC DX test 4/29/90

Newsgroup: rec.ham-radio
Date: 1990-04-23 07:57:14 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <279@ka2qhd.UUCP>
Source record: 12374
Cross-posted to: rec.ham-radio,rec.radio.shortwave

```
sb swls@allbbs $dxtst850
AM DX Test 4/29/90

There will be an AM DX test conducted by WHDH on 4/29/90 @ 0105-0130 EDT.
The test will consist of voice, RTTY, packet, and slow-scan TV lasting
25 minutes. The station is a 50 KW operating on 850 KHz. in Boston.
Again this at 1:05-1:30 AM EDT on the 29th. Anyone wishing to QSL this event
can send thier report to:
WHDH
c/o Engineering Dept.
441 Stuart Street
Boston, MA 02116
```

2375. VOA *LIVE* at Dayton - 2 hours/2 freqs

Newsgroup: rec.ham-radio
Date: 1990-04-23 08:00:41 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <280@ka2qhd.UUCP>
Source record: 12375
Cross-posted to: rec.ham-radio,rec.radio.shortwave

```
sb swls@allbbs $liv_voa
VOA*LIVE*@Dayton Hamvention

On Friday, Voice of America will broadcast live from the Dayton Hamvention
from 1900-2100Z on 21515 AM and 19216.5 LSB. Anyone wishing a special
QSL for this (first?) Special Event Broadcast can send thier reports to
the Bethany site address in C/O Joseph Vodnick. Tell him you heard it
via the ANARC SWL Net packet distributions.
[ one of *FEW* chances to get full data QSL from VOA as US citizens ]
```

2376. QEX subscription

Newsgroup: rec.ham-radio
Date: 1990-04-23 08:09:41 UTC
From: fogelberg@lne.kth.se
Message-ID: <00935A0A.4CFEB480@lne.kth.se>
Source record: 11979

I have had a lot of fun reding the discussion about REAL TECHNICAL magazines. Now I wonder who I can subscribe QEX. Does anyone know the cost for oversea delivery?

73 de Ingo, SM0AJV

2377. Re: HATE MONGERING MUSHBRAINS

Newsgroup: rec.ham-radio
Date: 1990-04-23 09:21:02 UTC
From: ge@kunivv1.sci.kun.nl
Message-ID: <1486@kunivv1.sci.kun.nl>
Source record: 11982

>In article <1990Apr21.060104.20254@lopez.UUCP> arf@lopez.UUCP (Jack Schmidling) writes:
>> If you find that a poor use of ham
>> spectrum, then I am afraid I find your kind, a poor use of
>> human tissue.

I find this a poor use of Usenet bandwidth. This means you, Schmidling.
Your stuff costs money to other people. I find paying for this garbage
offensive, even if it is not my personal money. The garbage you sometimes
receive on amateur bands is usually not offensive, and it's free.
I'll make you a honorary member of my kill file.

Ge' Weijers
Ge' Weijers Internet/UUCP: ge@cs.kun.nl
Faculty of Mathematics and Computer Science, (uunet.uu.net!cs.kun.nl!ge)
University of Nijmegen, Toernooiveld 1
6525 ED Nijmegen, the Netherlands tel. +3180612483 (UTC-2)

2378. Scanner help needed

Newsgroup: rec.ham-radio
Date: 1990-04-23 14:06:37 UTC
From: thackery@motcid.UUCP
Message-ID: <2523@lime14.UUCP>
Source record: 11985

I recently bought a handheld Scanner from DAK, Regency R 4030, that boasts 800 MHz band coverage. Well actually it gets part of the 800 band on the high and low side, but the middle of the band has been locked out. I was wandering of anyone new of a quick fix that will "unlock" these frequencies. Since the PLL is capable of capturing even up into the 900 MHz band I assume it's not a problem with the capability of the unit but rather Regency purposely is restiricting these channels.

I had heard about clipping some diodes or something like that. This scanner looks identical to Bearcat scanners except for some of the plastic colors. The R 4030 is a 200 channel programmable handheld if that helps any with identification.

thanks,
doug

2379. Microsat Keplerian Elements

Newsgroup: rec.ham-radio
Date: 1990-04-23 15:25:00 UTC
From: perry%mbian.decnet@BEACH.GAL.UTEXAS.EDU
Message-ID: <9004250213.AA23886@ucbvax.Berkeley.EDU>
Source record: 11977

I just got through writing my own satellite tracking program
in Turbo C and I now want to use it to track DOVE-1.
Unfortunately, I have not been able to find out what the
Keplerian elements are for DOVE-1 or any of the other Microsats
for that matter. Would it be possible for someone to publish the
Keplerian elements for the various Microsats and other
interesting satellites in this conference area or can someone at
least recommend a publication or something that is easily
available so I can get this information? Thank you.

John Perry - KG5RG
University of Texas Medical Branch
The Marine Biomedical Institute
Galveston, Texas

You can send mail to me at any of the following addresses:

DECnet : MBIAN::PERRY
THEnet : MBIAN::PERRY
Internet : perry%mbian.decnet@beach.gal.utexas.edu
BITNET : PERRYJ@UTMBEACH
SPAN : UTSPAN::UTADNX::MBIAN::PERRY
CSNET : perry%mbian.decnet%beach.gal.utexas.edu@RELAY.CS.NET

2380. Re: Questions????

Newsgroup: rec.ham-radio
Date: 1990-04-23 16:14:41 UTC
From: dalyb@godzilla.UUCP
Message-ID: <49fa1e94.1423f@godzilla.UUCP>
Source record: 11991

In article <9004191424.aa26193@CRDEC2.APGEA.ARMY.MIL>, wejones@CRDEC2.APGEA.ARMY.MIL ("William E. Jones III") writes:
> Three unrelated questions.
>
> 1.....I was under the impression that the front to back
> ratios of such an antenna were not very high, such that the technician
> had a false sense of security standing behind the antenna. ??Am I
> wrong about this???

No, you are not wrong. At 225 MHz, the ANSI RF Protection guidelines in terms on the mean squared electric field strength is 4000 volts squared per meter squared, and the magnetic field strength is 0.025 amps squared per meter squared. These are for near field exposures. From the antenna you briefly described, the front to back ratios are typically on the order of 3-6dB. So, depending on the power, the technician could have eaisily been exposed to RF radiation which exceeds the ANSI guidelines. (There are other considerations, also. I'd recommend reading ANSI standard C95.1-1982, Safty Levels with respect to human exposure to Radio Frequency Electromagnetic Fields, 300kHz to 100 GHz).

>
> 2 In the above mentioned RFI testing, the signal level was measured
> in volts/meter, and yet transmitter power is measured in Watts. How
> does one convert between these units?

The "volts per meter" is the electric field intensity. The quantity used to describe the power associated with an electromagnetic wave is the Poynting vector, which is the vector cross product of the electric field vector with the magnetic field vector. The average power radiated by an antenna is found by integrating the Poynting vector over a sphere surrounding the antenna.

> You hear talk of delivering
> X volts into a Y ohm antenna load giving XY Watts. Presumably, the
> volts/meter is the X voltage divided by the dimensions of the
> antenna?, or is it divided by the wavelength?, or is it divided by
> the spacing of elements in the antenna???

None of the above. In general, to determine the potential given the electric field, one must evaluate the line integral of the electric field over the path for which the potential is to be referenced.

> In any case, it would seem
> that the volts/meter is a better measure of the radiation of an
> antenna since it is representative of the signal after it has left the
> antenna.

> If this is true, why does
> FCC regulate the power of the transmitter, but not the volts/meter
> emmission???

True -- the volts per meter is a representation of the radiation of an antenna. Another is the effective radiated power (ERP), which is the product of the antenna input power and antenna gain. Suppose an antenna receives 1kW and has a gain of 3dB (in the direction of maximum gain). The effective radiated power in this case would be 2 kW.

Both the field strength (volts per meter) and effective radiated power are widely used in the broadcast industry. Why is this not used in the amateur rules?? I would guess its because there are so many variables involved, making it more difficult to control ERP or field stregth. The variables are: transmitter power output, transmission line loss, mismatch between transmitter and transmission line, mismatch of transmission line and antenna, the type of antenna and gain of the antenna, the point where you measure the field strength (100 feet or 1 mile from the antenna??). All of these can eaisily be measure for a fixed transmitter as would be used in the broadcast industry, but would become difficult for an amateur transmitter (since it is not fixed to a specific frequency, the characteristics may change).

--
Brian K. Daly WB7OML @ AG Communication Systems, Phoenix, Arizona
UUCP: {...!ames!ncar!noao!asuvax | uunet!zardoz!hrc | att}!gtephx!dalyb
Phone: (602) 582-7644 FAX: (602) 582-7111
~

2381. Re: Microwave oscillator sources

Newsgroup: rec.ham-radio
Date: 1990-04-23 16:23:33 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250146@hpnmdla.HP.COM>
Source record: 11995

Mike Storke (N7MSD) writes:
>
> I'd also be very interested in knowing if you can convert a microwave oven
> magnetron to amateur bands. Unlike the guy who originated this, I *WOULD* use
> it at or near it's full rated power. This would be used for long-haul packet
> links (~200+ miles, to be exact: Las Vegas-Bishop, California-Reno; a 2M link
> currently exists along this route, but it's too loaded down). Any info would
> be appreciated. Note that these links are all on top of mountains > 8500 ft.
> high. Thanks and 73's, Mike, N7MSD
> P.S. I got a hold of a surplus house that has traveling wave tubes for 2-4 gigs
> and 8-9.6 gigs. Can the 8-9.6 be used at the 10 gig ham band? A friend of
> mine said no because they are *very hard* to tune-he says they're something
> like a helical antenna at their center frequency. Any info appreciated as
> always, Mike
>
>
Mike (and others interested),
Contact wa6exv in Ridgecrest California. He had an oven source phaselocked
and putting out 600+ watts well before the RF Design thing came out.
Chuck is one of the founding fathers of the San Bernardino Microwave Society
and a great amateur microwave enthusiast.
Chuck was interested in getting an EME source and as I remember had pretty
good luck using raingutter down spout pipe for cheap lowloss wavequide on
the band. He should be good in the callbook.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

2382. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-23 16:44:37 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250147@hpnmdla.HP.COM>
Source record: 11994

Ken Hendrickson writes:
>
> On another note, I would like to see the restriction on pulse emissions
> in our X-band lifted. (I know why it's there; if you want to know, just
> think about what you could do with a mobile transmitter with a "pulse"
> frequency carefully chosen. However, the law is toothless, because a
> string of dits at the same carefully chosen rate has the same effect.)
> If we could use pulse on X-band, we could achieve very long distance
> communication reliably over very long (over the horizon) distances.
> This would be an excellent technology to build a high speed inter-city
> packet backbone with. Oh well, we can still do this legally at 9cm or
> 6cm or 11mm.
> ----------

Ken,
I don't think pulse privileges really are that much of an issue in preventing effective use of the band. As I see it, the main advantage would be in using surplus hardware. However, moderate power narrowband equipment is no longer a difficult proposition. Very long links and OTH links require optimum use of the resources; reasonably efficient use of the spectrum (bps/Hz numbers) and highly directional beams to avoid waste and QRM; as well as physically larger receive antenna apertures to recover the information. Even so I suspect that for reliable networks and comm. channels we are likely to end up with a larger number of shorter LOS links instead of long haul OTH ones. Troposcatter is a fairly predictable propagation mechanism at 10 GHz (see my description of an experience with it on a 400+ mile path during the 1987 10 GHz terrestrial DX record outing in December 1987 QST) but long haul links are inherently lossier and less reliable than shorter LOS ones.
I strongly agree that we need to use our microwave resources and in particular 10 GHz but I think we will end up finding that for efficient use of our amateur resources we will start looking more like the telephone companies and common carrier folks when we solve the backbone problem.

73

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

2383. Re: help identifying an object

Newsgroup: rec.ham-radio
Date: 1990-04-23 17:20:18 UTC
From: kecskes@tbd.BRL.MIL
Message-ID: <325@tbd.BRL.MIL>
Source record: 11993
Cross-posted to: sci.physics,sci.electronics,rec.ham-radio

The objects you describe sound like the mixing balls used to mix and grind fine powders. The trade name is BURUNDUM and they are made in various sizes by U.S. Stoneware Corp. Since BURUNDUM is an electronic grade Al2O3, they are very hard. You ought to measure the density (density of Al2O3 is 3.96g/cc) to verify. Also try to break one apart (use caution because these little pellets will shatter and make shrapnel) to see it they are homogeneous. Hope this helps, Laszlo

2384. Re: Long distance communication

Newsgroup: rec.ham-radio
Date: 1990-04-23 17:49:25 UTC
From: ptb@MBUNIX.MITRE.ORG
Message-ID: <9004231749.AA00838@mbunix.mitre.org>
Source record: 11980

If you are in Texas and your girlfriend is in New York, it would have to be an HF system of some kind (Distances are too long for VHF). I would suggest a radio that can cover the 20, 15, and 10 meter bands anyhow and general class licenses to operate voice over them.

These radios could probably be picked up at a ham auction or hamfest for about $200 each.

There is going to be at least one problem with this. How can you coordinate this so that you will find each other on the radio? You may be able to pick a time and frequency in advance. Also, how well the radio waves travel varies depending on time of day, month of the year, and this 11 year sunspot cycle that also is an influence. This will tend to complicate picking a time and frequency as above.

Go for a good antenna. I recommend a 3 to 5 element beam up on a tower. It is probably more cost effective to get a better antenna than another radio, since the antenna halps on both transmitting and receiving. Antennas and the towers can be expensive however, and may end up costing you more than you paid for your radio.

You may also want to check out whether using ham radio to avoid a toll charge is really legal.

Good luck.

English: Peter T. Baldwin
Arpa: ptb@mbunix.mitre.org
Snail Mail: Mitre Corp, MS K306, Burlington Rd, Bedford, Ma. 01730

2385. DAYTON I-75 OPTIONS

Newsgroup: rec.ham-radio
Date: 1990-04-23 17:54:11 UTC
From: THM33@ISS1.AF.MIL
Message-ID: <9004250213.AA23911@ucbvax.Berkeley.EDU>
Source record: 11981

Effective today, both north and southbound I-75 are 1 lane ea. Suggest trying an alternate route to HARA Arena if you are arriving from the South. Some possibilities are:

1. Take the Salem Ave. exit, take Salem Ave. to Shiloh Springs Rd, turn right. (Lots of traffic lights, but good 4-lane streets).

2. Take Main St. Exit (SR 48), turn left, take 48 to Shiloh Springs RD, turn Left to Hara. (Likewise, lots of traffic lights).

3. Take Miamisburg-Centerville (SR-725) exit. Turn left on SR-725. Take 725 through Miamisburg, and turn Right on Union Rd. Union Rd is about 2 Mi WEST of Miamisburg. Take Union road about 12 Miles North through Trotwood, OH to Shiloh Springs Rd. Turn Right to get to Hara. This is a country-road route. Note: there is a rather laborous hill west of Miamisburg on 725. Heavily laden trucks (Read: full of boat-anchors) may wish to avoid this route.

Tom Mullins - WB8MVR | Uh, Biplane on short final - Get a move on,
FTD/SDJMM | You've got a P-51 on your tail!
WPAFB, OH 45433-6508 |
THM33@ISS1.AF.MIL | - Unknown Controller, Oshkosh, WI

2386. Kenwood R5000

Newsgroup: rec.ham-radio
Date: 1990-04-23 17:59:57 UTC
From: sami@quiche.cs.mcgill.ca
Message-ID: <3210@quiche.cs.mcgill.ca>
Source record: 11992
Cross-posted to: rec.radio.shortwave,rec.ham-radio

What's a reasonable price to pay for a used (< 2years, in
excellent condition, original price CDN$1250) Kenwood R5000?

--
Sami Boulos sami@softeng.cs.mcgill.ca
McGill University
School of Computer Science

2387. Re: HATE MONGERING MUSHBRAINS

Newsgroup: rec.ham-radio
Date: 1990-04-23 18:41:45 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230019@hpfcdj.HP.COM>
Source record: 11983

>Now the funny thing is, I made a similar comment about three months ago, with
>no response from ARF. Of course, I probably didn't put it this politely.

>> ARF says:
>> Drivel? What do you call "five nine in New Jersey"?

Well, just a short comment: I (and possibly others) would just as soon that "flame wars" regarding Jack's opinions OR his manner of expressing them be taken either to e-mail or to alt.flame; I'm not sure they have a place here. As for me, while I certainly don't agree with all - or possibly even *many* of Jack's opinions, he is certainly well within his rights to have them AND to express them, as long as he doesn't get (A) personally abusive or insulting or (B) obscene. So far I have seen neither behavior *initiated by Jack*. Finding someone else's opinions offensive - without them directing personal attacks at you - is not sufficient reason for calling for their censure. If you don't wanna listen, one of the great things about radio is that you can always reach for the VFO dial. I myself get tired very quickly of the "you're five-nine, QSL?" variety of contact, but find most folks for some reason simply assume that Most Things Shouldn't Be Discussed on the Radio. (Just like that, caps and all - a taboo handed down by the Radio Gods.)

I do have a couple of questions I've always wanted to ask Jack, though, and assuming that he's still following this string, now's as good a time as any: First, why is it "ARF says" rather than "Jack says?" Do you consider yourself to BE the forum, or are we to assume that the opinions of everyone in the forum will agree with those you present under "ARF says?" I doubt that you intend to give either impression. Second, and this is more along the lines of a Gentle Suggestion than a question - don't you think that many might find the "lighthouse of wisdom and truth" bit to be just SLIGHTLY arrogant? Hopefully, a number of diverse opinions could be brought to your forum, and certainly not ALL of them could be considered "wisdom" and/or "truth." I'd also hope that you do not intend to give the impression that your own opinions are infallible. Perhaps a better slogan might be "SEEKING wisdom and truth", if that truly is what you intend. Not a flame, Jack - just a comment from Another Observer.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

2388. Re: Need unobvious 2 meter antenna...

Newsgroup: rec.ham-radio
Date: 1990-04-23 18:54:06 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120118@hpcupt1.HP.COM>
Source record: 12006

How about a 25 watt light bulb mounted in a lamp? You can subsitute a 100w bulb for high power applications. This should please most XYL's.
Jim

2389. JD1 Minami Torishima

Newsgroup: rec.ham-radio
Date: 1990-04-23 20:11:09 UTC
From: tomg@hpcupt1.HP.COM
Message-ID: <7120119@hpcupt1.HP.COM>
Source record: 12007

I need help finding the QSL route for JH1MAO/JD1 on Minami Torishima.
CQ said the route was to JH1MAO but there is no entry for this call
in the 1990 Callbook. Any help would be appreciated.

Tom Graham N6WLF
HP Cupertino
tomg@hpda.hp.com

2390. Old 4-series Drake gear info?

Newsgroup: rec.ham-radio
Date: 1990-04-23 21:52:33 UTC
From: mbutts@mentor.com
Message-ID: <1990Apr23.215233.2647@mentor.com>
Source record: 11986

I've been bitten by the bug of acquiring an old Drake 4-series HF station, such as the T-4XB/R-4B, TR-4, SPR-4, etc. I'd appreciate it if some Drake fans out there could inform me as to the differences among models (R4B, R4C, etc.), what features which model has/doesn't have, how well they work compared with each other and/or modern gear, how much I should pay for clean examples, bugs to look for, etc. Besides general HF operation, I'm particularly interested in noise blanker performance (urban power line hash), and ability to be crystalled for SWL and WARC bands in addition to 80-10. Thanks much in advance and 73!
--
Michael Butts, Research Engineer KC7IT 503-626-1302(fax:1282)
Mentor Graphics Corporation, 8500 SW Creekside Place, Beaverton, Oregon 97005
!{ogicse,sequent,tessi,apollo}!mntgfx!mbutts mbutts@pdx.MENTOR.COM
Any opinions are my own, and aren't necessarily shared by Mentor Graphics Corp.

2391. Why Pulse for Weak Sigs?

Newsgroup: rec.ham-radio
Date: 1990-04-23 23:03:13 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9004232303.AA11518@cmr.ncsl.nist.gov>
Source record: 11989

You say:

> In pulse operation, the duty cycle is usually less than 1%. I would
> suggest perhaps (duty cycle <= 2%) == pulse, (duty cycle > 2%) != pulse.

> On another note, I would like to see the restriction on pulse emissions
> in our X-band lifted. ....
> If we could use pulse on X-band, we could achieve very long distance
> communication reliably over very long (over the horizon) distances.
> This would be an excellent technology to build a high speed inter-city
> packet backbone with. Oh well, we can still do this legally at 9cm or
> 6cm or 11mm.

Am I missing something? It seemed to me that you wouldn't benefit from a low duty cycle when fighting a large path loss. I would think that some synchronous system, with correlation detection of some sort, would be the best bet. Of course you COULD build a receiver that just listened during the narrow pulses to ignore the in-between noise. I'd also worry a bit about pulse-spreading due to multipath. Maybe a pseudo-random scheme would be a good approach, but would likely have a mid-to-high duty cycle, and thus not be pulse.

Or do you have a good source of low duty cycle 10 GHz power, and want to build a system around it?

Pardon the confused questions, but I don't normally think of low-duty-cycle pulse transmission and weak signal operation as going together.

Bob W3OTC

PS. Look at the picture of the 10 GHz SSB PHONE station in QST (I thought in W3XO's column, but can't find it.) I've seen and heard '3XO's video of it operating over a non-line-of-sight 25 mile path with excellent sigs.
The power output was in the 20 - 100 mW range, I think.

2392. Re: Wanted: NEC

Newsgroup: rec.ham-radio
Date: 1990-04-24 00:40:23 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500508@ux1.cso.uiuc.edu>
Source record: 11999

The following anonymous FTP sites have mininec3:

For North American users:

host = wuarchive.wustl.edu
path = mirrors/msdos/hamradio/mininec3.arc

For European users:

host = kolvi.hut.fi
path = hamradio/simtel/mininec3.arc

The later one implies that mininec3 might also be on wsmr-simtel20.army.mil
but I cannot verify it at this time (unreachable) and I also do not have a
directory of available files there since I cannot get them from hosts other
than BSD UNIX or look-alikes. If you do have UNIX, you can obtain the files
I do have of anonymous FTP listings with the following shell script:

```
#!/bin/csh
ftp -n -v 128.174.5.98 << EOF
user anonymous
cd phil.513
binary
get afindex.tarz "|zcat|exec tar xvf -"
quit
EOF
```

The host has a 5 meg compressed tar file. The above script will directly
uncompress and extract this file into several files in a subdirectory and
occupy around 20 meg. Check your space with "df" first.

Non-UNIX users: you will need a UNIX compatible toolset with LZW uncompress
and tar extraction capability. I intend to make the files available as
individuals at some future date, but the host system (CMS) the anonymous
FTP is on does not allow the necessary names.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2393. Re: HATE MONGERING MUSHBRAINS

Newsgroup: rec.ham-radio
Date: 1990-04-24 00:48:01 UTC
From: MLS129@psuvm.psu.edu
Message-ID: <90113.204801MLS129@psuvm.psu.edu>
Source record: 12005

I'm *real* tired of all this ARF/Jack Schmidling garbage. Let's stop this foolishness _NOW_. This sort of stuff belongs on alt.flame, not on a ham group.

Like most parasites, this will go away if we ignore it.

Hate-mongering of any type doesn't belong anywhere -- especially not in amateur radio which is supposed to be a *friendly* hobby!

Thanks...

Mike Sensor <MLS129@PSUVM> KD3LR / AFA1UP
Penn State Altoona Campus -- Altoona PA

KD3LR/R Dedicated Patch 147.65 (you guess the PL)
High atop St Martins Tower in Pittsburgh PA

2394. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-24 01:28:17 UTC
From: kjh@pollux.usc.edu
Message-ID: <24279@usc.edu>
Source record: 12001
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I received some email from W3OTC that I responded to, and thought a
posting would be appropriate. Here it is:

% From: Robert Carpenter <rc%cmr.ncsl.nist.gov@usc.edu>

% Am I missing something? It seemed to me that you wouldn't benefit from a
% low duty cycle when fighting a large path loss. I would think that some
% synchronous system, with correlation detection of some sort, would be the
% best bet. Of course you COULD build a receiver that just listened during
% the narrow pulses to ignore the in-between noise. I'd also worry a bit
% about pulse-spreading due to multipath. Maybe a pseudo-random scheme would
% be a good approach, but would likely have a mid-to-high duty cycle, and thus
% not be pulse.

It is a possibility to build a receiver that only listens when a pulse
is supposed to occur, but that wasn't necessarily what I was thinking
about. The advantage of using the high peak power of a pulse is that it
would be EASILY DETECTABLE even with high path loss. This means that
(in theory) you could set up a data link much like CW is used with the
human ear: the presence of a pulse has one meaning, and the absence of a
pulse has another. There is probably even a better way to do it:
consider what you could do if you were to phase modulate the pulses. In
other words, control the time delay or latency between pulses. A short
time delay could mean a 0 bit, and a long delay could mean a 1 bit.

% Or do you have a good source of low duty cycle 10 GHz power, and want to
% build a system around it?

No, I don't have a 10 GHz pulse source, but they are available. Now if
we could only use them legally ...

% Pardon the confused questions, but I don't normally think of low-duty-cycle
% pulse transmission and weak signal operation as going together.

Most people don't. Certainly, I'm not suggesting that real time
communications like voice be sent this way. I'm merely proposing that
this might be a good use for part of our microwave spectrum. The packet
guys are in great need of high-speed inter-city links (among other
things).

% Bob W3OTC

% PS. Look at the picture of the 10 GHz SSB PHONE station in QST (I thought in
% W3XO's column, but can't find it.) I've seen and heard '3XO's video of it
% operating over a non-line-of-sight 25 mile path with excellent sigs.
% The power output was in the 20 - 100 mW range, I think.

I've done better than 40 miles over non-line-of-sight paths with only 10 mW and CRUDDY WIDEBAND FM! This was with 2 foot dish antennas on both ends of the path at X-band. Still, I'm not pooh-poohing their efforts; I'm just trying to show that even with simple cheap equipment you can do a lot more than most people expect in the SHF and EHF spectrum.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2395. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-24 01:41:49 UTC
From: kjh@pollux.usc.edu
Message-ID: <24281@usc.edu>
Source record: 12002
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1250147@hpnmdla.HP.COM> glenne@hpnmdla.HP.COM (Glenn Elmore) writes:
% Ken,
% I don't think pulse privileges really are that much of an issue in
% preventing effective use of the band. As I see it, the main advantage would be
% in using surplus hardware.

Yes, this would be the advantage. I'm not suggesting that we have an
undue hardship with the pulse restriction; I am suggesting that it is
arbitrary and capricious, and that if we didn't have the restriction,
there would be one more possible way that we could effectively
communicate on the band.

% However, moderate power narrowband
% equipment is no longer a difficult proposition. Very long links and
% OTH links require optimum use of the resources; reasonably efficient
% use of the spectrum (bps/Hz numbers) and highly directional beams to
% avoid waste and QRM; as well as physically larger receive antenna apertures
% to recover the information. Even so I suspect that for reliable networks and
% comm. channels we are likely to end up with a larger number of shorter LOS
% links instead of long haul OTH ones.

This may be true. However, I don't think anybody has ever experimented
with using high-power low-duty-cycle signals to build a packet switched
microwave network. My idea might not pan out to anything, but on the
other hand, how will we know unless somebody tries to do it?

% Troposcatter is a fairly predictable
% propagation mechanism at 10 GHz (see my description of an
% experience with it on a 400+ mile path during the 1987 10 GHz terrestrial
% DX record outing in December 1987 QST) but long haul links are inherently
% lossier and less reliable than shorter LOS ones.
% I strongly agree that we need to use our microwave resources and in
% particular 10 GHz but I think we will end up finding that for efficient
% use of our amateur resources we will start looking more like the telephone
% companies and common carrier folks when we solve the backbone problem.
%
% Glenn Elmore -N6GN- N6GN @ K3MC glenn@n6gn.ampr.org glenne@hpnmd.hp.com

Sure, we might wind up looking like the telephone companies. Maybe they
have already tried the pulse idea. On the other hand, I have never
heard of it. If nobody has yet tried it, to see what the results are,
what is wrong with us amateurs giving it a try. It just might be
useful.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2396. Re: QEX subscription

Newsgroup: rec.ham-radio
Date: 1990-04-24 02:17:02 UTC
From: GMoretti@massey.ac.nz
Message-ID: <680@massey.ac.nz>
Source record: 12010

>>re cost of QEX overseas delivery.

I too would be interested in the price of QEX overseas. In QST it says
write to HQ for details. I first put this aside about 2 years ago - it's
still on the list of things to do :-)

Cheers
Giovanni ZL2BOI

--

GIOVANNI MORETTI, Consultant	EMail: G.Moretti@massey.ac.nz
Computer Centre, Massey University	Ph 64 63 69099 x8398, FAX 64 63 505607
Palmerston North, New Zealand	QUITTERS NEVER WIN, WINNERS NEVER QUIT

2397. Re: TCP/IP in anticomputers

Newsgroup: rec.ham-radio
Date: 1990-04-24 05:02:11 UTC
From: jgd@rsiatl.UUCP
Message-ID: <1949@rsiatl.UUCP>
Source record: 11990

goldstein@carafe.enet.dec.com (Fred R. Goldstein k1io) writes:

>Y'know, John, I don't see your point. Phil is right on the money. But
>even on simple technical grounds, there's a good reason why we "should"
>migrate the "AX.25" backbone over to IP. It's that the AX.25 protocol
>is simply broken beyond repair.

I'm a bit perplexed by this statement considering how much traffic AX.25
moves each day even in the hostile environments like HF. If you mean that
there are features in the AX.25 protocol that you find distasteful, then
I agree, and we'd probably even mostly agree on what's distasteful.
But in my book, something that works even a little bit is not "broken beyond
repair."

>Given the high levels of congestion, AX.25 can run in one of two modes.
>Set the window size to 1 as you're "supposed to" (as Phil has proven) on
>an HDX network, and it runs in simple ARQ mode. Set the window size
>higher, and it executes its "go back n" primitive procedure and
>retransmits retransmissions of retransmissions, clobbering
>transmissions, retransmissions and retransmissions of retransmissions in
>the process. This is called "congestion collapse" when it reaches
>what are becoming typical levels (which cause the connections to time
>out). Needless to say, most TNC users keep their windows larger than 1.
>Especially our large local NTS bulletin boards. And they don't give a
>s*it when yo tell them to fix it.

You are confusing poor RF engineering with protocol deficiences. I think
we'd all agree that most any protocol, especially any CSMA protocol will
perform poorly on simplex networks, especially those based upon simplex
digipeaters. On the other hand, a properly engineered full duplex RF
environment is practically immune from collapse. I've proven that
pretty conclusivly here on the 146.73 LAN channel.

>You'll note that much of BBSnet is one-hop "message switched"
>non-real-time mail. That's not even "packet switching", but store and
>forward BBS operation. Nothing wrong with it, but it's slower than it
>would have to be if the underlying network were better.

BUT... Store-and-forward most suits most hams' needs just as store-and-
forward usenet news suits most readers here. Store-and-forward does
not have to be slow. Again let's not confuse problems in a particular
implenentation with problems with the concept. Sure W0RLI's once an hour
forwardind model is slow. On the other hand, I can show you a commercial
system I've designed and implemented that is NOT slow.

>TCP/IP, on the other hand, has dynamic retransmit timers and selective
>recovery of lost packets. So if you get clobbered, you don't have to
>retransmit the rest of the window, and you can run a larger-than-1
>packet window size. Of course, sharing a channel with AX.25 is a clear
>case of the obnoxious driving out the polite...

Or more accurately perhaps, a protocol with characteristics more suitable
to the RF environment is driving out one that is less suitable. Features
do not make functionality. Dynamic retransmit timing, selective recovery
and the like do absolutely no good if they are not appropriate to the
environment. If the backoff algorithm falsely attributes a retry
to a collision (which it must) and backs off into oblivion when the
lost packet was actually lost because of poor signal conditions, then
it does not fit the application and performs worse than an "inferior"
protocol that is better matched. At least around here, most of the
time, a bit of hammering will get a packet through.

>Need I mention digipeaters?

I guess digipeating and the emotional hate directed at it is the focus of
this philosophical debate. I'll stipulate that digipeating is a hack and is
little better than aloha in terms of thruput. You'll also have to agree
that despite its warts, digipeating gets the traffic through.

This is the same problem I face as a development manager. Do I fail
to deliver a product to a customer because some needed feature is
missing or do I put in a quick hack that works less than optimum
and ship it? My customers invariably say "hack it". And my superiors
are generally happier with the latter approach.

It's the same for ham radio. Do we tell potential users that we can't
connect 2 areas because digipeating is grody or do we put a digi up
and live with the lousy but greater than zero thruput? To me
the answer is obvious.

Or do we put up a technology that does not work very well, is hard to
use and is unreliable but is "pure" or do we put up what the users
want and what works best? Again, the answer is obvious. I hope you
keep in mind my distinction between productions and experimental
networks.

I once again seem to be casting myself as the great defender of AX.25
and the currently stagnant environment that exists. Such is surely
not the case. I look forward to the day when a fast and reliable
network exists that is practically transparent to me as a user. I suspect
that this day will not arrive in my lifetime. Those who promote TCP/IP
as the next best thing to God tend to fool even themselves with promises
sometimes. We tend to brush complexity under the rug with terms like
"automagically". And we tend to represent the ham radio network with
the same nice cloud model as we use for commercial models. Sure the
Internet is accurately modeled by that cloud - a status that has
taken millions of dollars and man-hours to achieve. A more accurate
model for ham radio in the forseeable future is a series of disjoint

line segments separated by air.

Phil's code is a very accurate duplication of the environment one finds
in a Berkley IP environment. (And it would be an accurate model even
if phil decides not to emulate the kernel panics :-) It works fine
on the ethernet or on SLIP. I use it everyday for that environment.
And when something breaks the network, I can fix it and am paid well
for doing so.

But when we throw this same environment onto non-sophisticated hams,
the situation is quite different. Not only is the user interface
alien, hard to use and cryptic, we have moved all the complexity of
network management off a few nodes and into each ham's shack. This,
I submit, is negative progress. Promises of future servers to address all
problems do not aleviate the situation.

But even this is somewhat tangent to the point I was trying to make
earlier. The point is that once we become service providers - and I
enjoy that role almost as much as experimenting - we have an obligation
to take our users' time and money and spend it wisely. Erecting
networks that don't work or which don't fit the users' needs is not
wise management.

Between IP not working very well, the vendors' headlong rush toward proprietary
protocols for RF faster than 1200 bps, and the limited time available to
the worker bees, I see 1200 bps AFSK being the lowest common denominator
for quite some time to come. Anyone who wants to prove me wrong on this
should a) design a cheap transverter front end for our WA4DSY modem, b)
design a high speed driver for said modem, c) design something faster and
better than our kit and d) put them in kit form that can be easily obtained
and assembled. One should probably also pick up the phone or the pencil
and contact the packet vendors and tell them to cut the proprietary shit
and agree on a high speed standard and then to start building some hardware.
Dale's 56kbps modem can be had for a song. In the absence of anything
better, it would make a quite nice standard.

I'm afraid, though, that the highest production from the ham community
in the forseeable future will be that commodity, hot air. I sure
hope I'm wrong.

John

--
John De Armond, WD4OQC | We can no more blame our loss of freedom on congress
Radiation Systems, Inc. | than we can prostitution on pimps. Both simply
Atlanta, Ga | provide broker services for their customers.
{emory,uunet}!rsiatl!jgd| - Dr. W Williams | **I am the NRA**

2398. Re: Autopatches in Maryland

Newsgroup: rec.ham-radio
Date: 1990-04-24 09:40:17 UTC
From: dwsmith@uxh.cso.uiuc.edu
Message-ID: <30000023@uxh.cso.uiuc.edu>
Source record: 12013

Seems to me that I recall that the use of an autopatch to avoid local phone charges (in addition to being just plain tacky) is against phone company tariffs or FCC regs.

Dave Smith
N4DSZ

dwsmith@uiuc.edu

2399. Microwave oven at 2.5Gigahertz

Newsgroup: rec.ham-radio
Date: 1990-04-24 11:54:42 UTC
From: MEDELMA@CMS.CC.WAYNE.EDU
Message-ID: <9004270914.AA01987@ucbvax.Berkeley.EDU>
Source record: 11996

See also Amateur Television Quarterly, July 1989, for a few bits of data from WA8EOY on operating parameters for microwave oven klystrons. I believe earlier issues of the Quarterly had more complete details.

--mike edelman ke8yy

2400. Re: No audio on Icom...general fixing things

Newsgroup: rec.ham-radio
Date: 1990-04-24 13:12:47 UTC
From: jim@ghp.UUCP
Message-ID: <560@ghp.UUCP>
Source record: 11997

In article <4361@kd4nc.UUCP> ke4zv@kd4nc.UUCP (Gary Coffman) writes:
>In article <2847@ultb.isc.rit.edu> wlw2286@ultb.isc.rit.edu (W.L. Ware) writes:
>>HELP!
>>
>>I have an Icom 900a w/29a module and I am getting no audio output during
>>rx. However during tx audio gets sent. The amplifier in the control unit
>>obviously works because I get a turn on thud.
>
>The turn on "thud" only indicates that power is being applied to the
>audio section. It does not necessarily indicate that the audio section
>is good.

Fixing radios seems to contain a large amount of knowledge gained
from experience. When I talk to different people they all seem to
have little tricks to find problems. Is there a book (or whatever)
that compiles all/a_lot of such knowledge for my own experiences, or
is it just something you can only learn by screwing up or wasting
a lot of time? I do have the basic books like the Radio Amateur's
Handbook, but I was looking for a dedicated text with lots of _lore_
and lists like: "if this happens, it is likely that...".

I would not expect such a book to be the "magic cookie" to solving
broken radios, but just a good push in the right direction. I
realize, that a lot depends on intuition derived from experience.

Digital doesn't really bother me, its the RF and analogue.
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

2401. Kenwood TS140 information needed

Newsgroup: rec.ham-radio
Date: 1990-04-24 13:23:37 UTC
From: anderson@skvax1.csc.ti.com
Message-ID: <9004241331.AA20614@ti.com>
Source record: 11998

A friend of mine who is studying for his license wants product information on the Kenwood TS140. I do have their data sheet, but a review or personal testimonials would be better.

I looked back through a few issues of QST product reviews, but didn't find any.

Does anyone remember seeing a review or comparison of the TS140? Or better yet, do they have such a review that I could get a copy of? Just the name and date of the magazine would be appreciated. I'll try to find the issue.

Thanks

John Anderson

N5OPY

2402. re: QEX subscription price

Newsgroup: rec.ham-radio
Date: 1990-04-24 14:53:25 UTC
From: fac_watts@gsbacd.uchicago.edu
Message-ID: <8900@tank.uchicago.edu>
Source record: 12025

from the qex renewal notice i recived yesterday from arrl:

u.s. canada,mex,u.s. 1st class elsewhere (airmail)

arrl
member $10 $18 $38

non
member $20 $28 $48

remittance in us funds. check drawn on us bank

arrl address: 225 main street
newington, ct 06111

john watts
wb2wkb
fac_watts@gsbacd.uchicago.edu

2403. DIGICOM for PCompatibles

Newsgroup: rec.ham-radio
Date: 1990-04-24 15:22:00 UTC
From: werner@vax1.informatik.fh-regensburg.dbp.DE
Message-ID: <383
Source record: 12000

First of all: sorry for posting this article here; I also sent it to the PACKRAD list, but i didn't receive mail from PACKRAD for over 5 weeks. Maybe there's trouble with my local fileserver...

PRE-ANNOUNCEMENT:

For all those of you who wondered, "why not make PR with a simple modem and some cleverly written software like the DIGICOM folks on their C64" - here's the good news:

BAYCOM - as it will be called - is about to be released!

The writer of BAYCOM is Flori, DL8MBT, who had also written DIGICOM! BAYCOM will include all features of DIGICOM (remote commands, screen editor etc.) plus many features more.

What do you need to be QRV with BAYCOM?

Simple question - simple answer: all you need is a PCompatible computer and a serial port - and a modem. The modem is built around the TCM 3105 modem chip and gets it's power out of the RS232 from the PC. Costs: < $30 !!!

BAYCOM has been demonstrated on Saturday, April 21st at the Frankfurt PR-meeting.

I will post more accurate information on BAYCOM as soon as Flori, DL8MBT and Johannes, DG3RBU, will tell me about this exciting new product.

If you have some questions to DL8MBT and/or DG3RBU, you can write them to me - I'll relay them to Flori and Johannes.

REMEMBER - THIS IS ONLY AN ANNOUNCEMENT! DG3RBU told me, that BAYCOM will will be tested for about one month before the first "official" release leaves their test benches.

Have fun with PR! Vy 73 de Ralf, DF1RW

(werner%vax1.informatik.fh-regensburg.dbp.de@unido.uucp)
(werner%vax1.informatik.fh-regensburg.dbp.de@relay.cs.net)

2404. Re: Kenwood R5000

Newsgroup: rec.ham-radio
Date: 1990-04-24 16:22:00 UTC
From: twt@hpfcbig.SDE.HP.COM
Message-ID: <7650005@hpfcbig.SDE.HP.COM>
Source record: 12003

Given that you can buy them new for $849 US mail order, I would guess something in the $600-700 US range.

I traded mine in on a NRD-525 (which I expect to trade in on an ICOM R-9000, because I am insane).

Tim Tillson
twt@hpfcbig.sde.hp.com

2405. Re: Need unobvious 2 meter antenna...

Newsgroup: rec.ham-radio
Date: 1990-04-24 16:56:02 UTC
From: mikey@pnet01.cts.com
Message-ID: <2380@crash.cts.com>
Source record: 12004

I have a 60 watt light bulb soldered to a PL-259 on a 12" pigtail. You wouldn't even have to bother using the war department's lamp....Mike

---
| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2406. Code training program...

Newsgroup: rec.ham-radio
Date: 1990-04-24 17:21:23 UTC
From: dfickes@world.std.com
Message-ID: <1990Apr24.172123.2976@world.std.com>
Source record: 12027

Does anyone have a code training program for an IBM-PC running
MS/LOSS ?

thx, david

--
David K. Fickes dfickes@world.std.com
(617) 536-6352

2407. Re: Need unobvious 2 meter antenna...

Newsgroup: rec.ham-radio
Date: 1990-04-24 18:46:56 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <612@xyzzy.UUCP>
Source record: 12017

> I need to build/buy a highly unobtrusive 2 meter antenna for my base.

There is a company (name?) that makes DDR antennas for 2M, 440, etc. Mag mount and otherwise. Very low profile, very compact, high Q. They advertise in the ham rags. Put it in a desk drawer.

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

2408. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-04-24 19:34:31 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9004250707.AA10977@ucbvax.Berkeley.EDU>
Source record: 12008

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 31
1 20579U 90037A 90114.57620854 .00000000 00000-0 00000-0 0 00029
2 20579 028.4676 230.5666 0021936 059.7727 300.5497 14.90549087 10
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2409. Are There Any Active 2m Repeaters on St. Martin?

Newsgroup: rec.ham-radio
Date: 1990-04-24 20:20:31 UTC
From: forrest@orion.sybase.com
Message-ID: <9220@sybase.sybase.com>
Source record: 12009

I'll be taking a trip to St. Martin, French West Indies, soon and
I'm wondering if anybody knows of any active 2m repeaters there.
I'm not interested in just listings from repeater guides but
instead in repeaters that people have actually used.

Thanks,

Anything you read here is my opinion and in no way represents Sybase, Inc.

Jon Forrest WB6EDM
forrest@sybase.com
{pacbell,sun,{uunet,ucbvax}!mtxinu}!sybase!forrest
415-596-3422

2410. Radio wanted

Newsgroup: rec.ham-radio
Date: 1990-04-24 21:20:50 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9004242132.AA00669@ti.com>
Source record: 12011

I'm looking for an old WWII radio: BC-654A. Anyone seen one of these lately?
Or have one hidden away in the far reaches of the shack?

Thanks,
Thanks,
Dube Todd N5PDK

2411. Re: TCP/IP in anticomputers

Newsgroup: rec.ham-radio
Date: 1990-04-24 21:54:28 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <10582@shlump.nac.dec.com>
Source record: 12029

In article <1949@rsiatl.UUCP>, jgd@rsiatl.UUCP (John G. De Armond) writes...
>I'm a bit perplexed by this statement considering how much traffic AX.25
>moves each day even in the hostile environments like HF. If you mean that
>there are features in the AX.25 protocol that you find distasteful, then
>I agree, and we'd probably even mostly agree on what's distasteful.
>But in my book, something that works even a little bit is not "broken beyond
>repair."

No, in my book, a protocol is broken if it fails easily. Any hack will
work under best-case engineering. A protocol should handle the worst
case that it's used for. Thus, we're arguing semantics of "broken".

Incidentally, we have a guideline that if a protocol fails if you throw
a bogon at it, it's still broken. A robust protocol ignores crud and
does its best. But that's asking a bit much for now...

>You are confusing poor RF engineering with protocol deficiences. I think
>we'd all agree that most any protocol, especially any CSMA protocol will
>perform poorly on simplex networks, especially those based upon simplex
>digipeaters. On the other hand, a properly engineered full duplex RF
>environment is practically immune from collapse. I've proven that
>pretty conclusivly here on the 146.73 LAN channel.

Again, if you give it a good physical channel, even the worst protocol
will often "work". AX.25 was designed for packet radio. It doesn't
work reliably over _most_ packet radio. If I had a FDX repeater for
packet, I'd be happier, but that's only moving the problem downwards.

I also support faster modems, etc., but I fear that appliance AX.25 with
1200 bps AFSK is a common "bundle". Both are deficient; if you're going
to replace one, you might as well replace both.

>Phil's code is a very accurate duplication of the environment one finds
>in a Berkley IP environment. (And it would be an accurate model even
>if phil decides not to emulate the kernel panics :-) It works fine
>on the ethernet or on SLIP. I use it everyday for that environment....
>But when we throw this same environment onto non-sophisticated hams,
>the situation is quite different. Not only is the user interface
>alien, hard to use and cryptic, we have moved all the complexity of
>network management off a few nodes and into each ham's shack. This,
>I submit, is negative progress. Promises of future servers to address all
>problems do not aleviate the situation.

I agree that the _implementation of TCP/IP is not yet suitable for
average hams. That's why the "anticomputers" should do it! The
backbone should be TCP/IP, but simple/cheap (even AX.25 one hop) access

should remain available for at least the time being.
fred k1io

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

2412. Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-04-24 22:01:21 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9004242215.AA02030@ti.com>
Source record: 12012

I think that this IS a ham question, and a good one at that.
"Babst TA 64837" asked if there are standards for manual coding of Morse Code. I'm not sure of what the actual standards are, but I think that the spacings are something like: a dash is three times as long as a dot; inter-character spacing is about one dash long; the space between dots and dashes within a character are about one dot long; and the inter-word spacing is about three dashes long.

Whatever, there are lots of hams who would do well to consider the effects of spacing when they send. Some of them run characters, words and groups together to the point where they're almost uncopyable. Other people sort of "mix them up" so that you get semi-words; or they vary their speed and spacing. It's amazing how much faster you can copy when the sender is going at a steady pace, and uses good spacing techniques.

I think the best senders are those with a music inclination. They seem to be able to carry the old rhythm over to the brass. Some of them get positively lyrical with their sending; they're a pleasure to QSO with.

73,
Dube Todd N5PDK

2413. Re: JD1 Minami Torishima

Newsgroup: rec.ham-radio
Date: 1990-04-24 22:47:14 UTC
From: k2ph@cbnewsj.ATT.COM
Message-ID: <4804@cbnewsj.ATT.COM>
Source record: 12033

From article <7120119@hpcupt1.HP.COM>, by tomg@hpcupt1.HP.COM (Tom Graham):
> I need help finding the QSL route for JH1MAO/JD1 on Minami Torishima.

I know you're not going to believe this address--I didn't.
But I have the card, so I know it's accurate. In any case,
QSL for JH1MAO/JD1 is:

Jimmy Suzuki (yeah right--and I'm Joe Isuzu)
1484-24 Izumi-Cho
Hachioji-Shi Tokyo
Japan
--
==========
Bob Schreibmaier K2PH | UUCP: att!lzss!k2ph or k2ph@lzss.att.com
AT&T Bell Laboratories | ARPA: k2ph%lzss@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

2414. Police Radios, Why Them and Not Us?

Newsgroup: rec.ham-radio
Date: 1990-04-24 23:05:25 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9004242305.AA12109@ucbvax.Berkeley.EDU>
Source record: 12018

I N T E R O F F I C E M E M O R A N D U M

Date: 21-Apr-1990 09:04pm HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL)

Subject: Police Radios, Why Them and Not Us?

>> Chase them down? Throw rocks as the car goes by? Also, "normal"
>> citizens don't have a license to use a radar unit.
>
>They also are often seen using police radios, loaned to them by the
>police departments they are working with.
>

I have a *real* problem with this. About six months ago, everyone was
flaming everyone else (well, almost :-)) at the mere hint that one of us poor
hams should *dare* venture onto a police frequency with one of our
super-modified
Skysocker HT-100 handhelds to report a real emergency. Now we're finding out
that the local gendarmes are letting John Q. Public, with no training at all,
use *their* radios. Sheesh! Well, I guess it shows where the cops' *real*
priorities are.

>> By the way, your ham ticket allows you to legally operate a K band
>> radar gun. Just make sure to ID every 10 minutes :-) The X
>> band guns operate a bit above our 10 GHz ham band. If I remember
>> right, both X and K radar units are part 15 devices.
>
>Also remember that PULSE emissions are not permitted on the 10 Ghz band,
>but you all knew that, right?

No problem, Phil. Just hit 'em with a little CW ID at 15-20 wpm, followed
by some RTTY CQ's (uh, maybe I have that backwards :-)).

73 and good hunting,

Jeff Miller, WD6CQV/KH6
(cute sig file 'taint no good if it's on the other machine!)

2415. Re: Need unobvious 2 meter antenna...

Newsgroup: rec.ham-radio
Date: 1990-04-24 23:41:59 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <o1o6H1w161w@w8grt.fidonet.org>
Source record: 12014

wlw2286@ultb.isc.rit.edu (W.L. Ware) writes:

> I need to build/buy a highly unobtrusive 2 meter antenna for my base.
>
> I was considering putting it underground, any ideas?

I once saw an article (in QST, I think) about a quartwave vertical with
ground plane fashioned to look like an old-fashioned weather vane.

Of course, flush mounted disks are nice.

2416. HATE MONGERING MUSHBRAINS

Newsgroup: rec.ham-radio
Date: 1990-04-24 23:52:10 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <NHP6H2w161w@w8grt.fidonet.org>
Source record: 12015

In Message-ID: <1990Apr21.060104.20254@lopez.UUCP> ARF says:
> It takes a great deal more intellegence to carry on an
> intellegent discussion

Ah, that explains your message....

2417. Re: Used Kenwood R5000

Newsgroup: rec.ham-radio
Date: 1990-04-25 01:29:39 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29270@cup.portal.com>
Source record: 12016
Cross-posted to: rec.ham-radio,rec.radio.shortwave

What is a reasonable price to pay for a used Kenwood R-5000? Perhaps in the neighborhood of $700 to $750. Just noticed this unit (used) with mods for $750 in the current issue of MONITORING TIMES (in the classifieds). Universal Radio in Reynoldsburgh, OH might be better able to quote the going rate. The price for a used unit without mods would be much lower. The Universal number is: 1-800-431/3939. Ask for Jim.

And I have no vested interest in Universal. I simply find them to be a very reliable dealer that I have had a cordial relationship with over the years.

"HM"

2418. Standard C520

Newsgroup: rec.ham-radio
Date: 1990-04-25 06:33:30 UTC
From: pvh@Apple.COM
Message-ID: <40527@apple.Apple.COM>
Source record: 12037

Does anyone out there (most likely in Japan) own one of these dual band
HTs? (And know if US versions are available)

Thanks,

Pete
N6YLJ

2419. Tube info.

Newsgroup: rec.ham-radio
Date: 1990-04-25 09:11:48 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <25.Apr.90.10
Source record: 12019

>Steven Wheatley AT&T Consumer Products (317) 845-3927
was asking for tube info on British type tubes. I can't mail him
on his Usenet address (keeps bouncing). If he gets me on an
Internet address i can reply. I have the info he wants (i have data on
several THOUSAND different tube types, equivalents etc - anyone who
wants such info, let me know - but PLEASE give an INTERNET address!
Usenet mail from the UK is sometimes bounced!)

Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

2420. The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-04-25 10:09:22 UTC
From: flash@lopez.UUCP
Message-ID: <1990Apr25.100922.18002@lopez.UUCP>
Source record: 12020
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I live in Marquette Michigan, the land that time forgot. It is not the end of the world, but you can SEE it from here.

I am NORTH of all the Canadian Population Centers. This is the Upper Peninsula of Michigan. The ARRL in 1971 on their official call area map said I am in VE3. Nope. This is 8 land, but north of the world as YOU know it.

This is an article about radio reception and transmission, and is being posted to rec.ham-radio AND rec.radio.shortwave. Followups, since they will be more technical, will be in the ham group, and I do hope for some responses to this one.

I would like to tell you about the BLACK HOLE EFFECT, a phrase I coined about 20 years ago when I was a very new ham, and a seasoned SWL. Now I am an old timer at both hobbies, have solved a lot of mysteries along the way, and would like to share my ideas on the Black Hole Effect with others on the net, and see if anyone else experiences it, or if I am the Lone Ranger....

Pertanent Details:

Marquette is at 47 degrees North Lattitude. The city is on the shore of Lake Superior, the DEEPEST Largest coldest fresh water lake on this fair planet.

Marquette is on the Mesabbe Iron Range, the LARGEST single deposit of Iron Ore on this fair planet.

Marquette is a place where WEIRD things happen with Radio Signals.

Weird Facts:

There are two Television Stations licensed to this city. Because of FAA regulations, they had to locate their transmitters to the West of Marquette County Airport, out past three Iron Mines. With rabbit ears at my location I do not get a glimmer of a hint that these stations exist. Marquette is the most heavilly TV cabled city in the USA. You have cable or you do not watch TV. EVEN THOUGH TWO stations have studios in town. With a fringe antenna on a 40 to 60 foot tower, you CAN get a signal, but it is not very good. The transmitters are not even 30 miles away.

I used to work for a 5,000 watt radio station. It was 6 miles from the city of license. We never had a decent signal in town. We were fine in Canada and Wisconsin, but in town we were the weak one.

the 250 watter with its transmitter on the hiway was much louder than we were. Our antenna was in a swamp. Our ground system was superb. We just could not get out.

When I moved here, I was an active DX Listener. I loved the AM broadcast band. I found that the AM band here is about 30 to 40 DB weaker than it was in the town I moved her from. Though I am only 100 miles farther north, EVERYTHING is different. Chicago stations that boomed in on a cheapie transistor set require a communications receiver and a very good antenna to receive. BUT Very Distant Canadian stations often blast through. Also, many nights I have gotten BLASTING signals from stations in the Carribean! PJB in Bonaire, Radio Belize, and the Carribean beacon come in like locals sometimes, and during those times, NOTHING ELSE can be heard. Some nights it is only Low Power Canadian stations from Way out.

I do not have a TV antenna, but people who have them report very strange reception. One guy I know claims that he watches movies every night from Canada by hooking his TV up to a CB BEAM. On UHF no less..... We are talking HUNDREDS of miles if he is to be believed....

On HAM radio, the 20 meter band has been totally dead for over a month. I was a regular listener to the 14.313 situation, but all of a sudden, it is gone. It's not my equipment, I have FOUR receivers. They just went dead on 20 in the daytime.

Tonight on 75, I noticed that there is a regular wipeout for both transmit and receive, beginning about 9pm, and ending around 2am. I happened to be here reading the net, when some of my friends in New Hampshire were saying that they never hear me any more, so I went to try and talk with them. They all thought I was barefoot. My Henry was running 1500 watts out. No one could copy me. Then the whole gang faded right out to nothing, and it stayed that way for three hours. Slowly it all came back, and the guys were still on the air, so I came back on and we discussed the Black Hole Effect, which seems to NOT affect anyone else in that group but me. They all continue merrily chatting, and I hear them one by one get fluttery (aroural effect) and then vanish. For three hours the band is completely wiped out, and then slowly it comes back, until around 3am they are all 10 over 9 and so am I.

The theory postulated is this:

The permeability of the earth where I am at is the equivalent of living on a ferrite choke. There seems to be a breakthrough point regarding power level. When I go from 100 watts to 1000 watts, instead of the expected 10db increase, people tell me that my signal is 30 to 40db louder. This is not normal.

I seem to experience a severe aroural effect here that no one else does. The least bit of solar storm activity, and the bands dry up.

What I think is happening is that the combination of high ground absorbtion coupled with high aroura absorbtion yields signals that do not get to the other end.

I call it the black hole effect because it seems that on some frequencies, things can be received that are so far away and should be so weak that it defies logic. I can not transmit on the BCB to see if when I hear the Carribean I can not talk there, so this is only a theory, but I think it is a one way deal. I think the high ground permeability would keep my signal from getting out, while still providing some really wild receiving conditions.

I have talked with people all over the country on the air, and NO ONE else lives in a place like this. I think the combination of being so far north (Into the Aroural Zone), the Lake, the Iron Range, and who knows what else voodo, all plays a part.

A couple years ago a friend from Chicago came up here for a visit. He was flabberghasted when he found the ABYSMAL GROUND WAVE conditions (like the broadcasters up here have to live with). He was 10 miles from town before he could hear me. I was running full power on the 75 meter band. He was just barely above the noise.

BUT before you say "Gosh I could never live there"... Let me tell you a secret.

The black hole effect usually lasts only a month or so every year, though it can come at any time.

We have NO STATIC to speak of here! I talk to people all the time who are griping about their 20 over 9 static, while my S meter sits on the left side of the pin except when people talk. When we are not in a black hole situation, I can hear stations that no one else in the nationwide group can hear, simply because my noise level is so gloriously low.

In short, you could not get me to leave this place because even with its weird conditions, the fact that the only time I get static is during a local thunderstorm (it hardly rains here either)....

Winter here is just about exactly 6 months long. Almost 6 months of skiing if you are into that (I am not). BUT in the summer, the sun is out til way past 10pm. Almost 11 at summer solstice.

Is there anyone North of me on the net? (Sorry Toronto, and Montreal, you are my neighbors to the SOUTH!). I would like to know how much of this stuff is Aroural, and how much is because of the Permeability of our iron rich ground shelf.

Lets Get Technical!

--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

2421. Re: Kenwood 721 Display Upgrade

Newsgroup: rec.ham-radio
Date: 1990-04-25 12:13:44 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <45@thoreau.nsc.com>
Source record: 12021

In article <30500507@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> The ability for almost all the radios on the market to detect a low-battery
> condition is terribly inadequate.
>
> stuff deleted
>
> If it comes as a plug option, then I'd also want better accuracy (1/20 volt)
> and a current meter, too.

Right on, Phil! A little more diagnostics wouldn't hurt much. With all
the mixed signal chips, analog interfaces to digital chips and powerful
uPs with cheap memory this would be a welcome improvment over the possible
use of those poor excuses for an S-meter called bar graphs.

I remember the days when rigs had meter switches that did a lot more than
monitor ALC and final current, even the Gonset "Communicators" had meter
(eyes for the earlier ones) switches.

Ron Todd, K3FR The "PATHFINDER" guy.

2422. Re: Autopatches in Maryland

Newsgroup: rec.ham-radio
Date: 1990-04-25 12:41:51 UTC
From: jay@splut.conmicro.com
Message-ID: <ZFN#XSD@splut.conmicro.com>
Source record: 12022

In article <30000023@uxh.cso.uiuc.edu> dwsmith@uxh.cso.uiuc.edu writes:
>Seems to me that I recall that the use of an autopatch to avoid local
>phone charges (in addition to being just plain tacky) is against phone
>company tariffs or FCC regs.

I've been hearing this argument for years, and nobody has ever been able to substantiate it. While I suspect that the phone company would object, it would be no more illegal than using an HF phone patch for the same thing.

A more practical problem in doing what the original poster wanted is privacy - there is none on an autopatch. This, plus the restriction on business calls, makes the usability of an autopatch for routine personal calling pretty low.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
"Flying is a lot more fun than being in the Senate." -- Senator Jake Garn

2423. Re: HATE MONGERING MUSHBRAIN

Newsgroup: rec.ham-radio
Date: 1990-04-25 13:03:52 UTC
From: barry@dgbt.uucp
Message-ID: <1414@dgbt.uucp>
Source record: 12023

From article <1990Apr19.050341.18071@lopez.UUCP>, by arf@lopez.UUCP (Jack Schmidling):
> Why are you bringing your hate mongering into this
> newsgroup? Doncha know anything about net ettiquette

This is a good one - a lecture on net etiquette from the guy who has one of the most bloated, grotesque signature files ever seen on the net. Your concern for etiquette has touched my heart, Jack. Now let's see if you can practice what you so righteously preach.

Barry VE3JF

--
Barry McLarnon Communications Research Center Ottawa, ON Canada
Internet: barry@dgbt.crc.dnd.ca UUCP: ...utzoo!dciem!nrcaer!dgbt!barry
CI$: 71470,3651 PBBS: VE3JF@VE3JF AMPRnet: barry@bbs.ve3jf [44.135.96.6]

2424. Remote mount...

Newsgroup: rec.ham-radio
Date: 1990-04-25 13:09:00 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <25.Apr.90.14
Source record: 12024

Remote-mounted radios are a great idea. I have used a considerable
range of such radios in the past, i see the advantages to be:

1) Easier to instal in modern automobiles. The control head can often go in
place of the normal broadcast radio - but the hole is rarely deep enough to
fit a full-size ham radio in, without redesigning the instrument panel
or moving the heater/airconditioning. So stick the signal unit in the trunk
where its nice and spacious, and run a control cable to the trunk.
Thats the *only* way you can do it with some gear (I used to run a 'PYE
Vanguard' - a 18" by 12" by 9" 100-watt TUBE mobile rig on 2 meters...
it just would not fit anywhere except the trunk!)

2) More secure: If some jerk breaks into your car to steal the radios,
he more than likely just gets the control head.
You can always buy (or build - theres only a couple of pots and channel
change switches and high/low buttons) another, at less than the cost of
a new radio.

3) Safer: No bulky radio on the transmission hump, for you to smash your
knees agains if you have a wreck.. No 50-amp power feeds hanging about to
get caught round the gearshift...

4) Neater: Fewer wires trailing about (if you do the installation
properly, that is). Less equipment to climb over when trying to get
into the rear seats of a two-door car (important if you have to carry
children or non radio-literates who trample over your gear!)

5) Better for the radios: The trunk is usually cooler and better
ventilated than the instrument panel. With good air circulation, your
heatsinks will run cooler and the radio will last longer..

With some modern smaller radios, the signal unit could possibly be
installed under the seat rather than in the trunk.
I think one of the ICOM ranges uses an optic-fibre to link the head to
the radios (several 'band modules', one control-head!)

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

2425. Re: Wanted: NEC

Newsgroup: rec.ham-radio
Date: 1990-04-25 13:36:12 UTC
From: bernerus@utc.chalmers.se
Message-ID: <829@vice2utc.chalmers.se>
Source record: 12045

meetoo!!
But does anyone know if the real NEC (not mininec) is publicly available ?

Christer Bernerus (SM6FBQ) ! E-mail:
University Technology Centre for Andrew (UTC) ! bernerus@utc.chalmers.se
Chalmers University of Technology
S-412 96 Gothenburg SWEDEN

2426. Shuttle Astronauts heard - direct

Newsgroup: rec.ham-radio
Date: 1990-04-25 14:48:43 UTC
From: pfluegerm@valley.UUCP
Message-ID: <4a03e0a3.15840@valley.UUCP>
Source record: 12048
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.space.shuttle

Heard the astronauts direct during their EVA during deployment of
the HST.

Heard between 7:15 and 7:30AM MST during their pass over the western
US. Space suits are on 279.0 MHz AM. Receiver was an Icom R-7000
with a 1/4 wave groundplane at 15ft.

--
Mike Pflueger @ AG Communication Systems (formerly GTE Comm. Sys.), Phoenix, AZ
UUCP: {...!ames!ncar!noao!asuvax | uunet!hrc | att}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-581-4850
Packet: WD8KPZ @ W1FJI Internet: PLEASE USE UUCP PATH (NOT INTERNET)!

2427. Additional Dayton Freq

Newsgroup: rec.ham-radio
Date: 1990-04-25 16:13:45 UTC
From: ewb@raybed2.ray.com
Message-ID: <1586@raybed2.ray.com>
Source record: 12026

Well folks, it's actually here. Hope to see everyone at the Hostility
err Hospitality suite.

For those of you with 1200 gear there will be a bunch of people on
1274.0 MHz. So if you have the gear bring it and say hello.

73
Gene WA1UXA

2428. Re: Lots of Questions

Newsgroup: rec.ham-radio
Date: 1990-04-25 17:27:56 UTC
From: engle@wdl1.UUCP
Message-ID: <4820024@wdl1.UUCP>
Source record: 12028

> I have recently had my interest in Ham Radio rekindled and I have
>decided to go ahead and take the exams. I plan to go for the General Class
> ...
> I plan to spend around $1500 and I am most interested in the HF bands and
>DXing. A few people I have talked to have recommended the Kenwood TS-440S.
>If anyone has any thoughts on this rig I would really appreciate hearing them.
>If you have any other recommendations, I would also be very interested in them.
>
> As far as antennas are concerned, some people have told me that I will do
>just fine with a simple vertical antenna. Others have said that it is worth
>investing in a beam. What kind of antennas would you recommend? If I get a
>beam, will I also need a rotator? Is it worth the extra cash? I have seen
>a lot of adverts for antennas, some of which say that they are pretuned for a
> ...
> Andy Greenshields [dxandy@widener.BITNET]

Andy asks for a mail response this request. However, since this
question comes about once a month and BITNET mail generally fails for me,
I'll post a general response here.

First, to the net in general: when asking questions, GIVE A PHONE NUMBER.
Not all the readers of this group are students who can't afford to make long
distance phone calls (they or their employers can afford it that is). There
have been numerous questions asked that I have passed up answering because
I can't afford to take the time to type out a response. This is specially
so in answering technical questions, where there are many responses and the
person asking did not give enough particulars.

Regarding a rig to choose: With the exception of the entry level Yaseu (757?),
any new rig would fill the bill. Your best bet is to choose one that is
recommended by a local ham. Find out what is in use in your local area and
talk to local hams. Then make your choice. Go knock on the door of a house
with visible amateur antennas. I did this to three local hams, not one turned
me away, they took a stranger in and each spent several hours talking to me.
I personally prefer ICOM products, but others in this area use Kenwood. The
number of knobs on the pannel does not determine the goodness of the radio.

Antennas: I have spent more money on antennas and towers than I have on
radios. This was good advice given to me and I pass it on to you also. Get a
decent antenna. IF you have never used anything else, a vertical seems not
to bad. However, unless space (or landlord) dictates otherwise get a beam.
Start with a 3 element tribander if you are looking for low bucks. Get one
of the smaller ones and you can put it on a TV mast and turn it with a TV
rotator. Brand new for everything this will cost about $500, good shopping
at flea markets (or the local hams suggested above) will provide this for

$100 or so. My first TH-3jr, mast, rotator, and coax was bought ($75) from a local ham upgrading to a big tower and antenna. I used this and a borrowed rig for a year and then bought my own, used, rig. Until I got into DXing this served me well for 5 years (and 125 countries). A vertical will work for 80/75 and 40 meters, but in the long run you will be unhappy with a vertical on 20/15/10 (to the flamers, yes a vert works now. But in a year or so the sun spots will be down and then the vert just won't be any fun). A small tri-bander or any beam will require a rotator. It will also work better the higher you get it, start with a 2 section 20' TV mast on the roof. This will put the antenna at about 35' which you should look at as a minimum. To this you could add a vertical or wire antennas for 40 and 80/75 meters. 10-15 are daytime bands, 20 daytime & early evening, and 40, 80/75 are night time bands. To fill out your ability to operate all the time you will eventually need to get antennas for the "low" bands. This set up will work fine for lots of years.

Don't forget to budget accessories in your plan. If CW is in your operating plans you will need a key and/or paddles and a keyer. You will need an antenna tuner to get wires and/or the verical to work on all of the low bands. An independent (from the rig) SWR/power meter is nice (but if the rig has one, it may not be absolutely needed). You will also need to get an coax switch for selecting antennas (you WILL have more than one antenna, they are the easiest and cheapest form of experimenting you will do). To keep the rest of the family (neighobors) happy get a set of earphones, they also make it easier to contact weak stations. You will need coax (DO NOT skimp here), rotator wire, a ground rod, and some wire to run to the ground. If you don't have tools you will need moderate to heavy soldering iron (gun) and assorted hand tools to put all this stuff together. And finally, get a dummy load for testing and tuning up.

Absolutely the last thing to buy is a linear amplifier. If you have not spent as much on antennas and towers as you have the rig, you are wasting your money.

I recommend you get to know several local hams before you start. They will save you an immense amount of money besides being the first of a group of life time friends. If for no other reason that you can't put up antennas by yourself (or you shouldn't try to by yourself).

Have fun and welcome to the world of amateur radio.

regards, Dave

David Engle, KE6ZE - engle@wdl1.wdl.fac.com - 408/473-4419 @ Ford Aerospace
Facts, what facts. I don't got to show you no stinking facts. These are opinions expressed here. "Any clod can have the facts, its an art to have an opinion" Herb Caen, SF Chronicle.

2429. Re: No audio on Icom...general fixing things

Newsgroup: rec.ham-radio
Date: 1990-04-25 20:20:00 UTC
From: hays@apollo.HP.COM
Message-ID: <4a05097c.20b6d@apollo.HP.COM>
Source record: 12030

Hi ---

30 days after the warranty on my IC-735 the audio all but died (you could here some audio but way down) ... I happened to live near the Bellevue facility ... and I bought a new Audio PA chip ... plugged it in and still no audio... After probing around a bit I found that one of the capacitors on the Audio PA stage had shorted ... replaced it and the rig has been super the last 4 years.

Just a place to look ??!!!

John
KD7UW

2430. Re: INFO-HAMS Digest V90 #348

Newsgroup: rec.ham-radio
Date: 1990-04-25 20:27:01 UTC
From: kjh@pollux.usc.edu
Message-ID: <24316@usc.edu>
Source record: 12061

In article <9004250212.AA23761@ucbvax.Berkeley.EDU> ARYEH@ILJCT.BITNET writes:
% I am wondering if any of the microwave fans out in netland can provide
% me with info, references, etc. on any use of the spectrum 100 GHz and
% up. Do such frequencies require methods that are very different from
% 24 GHz systems?
% --Aryeh Weiss (4X/KA1PB)

A better person to answer this would be Tom Hill wa3rmx, because he's already got working equipment on 47 GHz. However, I don't think the techniques and methods necessary between 24 GHz and 240 GHz are a whole bunch different than between 2.3 GHz and 24 GHz. Parts are a whole lot more difficult to find, and they are of course a whole lot smaller.

If you're thinking about building something in that frequency range, I would probably recommend that you attempt 47 GHz or 76 GHz so that you will be able to procure parts. Good Luck. 73

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2431. Wanted Kenwood 140

Newsgroup: rec.ham-radio
Date: 1990-04-25 20:30:34 UTC
From: anderson@skvax1.csc.ti.com
Message-ID: <9004252031.AA26141@ti.com>
Source record: 12031

A fried of mine is looking for a Kenwood 140S or 140.

If anyone is interested in selling one in good opeating condition, let me know.

What would a good price be for a used 140?

Does anyone have any experience with one?

I sent out a request already for any product reviews anyone knows of.

Thanks

John Anderson
N5OPY

2432. Re: Long distance communication

Newsgroup: rec.ham-radio
Date: 1990-04-25 20:32:35 UTC
From: kjh@pollux.usc.edu
Message-ID: <24317@usc.edu>
Source record: 12062

In article <9004231749.AA00838@mbunix.mitre.org> ptb@MBUNIX.MITRE.ORG writes:
>If you are in Texas and your girlfriend is in New York, it would have
>to be an HF system of some kind (Distances are too long for VHF).

This is not true! Distances greater than this have been worked on all
bands up to and including 23 cm. I don't know the current world
distance records above 23 cm, so distances greater than this may have
been accomplished on the higher bands also.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2433. Sony Air 8 mods

Newsgroup: rec.ham-radio
Date: 1990-04-25 21:22:00 UTC
From: JWJ2047@TAMVENUS.BITNET
Message-ID: <9004271006.AA04856@ucbvax.Berkeley.EDU>
Source record: 12032

I am interested in finding possible mods for increased coverage on the
Sony Air 8 especially to include the noaa wx satellites 136-138 and also
above 174 Mhz. If there is anybody who knows of any mods, for this radio,
please send mail to me. I have not been able to get any info on this listserv
or on packet so if you know anything, please help out.
Tnx
Joe Jurecka N5PYK
JWJ2047@TAMVENUS

2434. Subscription to RF Design

Newsgroup: rec.ham-radio
Date: 1990-04-25 22:57:07 UTC
From: jim@ghp.UUCP
Message-ID: <562@ghp.UUCP>
Source record: 12034

Would someone send me the subscription address, phone number
and rate for "RF Design"?

tnx
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

2435. The Un-Net

Newsgroup: rec.ham-radio
Date: 1990-04-26 01:44:36 UTC
From: rusty@cadnetix.COM
Message-ID: <12166@cadnetix.COM>
Source record: 12035

Well, its time for my semi-regular reminder about the Un-Net.

What is it? It is a time range and a set of frequencies, sort
of a place to meet.

When? "Every" saturday from 1700Z to at least 1800Z, usually I try
to shoot for 1900Z. (I decided to not move it this year when the
Dumb... er Daylight Savings Time went into effect)

Where? 28.410 MHz and/or 28.390 MHz, or thereabouts.

Who? Net-types. (i.e. YOU :-))

(Yeah, I know, this weekend is Dayton. But for those of us
NOT going to Dayton, let this serve as a reminder/invitation)

73, and don't forget to un-check into the un-net :-) :-)

Rusty

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

2436. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-04-26 02:01:24 UTC
From: tkelso@blackbird.afit.af.mil
Message-ID: <9004271006.AA04865@ucbvax.Berkeley.EDU>
Source record: 12036

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 31
1 20579U 90037 A 90115.92010824 .00000000 00000-0 00000-0 0 0018
2 20579 028.4695 222.0079 0005057 294.6488 065.4027 14.83847627000216
HST
1 20580U 90037 B 90115.92009663 .00000000 00000-0 00000-0 0 0019
2 20580 028.4696 222.0073 0004592 305.5468 054.5145 14.84125499000213
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2437. Re: Shuttle Astronauts heard - direct

Newsgroup: rec.ham-radio
Date: 1990-04-26 06:36:01 UTC
From: mikey@pnet01.cts.com
Message-ID: <2395@crash.cts.com>
Source record: 12038
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.space.shuttle

A better way to watch/listen is via satellite TV, C band, Satcom F2R,
Transponder 13, audio 6.8 Mhz. Great live video while near/over the
continental USA. Quite enjoyable.

| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2438. Motorola Bravo Pager info needed

Newsgroup: rec.ham-radio
Date: 1990-04-26 06:36:02 UTC
From: mikey@pnet01.cts.com
Message-ID: <2396@crash.cts.com>
Source record: 12039

Anyone know if the Bravo pager is frequency programable? I also would like to know what goodies are needed to reprogram the cap codes. I would like to have a second display pager on my same "phone number" for my XYL. Any good cheap sources for a pager setup for operation on 931.875 Mhz? My local pager service wants $200.00 to replace a lost/stolen unit. Thanks for any info...

| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2439. The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-04-26 06:36:53 UTC
From: flash@lopez.UUCP
Message-ID: <1990Apr26.063653.1859@lopez.UUCP>
Source record: 12040
Cross-posted to: rec.ham-radio,rec.radio.shortwave

This is a continuation of an article I posted last night. I am writing this right during another BLACK HOLE INCIDENT.

I was talking to KI2J in New Hampshire, as well as other stations along the East. Everyone had strong signals. Freq 3950khz on 75m, 0400z.

Right during one of my transmissions, everything changed. When I turned it back to KI2J, he said that I had gone from 20 over 9 down to an S-7, He was already down to about S-4, and soon I could no longer hear him.

I tried to tell him that I was in the middle of another of the Famous Marquette Michigan Black Hole Events, but communication ceased.

So I decided to check something. I came down to the computer room, and put up GEOCLOCK, which makes a nice world map with a display of the sun and shadow, much like the GREYLINE ADVANTAGE (IMHO, GEOCLOCK IS SUPERIOR because of all the MAPS you can get for it for detailed info).

Now I notice something very interesting. The effect is most pronounced when the sun is exactly on the opposite side of the earth from me. It starts an hour or so before I am at maximum darkness, which tonight occured around 1:14 AM. The event is still occuring now, and I am monitoring the frequency, and I can hear (barely) several stations in conversation, and they certainly are not experiencing this effect at all. It is obviously aroural, though I still suspect that the Ground Permeability is also a factor. Just why NO OTHER station in the group has NO HINT OF THE EFFECT is somewhat interesting. I do not think that Just because I am the furthest north is the only factor. KI2J is at 44 degrees north, right on the New Hampshire border. I am at 47 degrees north. Three degrees should not make such a substantial difference.

The stations I hear on frequency at the moment are all sounding as if they are at the end of a long tunnel, or a leslie organ speaker. Rotating and echoey signals which are barely copyable. BUT they all hear one another just fine.

This is indeed exceedingly weird.

Usually I experience it in the winter, this is the latest into the spring I remember the effect.

Any other Late Night 75m ops to compare notes with???????

Anyone here from, say Finland? I have worked some really great over the pole stuff during these things down in the DX window....

--
== 14.313 == Amateur Radio Forum Saturday 11:00AM Eastern time == 14.313 ==
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

2440. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-26 07:34:31 UTC
From: die@cpoint.UUCP
Message-ID: <4826@cpoint.UUCP>
Source record: 12041

In article <24281@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>Sure, we might wind up looking like the telephone companies. Maybe they
>have already tried the pulse idea. On the other hand, I have never
>heard of it.

For what it is worth, I remember reading that one of the very
first operational microwave relay systems, in service late in World War
II or just after, was based on magnetron generated pulses. It time
division multiplexed something like 8 voice channels onto one RF channel by
using pulse position (or pulse delay) modulation. I seem to remember
reading that it was used to establish a telephone link across the Rhine
for use by the US occupation forces. The author of the article I read
considered this to be the first non-experimental use of microwave
technology to relay telephone traffic.

It seems to me that the peak-envelope-power limit now in effect
limits the attractiveness of pulse techniques, since one can no longer legally
fire up that old radar magnetron with 1 megawatt peak envelope power and
radiate hundreds of watts average power in .05% duty cycle pulses with
real PEP wallop.

Aside from the conveniance of using ancient radar technology to
generate high power pulses easily, pulse techniques have little to offer
in performance relative to CW modulations such as FSK, PSK etc. because
the energy in a fast pulse is spread out over a wide bandwidth. A
simple receiver attempting to recover intelligence in a low duty cycle
pulse stream must either have a wide bandwidth relative to the bit
(pulse) rate that lets in a lot of noise, or use a narrower bandwidth
that excludes a significant fraction of the energy contained in the
signal. This is not particularly optimum by comparision with
modulations that concentrate their energy in a narrow bandwidth relative
to the baud rate allowing IF filters to exclude more noise.

--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

2441. Subscription to RF Design

Newsgroup: rec.ham-radio
Date: 1990-04-26 11:40:22 UTC
From: Pete_Simpson@dgc.mceo.dg.COM
Message-ID: <9004261240.AA00043@adam.DG.COM>
Source record: 12042

```
CEO summary:
RF Design
Cardiff Publishing Company
POB 6317
Duluth, MN 55806-9954
.
If you can convince then you're "responsible for the design and
development of communications equipment," you can get it for free.
Others pay $33/yr. (A bit expensive for what you get, I think)
```

2442. New Versions MacIntosh Ham Stacks

Newsgroup: rec.ham-radio
Date: 1990-04-26 12:28:50 UTC
From: dls@genrad.com
Message-ID: <35852@genrad.UUCP>
Source record: 12043

It's been a long time since I last posted anything about these stacks, so I'll refresh your memories about what they are first:

I've created 5 HyperCard MacIntosh Stacks which are helpful for practicing taking the Written tests. There is one stack each for Novice, Technician, General, Advanced, and Amateur Extra written tests. Each stack contains the entire question pool supplied by ARRL and will create a randomly generated test of the correct number of questions (like 30 for Novice) and of the correct number of questions from each section. The tests are interactive and CAN tell you immediately if you get the question wrong, and they will also give you a score afterwards, plus allow you to review the questions that you missed.

I've given away about 50 copies of these stacks already, and they are still available, although now, I must request a Self-Addressed Stamped Envelope, plus blank 800K diskette if you wish me to send a copy (I have no more blank diskettes to give away). Alternately, the Ham Stacks are maintained on a couple of systems via anonymous FTP, although I do not support this. I have no access to any system that allows this. Two places you might look for them are on tank.uchicago.edu, or on Patty Winter's system (don't know the name of the system, Sorry!). They are also available thru a couple of MacIntosh Ham diskette exchanges, one in Austin, Texas, one in Manchester, NH.

I have updated the Novice Stack and the Extra Stack and will be sending them shortly to Patty. The Novice Stack has some minor typos fixed, plus I've added a capability to PRINT the results of the test, for use as official scores. We have in fact used this method for 2 of our last Novice class, when we ran out of written tests. Obviously, this method is not useful for anything other than Novice, since higher classes require that you use Three VEs, so I haven't added this functionality to any of the other Stacks. The Extra Stack has some typos fixed, and a couple of other more major bugs fixed.

Another question that continually pops up is if these files can be ported to a computer other than MacIntoshes. I'm sure they could, especially since HyperCard (or a similar program) is now available on PCs......but I don't have any access to any other computer, so I can't provide anything but 3 1/2" floppy diskettes, used by Macs.

If you wish a copy of these from me, please send SASE and Diskette to:

Diana L. Syriac
49A Meadow Pond Drive
Leominster, MA. 01453

Keep the blue side up!

Diana

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

2443. Trading vs. selling

Newsgroup: rec.ham-radio
Date: 1990-04-26 12:29:30 UTC
From: sami@quiche.cs.mcgill.ca
Message-ID: <3240@calvin.cs.mcgill.ca>
Source record: 12044
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Is it more advantageous to sell a used Kenwood R5000 or trade it
for another new rig? Any advice on dealers who give good prices
for trades/buyings, or is better to sell a used rig privately?

--
Sami Boulos sami@softeng.cs.mcgill.ca
McGill University
School of Computer Science

2444. Re: VOA *LIVE* at Dayton - 2 hours/2 fr

Newsgroup: rec.ham-radio
Date: 1990-04-26 12:36:00 UTC
From: benk@inmet.inmet.com
Message-ID: <13700016@inmet>
Source record: 12046

Would you be able to provide the address of the Bethany facility?

Thanks very much.

-- Ben Krepp

From internet: benk@inmet.inmet.com
From uunet: uunet!inmet!benk

2445. ICOM 490A

Newsgroup: rec.ham-radio
Date: 1990-04-26 12:55:00 UTC
From: stevedak@cpe.UUCP
Message-ID: <37400011@cpe>
Source record: 12047

Are there any ICOM experts out there who know of modifications to the model 490A to expand its frequency coverage? This is an all mode designed to cover 430 to 440. I would be interested in knowing if it can be made to work up into the 440 to 450 range.

Thanks

Steve Dakin WQ5N

2446. Microwave Oven Transmitters

Newsgroup: rec.ham-radio
Date: 1990-04-26 14:54:00 UTC
From: lwrclmr@sacemnet.af.mil
Message-ID: <9004271400.AA16799@ucbvax.Berkeley.EDU>
Source record: 12049

I don't know if it was mentioned yet, but 73 magazine had an article on how to convert a microwave oven to a transmitter, about 250 watts I think, several months ago. It was in their annual microwave issue.

73,
Michael
WA7SKG

2447. RCA APT Terminal

Newsgroup: rec.ham-radio
Date: 1990-04-26 15:03:00 UTC
From: lwrclmr@sacemnet.af.mil
Message-ID: <9004271408.AA17260@ucbvax.Berkeley.EDU>
Source record: 12050

Has anybody purchased the RCA APT terminal advertised in the last 73 magazine? This is supposed to be a good cheap terminal for packet type use. It has video and RF outputs, RS-232, parallel printer port, built in modem, etc. I would like to get one of these if they are any good. Please let me know if you have any experience with these. Thanks.

73,
Michael

****
Michael Barnes * The nice thing about policies
InterNet: LWRCLMR@SACEMNET.AF.MIL * and standards, is that there
HamNet: WA7SKG * are so many to choose from.
BellNet: 906-346-2811 * If you don't find any you
DS Net: 472-2811 * like, simply wait for next
Snail Net: 2001CS/XP * years models!
K.I. SAWYER AFB, MI *
49843-6346 *
****

2448. Hustler address

Newsgroup: rec.ham-radio
Date: 1990-04-26 15:06:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9004280048.AA27675@ucbvax.Berkeley.EDU>
Source record: 12051

If you are just looking for replacement resonators for your Hustler antenna, almost every good ham store carries them. Check any of the ads for AES or any other ham outlet and call their 800 number. You'll probably get faster and cheaper response than directly from the factory.

(This is assuming of course, that you just want to buy a new one and not trying for warranty type replacement.)

73,
Michael
WA7SKG

2449. Re: Subscription to RF Design

Newsgroup: rec.ham-radio
Date: 1990-04-26 15:19:48 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <43176@iuvax.cs.indiana.edu>
Source record: 12052

>Would someone send me the subscription address, phone number
>and rate for "RF Design"?
>--
>Jim Stewart, VE3SRJ

RF Design is one of those trade journals which is FREE (i.e., paid
for by advertizers) if you give them a company address and tell them
you are an engineer who buys items listed on the subscription form.
In the context of such publications, it's very good-- It has real
aritcles among the ads disguised as such. The editor is a ham!
The address for subscriptions is:

RF Design
Cardiff Publishing Company
P.O. Box 6275
Duluth, MN 55806-9954
--

Frank W9MKV reid@ucs.indiana.edu

2450. Info about US army Model MRA301

Newsgroup: rec.ham-radio
Date: 1990-04-26 16:09:46 UTC
From: pm1@ukc.ac.uk
Message-ID: <4479@harrier.ukc.ac.uk>
Source record: 12053

Wanted:-Information ciruit diagrams etc. on the

US army Model No.MRA301
Surveying Instrument distance measuring electronic microwave equipment

Made by
Tellurometer(inc) Contract No.DA-184-AMC-750(T)

Many thanks. Philip

2451. Re: Subscription to RF Design

Newsgroup: rec.ham-radio
Date: 1990-04-26 16:27:09 UTC
From: michael@fe2o3.UUCP
Message-ID: <352@fe2o3.UUCP>
Source record: 12054

In article <562@ghp.UUCP> jim@ghp.UUCP (Jim Stewart) writes:
>Would someone send me the subscription address, phone number
>and rate for "RF Design"?
>
>Jim Stewart, VE3SRJ

RF Design,
Cardiff Publishing Co.
P.O. Box 6317,
Duluth, MN 55806-9954

(218-723 9355)

Free to Qualified Readers or $33 US or $43 Canada

2452. Re: Police Radios, Why Them and Not Us?

Newsgroup: rec.ham-radio
Date: 1990-04-26 17:57:50 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <4ey9H1w161w@w8grt.fidonet.org>
Source record: 12055

1843eie@HICKAM-EMH.AF.MIL ("1843 EIG/EIE") writes:

> I N T E R O F F I C E M E M O R A N D U M
>
> Date: 21-Apr-1990 09:04pm HST
> From: 1843EIG/EIE
> 1843EIE
> Dept: 1843EIG/EIE
> Tel No: 656-1158
>
> TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL
>
>
> Subject: Police Radios, Why Them and Not Us?
>
> >> Chase them down? Throw rocks as the car goes by? Also, "normal"
> >> citizens don't have a license to use a radar unit.
> >
> >They also are often seen using police radios, loaned to them by the
> >police departments they are working with.
> >
>
> I have a *real* problem with this. About six months ago, everyone was
> flaming everyone else (well, almost :-)) at the mere hint that one of us poor
> hams should *dare* venture onto a police frequency with one of our
> super-modified
> Skysocker HT-100 handhelds to report a real emergency. Now we're finding out
> that the local gendarmes are letting John Q. Public, with no training at all,

You are assuming several things that were not stated. For openers, you are assuming the original report is true. Personally, I tend to doubt it. It just doesn't sound like the sort of thing the responsiblle professionals I have had contct with would do.

Next, you are assuming that the radios were on a primary "hotshot" tactical frequency rather some secondary frequency normally used for non-emergency purposes.

Finally, you are assuming that these volunteers indeed received no training. Again, I tend to doubt those things were passed out willy-nilly.

2453. Re: The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-04-26 18:04:08 UTC
From: daveb@cbmvax.commodore.com
Message-ID: <11114@cbmvax.commodore.com>
Source record: 12056

When I used to live in Thunder Bay, Ontario, Canada, I used to get wierd skip/radio/etc conditions also. As a kid I would listen to the big 89 (890 AM) WLS Chicago very late at night on a transistor radio. In fact Thunder Bay used to get some of its T.V. reception from Marquette, Mich. I recall a program called 'Creature Features' that used to come on at 1 AM, the reception was always pot luck; sometimes you'd get a snowstorm on the screen, sometimes not.

BTW, the calls letters I used to use were VE3-SWC (I believe), which were the call letters of my high school. Try pointing your beam north west (yes, Thunder Bay IS north of you) some time, there are a lot of Hams back home. Best of luck to you!

Regards, David Berezowski

2454. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-26 18:14:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500509@ux1.cso.uiuc.edu>
Source record: 12075

> It is a possibility to build a receiver that only listens when a pulse
> is supposed to occur, but that wasn't necessarily what I was thinking
> about. The advantage of using the high peak power of a pulse is that it
> would be EASILY DETECTABLE even with high path loss. This means that
> (in theory) you could set up a data link much like CW is used with the
> human ear: the presence of a pulse has one meaning, and the absence of a
> pulse has another. There is probably even a better way to do it:
> consider what you could do if you were to phase modulate the pulses. In
> other words, control the time delay or latency between pulses. A short
> time delay could mean a 0 bit, and a long delay could mean a 1 bit.

Why is a pulse easily detectable? If you are listening via a narrow time
window IN PROPER SYNC then you will get a S/N advantage. Once syou start
defining addition pulse times to listen on, or widen the period you have
to listen, you lose S/N advantage.

You have to have a wideband system to allow receiving the full peak of the
pulse since its power is distributed in the frequency domain. Of course
if you know the period you can selectively listen to parts of that spectrum
where the signal would be found (a comb filter). Then again, you don't need
pulse to apply that technique.

> No, I don't have a 10 GHz pulse source, but they are available. Now if
> we could only use them legally ...

No one has petitioned the FCC yet.

> Most people don't. Certainly, I'm not suggesting that real time
> communications like voice be sent this way. I'm merely proposing that
> this might be a good use for part of our microwave spectrum. The packet
> guys are in great need of high-speed inter-city links (among other
> things).

I don't see where pulse has any great advantage over CW emission types with
respect to gaing S/N advantage.

> I've done better than 40 miles over non-line-of-sight paths with only
> 10 mW and CRUDDY WIDEBAND FM! This was with 2 foot dish antennas on
> both ends of the path at X-band. Still, I'm not pooh-poohing their
> efforts; I'm just trying to show that even with simple cheap equipment
> you can do a lot more than most people expect in the SHF and EHF
> spectrum.

This is good to know.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2455. Re: Police Radios, Why Them and Not Us?

Newsgroup: rec.ham-radio
Date: 1990-04-26 18:23:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500510@ux1.cso.uiuc.edu>
Source record: 12057

> >> Chase them down? Throw rocks as the car goes by? Also, "normal"
> >> citizens don't have a license to use a radar unit.
> >
> >They also are often seen using police radios, loaned to them by the
> >police departments they are working with.
> >
>
> I have a *real* problem with this. About six months ago, everyone was
> flaming everyone else (well, almost :-)) at the mere hint that one of us poor
> hams should *dare* venture onto a police frequency with one of our
> super-modified
> Skysocker HT-100 handhelds to report a real emergency. Now we're finding out
> that the local gendarmes are letting John Q. Public, with no training at all,
> use *their* radios. Sheesh! Well, I guess it shows where the cops' *real*
> priorities are.

I am sure they don't use the same frequency that the regular police use,
but rather they use an idle "special events" or "special duty" frequency.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2456. Re: The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-04-26 18:58:51 UTC
From: mgv@usceast.UUCP
Message-ID: <3224@usceast.UUCP>
Source record: 12058

In article <1990Apr25.100922.18002@lopez.UUCP> flash@lopez.UUCP (Gary Bourgois) writes:
>
>I am NORTH of all the Canadian Population Centers. This is the Upper
>
>Pertanent Details:
>
> Marquette is at 47 degrees North Lattitude.

This cannot be, by itself, an important factor. Much of Europe is
north of 47 degrees. I think Bern, Switzerland, is at about 47 degrees.
Even Bolzano, in Northern Italy, must be very close to that.
I lived in Brussels for a while (north of 50 degrees) and never noticed
the kind of phenomena you describe.

Marco Valtorta usenet: ...!ncrcae!usceast!mgv
Department of Computer Science internet: mgv@cs.scarolina.edu
University of South Carolina tel.: (1)(803)777-4641
Columbia, SC 29208 tlx: 805038 USC
U.S.A. fax: (1)(803)777-3065
usenet from Europe: ...!mcvax!uunet!ncrlnk!ncrcae!usceast!mgv

2457. Outlaw CB

Newsgroup: rec.ham-radio
Date: 1990-04-26 19:35:22 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <NX39H1w161w@w8grt.fidonet.org>
Source record: 12059

I don't know if this is a sign of the times or not....

In Toledo, Ohio, Marko Electronics has gone into bankruptcy. Marko was famous during the period of peak popularity of CB as the leading supplier of illegal amplifiers and the place to take your radios for out-of-band mods.

One school of thought is that the "outlaw" period in CB history is over. The other is that with the easy availability of general coverage modified ham gear in general and the Uniden/RS 10 meter radios in particular there is not enough market to sustain specialized "outlaw" shops.

What do you guys think?

Jim Grubs, W8GRT - aka FidoNet node 1:234/1
UUCP: ...!ncar!asuvax!stjhmc!w8grt!jim.grubs
INTERNET: jim.grubs@w8grt.fidonet.org

2458. Re: The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-04-26 19:40:13 UTC
From: narayan@eemips.tamu.edu
Message-ID: <5093@helios.TAMU.EDU>
Source record: 12060

In article <1990Apr25.100922.18002@lopez.UUCP> flash@lopez.UUCP (Gary Bourgois) writes:
>I live in Marquette Michigan, the land that time forgot. It is not the
>end of the world, but you can SEE it from here.

If you go to Michigan Tech Univ, which is 100 miles west of Marquette,
you can get a postcard in any book store with a road & a signpost which says
something to the effect: "Houghton - 5 miles, "End of the world- 15 miles"

Seriously, the enormous amount of copper and iron in the "Copper Country"
would well be the reason for this weird behaviour. I used to receive
AM stations as far south as Louisiana and as far east as Boston regularly.
Also I didn't notice this effect you talked about on any of the Ham
bands. Of course I wasn't that much into the hobby then either.

`Houghton- Av snowfall 300", snow on the ground 6-7 months.'
--
Sriram Narayan Texas A&M University, College Station, TX.
INTERNET: narayan@eemips.tamu.edu aTm
#1 Alain Prost, FERRARI 641 V-12

2459. Info/Identification on Technical Material Corp. Rcvr.

Newsgroup: rec.ham-radio
Date: 1990-04-26 20:29:38 UTC
From: danbl@tekred.CNA.TEK.COM
Message-ID: <5512@tekred.CNA.TEK.COM>
Source record: 12063

Wanted:-Identification or information on a

Technical Material Corporation Receiver

This was a rack mount (3 rack units(5.25inch)) receiver built for the Navy or Air Force (US). It appears to have been built in the late 50's early 60's era due to the exclusive use of 7/9 pin tubes (no transistors or even germanium diodes). It accepted four plug-in modules to cover the freq range of 2-30mHz. I believe a special adaptor could be attached as a companion for the reception of SSB.

Many thanks. Daniel Blakley

2460. call data online

Newsgroup: rec.ham-radio
Date: 1990-04-26 20:31:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500511@ux1.cso.uiuc.edu>
Source record: 12076

For a limited time, the call sign data base files are online for anonymous FTP access. The host is "vmd.cso.uiuc.edu" (128.174.5.98) and the directory is "phil.514". You MUST use binary/image mode to access the files. They are compressed with UNIX compress. There are 260 files, one for each possible combination of call sign number with letter following it and are named by that method.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2461. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-04-26 21:26:33 UTC
From: storkus@nevada.edu
Message-ID: <1602@unsvax.NEVADA.EDU>
Source record: 12064

Have you tried to talk to someone in northern Alaska, like Anchorage or Fairbanks? How about extreme-northern Europe like Norway? Maybe if you can't get in touch with a Canadian in the Northern Territories, you can reach these people. There are alot of northern Alaska amateurs on these days, IMHO. Try them. 73's, Mike

2462. Re: Need unobvious 2 meter antenna...

Newsgroup: rec.ham-radio
Date: 1990-04-26 23:08:00 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880142@hpfcdc.HP.COM>
Source record: 12065

Try a J-pole made of twinlead. It's 5' tall, and virtuall disappears if
you use the clear variety. Send e-mail for more info.

If you can hide the matching network, other varieties of end-fed
half-wave antennas work, too.

Perry Scott
KF0CA
...hplabs!hpfcls!perry-s

2463. Re: Subscription to RF Design

Newsgroup: rec.ham-radio
Date: 1990-04-26 23:32:36 UTC
From: ftpam1@acad3.fai.alaska.edu
Message-ID: <1990Apr27.004421.4968@hayes.fai.alaska.edu>
Source record: 12077

In article <43176@iuvax.cs.indiana.edu>, commgrp@silver.ucs.indiana.edu (BACS Data Communications Group) writes...
>
>>Would someone send me the subscription address, phone number
>>and rate for "RF Design"?
>>--
>>Jim Stewart, VE3SRJ
>
>_RF Design_ is one of those trade journals which is FREE (i.e., paid
>for by advertizers) if you give them a company address and tell them
>you are an engineer who buys items listed on the subscription form.
>In the context of such publications, it's very good-- It has real
>aritcles among the ads disguised as such. The editor is a ham!
>The address for subscriptions is:
>
> RF Design
> Cardiff Publishing Company
> P.O. Box 6275
> Duluth, MN 55806-9954
>--
>
>Frank W9MKV reid@ucs.indiana.edu

I have been an RF Design subscriber since high school. For many years
I listed my occupation as student but got it free anyway. Another freebie
is Microwave Journal (685 Canton St., Norwood, MA 02062) but it will only
depress you when you see how far from the state of the art that amateur
microwave is. Commercial microwave, at least up to 30 GHz or so is pretty much
by the numbers: calculate link budget, buy modules, hook them together and
you're done.

There are literally hundreds of these free trade journals out there. I
personally receive at least a dozen in the electronics field. Most (all?)
have "bingo" cards for obtaining free information from manufacturers.

Philip Munts N7AHL
NRA Extremist, etc.
University of Alaska, Fairbanks

2464. Re: Autopatches in Maryland

Newsgroup: rec.ham-radio
Date: 1990-04-27 01:42:44 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250148@hpnmdla.HP.COM>
Source record: 12066

>In article <30000023@uxh.cso.uiuc.edu> dwsmith@uxh.cso.uiuc.edu writes:
>>Seems to me that I recall that the use of an autopatch to avoid local
>>phone charges (in addition to being just plain tacky) is against phone
>>company tariffs or FCC regs.

>I've been hearing this argument for years, and nobody has ever been able
>to substantiate it. While I suspect that the phone company would object,
>it would be no more illegal than using an HF phone patch for the same
>thing.

The only FCC reg this might violate is the one on "Good Amateur Practice".
The fear is that if we continually abuse autopatch privileges to avoid
telephone toll charges, this might lead to FCC instituting legal restrictions
(or prohibition) of autopatch use.

Al N1AL

2465. Re: RF Hazards at 23 cm??

Newsgroup: rec.ham-radio
Date: 1990-04-27 01:55:45 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250149@hpnmdla.HP.COM>
Source record: 12067

Regarding antenna gain/aperture at 23 cm.

For a given antenna type (dipole, say), the aperture is proportional
to the square of the wavelength. If you have 100 dB of path loss between
two 144 MHz quarter-wave ground planes, you will have 120 dB of path loss
between two 1440 MHz ground planes the same distance apart.

On the other hand, you probably wouldn't use a ground plane at 1440 MHz.
If you built a dish antenna the same approximate size as the 2 meter
ground plane, you might have 20 dB LESS path loss (80 dB total).

If you compare antennas of the same TYPE, lower frequency is better.
If you compare antennas of the same SIZE, higher frequency is better.

Al N1AL

2466. Re: Trading vs. selling

Newsgroup: rec.ham-radio
Date: 1990-04-27 02:34:41 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29355@cup.portal.com>
Source record: 12068
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Radios/Selling vs. Trading

It has been my experience that you GAIN by selling outright rather
than trading. The dealer --as you well understand-- makes a profit
when your trade is resold. I was once offered $150 for the FRG-7
on a trade. In just a few days I was able to sell the FRG for $250.
73s
"HM"

2467. Re: INFO-HAMS Digest V90 #435

Newsgroup: rec.ham-radio
Date: 1990-04-27 02:40:58 UTC
From: PL6AAIU@VM.TCS.TULANE.EDU
Message-ID: <9004280052.AA27940@ucbvax.Berkeley.EDU>
Source record: 12069

I am an active Mac enthusiast who wants to get into the telecommunications
aspect of Ham. Can someone recommend a source for info on using
Macs w/ ham radios? I'd like to know what kind of hardware and software
I need.
Is there a book which discusses ham & Mac usage?
Also, of the mail-order companies, which one has the best support for
Macintosh interfaces and software?
Thanks,
Andy

2468. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-04-27 03:40:53 UTC
From: mcmahan@netcom.UUCP
Message-ID: <11315@netcom.UUCP>
Source record: 12070

In article <1990Apr26.063653.1859@lopez.UUCP> flash@lopez.UUCP (Gary Bourgois) writes:
>
>Any other Late Night 75m ops to compare notes with???????
>
>Anyone here from, say Finland? I have worked some really great over the
>pole stuff during these things down in the DX window....
>
Well, does Houghton/Hancock count? (For those who don't know The towns of Houghton and Hancock are about 120 miles west of Marquette). I went to school at Mich. Tech. Univ. until 1983. You are right about some of the wierd local phenomena that occurs. It was the only place where I saw Northern Lights with distinct colors. Canadian TV from across the lake is crystal clear (with a roof antenna), but the Marquette repeater 30 miles away was nothing but snow. Wisconsin TV stations about the same distance as Canada and across the lake but in another direction where usually hopeless, but would sometimes come in crystal clear. I had a roommate who like to listen to late night AM broadcasts on a pocket radio. He used to get great reception of Boston (WXYZ, I believe) and some New York City stations, as well as the occasional Bermuda or Texas station. All from a generic pocket radio.

By the way, why the reference to Finland? Don't you speak the language by now? I thought that Marquette was the only WWUP-TV station was the only television that broadcasts finish language shows on a weekly basis. I have a net.pen pal that lives in Finland, if you want I can send you his net.address.

>== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==

-dave

2469. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-04-27 04:17:23 UTC
From: tkelso@blackbird.afit.af.mil
Message-ID: <9004280053.AA27995@ucbvax.Berkeley.EDU>
Source record: 12071

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 31
1 20579U 90037 A 90116.05462219 .00000000 00000-0 00000-0 0 00023
2 20579 028.4813 221.1360 0002583 316.9075 043.1762 14.84048541000232
HST
1 20580U 90 37 B 90115.92007935 -.00019413 00000-0 -22999-2 0 416
2 20580 28.4631 222.0038 0005784 272.7940 87.2151 14.84112255 202
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2470. Re: The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-04-27 05:24:12 UTC
From: julian@bongo.UUCP
Message-ID: <133@bongo.UUCP>
Source record: 12072

In article <1990Apr25.100922.18002@lopez.UUCP>, flash@lopez.UUCP (Gary Bourgois) writes:
> I live in Marquette Michigan, the land that time forgot. It is not the
> end of the world, but you can SEE it from here.
>
>
> I would like to tell you about the BLACK HOLE EFFECT, a phrase I coined
> about 20 years ago when I was a very new ham, and a seasoned SWL. Now I
> am an old timer at both hobbies, have solved a lot of mysteries along
> the way, and would like to share my ideas on the Black Hole Effect with
> others on the net, and see if anyone else experiences it, or if I am the
> Lone Ranger....
>
> Pertinent Details:
>
> Marquette is at 47 degrees North Latitude. The city is on the shore
> of Lake Superior, the DEEPEST Largest coldest fresh water lake on
> this fair planet.
>
> Marquette is on the Mesabbe Iron Range, the LARGEST single deposit
> of Iron Ore on this fair planet.
>
> Marquette is a place where WEIRD things happen with Radio Signals.

Well first of all 47 Degrees is not all that far North. It is about
the same latitude as Nantes France. It is south of London, Berlin,
Copenhagen, Warsaw, Den Hague (That's enough dreary capitals -Ed). But
the question I suppose should really be, how far North is it from the
"Magnetic Equator." I dimly recall that a stations position relative
to the magnetic equator is important vis-a-vis Aurora and HF
propagation.

But first, lets assume that Marquette is in Aurora Country and is
also sitting on top of a fair amount of iron ore. There is a similar
location in Sweden. The world's "largest city" (in square kilometers
of desolate Tundra) is Kiruna. It is also an enormous iron mine. Hams
there should experience the same phenomenon as Gary.

I remember in the seventies hearing a second hand story that DX was
pretty bad off the Southern Tip of Sweden (Ystad, Trelleborg) because
there were massive Iron deposits just offshore. The story involved not
getting out and not hearing too well. Southern Sweden does get a few
Auroras also.

No good answers I'm afraid, but certainly some points of reference and
comparison. All we need now is a report from Kiruna.

Note: Marquette is about 47 degs North, Helsinki - 60 degs North and
Kiruna - 68 degs North.
--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

2471. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-27 07:12:04 UTC
From: kjh@pollux.usc.edu
Message-ID: <24354@usc.edu>
Source record: 12079

In article <30500509@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>Why is a pulse easily detectable?

Because it has such a high peak power.

>Once syou start defining addition pulse times to listen on, or widen
>the period you have to listen, you lose S/N advantage.

I disagree. Since the pulse is of such high power, a much greater path loss can be overcome. Listen 100% of the time, and the strong pulses that are much greater than the background noise level will be easily detectable.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2472. REALISTIC PRO-2005

Newsgroup: rec.ham-radio
Date: 1990-04-27 08:24:00 UTC
From: 390866112@UWPLATT.EDU
Message-ID: <A309B08BAD7F807A63@uwplatt.edu>
Source record: 12073

I've found endless articles on "how-to" modify Radio Shack Realistic
PRO-2004's to cover the entire 800 MHz band, but not any articles on modifying
the PRO-2005?

Any info greatly appreciated.

73's

Curtis P. Sardeson
E-Mail: 390866112@uwplatt.BITNET
E-Mail: 390866112@uwplatt.edu

2473. (none)

Newsgroup: rec.ham-radio
Date: 1990-04-27 08:56:00 UTC
From: fisher@minster.york.ac.UK
Message-ID: <swordfish.641206563@minster.york.ac.uk>
Source record: 12074

Organization: University of York, Dept. of Computer Science
Subject: PRO-57

In a recent article, fluke!limey (Paul Limey KW7Y) asked:

> Does anyone have mods to the Realistic PRO-57 to fill
> in the missing frequencies? Does anyone have a schematic for
> same?

This is perhaps not exactly what Paul Limey was asking for, but:

I have successfully modified a PRO-57 for computer control. The modification entails the addition of one chip (a multiplexer), a few resistors, and a diode, all of which fit on a small piece of Veroboard inside the box. The receiver is connected, via a 9-way plug & socket & ribbon cable, to a separate interface box, from where an RS-232 link goes to the controlling computer (a Sun 3/50 workstation). The mod. is designed so that the PRO-57 can be used as normal (i.e. without the computer) when the interface box is not plugged in.

Details on request.

Tony Fisher
Dept. of Computer Science, The University of York, York YO1 5DD, U.K.
Tel. +44 904 432738 or 432722
Janet: fisher@uk.ac.york.minster
Internet: fisher%minster.york.ac.uk@nsfnet-relay.ac.uk
UUCP: fisher@minster.UUCP (..!uunet!mcsun!reading!minster!fisher)

2474. Re: Working Texas to NYC - what band?

Newsgroup: rec.ham-radio
Date: 1990-04-27 12:38:02 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9004271238.AA07424@cmr.ncsl.nist.gov>
Source record: 12080

In article <9004231749.AA00838@mbunix.mitre.org> ptb@MBUNIX.MITRE.ORG writes:
>If you are in Texas and your girlfriend is in New York, it would have
>to be an HF system of some kind (Distances are too long for VHF).
Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh
then writes:
This is not true! Distances greater than this have been worked on all
bands up to and including 23 cm. I don't know the current world
distance records above 23 cm, so distances greater than this may have
been accomplished on the higher bands also.

Don't be fooled. There is a LOT of difference between setting a distance
record and having fairly predictable and reliable communication. With a
kilowatt, and BIG ham antennas, you might expect 600 km or a bit more on VHF
bands by tropo scatter. On six meters, people consistently work 2000 km by
ionospheric scatter, again with a kilowatt and big antennas. But the distance
cut-off is pretty sharp, since it is a lower-E-layer phenomenon and both ends
of the link must be able to see a common point in the E layer. Iono scatter
works better on ten, but hardly anyone uses it since other modes are enough
to keep them interested.

No, you'll have to use the HF bands, and even ten is marginal from here
(Washington DC) to Texas on many days.

73, Bob W3OTC

2475. Re: Long distance communication

Newsgroup: rec.ham-radio
Date: 1990-04-27 12:42:44 UTC
From: jay@splut.conmicro.com
Message-ID: <Z-Q#Z_@splut.conmicro.com>
Source record: 12101

In article <24317@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>In article <9004231749.AA00838@mbunix.mitre.org> ptb@MBUNIX.MITRE.ORG writes:
>>If you are in Texas and your girlfriend is in New York, it would have
>>to be an HF system of some kind (Distances are too long for VHF).
>This is not true! Distances greater than this have been worked on all
>bands up to and including 23 cm. I don't know the current world
>distance records above 23 cm, so distances greater than this may have
>been accomplished on the higher bands also.

"...have been accomplished" is a long, long, long way from "...can be
reliably achieved".

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
"Flying is a lot more fun than being in the Senate." -- Senator Jake Garn

2476. Re: TV QRM to hams

Newsgroup: rec.ham-radio
Date: 1990-04-27 12:46:04 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9004271246.AA07435@cmr.ncsl.nist.gov>
Source record: 12081

In article <1598@apctrc.UUCP> zslf0a@apctrc.trc.amoco.com (Steven L. Farmer) writes:
>For the past year, I've been having problems with QRM from a tv sweep
>oscillator. ...
and ogicse!intelhf!foobar!jim@ucsd.edu (Jim Garver) replies:
>After some research and experimentation, I believe the offending element
>may be the cathode or grid leads to the boob tube. They are often more
>than a foot long and completely unshielded. ....
>I don't think its the HV lead as the signal strength changes greatly with
>different scenes......

I attribute the change of interference level with picture brightness to a change in the BEAM CURRENT of the CRT. Thus the HV lead may well radiate, though the picture-tube-cone capacitance might help reduce this a lot. I certainly hear my computer a lot louder when the screen is full of text rather than just a simple C> in the upper left corner.

Just a thought.
73, Bob W3OTC

2477. (none)

Newsgroup: rec.ham-radio
Date: 1990-04-27 13:10:13 UTC
From: BUSH@S51.Prime.COM
Message-ID: <9004280704.AA19778@ucbvax.Berkeley.EDU>
Source record: 12083

Mininec2 does indeed live on WSMR-SIMTEL20. You can find it in:

PD1:<MSDOS.HAMRADIO>MININEC3.ARC

It is 158,720 bytes long. However! The request was for a source of NEC,
which is the grandfather as it were of mininec.

Mininec is, to say the least, user hostile. It is also written in BASIC.
NEC, was written in FORTRAN.

If you want mininec3, you might try anonymous FTP. I have never had any
luck--either loose the link, or am told "too many annonymous users" and
get blown away. So, I use listserv(e). To make good use of this, you need
to be able to uudecode files. To get mininec3, I would type:

Mail listserv@vm1.nodak.edu (there are other servers around)
SUBJECT: (Leave Blank)
(Text Here) /pdget mail pd1:<msdos.hamradio>mininec3.arc uuencode

This gets the file mininec3.arc sent to me as pseudo ASCCI email in about
40k chunks. To get a useful file, I needed to combine all of these mail
chunks--eight or nine of them, as I recall, remove the mail header and
trailers--creating a bodacious mininec3.uue file--then move this to my PC.
I then run the uudecode program--mininec3.uue goes in, mininec3.arc comes
out. Run your favorite unarcing program to get the run files.

This works fine for those of us using ms-dos machines. Anyone out there
want to give access directions for other (non-MS-DOS) partitions on SIMTEL20?

de KC1PR
BUSH@S51.PRIME.COM

2478. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-04-27 14:38:39 UTC
From: huopio@kannel.lut.fi
Message-ID: <HUOPIO.90Apr27103839@kannel.lut.fi>
Source record: 12082

We are already reading this.. I'll try to get some hams interested in
this.. The effect itself sounds VERY weird!

--Kauto
--
****************** Kauto Huopio (huopio@kannel.lut.fi) **********************
*US Mail: Kauto Huopio, Punkkerikatu 1 A 10, SF-53850 Lappeenranta, Finland *
*Project: Learn some GNU Emacs first.. :-) *
****

2479. Teletext

Newsgroup: rec.ham-radio
Date: 1990-04-27 15:01:26 UTC
From: froula@motcid.UUCP
Message-ID: <2657@violet29.UUCP>
Source record: 12102
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Does anyone have information about the fate of Teletext services in the US?
This is an information service that provides text and block color graphics
capability on a home TV receiver equipped with a special decoder. The data
is embedded in several unused TV lines in the vertical blanking interval.
The data repeats over and over in the form of a magazine. The decoder
simply grabs pages as they come by and stores them in a display buffer.
The system is very popular in the UK.

Zenith used to offer an embedded decoder on some of their sets. Also, Dick
Smith electronics offered a kit a few years back.

Observations on several local broadcast and cable channels show considerable
activity in the blanking interval.

Information on current status of Teletext and sources for decoders would
be appreciated.

Don WD9DMP

2480. Re: The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-04-27 15:38:03 UTC
From: narayan@eemips.tamu.edu
Message-ID: <5101@helios.TAMU.EDU>
Source record: 12084

In article <1990Apr25.100922.18002@lopez.UUCP> flash@lopez.UUCP (Gary Bourgois) writes:
>I live in Marquette Michigan, the land that time forgot. It is not the
>end of the world, but you can SEE it from here.
>

Well it is nice to hear from someone up there. I was in Houghton which is a few 'minutes' in latitude higher than Marquette. The joke around town is a postcard with a picture of a snow covered road and a signpost that reads something like "Houghton 5 miles, End of the World (Earth) 12 miles".

However, with regard to the original question, I did not notice any such problems with reception in the Keeweenaw Peninsula of the Copper Country although there were substantial iron and copper ore deposits in that region. The AM bands were quite decent with MW stations from Louisana and Massachussetts coming in quite well. The HAM bands were also quite normal compared to what I get here in Texas now.

"Houghton 250" snow average/year and 6-7 months of snow on the ground!"

This is my second attempt at posting this, excuse me if you saw this before.

--
Sriram Narayan Texas A&M University, College Station, TX.
INTERNET: narayan@eemips.tamu.edu aTm
#1 Alain Prost, FERRARI 641 V-12

2481. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-27 15:59:21 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250150@hpnmdla.HP.COM>
Source record: 12085

I believe pulse has no inherent signal-to-noise advantage over narrowband techniques. Yes, the peak power is much higher, but so is the bandwidth. Since noise is proportional to bandwidth, it comes out a wash.

The advantage of pulse at microwave frequencies is that frequency stability is much less important than with narrowband modes. Stability is harder to achieve the higher you go in frequency.

Al N1AL

2482. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-04-27 16:13:53 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250152@hpnmdla.HP.COM>
Source record: 12086

Once again, Morse code spacing:

Dit : 1 unit
Dah : 3 units
Space between dit's/dah's : 3 units
Space between words : 7 units

Note that the word "PARIS", including the 7-unit space at the end, is
exactly 1 standard "word" long.

Al N1AL

2483. SAREX STS-35 space shuttle

Newsgroup: rec.ham-radio
Date: 1990-04-27 16:38:43 UTC
From: joehol@microsoft.UUCP
Message-ID: <54307@microsoft.UUCP>
Source record: 12087
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

i never got any direct replies, so i'll try again...

is any body out there going to have a way for use
people up in Seattle (latitude 47 deg.) to connect
to the SAREX mission ?

i've heard rumors about people having KA-NODEs, but
i haven't heard from the horses mouth yet...

anybody have any names or callsigns of people doing/planning
this ????

joe holman, ka7ldn
uw-beaver!microsoft!joehol
joehol@microsoft.uucp
206-882-8921 work

2484. Re: Wanted: NEC

Newsgroup: rec.ham-radio
Date: 1990-04-27 18:19:42 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <764@xyzzy.UUCP>
Source record: 12088

In article <30500508@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> The later one implies that mininec3 might also be on wsmr-simtel20.army.mil

mininec3 is on simtel20.

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

2485. Re: Code training program...

Newsgroup: rec.ham-radio
Date: 1990-04-27 18:53:35 UTC
From: rusty@cadnetix.COM
Message-ID: <12200@cadnetix.COM>
Source record: 12089

In article <1990Apr24.172123.2976@world.std.com> dfickes@world.std.com (David Fickes) writes:
>
>Does anyone have a code training program for an IBM-PC running
>MS/LOSS ?
>

Time for me to make my semi-regular announcement :-)

Anyone needing something like the above, I've got about 3 different versions of morse code programs. (The list is at home, so I don't know exactly which ones they are, sorry)

In any case, I'll glady copy the ones I can legally send onto a disk, if you will send me the disk, return postage, and a return address label. Oh, yes, I'll mail it back to you, too :-)

I can write 1.2 meg, 1.4 meg, 720k, and 360k disks. Please send PREFORMATTED disks.

Hope this helps!

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

2486. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-04-27 19:58:24 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <34758@shemp.CS.UCLA.EDU>
Source record: 12090

In article <9004242215.AA02030@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>
> (stuff deleted)
>
>I think the best senders are those with a music inclination. They seem to
>be able to carry the old rhythm over to the brass. Some of them get posi-
>tively lyrical with their sending; they're a pleasure to QSO with.
>
In years past (maybe in the future, too, I hope) I played keyboard
instruments (piano, organ, synthesizer) .... now, I sometimes
notice myself tapping my foot when I send and receive code!!!!

>73,
>Dube Todd N5PDK

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

2487. Re: RF Hazards at 23 cm??

Newsgroup: rec.ham-radio
Date: 1990-04-27 21:08:36 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250153@hpnmdla.HP.COM>
Source record: 12091

Kim writes:
>
> Now, my second question concerns antenna efficiency. A while back there
> was a truly excellent technical discourse about antenna aperture and signal gain
> in the context of antenna stacking. Another member states that antennas get
> about 20 dB less efficient at 23 cm vs. 2 m due to the decreased aperture.
> Yes, well... *Someone* posted a really neat treatise that mentioned this very
> thing and said something like "at first glance it appears that antennas at
> smaller wavelengths are much less efficient and receive less signal, but because
> of <blank> it all comes out in the wash." Could whoever said that say it again?
> I remember that I was impressed with the elegance of the argument but, alas, I
> didn't save it!

Well, that sounds vaguely like something I once said but I can't remember
either.
Be careful about terms here since there is a popular misconception about
pathloss that goes something like "something magical and dreadful happens above
1 GHz or so and energy is no longer conserved which is what accounts for
microwaves not being good for anything". Efficiency sometimes gets used to
relate to the subject of how much of the transmitted power going in at
the connector actually gets turned into useful radiated energy. Lossy elements
within the antenna structure or local environment(ground losses etc) decrease
this. People also talk about "aperture efficency" which relates to how good a
job an antenna does (on receive) of "catching" all the incident power from
some distant source or (on transmit) of creating local fields which all
contribute to the production of the theoretical maximum fields at a distant
measurement location.
Although skin effect or other losses may not scale with frequency there is
no general *frequency* term related to the inherent ability of an antenna
to translate transmitter power to radiated fields. There is nothing fundamental
preventing a dipole (or any antenna of constant *electrical* description for
that matter) from generating the same farfield power at 10 GHz as at 100 MHz.
1 watt into a an isotropic antenna spreads out to become the same intensity
on the surface of the encompassing sphere of radius D(istance). Adding up all
the power over the surface of that sphere gets you back to the original power
you put into the antenna (minus any that got lost heating up the copper,
dandilions or whatever).

Al N1AL writes:
>
> On the other hand, you probably wouldn't use a ground plane at 1440 MHz.
> If you built a dish antenna the same approximate size as the 2 meter
> ground plane, you might have 20 dB LESS path loss (80 dB total).
>
> If you compare antennas of the same TYPE, lower frequency is better.

> If you compare antennas of the same SIZE, higher frequency is better.

Al correctly identifies the rub: The *physical* size of an antenna of given *electrical* description is decreasing with frequency. That is, the *physical* aperture (how big a "flux catching bucket" the antenna represents) of an antenna is changing at -20*log(freq). This means that if you compare the end to end performance on a freespace path using constant electrical size, say two dipoles or two isotropic antennas, it looks like there is indeed some kind of "pathloss". However, energy is conserved (I know we are all breathing easier now) and what is really happening is that the receive antenna physical aperture is shrinking with frequency. Consequently if you go out a constant physical distance from the transmitter and see how much you catch you discover lower frequencies appear to work better. Don't believe that! It's just that your antennas are getting smaller. Or put another way, you went a greater *electrical* distance at higher frequencies.

To further compound the misconception, the physical aperture of electrically small antennas (dipoles and other low gain structures) can be much greater than their physical size. This accounts for pocket transitor radios with loopsticks working as well as they do. Although they are physically small they electrically have virtually the same aperture (bucket size) as a dipole, I forget the difference but it is fractions of a dB or so. They may be miserable to feed due to their extremely high Q and resultant inefficiency given real world matching networks (160 Meter mobile antenna problem) but they do a fine job to the degree that one can couple to their radiation resistance. This situation furthers the myth that low frequencies are better; physically small antennas don't seem to be the same. A rubber ducky on 10 Meters (do they exist?) appears to work better than the same length full size monopole on some much higher frequency.

Once one gets away from the somewhat confusing lowgain/simple antenna situation things do become more obvious. For a constant ERP (constant tx power into constant gain antenna) you get constant flux at distant receiver site independent of frequency. Putting up a constant physical size receive antenna results in recovering the same power, independent of frequency. However that receive antenna's directivity and gain (directivity~gain if there isn't some frequency dependent loss problem) is increasing with frequency. Therefore for the constant *electrical* size transmit antenna (dipole, 5 element yagi, 100 lambda diameter dish or whatever) and constant *physical* receive antenna size there is constant "pathloss", "pathloss" in quotes because no energy is really lost on the path itself. No frequency dependency or deterioration would be noted.

But wait! We aren't done yet. The real world often(usually?) has us use the same antenna for transmit as for receive. If we let *both* ends be constant physical size (actually constant physical aperture but I'm talking about higher gain antennas so the two are roughly the same now) our ERP is increasing with frequency along with the gain (or electrical aperture) and we are increasing the flux at the distant receive "bucket". Since electrical aperture goes as lambda^2 this is a +20*log(frequency) dependency.

This makes higher frequencies look *better*, as Al mentioned. A given physical size antenna focusses the transmitter power better on the distant receive

site as frequency is increased. We end up wasting less of it in directions
where we are not collecting/receiving it (for point to point communications).

Summary:

Constant electrical size on both ends (as in omni-omni links) gives
-20*log(frequency) performance. Things get worse with increasing
frequency. In addition physically short antennas can (nearly) behave
as though they were full size dipoles exagerating the perceived effect.

constant electrical/constant physical size antennas on a link has no frequency
dependency. The transmitter creates constant flux/meter^2 and the constant
physical size receive antenna catches the same amount, independent of
frequency. This might be an omni/directional antenna link.

Constant physical size on both ends (directional/gain antennas on a full
pt-pt link) gives +20*log(frequency) performance.
Higher frequencies allow focussing more of the absolute
transmitter power on the remote receive antenna as frequency is increased.
This effect continues until real world constraints like water vapor absorption
or beam de-steering by troposhperic conditions diminish it.

This is the crux of the argument for going to a network of point-point
physical layer links as we try to build a moderate/high speed amateur
digital network. Not only do we have to use higher frequencies to efficiently
transmit our bits, we have to go higher to find spectrum in which to do it.
Both of these reasons are vital as we try to provide high bandwidth
information (high rate, low latency and high volume) simultaneously to a
large number of users.
The physics, economics and politics of the situation all demand this.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

Amateur Radio:
Make efficient use of the microwave spectrum for transmitting information,
become relevant in the information age by providing information age servives or
wither away into insignificance.

2488. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-27 21:18:55 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250154@hpnmdla.HP.COM>
Source record: 12092

Al N1AL writes:

>The advantage of pulse at microwave frequencies is that frequency stability is
> much less important than with narrowband modes. Stability is harder to
> achieve the higher you go in frequency.

Another advantage is (was anyway) the higher average power hardware
available through surplus (cheap) radar hardware. I think that issue
is rapidly disappearing.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

2489. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-04-27 21:28:26 UTC
From: kenw@col.hp.com
Message-ID: <18230005@col.hp.com>
Source record: 12093

Just locate the nearest Radio Shack store and I'm sure the salesman could explain the advantages and operating procedures. Generally, they are not very expensive; 50 to 150 dollars. I believe a good one could be purchased for $70. The antenna will run another 20 to 30 dollars. I would suggest just getting a "magnetic mount" type that will stick to the surface of the trunk lid or roof and run the coax cable in through either the trunk or through the window.

Best of luck

2490. Re: pulse on X-band

Newsgroup: rec.ham-radio
Date: 1990-04-27 23:00:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500512@ux1.cso.uiuc.edu>
Source record: 12094

> >Why is a pulse easily detectable?
>
> Because it has such a high peak power.

...yeah, ...if the way you are listening happens to be peak sensitive. A "peak" can also exist in many other forms (domains) such as spectral (i.e. an unmodulated or low baud rate CW carrier). What you are talking about is concentration in the time domain only. There are other domains from the simple spectrum domain, to more complex domains involving spread spectrum.

Regardless of where you put the signal, provided you put it somewhere that it can be picked up, you only have so much signal compared to a certain amount of noise. OLDER technology allowed "filtering" out noise in the TIME domain rather easily by closing the receiver at times the pulse is not expected. Today, we can do this in virtually ALL imaginable domains. Shannon's law applies to them all. Pulse just happens to be cheaper using older technologies.

> >Once syou start defining addition pulse times to listen on, or widen
> >the period you have to listen, you lose S/N advantage.
>
> I disagree. Since the pulse is of such high power, a much greater path
> loss can be overcome. Listen 100% of the time, and the strong pulses
> that are much greater than the background noise level will be easily
> detectable.

You can overcome the same path loss by many methods. Suppose your system is marginally working, and the path loss increases by 3 db. You could increase the POWER by 3db and overcome it. You could DECREASE THE BAUD rate to 1/2 and overcome it (changes needed at the receiver to narrow the bandpass to gain the advantage). Other methods can be used in other domains.

We are talking about theory and practicality. The ONLY advantage I see to pulse is that much pulse equipment is available to hams cheaply. It is not inherintly better in terms of noise immunity. Given than hams are limited to a peak of 1500 watts, pulse has a DISadvantage of actually REDUCING your average power. Of course that disadvantage might be gained back if you are trying to drive the signal through an amplifier that can handle only an AVERAGE of 15 watts for dissapation purposes for your 1% pulse.

Pulse has practical advantages in certain cases, but it has NO THEORETICAL advantage.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2491. Re: RF Hazards at 23 cm??

Newsgroup: rec.ham-radio
Date: 1990-04-27 23:11:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500513@ux1.cso.uiuc.edu>
Source record: 12095

> Regarding antenna gain/aperture at 23 cm.
>
> For a given antenna type (dipole, say), the aperture is proportional
> to the square of the wavelength. If you have 100 dB of path loss between
> two 144 MHz quarter-wave ground planes, you will have 120 dB of path loss
> between two 1440 MHz ground planes the same distance apart.
>
> On the other hand, you probably wouldn't use a ground plane at 1440 MHz.
> If you built a dish antenna the same approximate size as the 2 meter
> ground plane, you might have 20 dB LESS path loss (80 dB total).
>
> If you compare antennas of the same TYPE, lower frequency is better.
> If you compare antennas of the same SIZE, higher frequency is better.

This might apply to receiver and not transmitter. I'll have to think
about it for some time (and consult with KE9TV) to be sure I have all
the variables considered.

I suspect that if you scale down the whole system, transmitter, receiver,
wavelength, AND THE PATH LENGTH, you would have a constant signal strength
or perhaps a constan S/N. Of course reality does not allow us to scale
everything any way we want, such as path length.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2492. Bearcat parts

Newsgroup: rec.ham-radio
Date: 1990-04-27 23:31:39 UTC
From: edw@wells.UUCP
Message-ID: <231@wells.UUCP>
Source record: 12096
Cross-posted to: sci.electronics,rec.ham-radio

I am in need of parts for Bearcat scanners. One is the CPU chip for the Bearcat 300. Also chips for Bearcat 250's. In particular, the UHF chips (at least this time around).

Did anyone buy up any of Bearcat's surplus?

--
==========
Edward E. Wells Jr., President Voice: (215)-943-6061
Wells Computer Systems Corp., Box 343, Levittown, Pa. 19058
{dsinc,francis,hotps,houxl,lgnp1,mdi386,pebco}!wells!edw

2493. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-04-28 00:02:15 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250155@hpnmdla.HP.COM>
Source record: 12097

I can't believe I did this. Attribute the typo to lack of sleep.

The correct spacings for Morse code are:

Dit : 1 unit
Dah : 3 units
Space between dit's/dah's : 1 unit
Space between letters : 3 units
Space between words : 7 units

Note that the word "PARIS", including the 7-unit space at the end, is
exactly 1 standard "word" long.

Al N1AL

2494. Re: RF Hazards at 23 cm??

Newsgroup: rec.ham-radio
Date: 1990-04-28 00:58:19 UTC
From: kjh@pollux.usc.edu
Message-ID: <24371@usc.edu>
Source record: 12098

In article <30500513@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>> If you compare antennas of the same TYPE, lower frequency is better.
>> If you compare antennas of the same SIZE, higher frequency is better.
>
>This might apply to receiver and not transmitter.

This applies to a system including transmitter, receiver, and similar antennas at both ends. As frequency is changed, receiver noise figure, transmitter power, and path length should not change.

>I suspect that if you scale down the whole system, transmitter, receiver,
>wavelength, AND THE PATH LENGTH, you would have a constant signal strength
>or perhaps a constan S/N. Of course reality does not allow us to scale
>everything any way we want, such as path length.

This is not true. As the antennas stay the same size, antenna SYSTEM gain goes up as f^4 (because the antennas at each end have gain that goes up as f^2) but the path loss only goes down as f^3. Thus, for antennas of the same size, there is an advantage to going to higher frequencies.

For antennas of the same type, lower frequency is better for two reasons. (1) the antennas get physically larger, and (2) for higher frequencies, the antennas get very difficult to build. Just try to build a yagi on 3 cm!

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2495. NJ Receiver Law Update?

Newsgroup: rec.ham-radio
Date: 1990-04-28 03:04:11 UTC
From: judice@sulaco.enet.dec.com
Message-ID: <9004280304.AA08422@decpa.pa.dec.com>
Source record: 12099

During the March Hamfests (Dover, Trenton, NJ) I heard that the
NJ Receiver/"Scanner" Law was progressing well. Does anyone have any
updated info?

I've also seen the text of the ARRL recommended FCC preemtion for
transceiver capable of operating (coincidentally) on public service bands.
Does anyone have any further infomation on this?

/ljj

2496. NASA Prediction Bulletins: Space Shuttle

Newsgroup: rec.ham-radio
Date: 1990-04-28 03:41:30 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9004280712.AA20203@ucbvax.Berkeley.EDU>
Source record: 12100

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 31
1 20579U 90 37 A 90117.10416666 .00002331 00000-0 25599-3 0 432
2 20579 28.4724 214.4778 0006679 321.4080 256.4255 14.84204124 381
HST
1 20580U 90 37 B 90115.92007935 -.00019413 00000-0 -22999-2 0 416
2 20580 28.4631 222.0038 0005784 272.7940 87.2151 14.84112255 202
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2497. AR-2002 scanner remote info wanted

Newsgroup: rec.ham-radio
Date: 1990-04-28 10:38:55 UTC
From: ese@dutentb.UUCP
Message-ID: <556@dutentb.UUCP>
Source record: 12103
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,misc.wanted

!! HELP !!

For about one year I'm looking for information on the
computer interface of the AR-2002 communications receiver.

If someone has hard- or software information about
this interface (or also about other interesting aspects of
this equipment) please send it to me by email to

schot@dutentb.tudelft.nl

or on paper to:

C.A. Schot,
Grote Kreek 45,
3079 CC Rotterdam,
The Netherlands.

Even the name and address of the (I thought Japanese)
manufacturer of this scanner can help me.

Please, help me, because this is the last hope for me
to get this information.

2498. Re: Autopatching in Maryland

Newsgroup: rec.ham-radio
Date: 1990-04-28 13:07:49 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9004290700.AA28283@ucbvax.Berkeley.EDU>
Source record: 12104

I don't remember anything in the original posting that said the requestor was trying to beat the toll charges. It just so happens that the person who sent the original request is a Midshipman at the Naval Academy, and he is not likely to have a phone in his room nor can he run out and look for an available phone booth any time he wants. Being as running phone patches for the military, especially ships at sea, is something hams have always bragged about, I can't understand why everyone is up in arms about this poor guys request.

And just as a matter of information, I once knew of a repeater that was set up primarily as a means of avoiding toll charges. It was set up in a location where it could have a phone number that was in an exchange that would normally be a toll call for the group who comprised the regular users of the repeater. I don't know of anyone ever getting a pink slip for using it.

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

2499. Some infos WANTED: AOR-3000, Pay TV

Newsgroup: rec.ham-radio
Date: 1990-04-28 13:14:09 UTC
From: reitherm@zeno.informatik.uni-kl.de
Message-ID: <4255@incas.informatik.uni-kl.de>
Source record: 12105
Cross-posted to: rec.ham-radio,sci.electronics,rec.video

Hi,

i have heard some rumours about undocumented keyboard (service) functions of the
AOR-3000 communications receiver.
Does anybody know something about this ?

Where can I get hints for descrambling Pay TV programs, e.g. the German
"TeleClub" system ?
Can anybody recommend me literature or any other kind of information ?

Thanks in advance

P.S.: For those who don't know:
The AOR-3000 is a 100 kHz to 2036 MHz (continuously, 50 Hz steps)
Communications Receiver with N-FM / W-FM / AM / LSB / USB / CW modes
and 4 x 100 memories
... and a RS-232C interface.
(I hope to find the time to write & post controller software for it!)

| Steffen Reithermann |
| |
| University of Kaiserslautern |
| F. R. G. (Federal Republic of Germany) |
| |
| e-mail address: reitherm@sokrates.informatik.uni-kl.de |
| paper-mail address: Steffen Reithermann |
| Stahlstrasse 21 |
| D-6750 Kaiserslautern |
| F. R. G. |
| phone number: +49-631-46953 |
| |
| "All programmers are pessimists - I am the exception to this rule." |

--
'Steffen Reithermann'

2500. Re: Hustler address

Newsgroup: rec.ham-radio
Date: 1990-04-28 13:32:05 UTC
From: mark@gizzmo.UUCP
Message-ID: <121@gizzmo.UUCP>
Source record: 12106

In article <9004280048.AA27675@ucbvax.Berkeley.EDU> lwrclmr@SACEMNET.AF.MIL ("LWRCLMR") writes:
> You'll probably get faster and
>cheaper response than directly from the factory.

WRONG!!!!!

I called Hustler with problems with a resonator, and the shipped me a NEW one free. They have the best service department that I have ever dealt with.

Mark Hilliard
N2HHR

2501. Phase-Sequence filters for SSB

Newsgroup: rec.ham-radio
Date: 1990-04-28 18:13:51 UTC
From: rjk@sequent.UUCP
Message-ID: <33977@sequent.UUCP>
Source record: 12107
Cross-posted to: rec.ham-radio,sci.electronics

One way to implement the audio phase difference for the phasing method of SSB generation is described in _The_ARRL_Handbook_ and in Horowitz and Hill's _The_Art_of_Electronics_ 2nd ed. page 295. They call it a phase-sequence filter and it consists of a cyclic network of resistors and capacitors, driven by two signals of 180 degree phase difference, producing four outputs 90 degrees apart. Does anyone here have any experience with these filters? In particular, how are they designed and analyzed? References?

Thanks,
Bob Kelley

2502. Re: Sony Air 8 mods

Newsgroup: rec.ham-radio
Date: 1990-04-28 19:52:33 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29399@cup.portal.com>
Source record: 12108

Sony Air 8 Mods

Radio West --at one time-- was a leader in so-called "exotic mods."
They continue to advertise many miscellaneous receiver modifications.
They can be reached by phone at 619/726-3910. Or you can write
them at -- Radio West, 850 Anns Way Drive, Vista, CA 92083.
73s
"HM"

2503. Re: REALISTIC PRO-2005

Newsgroup: rec.ham-radio
Date: 1990-04-28 20:41:43 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29402@cup.portal.com>
Source record: 12109

PRO-2005 MODS

Try the following:
Dromedary Technical Services
141 Jackson Road
Roopville
Georgia 30170
Phone: 404/854-8846

73s
"HM"

2504. Re: RF Hazards at 23 cm??

Newsgroup: rec.ham-radio
Date: 1990-04-28 21:42:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500514@ux1.cso.uiuc.edu>
Source record: 12110

> >I suspect that if you scale down the whole system, transmitter, receiver,
> >wavelength, AND THE PATH LENGTH, you would have a constant signal strength
> >or perhaps a constan S/N. Of course reality does not allow us to scale
> >everything any way we want, such as path length.
>
> This is not true. As the antennas stay the same size, antenna SYSTEM
> gain goes up as f^4 (because the antennas at each end have gain that
> goes up as f^2) but the path loss only goes down as f^3. Thus, for
> antennas of the same size, there is an advantage to going to higher
> frequencies.

But can you explain why the case I cited is incorrect as you say without
giving as an example some entirely different case? I was not talking
about the case of antennas of the same size.

As the antenna scales with wavelength, it's gain is constant. The path
length is also scaled meaning the path loss is less by f^2 but the
receive aperture is less also by f^2. Still seems constant to me.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2505. IC2400/IC-970

Newsgroup: rec.ham-radio
Date: 1990-04-28 21:50:58 UTC
From: umrose05@ccu.umanitoba.ca
Message-ID: <1990Apr28.215058.2269@ccu.umanitoba.ca>
Source record: 12111

Does anyone out there have the stats for the new IC-970?
I just saw an add, but it wasn't very complete. Does anyone know
the power specs etc...and has anyone ever used one??Or is it still too
relativly new.

Also, has anyone out there got an IC2400? If so, how good are they in
the practical world?

Dave

--
Dave Rose : Local (UnixWS) - UMRose05@CCU.UManitoba.CA
P.O. Box 403 : Local (Amdahl) - #Rose05@CCM.UManitoba.CA
Winnipeg, Manitoba, Canada: UUCP Node #005 - drose@trash.UUCP
R2M-5H3 :

2506. Help finding a transformer

Newsgroup: rec.ham-radio
Date: 1990-04-28 22:38:22 UTC
From: s54@H.CC.PURDUE.EDU
Message-ID: <9004282238.AA27773@h.cc.purdue.edu>
Source record: 12116

Hello!

I am building a power inverter (12v DC to 120v AC) that I hope to eventually transform into a UPS for a computer... The schematic was obtained from Motorola and uses 2 MTM60N06 power TFETs in the output stage. It uses a Xtal controlled frequency source and outputs a very nice high power 12v sine wave. The part I need help with is finding the transformer. I need a 120v to 12v 40amp center tapped transformer. I have had no luck whatsoever in finding one. If anyone could point me to a source of such a beast, (preferably surplus :)) I would appreciate the info. I dont even know how much the thing should cost.

Thanx.

P.S. These accts will only be mine until May 9.

****
Garry Adkins ** Wine comes in at at the mouth
s54@h.cc.purdue.edu ** And love comes in at the eye;
(preferred) ** That's all we shall know for truth
tdi@sage.cc.purdue.edu ** Before we grow old and die.
** -Yeats (A Drinking Song)

2507. Need Info

Newsgroup: rec.ham-radio
Date: 1990-04-29 00:07:41 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <iV5ci1w161w@w8grt.fidonet.org>
Source record: 12115

(347) Thu 26 Apr 90 5:24p
By: Don Buska
To: All
Re: Mag Article Wanted - VHF COMM 3/82

Wanted:

I am looking for a copy of the magazine article listed below:

Extremely Long Yagi Antennas
by Gunter Hock DL6WU
in VHF Communications Magazine (German magazine) 3/82

******* Attention VHF/UHF Operators *******

Appreciate any help. I have seen this article referred to many times
by VHF/UHF antenna design software programs. I'd like to verify some
of these programs. Actually, I have two different programs for designing
DL6WU yagi's and both programs give me slightly different results. So I'd like
to go to the source to see which one I should trust.

Thanks es 73's.
Don N9OO

Relay by:
Jim Grubs, W8GRT - aka FidoNet node 1:234/1
UUCP: ...!ncar!asuvax!stjhmc!w8grt!jim.grubs
INTERNET: jim.grubs@w8grt.fidonet.org

2508. Radio Collection Catalog

Newsgroup: rec.ham-radio
Date: 1990-04-29 01:06:47 UTC
From: ckp@cup.portal.com
Message-ID: <29410@cup.portal.com>
Source record: 12112

The new Radio Collection catalog is available from the following address for the asking and a SASE -

MoonBeam Press
PO Box 149
Briarcliff Manor, NY 10510

/ckp@cup.portal.com

2509. * SpaceNews 30-Apr-90 *

Newsgroup: rec.ham-radio
Date: 1990-04-29 02:14:47 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <283@ka2qhd.UUCP>
Source record: 12113
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0430

=========
SpaceNews
=========

MONDAY APRIL 30, 1990

SpaceNews is published and distributed weekly around the world on USENET
and Amateur Packet Radio. It is available for unlimited distribution.

* STS-31 NEWS *
===============
Mike (WD8KPZ) of Phoenix, Arizona reported hearing space shuttle astronaut
communications on a frequency of 279.000 MHz AM during their EVA during the
deployment of the Hubble Space Telescope.

Mike used an Icom R-7000 receiver and a quarter-wave ground plane antenna at
an altitude of 15 feet to receive the astronauts.

* STS-35 NEWS *
===============
The STS-35 Astro-1/SAREX mission launch date has been delayed from May 9 to
May 15 due to the STS-31 launch delay. There may be a further delay due to
a presently unhealthy STS-35 astronaut.

* DOVE-1 NEWS *
===============
Bob (N4HY) continues to upload software to the DOVE-1 satellite in an effort
to bring it back "on line" after the OBC crash last month. DOVE-1 is
presently transmitting on 2401.100 MHz (+/- Doppler!) while the 145.825 MHz
general beacon is turned off. DOVE-1 will be back on VHF in a short while
carrying digitized voice messages of world peace.

* COMET AUSTIN NEWS *
====================
Comet Austin (1989c1) has been sighted by many living on the west coast of the
United States in recent weeks. Comments from observers indicate that the comet
was not as spectacular as expected and there are indications that the comet's
brillance will decrease further now that it is receding from the sun.

* CONSORT-3 LAUNCH *
====================
The launch of Consort 3, a commercial suborbital rocket carrying 12
microgravity experiments, has been set for May 17 at 10:40 AM EDT (1440 UTC),
by the University of Alabama-Huntsville's (UAH) Consortium for Materials

Development in Space (CMDS), a NASA Center for the Commerical Development of Space (CCDS).

Consort 3 will be launched from the Naval Ordnance Missile Test Station facilities at the U.S. Army's White Sands Missile Range (WSMR), New Mexico, by Space Services, Inc., Houston, using its Starfire rocket. The rocket will carry the payload to an altitude of 200 miles and will provide the experiments with 7 to 8 minutes of microgravity time.

[From: Peter E. Yee @ NASA Ames Research Center, Moffett Field, CA.]

* MIR NEWS *
============
After numerous postponments, the 20 ton "Kristall" Mir expansion module is expected to dock with Mir on June 1, 1990. Software problems on board Mir are responsible for the delay. The module was orginally scheduled for launch in February. Cosmonauts Anatoly Solovyov and Alexander Baladin have been living on the Mir space station for 77 days.

* SPACE FOR PEACE *
==================
The European Space Agency and the Soviet Union have signed a ten-year agreement to cooperate on exploration and use of space for "peaceful purposes". Space Fax Daily reports the agreement was signed on April 23rd in Paris. There will be no exchange of funds under the pact which has the option to be renewed for an additional decade.

[From: NASA Headline News]

* WELCOME ABOARD! *
==================
Interested in learning more about the Amateur Radio Service? For information on licensing requirements and operating privileges, write:

The American Radio Relay League
225 Main Street
Newington, Connecticut 06111
U.S.A.

* MAIL BAG *
============
Here's a packet radio message recently received from Canberra, Australia:

Msg# TSP Size To @ BBS From Date Time Bid
8411 PN 1122 KD2BD VK1KCM 900426 1834

Subject: Greetings.

Hi John,
This is just a note to say thank you for the SpaceNews articles
you write and a wish for you to continue.

I receive your articles both by the Packet Radio Network and the
Fidonet. (I believe they originate on the Internet but I

haven't seen that newsgroup here yet.)

Thanks again.

Carl.

* FEEDBACK WELCOMED *
====================
Feedback regarding SpaceNews can be directed to the editor (John) via any
of the following paths:

UUCP : ...uunet!masscomp!ocpt!tsdiag!ka2qhd!kd2bd
AX.25 : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2510. manuals for National SW Radio

Newsgroup: rec.ham-radio
Date: 1990-04-29 02:51:14 UTC
From: majec@peyote.cactus.org
Message-ID: <667@peyote.cactus.org>
Source record: 12117
Cross-posted to: rec.radio.shortwave,rec.ham-radio.swap,rec.ham-radio

I am looking for manuals, or a good source for manuals for a couple of 40s era shortwave radios. if you know of one.
please reply by e-mal

Thanks

2511. Aiming Antennas

Newsgroup: rec.ham-radio
Date: 1990-04-29 04:09:36 UTC
From: scotto@crash.cts.com
Message-ID: <2443@crash.cts.com>
Source record: 12114

Our radio club is contemplating another remote receiver for our 220 repeater system. Our main intention is to compliment the main repeater (located about 50 miles inland at 5900') for coastal North/South freeway users.

Our original idea was to use a Ringo Ranger II or a Hustler G7, but since inland coverage is not necessary (and the oceans is to the west) we were wondering about two beams pointed South & North-West (the directions of the freeway from the new receiver site)

A 7-element end-mount beam provides approximately 11db gain while the omni's are 7-9db. The other factor is cost. The 7-element beam is $47.00 and the omni's are (depending on model) ~90-150. So, that leaves me with the following questions:

How would two antennas be connected?

Would they do any better than the single omni?

What would *you* do?

Thanks in advance. Direct replies as you feel appropriate. (that means e-mail OR post)

P.S. I'm sorry if this message, PURE in Ham-Radio content, offends any readers! :-)
--
Scott O'Connell UUCP: {nosc, ucsd, hplabs!hp-sdd}!crash!ipars!scotto
ARPA: crash!ipars!scotto@nosc.mil
INET: scotto@ipars.cts.com

2512. Re: Bearcat parts

Newsgroup: rec.ham-radio
Date: 1990-04-29 16:52:47 UTC
From: john@anasaz.UUCP
Message-ID: <2143@anasaz.UUCP>
Source record: 12120
Cross-posted to: sci.electronics,rec.ham-radio

In article <231@wells.UUCP> edw@wells.UUCP (Ed Wells) writes:
]
] I am in need of parts for Bearcat scanners. One is the CPU chip for
]the Bearcat 300. Also chips for Bearcat 250's. In particular, the UHF
]chips (at least this time around).
]
] Did anyone buy up any of Bearcat's surplus?

err...

Bearcat still exists! They were purchased by Uniden. You can still
get parts (I just got a new keyboard for my BC 20/20 last week)
by calling 317-894-1036.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

2513. Re: Aiming Antennas

Newsgroup: rec.ham-radio
Date: 1990-04-29 17:16:01 UTC
From: mikey@pnet01.cts.com
Message-ID: <2451@crash.cts.com>
Source record: 12122

I would add that the Satellite Receiver is located in Sandy Eggo county and that the coverage area to be enhanced is the Interstate 5 freeway corridor from approximately 20 south of the receiver to 30+ miles north northwest of the receiver. Omni coverage is not needed and in fact would basicly duplicate existing coverage. This I5 corridor is riddled with low-lying coastal hills just west of the freeway and is a major shadow to the repeater site 30 miles east. Hence the desire to fill in the noisy I5 area....Mike

---
| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2514. Re: The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-04-29 19:43:48 UTC
From: driver8@stb.info.com
Message-ID: <1990Apr29.194348.15867@stb.info.com>
Source record: 11931

In article <1990Apr25.100922.18002@lopez.UUCP> flash@lopez.UUCP (Gary Bourgois) writes:
>
>Is there anyone North of me on the net? (Sorry Toronto, and Montreal,
>you are my neighbors to the SOUTH!). I would like to know how much of
>this stuff is Aroural, and how much is because of the Permeability of
>our iron rich ground shelf.

This article, and the next one, describe some pretty classic auroral
sky-wave effects. The last episode you mention came during a minor
storm period. The time of night (strongest when the sun is directly
opposite you) is auroral oval stuff all the way. If you can get
anyone who studies geomagnetism interested, you could try correlating
your data with stuff like aa indices, substorms, bays etc etc.

The ground-wave effects are outside my expertise. All I can suggest
is to grab an FAA aeronautical chart and see if any magnetic anomalies
are noted for your area.

There's a place in Santa Monica, CA where posts move by themselves and
KXLU suddenly goes away (despite being in the 100 dB contour). Local
mysteries are great fun.

--
++
Hugh Stegman NV6H driver8@stb.info.com
RCMA Below 30 MHz denwa!stb!driver8
++

2515. Re: Aiming Antennas

Newsgroup: rec.ham-radio
Date: 1990-04-29 21:47:17 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <24247@netnews.upenn.edu>
Source record: 12121

In article <2443@crash.cts.com> scotto@crash.cts.com (Scott O'Connell) writes:
>
>Our radio club is contemplating another remote receiver for our 220 repeater
>system. Our main intention is to compliment the main repeater (located
>about 50 miles inland at 5900') for coastal North/South freeway users.
>Our original idea was to use a Ringo Ranger II or a Hustler G7, but
>since inland coverage is not necessary (and the oceans is to the west)
>we were wondering about two beams pointed South & North-West (the directions
>of the freeway from the new receiver site)
>A 7-element end-mount beam provides approximately 11db gain while the
>omni's are 7-9db. The other factor is cost. The 7-element beam is $47.00
>and the omni's are (depending on model) ~90-150. So, that leaves me with
>the following questions:
>How would two antennas be connected?
>Would they do any better than the single omni?
>What would *you* do?
>Scott O'Connell UUCP: {nosc, ucsd, hplabs!hp-sdd}!crash!ipars!scotto
> ARPA: crash!ipars!scotto@nosc.mil
> INET: scotto@ipars.cts.com

You would get very good coverage with a pair of beams, but your coverage
to the east would be very limited due to the directionality of the beams.
7 element beams would have a relatively tight pattern.

If I were in your shoes, I'd think about using stacked folded dipoles.
You can customize the directionality of the system by locating them in
various places around the mast. You could get a pretty nice north-south
pattern and yet still have decent coverage to the east if they are
properly set up.

If you decide to go with a true omni, I'd suggest the G7 over the Ringo Ranger
II. The Ringo is an OK antenna, but I've seen a number of tests that
depict the antenna as having a relatively high radiation angle. The G7
is quite a nice antenna for the money and is one of the few good 220
omnis that you will find. I think you can plan to spend a bit over
$100 for the G7. The folded dipoles mentioned above probably go for
a bit less than that. Makers of folded dipoles include Antenna Specialists,
Phelps Dodge, and a few other commercial makers, although I'm not too
sure how many of them carry 'em for 220.

--- Jeff

+----------------------+---+
Jeff DePolo - N3HBZ	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 243-8125 home

| Class of 1991 | Carrier pigeon: 3901 Spruce St Box 850 Philly 19104 |
+----------------------+---+

2516. ARRL PFB NR 17

Newsgroup: rec.ham-radio
Date: 1990-04-29 23:41:26 UTC
From: gws@n8emr.UUCP
Message-ID: <1500@n8emr.UUCP>
Source record: 11927

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

ZCZC AP21
PROPAGATION FORECAST BULLETIN 17 ARLP017
FROM ED TILTON, W1HDQ
SPRING HILL FL APRIL 23, 1990
TO ALL RADIO AMATEURS

THE SOLAR FLUX TREND HAS BEEN DOWNWARD SINCE THE MIDDLE OF JUNE
1989, WHEN IT PEAKED AT 327. SEPTEMBER HAD FIVE DAYS OVER 300, BUT
NONE HIGHER THAN 305. IT WAS THOUGHT THAT HIGHER READINGS MIGHT
COME IN 1990, BUT THE FLUX HIGH OF THE YEAR SO FAR IS ONLY 265, AND
THAT CAME BACK IN JANUARY. THE NEXT BEST MONTHLY HIGH, 249, CAME ON
APRIL 20. A SUDDEN OUTBURST OF HIGHER FLUX LEVELS CANNOT BE RULED
OUT YET, BUT CONSISTANTLY MUCH LOWER FLUX FIGURES IN 1990 SO FAR
MAKE THIS A REMOTE CHANCE.

THE FLUX MADE A DRAMATIC CLIMB BEGINNING ON APRIL 9, BUT THE
BEHAVIOR OF THE EARTHS MAGNETIC FIELD WAS A MORE INTERESTING BUT
FRUSTRATING ASPECT OF THE MONTHS PROPATGATION THUS FAR. THE FLUX
ROSE FROM 144 UP TO 249 IN ONLY 11 DAYS, BUT WHAT HAPPENED ALONG THE
WAY IS OF GREATER INTEREST. ON THE 9TH, THE K INDEX ROSE FROM TWO
TO FIVE. OVER THE NEXT SIX DAYS IT WAS NEVER BELOW THREE, AND MUCH
OF THE TIME IT WAS SIX OR SEVEN. SUCH FIGURES MADE FOR ALMOST NO
USEFUL PROPAGATION ON HIGH LATITUDE PATHS FOR THE BETTER PART OF A
WEEK, EVEN AT THE AUTHORS FLORIDA LOCATION.

THINGS STARTED TO IMPROVE AFTER THE 20TH, BUT REALLY GOOD SIGNALS
FROM PLACES LIKE NORTHERN EUROPE ARE STILL RARE. THE SOLAR FLUX IS
HEADED DOWNWARD AGAIN, SO THE REST OF APRIL SHOULD BE BETTER FOR
HIGH LATITUDE PROPAGATION.

AMERICAN SUNSPOT NUMBERS FOR APRIL 12 THROUGH 18 WERE BETWEEN 88 AND
226 WITH A MEAN OF 159.4. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)
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2517. Re: Long distance communication

Newsgroup: rec.ham-radio
Date: 1990-04-30 00:25:02 UTC
From: craig@n8ino.UUCP
Message-ID: <431@n8ino.UUCP>
Source record: 12118

In article <9004231749.AA00838@mbunix.mitre.org> ptb@MBUNIX.MITRE.ORG writes:
... Recommendations of purchasing two $200+ radios, two beam antennas,
two towers for a site in Texas, and in New {York,Jersey} Getting
General class licenses, setting up skeds...

>You may also want to check out whether using ham radio to avoid a toll
>charge is really legal.

I think that these costs would add up to far more than most toll
charges. The system would be somewhat less reliable, too.

Hey, wait a minute... Did I buy all that gear to talk to strangers?
Now who's smarter?

--
R. Craig Peterson (N8INO)
decvax!n8ino!craig craig@n8ino.MV.COM

2518. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-04-30 01:45:27 UTC
From: cs421s05@uhccux.uhcc.hawaii.edu
Message-ID: <7481@uhccux.uhcc.hawaii.edu>
Source record: 12119

>In years past (maybe in the future, too, I hope) I played keyboard
>instruments (piano, organ, synthesizer) .... now, I sometimes
>notice myself tapping my foot when I send and receive code!!!!
>
>--
>Charles P. Hobbs, N6YMK @ K6VE....
>Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

^^

I found out that one of my favorite "Fresh Aire" tunes has some
20 WPM CW embedded in it. The song "Tocatta" on the album "Fresh Aire 3"
sends II6IT. Pretty catchy rhythm, too.

Aloha de KJ9U/KH6

reply to me at:
john-uhsss@uhplato.bitnet

2519. arrl

Newsgroup: rec.ham-radio
Date: 1990-04-30 03:15:08 UTC
From: gws@n8emr.UUCP
Message-ID: <1502@n8emr.UUCP>
Source record: 11928

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| Relayed from FIDONET via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
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HAM RADIO HISTORY

4 Billion BC - Earth is a swirling ball of flaming gases. Propagation is extremely poor.

1 Billion BC - First dry land appears. It is divided up into squares. County Hunters Club formed.

500 Million BC - Second patch of dry land appears. First DXpedition. Credit disallowed because of questionable licensing agreement.

400 Million BC - Flowering plants and grasses evolve. Telrex invents first beam antenna but sales area slow because of lack of suitable structures.

300 Million BC - First tree appears. It is immediately cut down, stripped of branches, placed in a concrete base and named a telephone pole. Telrex sells first beam.

200 Million BC - Second beam sold by Telrex. Installer falls from top of pole. First safety belt sold.

100 Million BC - First mountain appears. Repeater invented.

50 Million BC - It is decided by WARC that "seek you" is too cumbersome to send on CW, so abbreviation "CQ" is adopted.

4 Million BC - Humans replace swine as dominant species. The name "Ham Operator" hangs on, however.

3 Million BC - Dugout canoe invented. Maritime Mobile Net formed on 14.313 mHz.

2 Million BC to 800 AD - Nothing much happens for a long time.

900 AD - Chinese invent gunpowder. BY1AA is first "Big Gun" DXer.

1790 AD - Ben Franklin invents long wire receiving antenna. Ground switch invented.

1961 AD - Second repeater erected. First repeater group refuses to change frequency. First frequency coordinator appointed.

1990 AD - Amateur radio humor sinks to a new low.
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Published in the Spring 1990 Handi-Hams Newsletter, originally appeared
in the LYERS Newsletter.

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Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

2520. QSLing

Newsgroup: rec.ham-radio
Date: 1990-04-30 07:43:55 UTC
From: Ken.Crowston@weyr.FIDONET.ORG
Message-ID: <652.263BF199@weyr.FIDONET.ORG>
Source record: 11930

On The Subject of QSLing

I would like to present a few points from my side with the hope that the message might get across to those who want so badly to get a QSL from my part of Canada and which can also apply to many other stations in many parts of the world.
{
- I QSL via the bureau when I receive your card and as this is a hobby it may take some time to fill out cards. I also wait until I have enough card ready to make sending them to the bureau worth while.

- I only QSL direct if I am especially interested in receiving your card, I send you an IRC or green stamp, when we have agreed to it in the QSO, when you want my card and send me an IRC or green stamp.

- If you QSL direct without my agreeing to the same and do not send an IRC or green stamp, I will send you a QSL via the bureau.

My reasons for handling QSLs this way is simple and something we should all consider. Ham radio is not (fortunately) only a rich man's (woman's) hobby. I for one am far from being rich and what little money I can spare for the hobby is better put to equipment and keeping the station in operation. At the postal rates in Canada, almost $0.50 to the US and $1.00 to Europe, I could spend $50.00 plus each month when I am active. I can not afford this expense!

US amateurs are the worst on my list for sending QSLs direct with the assumption that I will automatically QSL direct with them. For this reason I (and others) restrict my operations in the US portions of the bands. The QSL issue becomes a big hassle. Explaining my rules for QSLing at times brings nasty comments. Nothing personal, but I need very few US QSL cards. I have a drawer full of them. I can work most parts of the states any time of the day.

After many years of being on the air I no longer have the same interest in collecting cards that others may have. I have a large collection of QSLs from all over the world. In most cases others may want my card much worse then I want theirs. I would be pleased to QSL with anyone who will follow the simple rules, which I feel are basic courtesy to other stations.

73's DE VE5KEN - Ken E. Crowston,
Saskatoon, Saskatchewan, Canada
(Rare DX ?)

--
Ken Crowston - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!Ken.Crowston
Internet: Ken.Crowston@weyr.FIDONET.ORG
Standard Disclaimers Apply...

2521. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-04-30 11:44:23 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9005010704.AA02627@ucbvax.Berkeley.EDU>
Source record: 12123

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #688 -
Alouette 1
1 00424U 62B-A 1 90106.14449276 .00000222 00000-0 25670-3 0 2715
2 00424 80.4664 347.2452 0024551 72.0267 288.3557 13.67327334374212
ATS 3
1 03029U 67111 A 90 88.80489108 -.00000075 00000-0 99999-4 0 3113
2 03029 13.1000 21.8559 1511727 213.1891 136.3776 1.00274601 82004
Cosmos 398
1 04966U 71 16 A 90117.15107987 .00109674 17209-4 60566-3 0 8216
2 04966 51.5187 6.3925 2313362 51.4680 327.1859 10.97272292586075
Starlette
1 07646U 75010 A 90108.05972562 -.00000043 00000-0 13825-4 0 262
2 07646 49.8256 35.7376 0205602 352.6495 7.1399 13.82135324767460
LAGEOS
1 08820U 76039 A 90109.23026026 .00000002 00000-0 00000 0 0 434
2 08820 109.8527 334.9416 0044284 250.8773 108.7231 6.38663193 70178
GPS-0001
1 10684U 78020 A 90116.08064334 .00000008 00000-0 99999-4 0 4218
2 10684 63.7139 91.1514 0116638 199.0231 160.4976 2.00557755 74809
GPS-0002
1 10893U 78 47 A 90116.05369709 -.00000025 00000-0 00000 0 0 1712
2 10893 64.4017 332.0315 0162961 26.0217 334.8263 2.00547101 87627
SeaSat 1
1 10967U 78064 A 90115.08815343 .00001631 00000-0 60762-3 0 2691
2 10967 108.0166 210.6015 0001571 286.1093 73.9880 14.35589812618832
GPS-0003
1 11054U 78093 A 90114.85067754 -.00000044 00000-0 00000-0 0 01963
2 11054 063.9697 328.4092 0058805 117.0875 243.5488 02.00565951084612
Nimbus 7
1 11080U 78098 A 90106.25930630 .00000151 00000-0 16622-3 0 6417
2 11080 99.2005 12.5767 0008160 250.2183 109.8090 13.83418079579474
GPS-0004
1 11141U 78112 A 90116.44393271 .00000008 00000-0 00000 0 0 3718
2 11141 63.6968 91.0243 0060592 316.7470 42.7491 2.00559485 83340
GPS-0005
1 11690U 80 11 A 90108.60679715 .00000009 00000-0 00000 0 0 9253
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2 11690 64.1815 93.3452 0113493 204.2889 155.1592 2.00556558 89049
GPS-0006
1 11783U 80 32 A 90116.39415815 -.00000025 00000-0 00000 0 0 1221
2 11783 63.7429 327.8960 0152205 59.4569 302.0226 2.00567842 73280
GOES 5
1 12472U 81049 A 90115.82529768 -.00000222 00000-0 99999-4 0 9212
2 12472 3.3236 77.8906 0003822 75.7739 283.5483 1.00236714 31725
DE 1
1 12624U 81 70 A 90108.22137326 .00000009 00000-0 -18609-3 0 3648
2 12624 89.0759 148.5013 6209119 302.1968 12.2323 3.51022798260013
SME
1 12887U 81100 A 90110.05471340 .00051493 00000-0 10365-2 0 5671
2 12887 97.6441 154.1324 0001520 180.3612 179.7664 15.46432666472273
Salyut 7
1 13138U 82 33 A 90116.75055207 .00060315 00000-0 72695-3 0 2226
2 13138 51.6038 203.9578 0001543 4.6565 355.4251 15.60198999456865
Cosmos 1383
1 13301U 82 66 A 90108.70571153 .00000152 00000-0 16672-3 0 5446
2 13301 82.9354 344.3785 0027657 328.7150 31.2348 13.67817871389547
LandSat 4
1 13367U 82 72 A 90116.83347774 .00000318 00000-0 75690-4 0 3211
2 13367 98.1691 180.3570 0001941 297.8305 62.2695 14.57135045413822
IRAS
1 13777U 83 4 A 90108.55115501 .00000438 00000-0 32833-3 0 7356
2 13777 99.0310 306.2616 0012429 184.5311 175.5781 13.98768568 38606
Cosmos 1447
1 13916U 83 21 A 90108.26500818 .00000161 00000-0 15928-3 0 6849
2 13916 82.9416 56.3528 0037609 309.0650 50.7175 13.74028158354443
TDRS 1
1 13969U 83 26 B 90101.84800313 -.00000208 00000-0 00000 0 0 9445
2 13969 4.3199 66.6757 0006902 263.4646 96.1837 1.00274607 92418
GOES 6
1 14050U 83 41 A 90116.00493748 .00000122 00000-0 99999-4 0 1714
2 14050 2.0981 78.8763 0002307 28.2592 331.8452 1.00269973 9744
OSCAR 10
1 14129U 83058 B 90113.89132819 -.00000212 00000-0 00000-0 0 04650
2 14129 026.0072 207.6261 5976994 137.3318 289.0408 02.05876902023628
GPS-0008
1 14189U 83 72 A 90116.46086552 .00000007 00000-0 99999-4 0 7518
2 14189 63.3346 89.5122 0147931 218.9888 139.9102 2.00707772 49725
LandSat 5
1 14780U 84 21 A 90116.65431724 .00001185 00000-0 27301-3 0 1717
2 14780 98.2091 177.4804 0002350 85.1499 275.0071 14.57127314327210
UoSat 2
1 14781U 84 21 B 90116.60058564 .00003238 00000-0 60846-3 0 7213
2 14781 97.9598 170.8393 0014662 53.8661 306.3966 14.65248326328411
GPS-0009
1 15039U 84 59 A 90110.06406071 -.00000039 00000-0 00000-0 0 08889
2 15039 063.0375 088.9138 0020760 243.2961 116.5272 02.00612761042873
Cosmos 1574
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1 15055U 84 62 A 90107.95391887 .00000142 00000-0 14082-3 0 8379
2 15055 82.9574 106.7198 0028178 127.3072 233.0659 13.73342387291802
GPS-0010
1 15271U 84 97 A 90115.94485390 -.00000025 00000-0 00000 0 0 8213
2 15271 63.2079 327.4928 0106856 326.2191 33.1487 2.00575150 40106
Cosmos 1602
1 15331U 84105 A 90117.23707061 .00007366 00000-0 10149-2 0 2728
2 15331 82.5392 48.1206 0024741 135.1011 225.2204 14.77909869300566
NOAA 9
1 15427U 84123 A 90116.48713166 .00001073 00000-0 60033-3 0 5712
2 15427 99.1681 115.1201 0015642 150.8343 209.3707 14.12543254276686
Cosmos 1686
1 16095U 85 86 A 90109.83109340 .00120262 00000-0 14769-2 0 5522
2 16095 51.6022 238.7695 0002937 344.6365 15.0879 15.59394688256833
GPS-0011
1 16129U 85 93 A 90117.11820502 .00000007 00000-0 00000 0 0 5218
2 16129 63.8571 89.6034 0122243 149.7062 210.9764 2.00510827 33330
Mir
1 16609U 86 17 A 90116.70972725 .00050656 00000-0 66704-3 0 6221
2 16609 51.6180 229.7630 0011709 215.4401 144.5906 15.57854602240063
SPOT 1
1 16613U 86 19 A 90116.77735613 .00001243 00000-0 60132-3 0 9217
2 16613 98.7041 191.8770 0001134 42.8312 317.2880 14.20055875 56636
Cosmos 1766
1 16881U 86 55 A 90117.07882555 .00005279 00000-0 73586-3 0 9711
2 16881 82.5163 107.3809 0023320 151.4091 208.8412 14.77394213201605
EGP
1 16908U 86 61 A 90 96.51913600 .00000014 00000-0 39817-3 0 1734
2 16908 50.0086 116.3154 0011133 15.7496 344.3683 12.44386633165932
NOAA 10
1 16969U 86 73 A 90116.54679325 .00001013 00000-0 46137-3 0 4212
2 16969 98.6062 145.6446 0014655 62.1032 298.1689 14.23569929187266
MOS-1
1 17527U 87 18 A 90117.07072903 .00001079 00000-0 82826-3 0 5219
2 17527 99.1107 190.2720 0000793 111.2120 248.9119 13.94867085162137
GOES 7
1 17561U 87 22 A 90116.70258189 -.00000048 00000-0 99999-4 0 5231
2 17561 0.0408 235.3545 0005416 167.1170 317.5442 1.00282772 4908
Kvant-1
1 17845U 87 30 A 90109.79258360 .00048875 00000-0 53248-3 0 585
2 17845 51.6146 264.5819 0013246 48.3701 311.9620 15.62803699175031
DMSP B5D2-3
1 18123U 87 53 A 90116.54135927 .00001274 00000-0 68922-3 0 5711
2 18123 98.8211 307.8365 0014492 166.2992 193.8596 14.13995329147103
RS-10/11
1 18129U 87 54 A 90116.90265851 .00000249 00000-0 26339-3 0 1711
2 18129 82.9299 6.4202 0010296 263.0467 96.9548 13.72083397142418
Meteor 2-16
1 18312U 87 68 A 90105.99259182 .00000219 00000-0 18868-3 0 3927
2 18312 82.5594 339.5995 0014041 67.2744 292.9899 13.83632168134381
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Meteor 2-17
1 18820U 88 5 A 90110.23019825 .00000281 00000-0 24165-3 0 2176
2 18820 82.5403 36.5252 0017714 124.1702 236.1149 13.84317649112166
DMSP B5D2-4
1 18822U 88 6 A 90116.60509844 .00001306 00000-0 61487-3 0 4710
2 18822 98.6562 356.6912 0007763 62.7843 297.4163 14.21399945115493
AO-13
1 19216U 88051 B 90113.42572632 .00000000 00000-0 00000-0 0 00908
2 19216 057.0641 158.4767 6934566 225.7164 050.8411 02.09699361014254
OKEAN 1
1 19274U 88 56 A 90116.97974052 .00006169 00000-0 87271-3 0 7718
2 19274 82.5195 206.0944 0020647 291.6204 68.2567 14.76839214 97367
Meteor 3-2
1 19336U 88 64 A 90109.61247799 .00000391 00000-0 99999-3 0 4112
2 19336 82.5443 318.8846 0018156 95.5631 264.7495 13.16887141 83242
NOAA 11
1 19531U 88 89 A 90116.56579175 .00001389 00000-0 78479-3 0 2716
2 19531 98.9778 64.8281 0013123 71.2629 288.9968 14.11567532 81683
TDRS 2
1 19548U 88 91 B 90106.90620808 .00000131 00000-0 99999-4 0 830
2 19548 0.0836 54.7981 0001931 350.1664 315.0104 1.00276957 4835
Cosmos 2001
1 19796U 89 11 A 90116.35011545 -.00001024 00000-0 99999-4 0 4512
2 19796 63.1475 99.4761 7111380 319.9083 5.0024 2.00611519 8767
GPS BII-01
1 19802U 89013 A 90111.62835293 .00000006 00000-0 00000-0 0 00785
2 19802 055.0974 199.6551 0058496 160.7029 199.5533 02.00562540008619
Akebono
1 19822U 89 16 A 90116.78356345 .00029044 00000-0 20714-2 0 5726
2 19822 75.1196 263.8731 4191717 254.5261 56.5678 7.07908459 29780
Meteor 2-18
1 19851U 89 18 A 90112.49996712 .00000191 00000-0 16080-3 0 1654
2 19851 82.5167 272.8214 0014497 155.0600 205.1265 13.83957625 57869
TDRS 3
1 19883U 89 21 B 90106.54616291 -.00000235 00000-0 99999-4 0 619
2 19883 0.0667 31.5154 0002589 299.4183 29.0615 1.00268426 3273
GPS BII-02
1 20061U 89 44 A 90109.81742704 -.00000032 00000-0 00000 0 0 598
2 20061 54.7509 18.1846 0082621 173.8123 186.3167 2.00561344 6321
Nadezhda 1
1 20103U 89 50 A 90110.04342582 .00000123 00000-0 11985-3 0 957
2 20103 82.9596 327.8684 0036663 198.4669 161.5161 13.73580821 39733
GPS BII-03
1 20185U 89 64 A 90109.28845028 .00000016 00000-0 99999-4 0 536
2 20185 54.9290 200.5997 0025017 143.3036 216.8936 2.00560378 4880
Activnyi
1 20261U 89 80 A 90116.71193789 .00005137 00000-0 16140-2 0 4724
2 20261 82.5906 261.2327 1259106 94.7811 279.7772 12.43627716 26198
Activnyi RB
1 20262U 89 80 C 90110.13747114 .00001686 00000-0 52548-3 0 1592
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2 20262 82.5903 265.4283 1262202 109.6998 264.4478 12.43115762 25372
Magion 2
1 20281U 89 80 B 90116.69105764 .00005663 00000-0 17699-2 0 4723
2 20281 82.5890 261.1926 1258846 94.7302 279.8218 12.43854294 26190
GPS BII-04
1 20302U 89 85 A 90116.51024345 -.00000029 00000-0 99999-4 0 1216
2 20302 54.7286 319.1662 0035192 315.2323 44.5029 2.00412884 3835
Meteor 3-3
1 20305U 89 86 A 90109.89864068 .00000056 00000-0 12835-3 0 780
2 20305 82.5468 259.1001 0017217 111.0327 249.2645 13.15855220 23285
COBE
1 20322U 89 89 A 90110.11081713 .00004773 00000-0 31585-2 0 745
2 20322 99.0156 120.9310 0008487 162.3206 197.8253 14.01845818 21350
Kvant-2
1 20335U 89 93 A 90109.79256568 .00048824 00000-0 53248-3 0 1767
2 20335 51.6125 264.5842 0011621 48.8061 311.4398 15.62803047 22632
GPS BII-05
1 20361U 89 97 A 90116.28723082 .00000015 00000-0 99999-4 0 710
2 20361 54.9712 142.3764 0056879 56.4485 304.2335 2.00577889 2688
SPOT 2
1 20436U 90 5 A 90116.81264057 -.00001436 00000-0 -66684-3 0 1710
2 20436 98.7352 191.9637 0001138 90.9291 269.1940 14.20010116 13450
UO-14
1 20437U 90 5 B 90116.48818924 .00001049 00000-0 43399-3 0 1213
2 20437 98.7008 192.7455 0010906 310.5347 49.4907 14.28582245 13482
UO-15
1 20438U 90 5 C 90110.26848195 .00000429 00000-0 18791-3 0 440
2 20438 98.7022 186.5320 0010726 326.8484 33.2034 14.28329284 12598
PACSAT
1 20439U 90 5 D 90117.25218696 .00000998 00000-0 41255-3 0 716
2 20439 98.7090 193.5762 0011354 306.7230 53.2915 14.28687896 13593
DO-17
1 20440U 90 5 E 90110.24658684 .00000763 00000-0 31956-3 0 341
2 20440 98.7027 186.5808 0011731 329.6621 30.3909 14.28709205 12592
WO-18
1 20441U 90 5 F 90110.23976607 .00000642 00000-0 27053-3 0 326
2 20441 98.7049 186.5869 0012452 330.2534 29.7992 14.28813404 12597
LO-19
1 20442U 90 5 G 90117.09791993 .00000993 00000-0 40888-3 0 714
2 20442 98.7070 193.4485 0012241 309.2370 50.7749 14.28900031 13579
GPS BII-06
1 20452U 90 8 A 90103.54117547 .00000000 00000-0 99999-4 0 313
2 20452 54.6181 258.6046 0031593 42.5005 324.8619 2.00878562 1549
MOS-1B
1 20478U 90 13 A 90116.73808703 -.00008750 00000-0 -65282-2 0 2223
2 20478 99.1910 187.1677 0001288 136.8498 223.2490 13.94811563 10966
FO-20
1 20480U 90 13 C 90110.07837252 .00000107 00000-0 28979-3 0 236
2 20480 99.0469 167.5457 0541608 180.0821 180.0272 12.83127493 9292
1990 013D
```

```
1 20491U 90110.14858384 0.00000490 97196-3 0 299
2 20491 99.0466 169.6356 0471060 167.0772 194.2909 13.02729416 8845
Soyuz TM-9
1 20494U 90 14 A 90109.85651287 .00048913 00000-0 53248-3 0 849
2 20494 51.6214 264.2542 0013708 47.7125 312.5388 15.62815214 10567
Nadezhda 2
1 20508U 90 17 A 90110.08452257 .00000137 00000-0 13549-3 0 230
2 20508 82.9491 102.7480 0045559 145.8090 214.6037 13.73197890 7038
OKEAN 2
1 20510U 90 18 A 90116.91169285 .00003535 00000-0 54539-3 0 1216
2 20510 82.5257 144.9387 0021925 81.1910 279.1724 14.72993498 8527
1990 018B
1 20511U 90 89.05320873 0.00001995 30621-3 0 194
2 20511 82.5291 170.5611 0021053 166.6080 193.5693 14.73029041 4424
Progress M3
1 20513U 90 20 A 90109.79257418 .00048891 00000-0 53248-3 0 631
2 20513 51.6193 264.5825 0013366 45.9608 314.3147 15.62809033 7794
INTELSAT-6
1 20523U 90 21 A 90116.84102621 .00007330 00000-0 51890-3 0 1222
2 20523 28.3489 240.3513 0016780 351.7148 8.2954 15.02879102 6714
Cosmos 2060
1 20525U 90 22 A 90116.74325817 .00006881 00000-0 11809-3 0 1224
2 20525 65.0254 293.0192 0009915 265.8547 94.0928 15.51981409 6691
Cosmos 2061
1 20527U 90110.23391170 0.00000127 12989-3 0 209
2 20527 82.9406 188.7193 0030435 184.8026 175.2840 13.71244824 4285
1990 023B
1 20528U 90110.20194283 0.00000346 36590-3 0 367
2 20528 82.9412 188.6967 0024985 171.7402 188.4165 13.72640645 4274
GPS BII-07
1 20533U 90025 A 90110.57836302 .00000110 00000-0 00000-0 0 00188
2 20533 055.0640 018.2742 0033540 098.8964 261.5170 02.00593435000449
1990 025C
1 20535U 90 25 C 90108.98409874 .00213228 16945-4 24598-2 0 356
2 20535 37.6037 358.2327 5984417 222.2562 71.6084 4.16988491 1009
1990 026A
1 20536U 90 26 A 90116.12195083 -.00001171 00000-0 99999-4 0 721
2 20536 62.9279 20.3454 7361999 318.4504 4.7846 2.00609344 603
1990 026D
1 20539U 90026 D 90110.88456834 .00000773 00000-0 00000-0 0 00160
2 20539 063.1214 020.8448 7338909 318.6610 004.6690 02.03002782000524
Offeq 2
1 20540U 90 27 A 90117.03572506 .00507757 -13045-4 14581-2 0 727
2 20540 143.1950 225.6181 0838110 237.0636 114.6523 14.26451050 3338
1990 027B
1 20541U 90 27 B 90117.18406567 .00924984 -59352-4 21307-2 0 727
2 20541 143.2100 227.9747 0776338 240.2031 111.9279 14.42830283 3377
PegSat
1 20546U 90 28 A 90116.72415632 .00017054 00000-0 10897-2 0 718
2 20546 94.1221 187.7807 0152893 156.5306 204.8195 14.99373113 3126
```

```
1990 028B
1 20547U 90028 B 90112.10433281 .00000000 00000-0 00000-0 0 00195
2 20547 094.1445 185.3860 0129670 169.0219 191.4501 14.95288467002435
Cosmos 2064
1 20549U 90110.23457710 0.00000049 38743-3 0 92
2 20549 73.9806 231.8054 0017314 250.5822 109.3356 12.47017836 1768
Cosmos 2065
1 20550U 90110.21230773 -.00000006 0 130
2 20550 73.9823 231.7973 0008823 287.7390 72.2698 12.48997748 1762
Cosmos 2066
1 20551U 90110.25454095 -.00000007 0 119
2 20551 73.9812 231.3537 0049265 63.9769 296.6347 12.59478510 1780
Cosmos 2067
1 20552U 90110.27435350 -.00000007 0 81
2 20552 73.9807 231.3908 0039640 72.4035 288.1343 12.57707524 1784
Cosmos 2068
1 20553U 90110.21335207 -.00000007 0 97
2 20553 73.9819 231.5132 0030743 66.5764 293.8518 12.56043041 1779
Cosmos 2069
1 20554U 90110.23266137 -.00000007 0 95
2 20554 73.9817 231.5871 0021672 64.1430 296.1855 12.54314899 1773
Cosmos 2070
1 20555U 90110.25204606 -.00000353 -22019-2 0 82
2 20555 73.9806 231.5795 0013174 50.5188 309.7024 12.52581596 1771
Cosmos 2071
1 20556U 90110.27292000 -.00000006 0 98
2 20556 73.9809 231.6567 0002428 70.9612 289.1702 12.50727511 1772
1990 029J
1 20557U 90110.26766926 0.00001050 95280-2 0 143
2 20557 73.9838 232.6071 0147895 252.7747 105.7055 12.22763073 1735
AsiaSat-1
1 20558U 90030 A 90109.95125364 .00000000 00000-0 00000-0 0 00199
2 20558 000.1754 295.8654 0000936 185.4682 174.5339 01.00271649000169
1990 030B
1 20559U 90030 B 90112.62306124 .00018418 00000-0 00000-0 0 00195
2 20559 031.2644 018.4601 7334989 187.1405 148.7122 02.22358248000340
FOTON 3
1 20566U 90 32 A 90117.11728503 .00188500 10873-4 22179-3 0 741
2 20566 62.7976 344.6680 0101010 113.5361 247.6468 15.98691989 2455
Cosmos 2072
1 20568U 90 33 A 90117.09527623 .00302515 45656-4 44892-3 0 737
2 20568 64.7605 111.2281 0044118 84.3982 276.1451 16.02599713 2145
Palapa-B2R
1 20570U 90034 A 90111.86548899 .00000000 00000-0 00000-0 0 00103
2 20570 000.0686 279.5496 0027914 214.4231 145.3782 01.00285141000044
1990 034B
1 20571U 90034 B 90111.92939742 .00000198 00000-0 00000-0 0 00087
2 20571 022.7534 309.3351 0629682 243.8549 109.5971 13.81925773001102
1990 034C
1 20572U 90034 C 90111.56624434 .00055420 00000-0 00000-0 0 00108
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2 20572 018.9025 357.1525 7397719 183.9862 161.8123 02.16460324000179
Cosmos 2073
1 20573U 90035 A 90113.05791580 .00108778 00000-0 00000-0 0 00164
2 20573 082.3590 345.1061 0044296 078.4256 282.2634 16.06214990000929
Cosmos 2074
1 20577U 90036 A 90111.93013618 .00000000 00000-0 00000-0 0 00061
2 20577 082.9518 156.1244 0026627 286.4892 073.3882 13.73708287000165
1990 036B
1 20578U 90 36 B 90114.69421444 -.00022896 00000-0 -24161-1 0 411
2 20578 82.9439 154.0749 0018650 266.7193 93.1826 13.74993589 538
HST
1 20580U 90 37 B 90115.92007935 -.00019413 00000-0 -22999-2 0 416
2 20580 28.4631 222.0038 0005784 272.7940 87.2151 14.84112255 202
1990 038A
1 20581U 90 38 A 90116.78109843 -.00006147 00000-0 -26550-3 0 423
2 20581 74.0245 53.8621 0022665 342.6724 17.2655 15.22105677 196
1990 038B
1 20582U 90 38 B 90116.51720592 .00008573 00000-0 35468-3 0 415
2 20582 74.0295 54.4094 0028717 351.2431 8.8163 15.23697165 153
1990 039B
1 20584U 90 39 A 90117.27296501 .00653596 80797-5 15066-2 0 452
2 20584 62.7805 183.8538 0249470 122.2252 240.3292 15.60561554 186
1990 039C
1 20585U 90 39 C 90117.08647909 .00784212 35202-4 12165-2 0 440
2 20585 62.8216 184.4190 0314158 116.0878 247.4949 15.51952499 163
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
```

2522. NASA Prediction Bulletin Format

Newsgroup: rec.ham-radio
Date: 1990-04-30 11:44:53 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9005010704.AA02593@ucbvax.Berkeley.EDU>
Source record: 12124

As a service to the satellite user community, the following description of the NASA Prediction Bulletin's two-line orbital element set format is uploaded to sci.space on a monthly basis. The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical to that used by NASA and NORAD. The format description is:

```
Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1; plus sign = 2)
```

```
Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
```

09-16 Inclination [Degrees]
18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6
1 11416U 86 50.28438588 0.00000140 67960-4 0 5293
2 11416 98.5105 69.3305 0012788 63.2828 296.9658 14.24899292346978

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.

--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

2523. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-04-30 14:07:57 UTC
From: jdg@hpqtdla.HP.COM
Message-ID: <3430003@hpqtdla.HP.COM>
Source record: 11941

>>
>> Marquette is at 47 degrees North Lattitude.
>
>This cannot be, by itself, an important factor. Much of Europe is
>north of 47 degrees. I think Bern, Switzerland, is at about 47 degrees.

Latitude cant have anything to do with it, Here in Southern Scotland,
55deg59'10" N 3deg24'40" W although Auroral communications is not unheard
off is is more the domain of those a few degrees further up in the north
of the country. I'll go for the ore in the ground being at the root of it.

Anyone on the net beat 60deg north or south?

James (land of the 11pm sun) Gentles

Opinions expressed are my own, and are not intended to be an official
statement by Hewlett-Packard Company

Name: James Gentles GM4WZP located near EDINBURGH
Organization: Hewlett-Packard Queensferry Telecomunications Division
Email: jdg@hpqtdla.hpsqf.hp.com hp-sdd
Address: Station Road, South Queensferry, West Lothian, Scotland
---

2524. Re: Rohn crank up towers?

Newsgroup: rec.ham-radio
Date: 1990-04-30 14:33:00 UTC
From: lewine@dg.dg.com
Message-ID: <411@dg.dg.com>
Source record: 12125

In article <1990Apr20.043557.315@mousetrap.canton.mi.us> bill@mousetrap.canton.mi.us (William S. Johnston) writes:
>I recently purchased a Rohn crank up tower from a local community
>college that has not used it in many years. The tower is in
>great shape but I need a base or at least some specifications
>on the tower. I called Rohn and could find no one that knew any
>thing about the tower.

I have some old ROHN catalogs (back to 1975) and there is not a single crank-up tower. In fact, there is a flame about how unsafe crank-up towers are and why you should by ROHN instead. This leads me to wonder if your tower is a real ROHN. Does it say "ROHN"? Maybe you would have better luck contacting Hy-gain.

-- WB2UMF

2525. Re: TV QRM to hams

Newsgroup: rec.ham-radio
Date: 1990-04-30 14:33:24 UTC
From: zslf0a@trc.amoco.com
Message-ID: <1610@apctrc.UUCP>
Source record: 11933

In article <9004271246.AA07435@cmr.ncsl.nist.gov> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:

>I attribute the change of interference level with picture brightness to a
>change in the BEAM CURRENT of the CRT. Thus the HV lead may well radiate,
>though the picture-tube-cone capacitance might help reduce this a lot.
>I certainly hear my computer a lot louder when the screen is full of text
>rather than just a simple C> in the upper left corner.
>
>Just a thought.
>73, Bob W3OTC

I think that in this particular case the radiation is being supported by the cable system. The same tv with rabbit ears causes no interference. I have added a high pass filter and a 6db attenuator at the tv and another high pass filter at the wall outlet for the cable along with a dc blocking device. This reduced the interference all the way down to extremely annoying.

I suspect that the energy is coupled into the cable rather than being carried by the coax shield (that's what the dc blocker was for - it simply introduces a small break in the shield). The cable company, of course, denies that the problem could be in their system.

73's - Steve WA5RPF

2526. Re: Need unobvious 2 meter antenna...

Newsgroup: rec.ham-radio
Date: 1990-04-30 14:38:38 UTC
From: youngwa@ingr.com
Message-ID: <10021@ingr.com>
Source record: 11946

In article <7880142@hpfcdc.HP.COM>, perry@hpfcdc.HP.COM (Perry Scott) writes:
> Try a J-pole made of twinlead. It's 5' tall, and virtuall disappears if
> you use the clear variety. Send e-mail for more info.

I'm interested in the details for j-pole contruction. Please post the info
in the group, as I'm not familiar with e-mail outside this area.

Thanks in advance,

William A. Young N4WMT

--
William A. Young (Butch) N4WMT
Mail Stop CR086 Building 8 Telephone (205) 730-4410
Intergraph Corporation 7:30am-4:15pm (0730-1615)
Huntsville, AL 35894-0001

2527. Help with QSL info

Newsgroup: rec.ham-radio
Date: 1990-04-30 15:06:00 UTC
From: GOODWIN@SMCVAX.BITNET
Message-ID: <9005010705.AA02688@ucbvax.Berkeley.EDU>
Source record: 12126

As a new ham (2.5 weeks!), I don't yet own the various callbooks and other necessities of DX life. Consequently, I was wondering if anyone out there in netland could help with a few addresses:

DF8WS
EL7X
HB9AQW
K1VV
KB8ANX

If anyone could look these up in a callbook for me, I'd be most appreciative. In fact, DF8WS was my first non-US QSO, so holds some special interest for me. Thanx in advance to anyone who can help out... 73s

```
==============================================================================
Dave Goodwin |
Coordinator, PC Support/User Services | To err is human.
VAX System Manager | To really foul things up,
-------------------------------------------| You need a computer.
BitNet/CREN : Goodwin@Smcvax |
Ma Bell : (802)655-2000 X2220 |
Pony Express: Saint Michael's College |
Department of Computer Services |
Winooski Park |
Colchester, VT 05439 |
Ham Radio : KA1VLJ/AG |
==============================================================================
```

2528. Re: Phase-Sequence filters for SSB

Newsgroup: rec.ham-radio
Date: 1990-04-30 15:06:46 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <43565@iuvax.cs.indiana.edu>
Source record: 11935

>One way to implement the audio phase difference for the phasing
>method of SSB generation is described in _The_ARRL_Handbook_ and in
>Horowitz and Hill's _The_Art_of_Electronics_ 2nd ed. page 295. They
>call it a phase-sequence filter and it consists of a cyclic network
>of resistors and capacitors, driven by two signals of 180 degree
>phase difference, producing four outputs 90 degrees apart. Does
>anyone here have any experience with these filters? In particular,
>how are they designed and analyzed? References?
>Thanks,
>Bob Kelley

This device is an all-pass network with constant phase shift
throughout the speech spectrum.

See _QST_ January 1988, p. 16: "A New Breed of Receiver" by Gary A.
Breed, K9AY (who, incidentally, is the editor of _RF Design_
magazine). This article contains the schematic for an active 90-
degree audio phase-shift network using 8 operational amplifiers. The
article also contains an excellent explanation of how the phasing
method eliminates one sideband.

The advantages of the phasing method is that it requires no expensive
RF SSB filter, and is frequency agile. A properly-aligned phasing-
type transmitter is said to have better audio quality because there is
no ringing from a sideband filter.

Disadvantages: The phasing method requires _two _ balanced
modulators, and phase-shift networks for both audio and RF. It has a
higher parts-count, and is more difficult to align. Perhaps it will
become more popular with the advent of inexpensive Direct Digital
Synthesizers (DDS) which can easily produce quadrature RF.

--

Frank Reid W9MKV reid@ucs.indiana.edu

2529. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-04-30 15:12:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500515@ux1.cso.uiuc.edu>
Source record: 11932

```
> >1. What are the frequencies for those CB radio channels?
>
> The CB frequencies straddle 27 MHz.

Frequency Frequency Source Description
--------- --------- --------- ------------
26.965 fcc rule CB ch 1
26.975 fcc rule CB ch 2
26.985 fcc rule CB ch 3
27.005 fcc rule CB ch 4
27.015 fcc rule CB ch 5
27.025 fcc rule CB ch 6
27.035 fcc rule CB ch 7
27.055 fcc rule CB ch 8
27.065 fcc rule CB ch 9
27.075 fcc rule CB ch 10
27.085 fcc rule CB ch 11
27.105 fcc rule CB ch 12
27.115 fcc rule CB ch 13
27.125 fcc rule CB ch 14
27.135 fcc rule CB ch 15
27.155 fcc rule CB ch 16
27.165 fcc rule CB ch 17
27.175 fcc rule CB ch 18
27.185 fcc rule CB ch 19
27.205 fcc rule CB ch 20
27.215 fcc rule CB ch 21
27.225 fcc rule CB ch 22
27.235 fcc rule CB ch 24
27.245 fcc rule CB ch 25
27.255 fcc rule CB ch 23 (note: ch 23 is out of sequence)
27.265 fcc rule CB ch 26
27.275 fcc rule CB ch 27
27.285 fcc rule CB ch 28
27.295 fcc rule CB ch 29
27.305 fcc rule CB ch 30
27.315 fcc rule CB ch 31
27.325 fcc rule CB ch 32
27.335 fcc rule CB ch 33
27.345 fcc rule CB ch 34
27.355 fcc rule CB ch 35
27.365 fcc rule CB ch 36
27.375 fcc rule CB ch 37
27.385 fcc rule CB ch 38
```

27.395 fcc rule CB ch 39
27.405 fcc rule CB ch 40

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2530. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-04-30 16:18:14 UTC
From: kenw@col.hp.com
Message-ID: <18230006@col.hp.com>
Source record: 11940

Just wanted to clarify a previous response regarding cellular phones. Cellular phones are NOT scrambled (encrypted); although there are many cell phone salesmen that would like their customers to believe this. Cell phones operate in the ranges 825 to 850 MHz (mobile input channels to the cell site and 870 to 895 MHz (base output channels) from the cell site. A cellular phone might be an acceptable substitute for a CB radio, but only in metropolitan areas (large cities). Most cellular services have agreements among each other which will allow a cell phone under one service (such as Cellular One) to use another service (such as US West Cellular) in areas not served by Cellular One. I don't know what charges are in other parts of the country, but in Colorado Springs, a cell phone may be purchased for 300 to 600 dollars with monthly fees from 15 to 50 dollars per month depending upon the number of calls made.

For general purpose emergency use, I would still recommend the use of CB rather than cellular.

2531. Re: IC2400/IC-970

Newsgroup: rec.ham-radio
Date: 1990-04-30 16:23:12 UTC
From: kenw@col.hp.com
Message-ID: <18230007@col.hp.com>
Source record: 11942

I probably shouldn't speak for him, but Ed Juge (marketing VP at Tandy) recently purchased on and has generally favorable comments. You may find his exact comments in the ICOM message section of HAMNET (Compuserve Network).

2532. Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-04-30 16:38:36 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <43580@iuvax.cs.indiana.edu>
Source record: 11936

Having complained about sanitation at the Dayton Hamvention in the past, I must say that this year they appeared to have made a major and successful effort to remove trash and maintain the portable outhouses. All in all, I had a fine time in Dayton. Thanks, DARA!

This year I remembered to carry a pedometer. I spent all of Friday and Saturday at the Hamvention, and did the Air Force Museum on Sunday. The weekend total hike was 18.2 mi.

BTW, the AF Museum's newly-acquired SR-71 will be on display in June. (They have had a lookalike YF-12 for several years.)
--

Frank Reid W9MKV reid@ucs.indiana.edu

2533. 1200 MHz radio wanted

Newsgroup: rec.ham-radio
Date: 1990-04-30 16:55:14 UTC
From: ewb@raybed2.ray.com
Message-ID: <1588@raybed2.ray.com>
Source record: 11929
Cross-posted to: rec.ham-radio.swap,rec.ham-radio

RADIO WANTED

WANTED ICOM 1200, 1201, or a Kenwood 531 1200 MHz radio in good condition.
Please send info about condition, accessories, and asking price.
Thanks
Gene WA1UXA

...!rayssd!raybed2!ewb
Preferred Address ----> ewb@swlvx2.msd.ray.com

2534. Re: (none)

Newsgroup: rec.ham-radio
Date: 1990-04-30 18:33:12 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <46@thoreau.nsc.com>
Source record: 11943

In article <9004280704.AA19778@ucbvax.Berkeley.EDU>, BUSH@S51.Prime.COM writes:
> Mininec2 does indeed live on WSMR-SIMTEL20. You can find it in:
>
> PD1:<MSDOS.HAMRADIO>MININEC3.ARC
>
(a bit deleted)
>
> This works fine for those of us using ms-dos machines. Anyone out there
> want to give access directions for other (non-MS-DOS) partitions on SIMTEL20?
>
>
As of 5 april 1990 MININEC3 was not in the CMP directory of SIMTEL20.
There are a few propogation programs and some other items. The directory
is only 20 files.

Ron Todd, K3FR the "PATHFINDER" guy

2535. Part 97

Newsgroup: rec.ham-radio
Date: 1990-04-30 18:43:09 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990Apr30.184309.1408@elroy.jpl.nasa.gov>
Source record: 11937

Good day, Internettiteers!

Anyone out there know if there's a source of the most current
Part 97 revisions available via FTP or Email? I own several
copies of the WY5I (I think) copy dated October 1989, and I
suppose that I could send money to the US Govt Printing Office and
get a subscription to everything ever printed, but I'm lazy and
my postman would hate me anyway...

73 - Jon
--
Jon Trent Adams, NW6H | "Amateur Radio isn't Everything;
JTA@hydra.jpl.nasa.gov | It's the ONLY thing..." - me
These are just OPINIONS, ok?!? | Prevaricator : Raconteur : Engineer
Quantum Chromodynamicist : Blonde : Railroader : Desert Dog : Way-rad

2536. GEEZ, WHAT IS WRONG WITH YOU GUYS ????

Newsgroup: rec.ham-radio
Date: 1990-04-30 18:53:08 UTC
From: hcooper@esunix.UUCP
Message-ID: <1911@esunix.UUCP>
Source record: 11934

Subject: Autopatch in Maryland.

Hmmm, I MUST have missed something in the original request. The person asked what are the local repeaters in Maryland operating on any band - i.e., 10M, 2M, 220MHz, 440MHz and the GHz areas. Simple question. Granted that he SHOULD purchase a repeater directory, but what if he doesn't know where to get one, or who to ask ? Is he newly licensed? Did he just purchase his radio, and would like to get on the air, so he could join a local club, and use the repeaters patch?

Where does he say he is trying to bypass the local phone company? Why does anyone use a patch? I rarely use one, and in the last several months, I have only made a single patch home - but it is there just in case.

Face it, 89.234% of all patches could be made by stopping at the phone booth, but we don't.

If I had a repeater guide, I would gladly e-mail the info he requests (oops, is that a copyright problem --- scratch that, it would just cause another 2 months worth of flames).

Replies of the like make me afraid of asking questions, in fear of being labled stupid, or it doesn't belong here, etc.

LIGHTEN UP, WOULD YA!!!

[Jumping down off soapbox]

D
D
D
C
C
C
H. C

2537. Wanted CW training program

Newsgroup: rec.ham-radio
Date: 1990-04-30 19:05:06 UTC
From: Geoffrey_C._Williams.WBST207V@XEROX.COM
Message-ID: <900430-142106-10048@Xerox>
Source record: 11949

Once again I have decided to improve my CW skills. This time intend to
succeed and to help I would like to get a good PC training program.
I have alredy looked at some and none of them do what I would like. I would
really like a program whereby I can send individual characters at 20 WPM
but spaced at some slower speed. This is how I got to 13 WPM by listening
to the sound of the character, and then increasing the effective WPM.
If anybody knows of such a programe please let me know.
Thanks and 73's
Geoff Williams

ARPA G4JJO.WBST207V@Xerox.COM

2538. Re: Phase-Sequence filters for SSB

Newsgroup: rec.ham-radio
Date: 1990-04-30 22:09:53 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490096@hpscdc.scd.hp.com>
Source record: 11948

The big disadvantage of phasing SSB compared to filter type SSB comes to light when you look at carrier suppression. It is extremely difficult to get a mixer with good enough balance to get decent carrier suppression without operating the mixer at such a high level that unacceptable IM distortion is generated. Suppose a mixer has +7 dBm. LO drive and 40 dB. LO-RF leakage (a very good spec, rarely found). The LO will then come out of the RF port at 7-40= -33 dBm. To get 40 dB. third-order IM distortion you need to operate 20 dB. below the third-order IM intercept, which is typically 6 dB. higher than the LO drive, or 7+6= 13 dBm. 20 dB. below this is 13-20= -7 dBm. So you drive the *input* with -7 dBm. and with 6 dB. conversion loss, you get an output of -13 dBm. Since the LO is at -33 dBm., the carrier suppression is only 20 dB. Ham rigs that did better than that either had lousy IM numbers or used amplitude and phase "tweaks" to null out the residual leakage from the mixer, at least at one temperature.
That, in a nutshell, is why you never see phasing rigs anymore, and never did see them in commercial equipment which has to meet tight FCC specs. Phasing SSB is pretty much a ham-only technique at least for transmitters.

In a filter type exciter, an assymetrical filter with a very tight skirt on the carrier side is used to get an additional 20 dB. carrier suppression. Also, any IM generated in the balanced modulator is filtered by the SSB filter so it doesn't upset the FCC, it only causes audio distortion. Another ham-radio-only technique is to used a cheaper symmetrical SSB filter and change sidebands by switching the carrier oscillator crystal to the other side of the filter. These radios can be identified in some cases by the dual dial graticule lines on the front panel spaced 3 kHz. apart. The switched crystal technique usually makes it necessary to have a user operated carrier null pot to get decent carrier suppression.

Rick N6RK

2539. Re: TV frequencies

Newsgroup: rec.ham-radio
Date: 1990-04-30 22:16:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500516@ux1.cso.uiuc.edu>
Source record: 11953

```
Frequency Frequency Source Description
--------- --------- --------- ------------
59.75 55.25 TV ch 2 audio & video
65.75 61.25 TV ch 3 audio & video
71.75 67.25 TV ch 4 audio & video
81.75 77.25 TV ch 5 audio & video
87.75 83.25 TV ch 6 audio & video
179.75 175.25 TV ch 7 audio & video
185.75 181.25 TV ch 8 audio & video
191.75 187.25 TV ch 9 audio & video
197.75 193.25 TV ch 10 audio & video
203.75 199.25 TV ch 11 audio & video
209.75 205.25 TV ch 12 audio & video
215.75 211.25 TV ch 13 audio & video
475.75 471.25 TV ch 14 audio & video
481.75 477.25 TV ch 15 audio & video
487.75 483.25 TV ch 16 audio & video
493.75 489.25 TV ch 17 audio & video
499.75 495.25 TV ch 18 audio & video
505.75 501.25 TV ch 19 audio & video
511.75 507.25 TV ch 20 audio & video
517.75 513.25 TV ch 21 audio & video
523.75 519.25 TV ch 22 audio & video
529.75 525.25 TV ch 23 audio & video
535.75 531.25 TV ch 24 audio & video
541.75 537.25 TV ch 25 audio & video
547.75 543.25 TV ch 26 audio & video
553.75 549.25 TV ch 27 audio & video
559.75 555.25 TV ch 28 audio & video
565.75 561.25 TV ch 29 audio & video
571.75 567.25 TV ch 30 audio & video
577.75 573.25 TV ch 31 audio & video
583.75 579.25 TV ch 32 audio & video
589.75 585.25 TV ch 33 audio & video
595.75 591.25 TV ch 34 audio & video
601.75 597.25 TV ch 35 audio & video
607.75 603.25 TV ch 36 audio & video
613.75 609.25 TV ch 37 (reserved for radio astronomy)
619.75 615.25 TV ch 38 audio & video
625.75 621.25 TV ch 39 audio & video
631.75 627.25 TV ch 40 audio & video
637.75 633.25 TV ch 41 audio & video
643.75 639.25 TV ch 42 audio & video
649.75 645.25 TV ch 43 audio & video
```

655.75 651.25 TV ch 44 audio & video
661.75 657.25 TV ch 45 audio & video
667.75 663.25 TV ch 46 audio & video
673.75 669.25 TV ch 47 audio & video
679.75 675.25 TV ch 48 audio & video
685.75 681.25 TV ch 49 audio & video
691.75 687.25 TV ch 50 audio & video
697.75 693.25 TV ch 51 audio & video
703.75 699.25 TV ch 52 audio & video
709.75 705.25 TV ch 53 audio & video
715.75 711.25 TV ch 54 audio & video
721.75 717.25 TV ch 55 audio & video
727.75 723.25 TV ch 56 audio & video
733.75 729.25 TV ch 57 audio & video
739.75 735.25 TV ch 58 audio & video
745.75 741.25 TV ch 59 audio & video
751.75 747.25 TV ch 60 audio & video
757.75 753.25 TV ch 61 audio & video
763.75 759.25 TV ch 62 audio & video
769.75 765.25 TV ch 63 audio & video
775.75 771.25 TV ch 64 audio & video
781.75 777.25 TV ch 65 audio & video
787.75 783.25 TV ch 66 audio & video
793.75 789.25 TV ch 67 audio & video
799.75 795.25 TV ch 68 audio & video
805.75 801.25 TV ch 69 audio & video

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2540. RTTY Listening Question

Newsgroup: rec.ham-radio
Date: 1990-04-30 23:08:05 UTC
From: flloyd@L1-A.West.Sun.COM
Message-ID: <764@west.West.Sun.COM>
Source record: 11944

Last night I spent a frustrating evening trying to listen in on some various commerical and ship-to-shore rtty traffic on the shortwave bands. I once got some recognizable traffic, but mostly gunk. Even when the stations were S-9plus, still gunk. Is everything encrypted or am I doing something wrong? I'm receiving on LSB, and also use the FSK setting on my TS-440. Ok in the ham bands, no problem there.

I'm using an MFJ 1278 multi-mode data controller, and another irritating aspect of its use is that it does not auto configure to the mode/baud being received. (I understand that the PK-232 does this) For example, the station might be 50, 75, 100 or some other baud and the practice of trial and error with the MFJ baud settings is infuriating.

I'm using MFJ firmware release 2.2 and the OPMODE command does not work either. Can anyone shed some light on these topics?

Thanks in advance,

-fred

--
| Fred Lloyd AA7BQ flloyd@West.sun.com |
| Sun Microsystems, Inc. ...sun!flloyd |
| Phoenix, AZ |

2541. 9M2DX operation

Newsgroup: rec.ham-radio
Date: 1990-04-30 23:59:10 UTC
From: AFZ1@psuvm.psu.edu
Message-ID: <90120.195910AFZ1@psuvm.psu.edu>
Source record: 11947
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Dear friends ---

I will be returning home to Kuala Lumpur, Malaysia, at the end of May. I have been operating N3FLX while in the States. I plan to be active on the OSCARs and Moonbounce from 9M2 land.

If there are any hams out there who would like to dispose of any items that may be useful to me, I will greatly appreciate that. I am looking for items would enable a good satellite and moonbounce (2m and 70cm) stations to be setup. My moonbounce experience was gained at K3CR (Penn State Amateur Radio Club station) and taught by AF1T (2m WAS #100). It is my dream to finally setup a super-duper moonbounce station.

So, if anyone would like to donate any items of interest, please e-mail directly to me or through packet. Until then, 73 and hpe to cu soon.

Ahmad, N3FLX/9M2DX.

<< AHMAD F. M. ZAIN BITNET : AFZ1@PSUVM >>
<< 316 COMM AND SPACE SCIENCE LAB PACKET : N3FLX@WA7SSO.PA.USA.NA >>
<< ELECTRICAL ENGINEERING EAST RADIO 9M2DX@9M2BBS.MYS.AS >>
<< PENNSYLVANIA STATE UNIVERSITY AMPR.ORG : 44.080.0.133 >>
<< UNIVERSITY PARK, PA 16802. "TIME IS LIFE" >>

2542. Re: Kenwood 721 Display Upgrade

Newsgroup: rec.ham-radio
Date: 1990-05-01 00:34:39 UTC
From: keithm@wicat.UUCP
Message-ID: <453@wicat.UUCP>
Source record: 11938

In article <1530044@hpsad.HP.COM> mikew@hpsad.HP.COM (Mike Weihman) writes:
>
>I, too, bought and installed the display kit for the tm721 from
>Kenwood. My thoughts:
>
>The folks at Kenwood Service were easy to deal with. The kit was
>moderately priced, and was shipped quickly and correctly to me.
>
>The new display strikes me as a bit of a wimp-out, though. It does
>work well in bright sunlight, but has a few drawbacks:

I installed wone of these the other day, and not knowing what to
do with the old display, I (what else...) took it apart to see what
made it tick. (Inquiring minds want to know...).

The old display is actually an LCD also. Unfortunately, Kenwood went
to great lengths to defeat the main strengths of an LCD.

First, I should describe what I found. The LCD display panel is
masked with black everywhere that there is not a display element.
Such that if all elements were turned on, that is, blackened, (no flames
about whether black is "ON" or "OFF" please, I prefer to think of
black as on. OK?) the whole display would be completely black. If
all elements were turned off, that is "clear", then you could see
all of them, but only by looking through them.

Behind this display is a piece of plastic with areas colored in the
color that Kenwood wanted that area of the display to look. Behind
this is a simple "light pipe" -- clear block of plastic with small
"grain of wheat" type light bulbs mounted around the edges.

The LCD elements are used in reverse of the normal LCD display. That
is that an element is made clear when it is to be seen, made black
when it is not intended to be seen.

Normally, an LCD is visible by masking the background light, which
either comes from ambient light during the day or the internal
back lighting at night.

The problem is that the little bulbs used by Kenwood could not
overcome the ambient light during the day, hence...you couldn't
read it. The display wasn't that great at night either because
the colored plastic filter attenuated the light so badly that
the display was quite dim then.

Kenwood had a good idea when they tried to make a colored display
using LCD technology, unfortunately, they appearantly failed to

test the thing outside of a darkend lab. Too bad. A real design SNAFU. I hope someone got chewed out over that one. I know I would if I had done something that dumb.

By the way, I believe that a '721 with the new display, or the new '731 to be a near perfect radio. (All radios have warts, I just hate it when they design a great radio and then put in one fatal flaw...)

PS, the term "WART" is my word for a "MIS-FEATURE".

--
Keith McQueen, Wicat Systems Inc. , (801)224-6400 | My opinions are |
N7HMF @ NV7V.UT.USA.NA (84058), 147.34+, 449.675- | all mine... |

2543. Re: Code training program...

Newsgroup: rec.ham-radio
Date: 1990-05-01 00:58:23 UTC
From: keithm@wicat.UUCP
Message-ID: <454@wicat.UUCP>
Source record: 11939

In article <1990Apr24.172123.2976@world.std.com> dfickes@world.std.com (David Fickes) writes:
>
>Does anyone have a code training program for an IBM-PC running
>MS/LOSS ?
>
>thx, david
>

Yes, a friend an I wrote one that has been widely distributed in Utah and other areas. It has too many features to describe them all, but here are a few:

o Does not require calibration for speeds up to 50+ WPM
o Supports "Farnsworth" method (fast chars with slow spacing)
o Menu driven
o Provides practice in random code groups, plain text, random QSO's, random words, random prosigns etc.
o Many many many many more features...

Contact Jim Raehl, N7KXI (good in the callbook or use the work phone number in my .sig)

The program will soon be distributed by Antennas West (check for ads in the common Ham rags...)

I wrote most of the low-level code in the thing, and believe it to be one of the best programs for the pc around. (Me biased? Naaa...)

I recieve nothing for this, just many warm fuzzies when I can help a prospective ham.

By the way, it is being used by several of the local VE teams for code exams.

73 all!

--
Keith McQueen, Wicat Systems Inc. , (801)224-6400 | My opinions are |
N7HMF @ NV7V.UT.USA.NA (84058), 147.34+, 449.675- | all mine... |

2544. Looking for Digi Maps

Newsgroup: rec.ham-radio
Date: 1990-05-01 05:21:32 UTC
From: JSDCF2@ALASKA.BITNET
Message-ID: <9005010710.AA03059@ucbvax.Berkeley.EDU>
Source record: 11950

My wife and I will be taking a cross country car camping trip starting June 17th. I plan to haul a packet rig with me. We have done the 2 meter mobile packet routine in the past and have enjoyed it.

I would appreciate receiving any packet maps of the areas we will be traveling thru. From past experience, you find PBBS's in the strangest places. I would hate to miss one because I didn't have their frequency.

We will be driving down the Alaska Highway, across Canada to Manitoba, and eventually to Washington DC and back home again the same way to Juneau Alaska. We will drive thru British Columbia, Alberta, Saskatchewan, Manitoba, N. Dak, Minn, Iowa, Wisc, Ill, Indiana, Ohio, Penn, MD and West VA.

Send the packet maps to me via packet or BITNET. My addresses are KL7RH@KL7HFI or KL7RH@KL7AW by packet. I can also be reached thru BITNET at JSDCF2@ALASKA.BITNET

Thanks.

Duncan Fowler, KL7RH

2545. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-01 05:40:09 UTC
From: SPW103@psuvm.psu.edu
Message-ID: <90121.014009SPW103@psuvm.psu.edu>
Source record: 11951
Cross-posted to: rec.autos.driving,rec.ham-radio

>>Of course, such phone calls (even cellular calls) are easily monitored
>>on most scanners. ^^^^^^^^
>
>But that's ILLEGAL and against the rules! And the guy at the car stereo shop
>and cellular phone sales TOLD me that it was IMPOSSIBLE for anyone to listen
>in on my cell phone conversations, and that it was illegal anyways...
>

I'm wondering if this is really illegal. I think you can get a scanner that will scan in the 800Mhz bands, so it is possible. And ANYTHING in the air is, as far as I know, public property -- including government bands, cellular phones, Radar waves (The major argument in the case against anti-radar detector laws). I believe the Supreme Court decided this awhile ago. Does anybody have any details? If I said I was sure I was right, I'd be a liar, but I'd like to know exactly what the laws say.

Oh, and of course the salesman told you it was impossible and illegal -- he is a salesman, and likely was just as lost as I/we are. :-]

My first post on the net, and maybe my last;

Steve (SPW103@psuvm)
****
"Everything should be made as simple as possible, but not simpler"
A. Einstien.
****

2546. 3-year-old learns Morse Code

Newsgroup: rec.ham-radio
Date: 1990-05-01 12:40:44 UTC
From: dls@genrad.com
Message-ID: <36037@genrad.UUCP>
Source record: 11945

I've heard rumors that there is a 3-year-old that just took AND PASSED
the 5 wpm Morse Code test in Oklahoma. Presumably, this 3-year-old cannot
read, does not know her alphabet yet, cannot write, so is normal in most
respects (how many 3-year-olds do you know that can do Morse Code though?).
The test was taken on a computer.....her father (also a ham :-) taught her
"when you hear di-dah, press this key, the A key". I believe the father is
now trying to figure out how to get her past the Novice Written test, within
the year before the Certificate expires.....

Anyone have any first hand knowledge about this rumor? I'd be interested....
Who said that "not everyone can learn Morse Code" .....:-)

Diana

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

2547. Re: manuals for National SW Radio

Newsgroup: rec.ham-radio
Date: 1990-05-01 13:39:45 UTC
From: majec@peyote.cactus.org
Message-ID: <670@peyote.cactus.org>
Source record: 11954
Cross-posted to: rec.radio.shortwave,rec.ham-radio.swap,rec.ham-radio

In article <667@peyote.cactus.org>, majec@peyote.cactus.org (Majec Systems) writes:
> I am looking for manuals, or a good source for manuals for a couple of 40s era shortwave radios. if you know of one.
> please reply on the net.

>
> Thanks Ed
>

2548. Re: RTTY Listening Question

Newsgroup: rec.ham-radio
Date: 1990-05-01 14:10:10 UTC
From: jdn@casux4.uucp
Message-ID: <22802@bellcore.bellcore.com>
Source record: 11968

In article <764@west.West.Sun.COM> flloyd@L1-A.West.Sun.COM (Fred Lloyd SUN Phoenix 602-275-4242) writes:
>
>Last night I spent a frustrating evening trying to listen in on some
>various commerical and ship-to-shore rtty traffic on the shortwave
>bands. I once got some recognizable traffic, but mostly gunk. Even
>when the stations were S-9plus, still gunk. Is everything encrypted
>or am I doing something wrong? I'm receiving on LSB, and also use
>the FSK setting on my TS-440. Ok in the ham bands, no problem there.
>
>I'm using an MFJ 1278 multi-mode data controller, and another
>irritating aspect of its use is that it does not auto configure to the
>mode/baud being received. (I understand that the PK-232 does this)
>For example, the station might be 50, 75, 100 or some other baud and
>the practice of trial and error with the MFJ baud settings is
>infuriating.
>
Fred, the pk-232 does not autoconfigure to the mode/baud being recieved. It has what they call a SIAM mode which attempts to decode what is being revieved and lets you know. But in amateur practice, if you are copying RTTY in the amateur bands, you still have to switch baud rates by trial and error to get it right. If you come across an ASCII station, you will have to switch the pk-232 from BAUDOT to ASCII. Although I like my pk-232, I think your MFJ 1278 is probably comparable in functionality.

As far as copying commercial stations goes, try the following. Most non amateur stations do not use 170 hz shift. Have you tried 425 and 850 hz shifts? If not try this first. Many non amateur rtty stations are not using FSK, but rather employ more esoteric modulation schemes.

Try calling Universal Radio (in ohio?) for information. They have lots of literature and products for the rtty enthusiast

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

2549. RTTY Listening questions

Newsgroup: rec.ham-radio
Date: 1990-05-01 14:26:33 UTC
From: wejones@CRDEC2.APGEA.ARMY.MIL
Message-ID: <9005011026.aa19136@CRDEC2.APGEA.ARMY.MIL>
Source record: 11966

> Lloyd SUN Questions
> Subject: RTTY Listening Question

> Last night I spent a frustrating evening trying to listen in on some
> various commerical and ship-to-shore rtty traffic on the shortwave
> bands. I once got some recognizable traffic, but mostly gunk. Even
> when the stations were S-9plus, still gunk. Is everything encrypted
> or am doing something wrong? I'm receiving on LSB, and also use
> ....
> irritating aspect of its use is that it does not auto configure to the
> mode/baud being received. (I understand that the PK-232 does this)
> For example, the station might be 50, 75, 100 or some other baud and

I have had similar problems, and hope someone can be of more help than
I can, (I have more additional questions than answers) but...

I use a PK-232, and most of the RTTY traffic I find comes up as
"synchronous" when I run the auto configure signal mode. I therefore
don't think the signal is really scrambled, but rather in a mode which
is not easy for the PK-232 to handle. It would be helpful if someone
could explain how synchronous rtty works. Ie, is the timing information
transmitted over a different frequency?, over the other sideband?, or
do they just rely on very accurate baud rates? I don't know if there
is some other software way of handling the synchronous mode.

As to the possibility of "doing something wrong", two possibilities not
mentioned above, are polarity (or bit) reversal, and audio signal
level. With the PK-232, even if the baud is correct, if the polarity
is reversed, the rtty is not readable. The PK-232 has a convient
reversing function. Switching to the other sideband, and/or fine
tuning (or detuning) the freq might also help. Also, I have found
that the audio level of my Kenwood 2000 is too high (or perhaps has
insuficient rc damping) for the PK-232, such that noise registers as
data, giving "gunk". I have much better results using a supposedly
inferior (Sony ICF5900) receiver, which has a more damped audio
output.

2550. MDA301 Information

Newsgroup: rec.ham-radio
Date: 1990-05-01 15:45:11 UTC
From: U009@CCIW.BITNET
Message-ID: <5A05010A2531031A-MTACY830*U009@CCIW>
Source record: 11967

To:mcsun!ukc!harrier.ukc.ac.uk!pm1@uunet.uu.net (P.Morgan)
Sorry I can't seem to get to you directly. The above address cannot bee forwarded thru our Bitnet/Unix gateway. Mail me directly with any gn alternate addresses in your signature.

I have several MRA-3's which are probably equivalent. I have a complete operation and maintainance manual as well as access to local files of our internal maintainance procedures and records. Email me and we'll chat about getting something to you. (I could scan in the schematics and send them as packed TIFF files, for example.)

Regards, Stu Beal, VE3MWM, (U009@CCIW.BITNET),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead... and behind us lies... lies... lies.

2551. Re: RF Hazards at 23 cm??

Newsgroup: rec.ham-radio
Date: 1990-05-01 16:43:54 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250156@hpnmdla.HP.COM>
Source record: 11961

> >I suspect that if you scale down the whole system, transmitter, receiver,
> >wavelength, AND THE PATH LENGTH, you would have a constant signal strength
> >or perhaps a constan S/N. Of course reality does not allow us to scale
> >everything any way we want, such as path length.

This is true. Imagine the following communications path with a narrow-beam transmitting antenna (say a large dish) and a receiving antenna of a certain aperture:

```
. . |
. . |
. . | Receiving
. . | antenna
Transmitting | . | aperture
Antenna | . . |
. . |
. . |
. . |
```

(The dots represent the edge of the transmitted beam.)

If you scale the entire system up by a factor of two (lower the frequency by 2, double the size of both antennas, and double the path length), the above picture doubles in size. The spreading angle of the transmitted beam stays the same, since the antenna gain is the same, but the receiving antenna aperture doubles. The path loss stays the same.

Looking at it another way, if the path length had stayed the same, then for same antenna types, the path loss would go down (improve) by 6 dB with a 2X lowering in frequency. This is cancelled out by the 2X increase in path length.

The same holds if you transmit with the right-hand antenna and receive with the left due to the principle of antenna reciprocity.

Al N1AL

2552. Ham Radio Magazine out of business

Newsgroup: rec.ham-radio
Date: 1990-05-01 16:46:41 UTC
From: ewb@raybed2.ray.com
Message-ID: <1591@raybed2.ray.com>
Source record: 11963

Bad news in the Amateur Radio publishing world.... Ham Radio Magazine has been sold to CQ magazine. They acquired all rights to the name., the bookstore and the name "Ham Radio Horrizons". Publication will stop immediately. Current subscribers will have a choice of filling out your subscription with CQ or getting your money back. I think most of the subscribers will do the later. Jim Fisk must be rolling over in his grave. I for one will be sorry to see HR go. I guess all good things must come to an end.

73
Gene Wa1UXA

2553. Re: manuals for National SW Radio

Newsgroup: rec.ham-radio
Date: 1990-05-01 17:45:18 UTC
From: lkay@ecs.umass.edu
Message-ID: <9700.263dcb2e@ecs.umass.edu>
Source record: 11965

In article <667@peyote.cactus.org>, majec@peyote.cactus.org (Majec Systems) writes:
> I am looking for manuals, or a good source for manuals for a couple of 40s era shortwave radios. if you know of one.
> please reply by e-mal
>
> Thanks
--

HI Manuals, located somewhere in Iowa (I can't find my copy of their catalog) stocks manuals for just about any receiver/xcvr/transmitter made, and their prices are pretty reasonable. Their ad can be found in the ads of any issue of QST or other such magazines. Good luck.

Len

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

2554. Re: Phase-Sequence filters for SSB

Newsgroup: rec.ham-radio
Date: 1990-05-01 18:02:20 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <Ly8Hi1w161w@w8grt.fidonet.org>
Source record: 11957

commgrp@silver.ucs.indiana.edu (BACS Data Communications Group) writes:

> >One way to implement the audio phase difference for the phasing
> >method of SSB generation is described in _The_ARRL_Handbook_ and in
> >Horowitz and Hill's _The_Art_of_Electronics_ 2nd ed. page 295. They
> >call it a phase-sequence filter and it consists of a cyclic network
> >of resistors and capacitors, driven by two signals of 180 degree
> >phase difference, producing four outputs 90 degrees apart. Does
> >anyone here have any experience with these filters? In particular,
> >how are they designed and analyzed? References?
> >Thanks,
> >Bob Kelley
>
> This device is an all-pass network with constant phase shift
> throughout the speech spectrum.
>
> See _QST_ January 1988, p. 16: "A New Breed of Receiver" by Gary A.
> Breed, K9AY (who, incidentally, is the editor of _RF Design_
> magazine). This article contains the schematic for an active 90-
> degree audio phase-shift network using 8 operational amplifiers. The
> article also contains an excellent explanation of how the phasing
> method eliminates one sideband.
>
> The advantages of the phasing method is that it requires no expensive
> RF SSB filter, and is frequency agile. A properly-aligned phasing-
> type transmitter is said to have better audio quality because there is
> no ringing from a sideband filter.
>
> Disadvantages: The phasing method requires _two _ balanced
> modulators, and phase-shift networks for both audio and RF. It has a
> higher parts-count, and is more difficult to align. Perhaps it will
> become more popular with the advent of inexpensive Direct Digital
> Synthesizers (DDS) which can easily produce quadrature RF.

Deja vu time. Or "This is where I came in, Merv."

Phasing rigs were the first ones I had experience with back in the 50's. The first inexpensive ham SSB rig was the SSB, Jr., described in the GE Ham News, published by the Electron Tube Department of General Electric. This radio was spiffied up a little by Wes Schumm and produced in kit form as the Central Electronics 10A. It had a 6AG7 tube as the Class A output stage and generated approximately 10 watts PEP. C.E. also produced a phasing type receving adapter called the "Signal Slicer". Both employed passive, RC phase shift networks.

To facilitate homebrewing (That was still common back then.) both the Millen Co. and Barker and Williamson made phase shift networks for those who didn't have what it took to match precision component values and trim and measure the results. B&W made a particularly popular one called the "2Q4", which looked like a small metal shell octal base electron tube.

The phasing method had all sorts of advantages but died out because it was difficult with practical passive networks to keep the phase shift error low enough across the entire bandwidth to keep the unwanted sideband suppression above 30 to 35 db. without adding crystal or mechanical filters. Of course, once you start adding the good filters that became available during the late 50's and early 60's, why bother with the phasing section?

It's rather fun to watch over the years as one technology after another is "revisited" as new developments make possible applications of them that weren't possible earlier.

Jim Grubs, W8GRT - aka FidoNet node 1:234/1
UUCP: ...!ncar!asuvax!stjhmc!w8grt!jim.grubs
INTERNET: jim.grubs@w8grt.fidonet.org

2555. Fast packet

Newsgroup: rec.ham-radio
Date: 1990-05-01 18:20:51 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <gT9Hi3w161w@w8grt.fidonet.org>
Source record: 11958

(330) Sat 28 Apr 90 3:42p
By: Brian Battles
To: Bob Mcgwier
Re: Fast packet
St:

@EID:1811 149c7d40

Bob,

In your reply to Marc Sorrel, you wrote:

BM> ...Hams are basically cheap...

Make that "poor," not necessarily cheap. Most hams I know are perpetually in danger of bankrupting their family financies to buy new gizmos.

BM> ...and these days they are basically technically lazy...

Although many are just busy or lacking education. Some of us have little time to get on the air, let alone design and build some fancy new digital high-tech device. Some hams have had little computer or digital education and have to struggle to keep up. Besides, many hams prefer to provide traffic handling/emergency communications/etc than to build a lot of gear.

BM> ...My efforts in this area along with partners KB2CST and KA2MOV
BM> for commercial concerns and with WA7GXD, KV7B, W3IWI for TAPR and
BM> AMSAT have essentially been done for free...

And are greatly admired and appreciated by all amateurs with any slight understanding of technology and creativity!

BM> ...[with rigs] needed to work satellites, ROBOT 1200C's costing a
BM> fortune when you can get them for SSTV, WEFAX APT equipment costing
BM> a few hundred, etc, it has just gotten too expensive for a ham to
BM> `do it all' with individual pieces of equipment...

<sigh> All too true.

73 de Brian Battles, WA1YUA * HAM RADIO & PACKET Echo Moderator
QTH New Britain, Conn.
Packet: WA1YUA @ N1API

... Someday my ham radio may save your life!
--- Via Silver Xpress V2.24 (1:141/880)

Brian Battles, WA1YUA - via FidoNet node 1:141/880
UUCP: ...!ncar!asuvax!stjhmc!w8grt!880!141!1!brian.battles
INTERNET: brian.battles@f880.n141.z1.fidonet.org

2556. Need most recent callsigns

Newsgroup: rec.ham-radio
Date: 1990-05-01 18:52:36 UTC
From: MLS129@psuvm.psu.edu
Message-ID: <90121.145236MLS129@psuvm.psu.edu>
Source record: 11952

Does anyone out there have the most recent FCC callsign list (probably the one for April 1990)?

I need to know the current callsigns in the 3rd District.

Thanks in advance...

Mike Sensor KD3LR / AFA1UP
<MLS129@PSUVM>

2557. AUTOPATCH ASSOCIATION????

Newsgroup: rec.ham-radio
Date: 1990-05-01 19:29:44 UTC
From: gregm@hpcvra.CV.HP.COM
Message-ID: <5710007@hpcvra.CV.HP.COM>
Source record: 11955

I have a few questions that may quickly be answered by the net.

The local HAM club has recently installed an autopatch on the local university repeater (best repeater for local coverage and availability, etc.). It has been a long haul (1.5yrs) to get all the technical things worked out with the university club supporting the repeater and our club handling the autopatch side.

We have finally decided to open the patch to all users as long as we can get the financial support to pay the phone bills from those who use the patch (the repeater owners never asked for money for the use of the repeater). Our club has paid for the autopatch and the first year's bill in advance and it is up to the university club to maintain the repeater (this was a joint project and everything has worked out well).

In this effort we have felt that maybe we (two clubs) should form some sort of association (non-profit) to handle the money dedicated to patch/repeater support. HOW DO WE DO THAT? Is there anyone out there who has experience in this area? What has to be done for non-profit status? Can we even be considered for non-profit status if the money only goes to supporting the repeater/patch?

There was even talk of incorporating to cover us if somebody decided to sue because something didn't work when it was supposed to (like emergency autopatch). While we all believe there will never be a problem, there is always that chance, and I would like to review all of our options before we resort to closing the patch to only members of the two clubs who financially support our efforts. This would be a shame since our intention was to provide a community service by installing and maintaining the autopatch and improving the repeater.

I would appreciate any and all opinions......

Thanks,

Greg May gregm@hp-pcd.HP.COM

2558. TR-2600A mods

Newsgroup: rec.ham-radio
Date: 1990-05-01 19:59:42 UTC
From: glenkirk@hydra.unm.edu
Message-ID: <2570@ariel.unm.edu>
Source record: 11956

Has anyone had any experience with increasing the receiver coverage
of a Kenwood TR-2600A 2m handie-talkie? I am mainly interested in covering
the 160 MHz range for NOAA broadcasts, etc. Some time ago I was told that
this could be accomplished by clipping a diode, but I never followed up this.
Any Suggestions?

Thanks,

Glen / W9LS

2559. Status of Tono Corporation

Newsgroup: rec.ham-radio
Date: 1990-05-02 00:34:05 UTC
From: kg19+@andrew.cmu.edu
Message-ID: <0aDWfxS00WB9MmY3JW@andrew.cmu.edu>
Source record: 11964

Does anyone know the status of the Japanese Tono Corporation, maker of HAL-like RTTY gear like the Theta-777? I noticed their absence from Dayton and can't remember if they were there last year or not. I have a couple of theories:

1. They are kaput

2. In the wake of declining interest in the States, they are not bothering to go outside Japan.

Frankly, I'd be surprised if they vaporized, considering the lack of suppliers of such equipment in Japan.

- Kurt
Kurt Geisel SNAIL :
Carnegie Mellon University 65 Lambeth Dr.
ARPA : kg19+@andrew.cmu.edu Pittsburgh, PA 15241
UUCP : uunet!nfsun!kgeisel "We just need to short-circuit the continuum on a
BIX : kgeisel 5 or 6 parsec level." - Forbidden Planet

2560. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-05-02 00:36:11 UTC
From: vfg2@phx.mcd.mot.com
Message-ID: <12792@mcdphx.phx.mcd.mot.com>
Source record: 11969

In article <7481@uhccux.uhcc.hawaii.edu> john-uhsss@uhplato.bitnet
(John Shalamskas, KJ9U) writes:
>
>I found out that one of my favorite "Fresh Aire" tunes has some
>20 WPM CW embedded in it. The song "Tocatta" on the album "Fresh Aire 3"
>sends II6IT. Pretty catchy rhythm, too.

The rock group Rush has a song, YYZ, which is an instrumental piece based on
the (International) Morse code for "yyz" - it has a pretty strange time
signature as a result!

DAHdiDAHDAHDAHdiDAHDAHDAHDAHdidit... (repeat)

The letters are run together, though... That's why I never noticed it
until I saw it mentioned elsewhere on the Net!

Dan Quella WB9QCV/7
vfg2@phx.mcd.mot.com

2561. AH3C

Newsgroup: rec.ham-radio
Date: 1990-05-02 01:55:53 UTC
From: oo7@ut-emx.UUCP
Message-ID: <29285@ut-emx.UUCP>
Source record: 11960

The QSL route for AH3C is via K9UIY.

The QSL route for AH3C/KH5J is via OH2BN.

So my learned friends WN4KKN and K6ZH were both right, sort of.

To confuse things further, T32BS was AH3C en route to Jarvis Island,
choose your own manager :-)

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

2562. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-05-02 02:09:57 UTC
From: ftpam1@acad3.fai.alaska.edu
Message-ID: <1990May2.020957.24571@hayes.fai.alaska.edu>
Source record: 11959

In article <3430003@hpqtdla.HP.COM>, jdg@hpqtdla.HP.COM (James Gentles) writes...
>>>
>>> Marquette is at 47 degrees North Lattitude.
>>
>>This cannot be, by itself, an important factor. Much of Europe is
>>north of 47 degrees. I think Bern, Switzerland, is at about 47 degrees.
>
>Latitude cant have anything to do with it, Here in Southern Scotland,
>55deg59'10" N 3deg24'40" W although Auroral communications is not unheard
>off is is more the domain of those a few degrees further up in the north
>of the country. I'll go for the ore in the ground being at the root of it.
>
>Anyone on the net beat 60deg north or south?
>
>James (land of the 11pm sun) Gentles
>--
>Opinions expressed are my own, and are not intended to be an official
> statement by Hewlett-Packard Company
>--
>Name: James Gentles GM4WZP located near EDINBURGH
>Organization: Hewlett-Packard Queensferry Telecomunications Division
>Email: jdg@hpqtdla.hpsqf.hp.com hp-sdd
>Address: Station Road, South Queensferry, West Lothian, Scotland
>--

I think it has more to do with your distance from the magnetic North
Pole rather than the geographic one. Marquette is pretty close to the
magnetic pole. Here in Fairbanks (65deg) auroral activity is high. Pretty
to watch but bad for HF communications. One period last summer I came back
from a backpacking trip to find HF totally dead. The only thing I could hear
over entire range of 540 KHz to 30 MHz was local BCB stations.

Interestingly, packet on 2m is quite popular around here.

Philip Munts N7AHL
NRA Extremist, etc.
University of Alaska, Fairbanks

2563. Digital display for Drake TR4C

Newsgroup: rec.ham-radio
Date: 1990-05-02 10:10:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005050655.AA01456@ucbvax.Berkeley.EDU>
Source record: 11962

I have a Drake TR4C to which I'd like to attach a digital frequency readout. Are there any such displays readily available, or perhaps a source of plans for such a display?

Also, I am looking for any and all mods I can get for this rig. If you have any, I would appreciate hearing from you.

Thanks!

Mark C. "Bro!" Lowe - KB5III

MCL9337@TAMVENUS.BITNET

PS- Don't turn THIS one into a gun-control argument, guys! There's no way it can be done!

2564. Ham Radio out of business

Newsgroup: rec.ham-radio
Date: 1990-05-02 15:04:30 UTC
From: kawai@csli.Stanford.EDU
Message-ID: <13390@csli.Stanford.EDU>
Source record: 11974

Gene (WA1UXA) informs us:

> Ham Radio Magazine has been sold to CQ magazine ... Publication will stop
> immediately.

This is terrible. I was excited when HR announced that they were revamping their efforts - did you notice their new cover page, "NEW HAM RADIO" - I liked them for coverage you don't find elsewhere. They struck me as a sincere publishing company. Their monthly mail order catalog failed to leave a distinct impression with me, though - I never felt HR was selling products you couldn't get elsewhere.

So I guess now there are basically three ham magazines left in the U.S. - QST, CQ, and 73 - plus some electronics magazines. Is this part of the declining trend of the American amateur radio industry? Magazines rely heavily on advertisement revenue. As the number of manufacturers and retailers diminish, magazines lose money, and as they lose circulation, they drop their advertisement fees, and so the products sell less.

One thing I always marvel at the Japanese domestic market is the intense effort in advertisement and packaging. Sales brochures are much more detailed than the North American versions, and stores are brightly decorated inside and out. "CQ Ham Radio" magazine (the JA version) is one of the top three best-selling monthly magazines in the country, and there are several other ham radio and/or scanning rags as well. I really don't know how they manage. Getting a license there is so much of an hassle.

Which leads me to my perpetual questions that never gets answered:

Here in the U.S., amateur licenses are *so* easy to get (less than five dollars gets you both operator and station licenses? good for ten years? wow), amateur stations are *so* easy to install (you got lots of space - 40m is the second most popular HF band in Japan, but a fullsize 40m dipole is a rare luxury), amateur radio regulations are *so* generous (third-party traffic is illegal in many parts of the world, and in Japan, only JARL can own repeaters). So how come more people don't get in the hobby?

I digress. My main lament today is that I see another passing of a good thing.

---------- stanford university + sri international
--- Goh Kawai --- arpanet/junet: kawai@csli.stanford.edu
---------- compuserve: 76056,1726 radio: n6uok

2565. R9000 computer control

Newsgroup: rec.ham-radio
Date: 1990-05-02 15:08:46 UTC
From: bert@neptune.iex.com
Message-ID: <1990May2.150846.221@iex.uucp>
Source record: 11888

I am trying to make a control program work on the R9000. I'm adapting an existing R7000 program that works fine. Everything is working except the read/load memory channels operation. On the R7000, to load a memory you, select the memory, set the freq, set the mode, do a loadmemory command. To read a memory, you select the memory, read the freq, read the mode. On the R9000, only the selection of the channel seems to work. Nothing else is.

Info from ICOM is very sketchy and incomplete. If you know what I need to do or have any ideas, I'd appreciate email.

73

Bert N5KGT {convex|uunet}!iex!bert 73777,1666 (214)612-2600 (214)480-0668

2566. Re: CW Programs

Newsgroup: rec.ham-radio
Date: 1990-05-02 15:16:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9005030703.AA18211@ucbvax.Berkeley.EDU>
Source record: 11882

I strongly recommend the program sold by the ARRL and advertised in QST. It is written by (and also sold by) GGTE. It has the best simulated QSO's of any program I've seen. It does excellent randomization of names, QTHs, occupations, etc. After using it nightly for a couple of months, it was still coming up with stuff I hadn't heard before. It does Farsnworth spacing. I've considered using it to generate tapes for VE exams.

2567. QSL route for AH3C

Newsgroup: rec.ham-radio
Date: 1990-05-02 15:38:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9005030703.AA18274@ucbvax.Berkeley.EDU>
Source record: 11883

QSL AH3C via K9UIY. If you worked him as AH3C/KH5J, qsl via OH2BN. SASE required. (The /KH5J group worked 52,000 QSOs! How'd you like to pay for 52,000 stamps? or fill out 52,000 cards. Ugh.) BTW, rumor is that they are applying to make Jarvis a new DXCC country, separate from Palmyra Is. Nice if you have both, like me.

2568. Re: 3-year-old learns Morse Code

Newsgroup: rec.ham-radio
Date: 1990-05-02 16:08:11 UTC
From: trw@usna.NAVY.MIL
Message-ID: <276@usna.NAVY.MIL>
Source record: 11970

considering that it has been stated here by various VE's that using a typewriter
to copy the code test isn't allowed cause the rules say by hand, I hardly expect
they let anyone use a compputer. Add into that the illogical (for a child)
layout of a QWERTY keyboard and this story really looses credibility.
I personally would need a lot more verified info before I believed it.

--
bill gunshannon

bill@platypus.uofs.edu
702wfg@scrvmsys.bitnet

2569. Re: ARF Schmidling APOLOGY

Newsgroup: rec.ham-radio
Date: 1990-05-02 16:53:07 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <9eZJi1w161w@w8grt.fidonet.org>
Source record: 11881

mac@idacrd.UUCP (Robert McGwier) writes:

>
> Howdy:
>
> Jack Schmidling sent me the following note. Needless to say, I do not

I'm favorably impressed by his apology. I hope he reads this.

> subscribe to his views. I believe that ARF is damaging to amateur radio
> as antisemitism is encouraged even if he himself is not antisemitic as
> he says below. He is not, as he says, responsible for the views held
> by others. He is responsible for giving them a forum to unleash THEIR
> `hate mongering.' I do not know how many of you are aware of the `audio'

There is the legal principle of the 'attractive nuisance', but I'll let it ride. I agree that one of the gravest threats to ham radio today is the reflection of the general societal mania for running one's individual rights into the ground to the point that society at large suffers.

Each period in history acquires it's own nickname. The Victorian period, the Edwardian, the Flapper, the Baby Boom, etc. This, I fear, will be the "Me first; f*** you!" Age. Too bad. Among other things it's going to kill off a nice hobby if we're not careful.

2570. WARC DANGEROUS RECORDINGS

Newsgroup: rec.ham-radio
Date: 1990-05-02 17:34:37 UTC
From: mac@idacrd.UUCP
Message-ID: <700@idacrd.UUCP>
Source record: 11972

I posted recently on another topic and claimed that other administrations besides our would record stupid activity on the ham bands and use this at the upcoming WARC to justify their claim that we do not deserve our allocations. It has already happened. Recently, two European countries, serving notice ;-(sent recordings of the Bouvet operations to the FCC. The FCC sent this to ARRL with a message that went something like `this is your mess, what are you gonna do about it.' This precipitated the highly controversial DX-pedition and contest suggestions/rules etc. that have recently been proposed. We are in real danger in 1992. Land Mobile has before the WARC a proposal to convert all between 1000 and 3000 Mhz to Land Mobile. We had better get our act together and fast.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

2571. Re: INFO-HAMS Digest V90 #460

Newsgroup: rec.ham-radio
Date: 1990-05-02 17:36:13 UTC
From: ATISD-DOOI.XP@GUNTER-ADAM.AF.MIL
Message-ID: <12586512149.18.ATISD-DOOI.XP@GUNTER-ADAM.AF.MIL>
Source record: 11884

********Status of TONO*********
Tono was owned by NEC...still is....they sold some of their gear via
Drake for a while , then sold some of their gear via HAL, but NEC
(Nippon Electric Company) is very much alive and well.
((((((((((((((((((((((((((((((73))))))))))))))))))))))))))))))
Marv
WG4Q

2572. CQ buys HAM RADIO

Newsgroup: rec.ham-radio
Date: 1990-05-02 17:46:50 UTC
From: rma@mhuxo.ATT.COM
Message-ID: <12049@cbnewsm.ATT.COM>
Source record: 11976

As you may already know, CQ magazine has bought out HAM RADIO. The last issue of HAM RADIO will appear in June 1990. I just spent a while on the phone talking with Skip Tenney(sp?) the owner of HAM RADIO an some of the staff there. Terry Northup and Craig Clark will be staying on in the offices in N.H. What will happen to CQ (will it expand its coverage), whether there will be new periodicals (maybe quarterly) and other subjects are as yet undecided - everything is in a state of flux, as you might expect. The rights to the name HAM RADIO and HAM RADIO BOOKSTORE also go to CQ.

I should declare an interest in HAM RADIO since I was a columnist there, but on a less personal note, I think that HAM RADIO was the only real technical amateur radio journal published in this country and was run by people who were concerned about amateur radio. Its passing is very bad news indeed.

CQ is published by CQ Communications (Dick Ross, who's call I can't remember), which also publishes Modern Electronics and Popular Communications. I can only urge HAM RADIO subscribers and anyone else with views about what constitutes a good amateur radio publication to write to Dick Ross at:

CQ Communications
76 North Broadway
Hicksville
NY 11801

Tell him exactly what in an amateur radio publication will make you keep up or take out a subscription. Subscriptions are what commercial publishing is all about. More readers=higher advertising rates+more revenue=more profit.

What with last year's cut back of QST and now the loss of HAM RADIO the outlook is bleak for those interested in technical aspects of the hobby, and microwaves in particular.

Bob Atkins, KA1GT

2573. RE: Wanted CW training program

Newsgroup: rec.ham-radio
Date: 1990-05-02 18:24:36 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9005021837.AA15382@ti.com>
Source record: 11885

> From: TILDE::"G4JJO.WBST207V@Xerox.COM" 1-MAY-1990 22:50:03.45
> Subj: Wanted CW training program
>
> Once again I have decided to improve my CW skills. This time intend to
> succeed and to help I would like to get a good PC training program.
> I have alredy looked at some and none of them do what I would like. I would
> really like a program whereby I can send individual characters at 20 WPM
> but spaced at some slower speed. This is how I got to 13 WPM by listening
> to the sound of the character, and then increasing the effective WPM.
> If anybody knows of such a programe please let me know.
> Thanks and 73's
>
> Geoff Williams

Geoff:

I believe SuperMorse will do just what you've asked for. It as individual settings for CHARACTER SPEED, WORD SPEED, and SENDING SPEED, to that you are in effect adjusting the inter-character and inter-word speeds.

I have used it with classes and to make tapes for individuals and code tests.

The latest version that I know of is 3.09 and it has built in training for new code learners, will send from disk files or the keyboard, will generate random groups or words from a word list, or generate exams.

You can obtain the (shareware) SuperMorse from a number of sources. It is on CompuServe, SimTel20, and many BBS systems around the country. I can send you a copy for trade of a blank diskette, or you can write to the developer directly.

The developer is:
WD5CID, Lee Murrah, 10 Cottage Grove Woods, S.E., Cedar Rapids, IA 52403
*** NOTE: his - suggested Shareware contribution is $15 ***

73, and good luck!
Bob West WA8YCD
P. O. Box 863069
Plano, Texas 75086

RLWEST@FLOPN2.CSC.TI.COM

2574. Re: Ham Radio Magazine out of business

Newsgroup: rec.ham-radio
Date: 1990-05-02 19:13:27 UTC
From: kjh@pollux.usc.edu
Message-ID: <24463@usc.edu>
Source record: 11973

In article <1591@raybed2.ray.com> ewb@raybed2.ray.com (EUGENE BALINSKI) writes:
>Bad news in the Amateur Radio publishing world.... Ham Radio Magazine has
>been sold to CQ magazine.

This is bad, but it is not as bad as it would have been if it had
happened before HR went and watered down the (already skimpy IMHO)
technical content in their articles.

>I for one will be sorry to see HR go.

I also will be sorry to see them go. At least there are some good
technical magazines still available. Dubus from W. Germany for example.
Feedpoint from North Texas Microwave Society.

I think the content of the major American amateur radio magazines
mirrors the sad sorry state of the amateurs in this country. Most hams
are too lazy to get off their butts and build anything, and indeed most
couldn't even if they had the ambition. Of course, there are a few
exceptions, but the condition of the majority spells eventual defeat for
the amateur radio service (IMHO).

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2575. Re: RTTY Listening questions

Newsgroup: rec.ham-radio
Date: 1990-05-02 19:21:33 UTC
From: brian@ucsd.Edu
Message-ID: <13408@ucsd.Edu>
Source record: 11975

The PK232 describes anything as synchronous if it couldn't find obvious start and stop bits in it.

A lot of what you hear as HF RTTY is multiplexed, with more than one data stream being transmitted at the same time. It takes equipment a little bit fancier than the PK-232 to decode that.
- Brian

2576. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-02 19:46:07 UTC
From: battle@umbc3.UMBC.EDU
Message-ID: <3245@umbc3.UMBC.EDU>
Source record: 11877

In article <43580@iuvax.cs.indiana.edu> commgrp@silver.ucs.indiana.edu (BACS Data Communications Group) writes:
>
>Having complained about sanitation at the Dayton Hamvention in the
>past, I must say that this year they appeared to have made a major and
>successful effort to remove trash and maintain the portable outhouses.
>All in all, I had a fine time in Dayton. Thanks, DARA!
>
>This year I remembered to carry a pedometer. I spent all of Friday
>and Saturday at the Hamvention, and did the Air Force Museum on
>Sunday. The weekend total hike was 18.2 mi.
>
I had a great time. The exhibits were first class. I spoke to several designers from Cushcraft and Hygain. This was very useful since I have antennas from each and had some questions. Also, every linear manufacture except was Henry (boo) was there with the top off so you could see the innards. Great to compare band switches, coils, cooling, plate chokes, etc. No unanswered questions!

The DSP stuff from PAC COM and AEA went over like a lead baloon to the masses. No surprise there.

The flea market was real interesting. Some real good buys if YOU KNEW WHAT YOU WERE LOOKING FOR. A great job by the sponsors. Thanks to them for a super HamVention.

PS. I walked my self to death, If you plan to go next year do some walking to get ready!

bye...

2577. Rush and YYZ

Newsgroup: rec.ham-radio
Date: 1990-05-02 21:55:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9005030705.AA18581@ucbvax.Berkeley.EDU>
Source record: 11886

I never did notice the YYZ code in the song. YYZ is the designator for Toronto's airport. I'm told its one of the busiest in Canada if not all of North America.

Bob N5GNA

2578. Re: * SpaceNews 30-Apr-90 *

Newsgroup: rec.ham-radio
Date: 1990-05-02 21:56:15 UTC
From: michaelt@uokmax.uucp
Message-ID: <1990May2.215615.6943@uokmax.uucp>
Source record: 11878
Cross-posted to: rec.ham-radio,sci.space

In article <283@ka2qhd.UUCP> kd2bd@ka2qhd.UUCP (John Magliacane) writes:
>
>
>* STS-31 NEWS *
>===============
>Mike (WD8KPZ) of Phoenix, Arizona reported hearing space shuttle astronaut
>communications on a frequency of 279.000 MHz AM during their EVA during the
>deployment of the Hubble Space Telescope.
>
>Mike used an Icom R-7000 receiver and a quarter-wave ground plane antenna at
>an altitude of 15 feet to receive the astronauts.

When I watched the deployment of the Hubble, I never remember Bruce or Kathy
being let out of the airlock. So when was this EVA? (I'm sure Bruce would
like to know :-))

--
michaelt@uokmax.ecn.uoknor.edu
"I don't know...I can imagine quite a bit..."
H. Solo

2579. DAK SW radio arrives: review

Newsgroup: rec.ham-radio
Date: 1990-05-02 22:13:35 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720065@hplsla.HP.COM>
Source record: 11971

After about 6 weeks of waiting, the $50 shortwave receiver from DAK finally arrived. Mind you, I didn't expect too much for $50, but I was still quite disappointed initially. AM and FM broadcast reception is OK, but the thing is basically useless for SW with the little whip antenna attached. The only thing I could hear was a *weak* WWV on 15 MHz. Mind you, in the same room was a 30 year old 5-tube Grundig, with a 3-foot piece of wire that was picking up LOTS on the same frequencies. At first I thought it was kaput, but I hooked up my ham-band delta loop to its external antenna jack, and it came alive. This fault seems really dumb, as gain is relatively cheap to build into a SW receiver. (selectivity, image rejection and dynamic range on the other hand...) Even given its 'deafness', I did hear a touch of overload from the local 1kW BC station, about 3 miles away.

I brought it into work today and hooked it up to a calibrated signal generator, and made the somewhat crude measurements below. I also attempted to peek inside, but didn't get too far. I got the back cover off, but that only lets me see the back side of one of the PC boards. It seemed to be glued or heat staked to the 'front panel'. It seemed to have a surprising number of discrete components, though, along with 2 or 3 DIP IC's that I could see. If I decide to keep it I may look some more..

At first I was ready to send the thing back, but now I'm not so sure. I could probably add a little RF amplifier, either internally, or externally, and it would be quite serviceable for casual use.

It is kinda cute. The tuning with the up/down button is tedious, and it will 'scan' if you hold them down for a second (not too useful on noisy shorwave freqs) It also has a jack for an external 6V power supply, something Drew didn't mention in the catalog.

DAK MR-101 Synthesized World Band Receiver

Sensitivity (for minimum discernable signal):

Freq Sig Level
3.2 MHz 40uV
5.0 MHz 14uV
7.0 MHZ 7uV

10 MHz 8uV
14 MHz 7uV
20 MHz 4uV

Image rejection:

~ 6dB at 12MHz (that's right, 6!)

IF frequency (SW1 and SW2): 440 kHz (I attached a loop of wire to a spectrum analyzer and held it near the back of the receiver. The largest spur seen was always exactly 440kHz above the dial frequency.)
--
caveat emptor!
Charlie, KX7L

2580. Re: Kenwood TH-215A problem

Newsgroup: rec.ham-radio
Date: 1990-05-02 22:50:17 UTC
From: kenw@col.hp.com
Message-ID: <18230008@col.hp.com>
Source record: 11892

In a possibly related incident, my wife's TH-21AT lost its audio (but the TT pad still worked). I believe I've traced it to a defective condenser microphone. I just ordered one from Kenwood and am keeping my fingers crossed!

2581. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-03 02:33:51 UTC
From: pvh@Apple.COM
Message-ID: <40700@apple.Apple.COM>
Source record: 11880

Did Heath Electronics and/or Standard have a booth there?

2582. Re: The Black Hole Effect

Newsgroup: rec.ham-radio
Date: 1990-05-03 03:44:11 UTC
From: julian@bongo.UUCP
Message-ID: <135@bongo.UUCP>
Source record: 11879

This is a repost from April 26. Somehow I think my earlier posting
died:

In article <1990Apr25.100922.18002@lopez.UUCP>, flash@lopez.UUCP (Gary Bourgois) writes:
> I live in Marquette Michigan, the land that time forgot. It is not the
> end of the world, but you can SEE it from here.
>
>
> I would like to tell you about the BLACK HOLE EFFECT, a phrase I coined
> about 20 years ago when I was a very new ham, and a seasoned SWL. Now I
> am an old timer at both hobbies, have solved a lot of mysteries along
> the way, and would like to share my ideas on the Black Hole Effect with
> others on the net, and see if anyone else experiences it, or if I am the
> Lone Ranger....
>
> Pertinent Details:
>
> Marquette is at 47 degrees North Latitude. The city is on the shore
> of Lake Superior, the DEEPEST Largest coldest fresh water lake on
> this fair planet.
>
> Marquette is on the Mesabbe Iron Range, the LARGEST single deposit
> of Iron Ore on this fair planet.
>
> Marquette is a place where WEIRD things happen with Radio Signals.

Well first of all 47 Degrees is not all that far North. It is about
the same latitude as Nantes France. It is south of London, Berlin,
Copenhagen, Warsaw, Den Hague (That's enough dreary capitals -Ed). But
the question I suppose should really be, how far North is it from the
"Magnetic Equator." I dimly recall that a stations position relative
to the magnetic equator is important vis-a-vis Aurora and HF
propagation.

But first, lets assume that Marquette is in Aurora Country and is
also sitting on top of a fair amount of iron ore. There is a similar
location in Sweden. The world's "largest city" (in square kilometers
of desolate Tundra) is Kiruna. It is also an enormous iron mine. Hams
there should experience the same phenomenon as Gary.

I remember in the seventies hearing a second hand story that DX was
pretty bad off the Southern Tip of Sweden (Ystad, Trelleborg) because
there were massive Iron deposits just offshore. The story involved not
getting out and not hearing too well. Southern Sweden does get a few
Auroras also.

No good answers I'm afraid, but certainly some points of reference and comparison. All we need now is a report from Kiruna.

Note: Marquette is about 47 degs North, Helsinki - 60 degs North and Kiruna - 68 degs North.

--

Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

2583. Re: Kenwood TH-215A problem

Newsgroup: rec.ham-radio
Date: 1990-05-03 05:56:01 UTC
From: mikey@pnet01.cts.com
Message-ID: <2502@crash.cts.com>
Source record: 11889

I have a TM-321 and have the same intermitent audio, haven't determined the cuase either. I have never wacked it (but I may next time) and just wiggle the cord, pull the mic plug and reinsert. That will usually cure it. Totolly random.

| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2584. Re: * SpaceNews 30-Apr-90 *

Newsgroup: rec.ham-radio
Date: 1990-05-03 06:06:34 UTC
From: skipsand@crash.cts.com
Message-ID: <2503@crash.cts.com>
Source record: 11890
Cross-posted to: rec.ham-radio,sci.space

The shuttle astronaut INTERCOM headsets ALSO transmit on 279.0 (except during military flights, when they use IR links instead) and have been heard before during flight by listeners on the ground. That is likely what was heard this time, as the astronauts did not exit the airlock, and I'd not expect the suit transmitters to get out of the sealed air lock very well at all...

2585. Yay Trey! (Netperson Wins Sweepstakes!)

Newsgroup: rec.ham-radio
Date: 1990-05-03 07:16:06 UTC
From: winter@apple.com
Message-ID: <40702@apple.Apple.COM>
Source record: 11887

Congratulations to our very own Trey Garlough, WN4KKN/5, for
his first-place finish in last November's ARRL CW Sweepstakes
contest.

I see that W5EHM--including netperson Derek Wills, AA5BT--brought
home the 10th-place spot for multiop in the Phone contest.

Did I overlook any other netfolks in the Top Ten listings??

Patty

2586. Testing....

Newsgroup: rec.ham-radio
Date: 1990-05-03 11:08:02 UTC
From: msaarinen@abo.fi
Message-ID: <6763.26401112@abo.fi>
Source record: 11891

I'm so sorry but this is only a test....

Anyway greetings from a sunny Finland!

/ms

2587. Help with Mods for Kenwood TH-75A

Newsgroup: rec.ham-radio
Date: 1990-05-03 14:36:29 UTC
From: dennis@nebulus.UUCP
Message-ID: <1990May3.143629.5433@nebulus.UUCP>
Source record: 11893

I just purchased a Kenwood TH-75A Dual-Band Handie-Talkie.
Has anyone found any useful modifications to this rig. I have
looked at the diode matrix but I does not seem (on the surface)
to allow things like out of band transmit, etc...
73's
--

Dennis S. Breckenridge (604) 277-7413 dennis@nebulus.uucp VE7TCP
Still brain dead after all these years :-)

2588. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-03 15:05:07 UTC
From: jdn@casux4.uucp
Message-ID: <22882@bellcore.bellcore.com>
Source record: 11894

In article <3245@umbc3.UMBC.EDU> battle@umbc3.umbc.edu.UMBC.EDU (Rick) writes:
>I had a great time. The exhibits were first class. I spoke to several
>designers from Cushcraft and Hygain. This was very useful since I have
>antennas from each and had some questions. Also, every linear
>manufacture except was Henry (boo) was there with the top off so you
>could see the innards. Great to compare band switches, coils, cooling,
>plate chokes, etc. No unanswered questions!
>

Not quite EVERY manufacturer. I was disappointed that Advanced Radio
Devices (ARD 230A) did not show up this year. If you were at dayton
last year, you saw what a REAL amplifier looks like.

ARD was considering building an automatic antenna tuner which I was
hoping to see there. I also noticed that ARD is no longer listed
in the latest AES catalog. Perhaps they are too busy with commercial
work to spend much time on amateur radio products. This would be
a pity since their amplifiers are clearly head and shoulders above
any other amplifier on the amateur market today.

Jon, NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

2589. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-03 15:07:59 UTC
From: jdn@casux4.uucp
Message-ID: <22883@bellcore.bellcore.com>
Source record: 11895

In article <40700@apple.Apple.COM> pvh@Apple.COM (Pete Helme) writes:
>
>Did Heath Electronics and/or Standard have a booth there?
Heath was there...They had a very nifty antenna rotor control
box with a computer interface. Type in the prefix and/or country,
and the rotor goes there. No need to look up beam headings on a
paper chart.

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

2590. Temp linking of repeaters via autopatches

Newsgroup: rec.ham-radio
Date: 1990-05-03 15:16:03 UTC
From: mikey@pnet01.cts.com
Message-ID: <2509@crash.cts.com>
Source record: 11897

I had a thought (watch out). Anyone interested in tying some repeaters together for a chat using autopatch to autopatch?

I think it would be a kick to chew the fat coast to coast FM mobile. You know, reach out and touch (careful) someone. Interstate costs are quite inexpensive at 60% off prime on weekends. Say a Saturday afternoon or evening. Our 220 repeater club in Sandy Eggo would like to give it a try if there are any takers.

Just think, if someone has conference calling on their repeater line, then we could get 3 boxes connected. Think about it, talk it up, see if you can get your members to check in at the annointed time. The more hams listening at both ends of the line, the better. The "San Diego Los Angeles Intertie Club" (SLIC) will start the ball rolling at initiate the calls, so NO cost to your club if you'd like to participate.

We can be found at 224.16 Mhz, PL 1B, San Dgo County, Cuyamaca Peak, 5900 feet, Coverage into Organge County if you care to chat on our system about the idea. Any comments, suggestions (positive only please), or input is solicited.
Mike, WB6WUI
btw--sorry 'bout the garbage/distortions...

| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2591. Mail callbook server available

Newsgroup: rec.ham-radio
Date: 1990-05-03 15:17:01 UTC
From: lcz@dptspd.sat.datapoint.com
Message-ID: <469@dptspd.sat.datapoint.com>
Source record: 11896

I (finally!) have an amateur radio callbook server online, available via email. This server is still in the testing phase, so please let me know of any problems. There is no FTP access to the server, but there are other sites providing that. Currently, the only search key is the callsign. If there's enough interest, I may add other search criteria later.

Here is a copy of the help file:

The callbook server is accessed by sending mail to callbook@sat.datapoint.com. Include the following line in the body of your message:

lookup <callsign> [<callsign> ...]

The maximum length of a lookup command line is about 200 characters. You may specify more than one lookup command if needed.

The following commands are also recognized:

help - return this help text.
quit - quit scanning for commands.

Quit is not needed, but may be used if you have a signature that contains things that look like callbook commands.

The callbook data is taken from FCC records as of September 1989, as provided by Rusty Carruth, N7IKQ.

If you have any questions, send mail to callbook-help@sat.datapoint.com.

Thanks,
Lee Ziegenhals, N5LYT
3 May 1990

2592. Re: Ham Radio Magazine out of business

Newsgroup: rec.ham-radio
Date: 1990-05-03 16:04:13 UTC
From: elliott@optilink.UUCP
Message-ID: <3549@optilink.UUCP>
Source record: 11899

In article <24463@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
> In article <1591@raybed2.ray.com> ewb@raybed2.ray.com (EUGENE BALINSKI) writes:
> >Bad news in the Amateur Radio publishing world.... Ham Radio Magazine has
> >been sold to CQ magazine.
>
> I also will be sorry to see them go. At least there are some good
> technical magazines still available. Dubus from W. Germany for example.
> Feedpoint from North Texas Microwave Society.

When you mention a magazine (especially somewhat obscure ones), please try
to include an address or phone number so we can follow-up.

In an earlier posting, I mentioned that _VHF_Communications_ (a translation
of a German technical Ham magazine) was available from "Timekit". I am still
waiting for a copy of the magazine, but here is the address and phone:

Timekit
P.O. Box 22277
Cleveland, OH 44122
(216) 464-3820

As far as I can tell, this phone number is the home phone of Mr. Fred R. Sharp,
who is semi-retired and runs Timekit from his home (so be considerate when
choosing a time to call). He apparently also sells Ham radio kit projects
as well. _VHF_Communications_ is published four times per year, and costs
$20.95 per year. I will report back to this group after I see a copy.

de wb6cxc <end of work>

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{uunet, pyramid, pixar, tekbspa}!optilink!elliott
"Less than perfect, that's what I've been aiming for all along."

2593. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-03 16:59:36 UTC
From: mac@idacrd.UUCP
Message-ID: <701@idacrd.UUCP>
Source record: 11901

From article <3245@umbc3.UMBC.EDU>, by battle@umbc3.UMBC.EDU (Rick):
>
> The DSP stuff from PAC COM and AEA went over like a lead baloon
> to the masses. No surprise there.
>

Does this mean you didn't like it or would you care to give us more details?
I admit that I am not in an objective position but the level of excitement
I saw was far from `went over like a lead balloon'.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

2594. Cat's Wiskers

Newsgroup: rec.ham-radio
Date: 1990-05-03 17:45:33 UTC
From: hshine@watson.bcm.tmc.edu
Message-ID: <830@gazette.bcm.tmc.edu>
Source record: 11902
Cross-posted to: misc.wanted,rec.ham-radio,rec.radio.shortwave,sci.electronics

In my early years I'd see neat crystal radios made with "Cat's Wiskers". These devices were sets of mounted crystals and a probe to find a good spot on the crystal for radio reception. I'd like to make one. Can anyone tell me where I can get a set?

Thanks in advance,

David Shine
Internet: hshine@bcm.tmc.edu Voice: (713)798-3823 Fax: (713)798-4643

2595. 430mhz ATV

Newsgroup: rec.ham-radio
Date: 1990-05-03 17:58:56 UTC
From: fwc@cbnewsi.ATT.COM
Message-ID: <2804@cbnewsi.ATT.COM>
Source record: 11917

I am interested in getting some feedback on ATV equipment in the 430mhz band. Equipment recommendations, operating experiences etc...

Thanks in advance.... 73 de Frank n2bqt

2596. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-05-03 18:03:25 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <ecXLi1w161w@w8grt.fidonet.org>
Source record: 11914

ftpam1@acad3.fai.alaska.edu writes:

> In article <3430003@hpqtdla.HP.COM>, jdg@hpqtdla.HP.COM (James Gentles) write
> >>>
> >>> Marquette is at 47 degrees North Lattitude.
> >>
> >>This cannot be, by itself, an important factor. Much of Europe is
> >>north of 47 degrees. I think Bern, Switzerland, is at about 47 degrees.
> > >
> >Latitude cant have anything to do with it, Here in Southern Scotland,
> >55deg59'10" N 3deg24'40" W although Auroral communications is not unheard
> >off is is more the domain of those a few degrees further up in the north
> >of the country. I'll go for the ore in the ground being at the root of it.
>
> I think it has more to do with your distance from the magnetic North
> Pole rather than the geographic one. Marquette is pretty close to the
> magnetic pole.

Everyone keeps overlooking the geology of Michigan's UP, much of which is
RICH in copper and iron deposits. We're speaking in terms of the whole
dadgummed peninsula being being one humongous bar magnet.

Jim Grubs, W8GRT - aka FidoNet node 1:234/1
UUCP: ...!ncar!asuvax!stjhmc!w8grt!jim.grubs
INTERNET: jim.grubs@w8grt.fidonet.org

2597. HF packet

Newsgroup: rec.ham-radio
Date: 1990-05-03 18:08:39 UTC
From: kirk@enterprise.Eng.Sun.COM
Message-ID: <1296@jethro.Corp.Sun.COM>
Source record: 11903

I just started playing around with HF packet on 28.109 mhz. It is really quite a lot of fun. It took me a couple of days to finally get my radio and PK-232 set up properly. I was using the squelch line from my IC-725 to the PK-232. By using the squelch line I was losing some of the marginal signals. After removing that line things worked much beter.

Anyway...what I would like to know are the rules of etiquette, if any.

--
'Captain' Kirk DeHaan net - kirk@sun.com
Sun Microsystems Inc. packet - n6sxr.ampr.org
cis - 73427,1657

2598. RE: 2 meter simple j-pole

Newsgroup: rec.ham-radio
Date: 1990-05-03 18:16:59 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <1yXLi2w161w@w8grt.fidonet.org>
Source record: 11915

kinsman@ektools.UUCP (Andrew A. Kinsman) writes:

```
>
> The following is a description of a J-Pole antenna made from 300 ohm
> TV twin-lead. Quite a few of the hams in the area have successfully
> built one or more of these antennas. They have quite a few advantages
> which include improved performance for 2-meter HTs, portability, and
> last, but never least, they are inexpensive.
>
> | | do not short this end.
> | |
> | |
> | |
> | |
> | |
> 54" | |
> | |
> | |
> |___| <- Connect here to broaden bandwidth slightly.
> | 1/4" gap
> | |
> | |
> | | 16 3/4"
> coax ctr conductor=>* *<= coax shield
> | |
> 1 1/4" | |
> -*-
> solder the twin leads together at bottom
>
> 1. Start with 54 1/2" of TV twin lead (foam core does not work as well)
> 2. Strip 1/2" of insulation at bottom and solder wires together.
> 3. Measure 1 1/4" from soldered wires and strip insulation on both
> sides. This is the solder point for a coax feedline.
> 4. Measure 16 3/4" from bottom and cut out 1/4" notch on one side.
> 5. Feed with a length of RG58U coax. Tape coax at feedpoint to the
> twin lead for strength and weather protection.
```

In the late 50's, I built one of these cut for 10 meters. (10 was used a lot like VHF by locals back then.) It really worked like a champ. The nice thing about the J-pole from a safety pint of view when tower mounted is that it can be grounded at the bottom, eliminating the need for lightning arrestors.

Jim Grubs, W8GRT - aka FidoNet node 1:234/1
UUCP: ...!ncar!asuvax!stjhmc!w8grt!jim.grubs

INTERNET: jim.grubs@w8grt.fidonet.org

2599. Re: 3-year-old learns Morse Code

Newsgroup: rec.ham-radio
Date: 1990-05-03 18:20:18 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <J5XLi3w161w@w8grt.fidonet.org>
Source record: 11916

trw@usna.NAVY.MIL (Bill Gunshannon) writes:

> considering that it has been stated here by various VE's that using a typewri
> to copy the code test isn't allowed cause the rules say by hand, I hardly exp
> they let anyone use a compputer. Add into that the illogical (for a child)
> layout of a QWERTY keyboard and this story really looses credibility.
> I personally would need a lot more verified info before I believed it.

The "by hand" business only replies to SENDING, not receiving. Besides, how many people do you know who type by their toes or nose? Most folks type by hand anyway.

2600. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-03 18:34:03 UTC
From: pvh@Apple.COM
Message-ID: <40713@apple.Apple.COM>
Source record: 11900

but what I really want to know is was Heath showing the Standard C520 dual band HT under their own name now or not.

Pete

2601. Re: 3-year-old learns Morse Code

Newsgroup: rec.ham-radio
Date: 1990-05-03 18:42:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500517@ux1.cso.uiuc.edu>
Source record: 11907

> considering that it has been stated here by various VE's that using a typewri
> to copy the code test isn't allowed cause the rules say by hand, I hardly exp
> they let anyone use a compputer. Add into that the illogical (for a child)
> layout of a QWERTY keyboard and this story really looses credibility.
> I personally would need a lot more verified info before I believed it.

Copying by typewriter or computer keyboard *IS* copying by hand !!

What is NOT copying by hand is letting any mechanical, electrical or
algorithmic device do it for you.

If the VE's refuse to allow copying by hand in its various forms,
contact the VEC and ask for this to be corrected and a makeup exam
session to be scheduled. If the VEC refuses, get another VEC to
do some exams in your area.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2602. Re: Ham Radio Magazine out of business

Newsgroup: rec.ham-radio
Date: 1990-05-03 18:54:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500518@ux1.cso.uiuc.edu>
Source record: 11908

HR Magazine USED TO BE a less fancy magazine. I must say I have enjoyed the art work that has been done on the covers. But I believe HR could have been operating much leaner. I remember when the covers were simply 2 color and the whole magazine was smaller. I guess I will need to start reading some other technical magazines. The lack of publicity about them has been the major reason I have not been getting them. I will now be collecting info about the various ham radio publications in a file, and once it is reasonable enough, will post it. If you e-mail or post info you know, please make sure the info is complete and correct. If you have not verified the rates for subscription within 6 months, please do so.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2603. Re: Kenwood TH-215A problem

Newsgroup: rec.ham-radio
Date: 1990-05-03 19:14:39 UTC
From: gregm@hpcvra.CV.HP.COM
Message-ID: <5710008@hpcvra.CV.HP.COM>
Source record: 11904

>In a sample population of about 60 amateurs in this town, three of us
>own Kenwood TH-215A HT's, all purchased separately at different times
>from different sources....

>ALL THREE have developed an audio problem in the last eight months:
>the audio (both from the microphone and from the keypad) simply
>disappears at unpredictable intervals. And all three can be "fixed"
>by WHACKING the HT with the palm of one's hand--until it happens again.

>If your TH-215A has this problem, if you know of someone else whose
>HT has this problem, or if you know how to solve it, please let me know.
>One of these days a WHACK isn't going to work, and we need help!

Ha! You guys may be in luck, since I fixed mine -- I have the service manual
and decided to jump in (I had upgraded the software and you have to pull the
unit completely open to do it --). Anyway, I was using the rig one day and
the next -- no audio -- just a slight noise that appeared to be white noise
from the final audio buffer. When plugging in the speaker mike -- same
problem. Touch the TTPAD and get your ears blown away -- I think beep also
worked. Kenwood had no knowledge of previous problems.

I had to rig up a jumper ribbon cable so I could lay the rig out for
testing and immediately checked the input audio to the volume control.
No problem -- but there was nothing coming out the other side. I jumpered
the pot (i.e. simulate pot max volume) and my ears were hurting. Upon
removal of the pot I found a crack on the ALPS pc board that has the leads
mounted to it. Apparently, I must have hit the volume control pot the
previous day and cracked the pot trace (again this trace was part of the pot not
the rig pcb). I had noticed when I disassembled the unit that there was
no nut on the pot to hold it in place (none on the squelch either). The
volume pot is right at the edge of the unit and is most likely knob to
get hit.

When parts arrived, it came with a nut so I installed it to help prevent
this problem in the future -- no problems since. (I failed to mention that
I shorted out the power lead to ground and blew a diode in the power ciruit.
It was obvious which one. -- so be careful!)

I think the switched volume pot cost $4.95 + $3.00 shipping.
(the diode looked like a fused type so I ordered that too for $1.95.
The one they sent me was a normal silicon power diode so I don't have
to guess anymore. I also picked up a set of backcase screws -- very small
heads but very long screws to replace my old ones -$.05 - Make sure you have a
"good" screwdriver that really fits.)

All these problems sound like the same thing. I have never had any problems with my rig, and I bought one of the first ones out. (Hence, the software update to give me the ability to lock out memory channels during scan.)

Hope this helps.

Greg May

gregm@hp-pcd.HP.COM

2604. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-03 19:47:02 UTC
From: sawyer@twg.com
Message-ID: <5703@gollum.twg.com>
Source record: 11905
Cross-posted to: rec.autos.driving,rec.ham-radio

In article <90121.014009SPW103@psuvm.psu.edu> SPW103@psuvm.psu.edu writes:
>
>>But that's ILLEGAL and against the rules! And the guy at the car stereo shop
>>and cellular phone sales TOLD me that it was IMPOSSIBLE for anyone to listen
>>in on my cell phone conversations, and that it was illegal anyways...
>>
>
>Oh, and of course the salesman told you it was impossible and illegal -- he
>is a salesman, and likely was just as lost as I/we are. :-]
>
"As long as you don't act on the basis of what you hear, you are breaking no
laws." Now let me tell you the reality...

I have a close friend here locally (N...) who is the proud new owner of a
R9000. After a good deal of urging, he persuaded me to join him for a few beers
and listen to the 9000. So up to 800MHz we went, and in a half hour I got...
- a dope deal being set up;
- a replay of last night's sex scene between Mr. X and his secretary, together
with how X was planning on getting away from the wife and kids again
tonight;
- several discussions of corporate takeover strategies (this is Silicon
Valley);
- etc.
It was hilarious, just as my friend promised me. (But not entertaining enough
that I would even think of plunking down $4K+ for a 9000 of my own.) Apparently
there are a lot of salesmen out there claiming cellular calls can't be monitor-
ed. Worse, there are a lot of people who believe it!
AA6KX

2605. Re: Kenwood TH-215A problem

Newsgroup: rec.ham-radio
Date: 1990-05-03 19:50:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500519@ux1.cso.uiuc.edu>
Source record: 11909

> In a sample population of about 60 amateurs in this town, three of us
> own Kenwood TH-215A HT's, all purchased separately at different times
> from different sources....
>
> ALL THREE have developed an audio problem in the last eight months:
> the audio (both from the microphone and from the keypad) simply
> disappears at unpredictable intervals. And all three can be "fixed"
> by WHACKING the HT with the palm of one's hand--until it happens again.
>
> On a recent trip to a town 50 miles away I talked to a FOURTH ham
> whose TH-215A has the SAME problem.

A local ham here, WB9JSO, has the same radio and the same problem.
Sounds like an epidemic to me.

> But when I called Kenwood's Service Department yesterday, I was told
> "We've NEVER HEARD of such a problem before.... Just send it in when
> it happens again and we'll service it for you...."

They tell lies.

> Of course, when UPS "plops" the box onto their counter, the problem
> will disappear and there won't be anything to fix!

That's what makes intermittent problems so great.

> If your TH-215A has this problem, if you know of someone else whose
> HT has this problem, or if you know how to solve it, please let me know.
> One of these days a WHACK isn't going to work, and we need help!

Exploratory surgery might be in order.

I once had a spurious bug in a major IBM mainframe operating system, and
IBM claimed it could not possibly do what I said it was doing. I looked
at the source and found it, but they still denied it was a bug. I fixed
it and sent them the fix. Two releases later, my code was in it.

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<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2606. Re: WARC DANGEROUS RECORDINGS

Newsgroup: rec.ham-radio
Date: 1990-05-03 20:09:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500520@ux1.cso.uiuc.edu>
Source record: 11910

> I posted recently on another topic and claimed that other administrations
> besides our would record stupid activity on the ham bands and use this
> at the upcoming WARC to justify their claim that we do not deserve our
> allocations. It has already happened. Recently, two European countries,
> serving notice ;-(sent recordings of the Bouvet operations to the FCC.
> The FCC sent this to ARRL with a message that went something like `this
> is your mess, what are you gonna do about it.' This precipitated the
> highly controversial DX-pedition and contest suggestions/rules etc. that
> have recently been proposed. We are in real danger in 1992. Land Mobile
> has before the WARC a proposal to convert all between 1000 and 3000 Mhz to
> Land Mobile. We had better get our act together and fast.

I recently had a conversation with a local ham, not over the air, concerning the density of amateur FM/repeater communications in large metropolitan areas. He had spoken with another ham from such an area who had the perspective that in his area (LA) the 2m, 1.25m, 70cm, and even the 23cm were FULL. He had the perspective that 1 QSO per day made the repeaters "busy".

If you want to see what ***FULL*** is really like, take a look at the Land Mobile spectrum. LM needs spectrum, they need it badly, and they need it NOW! Compared to LM usage, 2 meters is a barren wasteland!

We are going lose LOTS and LOTS of spectrum to Land Mobile and other interests (HDTV perhaps) if we don't get our act together and DO IT NOW! We need to CUT THE BS and make our bands MUCH MUCH more used than they are now.

Back to the subject. The HF spectrum is being highly ABUSED, but most of it is reasonably crowded now. Here is your chance to help reduce the problem. QSY from 20 to 2 or 220. Let's start getting more hams we have now to actually USE the VHF and UHF spectrum. If you tune across all the repeaters and find LESS THAN 80% in use, then the band is WIDE OPEN for you to use. GO FOR IT!

The ARRL doesn't have any authority to do anything about the HF problems. They can ask for more "gentlemen's agreements", but what is really needed is some regulatory and enforcement teeth. The FCC is not going to do this for us, so we need to find ways to do it ourselves.

If we don't act, then SOMEDAY, ham radio will be totally gone, and what use remains of the radio spectrum will be CB and outlaw.

If you are one of those people who claim that ANY VHF or UHF band ANYWHERE is full or crowded or too tight for a QUADrupling of usage, then BURN YOUR TICKET AND GET OFF THE AIR.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2607. Re: Ham Radio Magazine out of business

Newsgroup: rec.ham-radio
Date: 1990-05-03 21:09:51 UTC
From: rusty@cadnetix.COM
Message-ID: <12280@cadnetix.COM>
Source record: 11898

In article <1591@raybed2.ray.com> ewb@raybed2.ray.com (EUGENE BALINSKI) writes:
>Bad news .... Ham Radio Magazine has
>been sold to CQ magazine.
>.... Publication will stop immediately.

ARRRRRGGGHHHHHHHHHHHHHH!!!!!!!!!!!!!!!!

(what more can I say?)
(Actually, I'll have something to say in my -next- article.)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

2608. End of Ham Radio

Newsgroup: rec.ham-radio
Date: 1990-05-03 21:23:07 UTC
From: young@jfcl.dec.com
Message-ID: <548@jfcl.dec.com>
Source record: 11921

At the Dayton Hamvention it was announced that Ham Radio Magazine had been sold to CQ. The June issue of HR will be the last.

Paul, K1XM

2609. Re: CQ Buys Ham Radio

Newsgroup: rec.ham-radio
Date: 1990-05-03 23:42:17 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9005040712.AA13515@ucbvax.Berkeley.EDU>
Source record: 11920

I stopped subscribing and reading CQ a while ago because I'm not now nor ever plan to be a "big gun" DXer. Now that Ham Radio is gone and QST has cut back, I guess the writting is on the wall. Anybody who thought we weren't a country of "appliance operators" will get a clear message now.

I wonder if I can get subscriptions to some of the European rags over here??

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

2610. SlowScan on Amiga

Newsgroup: rec.ham-radio
Date: 1990-05-04 00:14:40 UTC
From: hammock@mars.jpl.nasa.gov
Message-ID: <3573@jato.Jpl.Nasa.Gov>
Source record: 11906

I am looking for a program that will support the sending and receiving
of slow-scan images using an Amiga computer. It seems that something
that supports sending directly from an IFF should be fairly simple to
do. I'd like to hear what anyone else has on this.

73's
Randy
AMIGA /// | hammock@mars.jpl.nasa.gov Telos - Jet Propulsion Laboratory - NASA
/// | KC6HUR >>> Space reseved for future use <<<
\\\/// |--
\XX/ C= | "When I want your opinions, I'll give them to you!" - Mock

2611. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-04 00:54:37 UTC
From: mcmahan@netcom.UUCP
Message-ID: <11645@netcom.UUCP>
Source record: 11911
Cross-posted to: rec.autos.driving,rec.ham-radio

>>>But that's ILLEGAL and against the rules! And the guy at the car stereo shop
>>>and cellular phone sales TOLD me that it was IMPOSSIBLE for anyone to listen
>>>in on my cell phone conversations, and that it was illegal anyways...
>>>
>>
>>Oh, and of course the salesman told you it was impossible and illegal -- he
>>is a salesman, and likely was just as lost as I/we are. :-]

It may or may not be illegal, but I KNOW it is definately possible. While
working on a radar detection and classifaction system at a local defense
contractor, we were doing some chamber testing in the lab. As these tests
take hours, we decided to amuse ourselves. HP makes a nice little spectrum
analyzer (I forget the part number) that contains built-in AM/FM demodulators.
We just stuck an antenna into the input port (a bent paper clip worked the
best of all antennas we tried) and we could tune into any signal in the band of
interest. In this case, the band of interest was the cellular phone band.
We could pick any channel in the band we wanted, hit 'peak find' to center
the demodulator, and then turn on the audio. Quite fun for about 1 hour.
We noticed that most calls are for real-estate deals taking place and guys
trying to impress their girlfriends. One guy was calling his woman while
sitting in her driveway. If you want to make it private, DONT'T do it on
cellular.

-dave

2612. QST article?

Newsgroup: rec.ham-radio
Date: 1990-05-04 02:02:00 UTC
From: aaa33750@uxa.cso.uiuc.edu
Message-ID: <56500004@uxa.cso.uiuc.edu>
Source record: 11919

If it`s possible, and there`s an article on it, is there a file someplace
to grep to find the issue of QST that would have an article on crystal
shaving?
(What good would computers be if I had to use the Readers` Guide or had to
thumb through a couple dozen index issues:-)
pse e-mail aaa33750@uxa.cso.uiuc.edu or a-arnett1@uiuc.edu
tnx
.

2613. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-04 02:19:10 UTC
From: bowen@cs.Buffalo.EDU
Message-ID: <24237@eerie.acsu.Buffalo.EDU>
Source record: 11912

In article <3245@umbc3.UMBC.EDU>, battle@umbc3.UMBC.EDU (Rick) writes:
|> The DSP stuff from PAC COM and AEA went over like a lead baloon
|> to the masses. No surprise there.

Are you kidding? That was the only thing I saw I was interested in!

Devon

2614. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-04 04:37:10 UTC
From: leo%aai@uunet.uu.net
Message-ID: <1990May4.043710.1130%aai@uunet.uu.net>
Source record: 11918
Cross-posted to: rec.autos.driving,rec.ham-radio

SPW103@psuvm.psu.edu writes:
>>>Of course, such phone calls (even cellular calls) are easily monitored
>>>on most scanners. ^^^^^^^^
>>
>>But that's ILLEGAL and against the rules! And the guy at the car stereo shop
>>and cellular phone sales TOLD me that it was IMPOSSIBLE for anyone to listen
>>in on my cell phone conversations, and that it was illegal anyways...
>>

>I'm wondering if this is really illegal. I think you can get a scanner that
>will scan in the 800Mhz bands, so it is possible. And ANYTHING in the air
>is, as far as I know, public property -- including government bands, cellular
>phones, Radar waves (The major argument in the case against anti-radar detector
>laws). I believe the Supreme Court decided this awhile ago. Does anybody have
>any details? If I said I was sure I was right, I'd be a liar, but I'd like to
>know exactly what the laws say.

Thanks to intense lobbying by the cellular phone industry, a law was passed
making it illegal to sell equipment capable of receiving cell phone calls or
to listen to such calls. The implication of the former is that scanners sold
new have the cell frequencies blocked, usually by the installation of a diode
which most people easily find out how to remove. The fact that the latter is
in direct conflict with the Radio Act doesn't seem to bother the lawmakers.
The end result is that it is both possible and illegal to listen to cell phone
calls.

This subject has been discussed at great length in the moderated
comp.dcom.telecom group. That's the best place to go for detailed, specific
info on this topic.
--
Leo leo%aai@uunet.uu.net ...!uunet!aai!leo

2615. More Kenwood TH-315 Problems

Newsgroup: rec.ham-radio
Date: 1990-05-04 04:43:08 UTC
From: lawrence@smcnet.smc.edu
Message-ID: <1990May4.044308.1378@smcnet.smc.edu>
Source record: 11913

Well I have not lost the volume on my Kenwood radio yet. (knock on wood)
I have the 220Mhz Kenwood TH-315A and it has been working fine up until
tonight. When I unplugged the unit from the wiring harness that I have
rigged up in my truck, the radio "locked up". I couldn't change channels
or get and audio out of the the thing. The unit was still displaying the
repeater frequency that I was just listening to and the S-meter was
on full scale even though I had not plugged the rubber duck into the unit
yet. Turning the unit off an on a few times, the HT seemed to reset itself
including erasing all of the memories.

Just wondering if anyone else has had this problem with their rigs?

--

Lawrence Roney - Santa Monica College Telecommunications Department
N6YFN 1900 Pico Blvd., Santa Monica, CA 90405-1628
Mail UUCP: uunet!ucla-cs!smcnet!lawrence Internet: lawrence@smc.edu

2616. Hereditary Hams (was Re: 3-year-old learns Morse Code)

Newsgroup: rec.ham-radio
Date: 1990-05-04 07:50:20 UTC
From: markz@ssc.UUCP
Message-ID: <681@ssc.UUCP>
Source record: 11828

In article <36037@genrad.UUCP>, dls@genrad.com (Diana L. Syriac) writes:
> I've heard rumors that there is a 3-year-old that just took AND PASSED
> the 5 wpm Morse Code test in Oklahoma. ...
> The test was taken on a computer.....her father (also a ham :-) taught her
>
> Anyone have any first hand knowledge about this rumor? I'd be interested....
> Who said that "not everyone can learn Morse Code" .....:-)

The Question is: How many children, who's parents are NOT ham radio
operators, are learning morse code?

markz@ssc.uucp

2617. Re: RTTY Listening questions

Newsgroup: rec.ham-radio
Date: 1990-05-04 08:20:00 UTC
From: markz@ssc.UUCP
Message-ID: <682@ssc.UUCP>
Source record: 11925

In article <9005011026.aa19136@CRDEC2.APGEA.ARMY.MIL>, wejones@CRDEC2.APGEA.ARMY.MIL ("William E. Jones III") writes:

> I have had similar problems, and hope someone can be of more help than
> I can, (I have more additional questions than answers) but...
>
> I use a PK-232, and most of the RTTY traffic I find comes up as
> "synchronous" when I run the auto configure signal mode. I therefore
> don't think the signal is really scrambled, but rather in a mode which
> is not easy for the PK-232 to handle.

If a $300 box can decode it, it wouldn't cost much more to build an encypherment unit that will bury the characters so deep that no one can decode them, especially at 5 to 10 characters per second.
In several years of messing around, I've discovered that if the signal has a wide shift (850 Hz?), that I'll have little or no chance of printing anything. These are probably military.

> As to the possibility of "doing something wrong", two possibilities not
> mentioned above, are polarity (or bit) reversal, and audio signal
> level.
> ... Also, I have found
> that the audio level of my Kenwood 2000 is too high (or perhaps has
> insuficient rc damping) for the PK-232, such that noise registers as
> data, giving "gunk".

After looking at the scope outputs of my '232, I don't trust the linearity of the automatic level control in the filters at all. Overdriving the input will add all sorts of spurious crud, and the same can be said for the audio section of the receiver. I use a Kenwood R-1000 and tap across the audio output with an transformer, cranking down the volume control to the minimum level that gives good copy. The audio transformer (8 to 500 ohm) steps up the voltage so that the audio amp in the receiver is operating at a low level.

Markz@ssc.uucp

2618. Re: Kenwood TH-215A problem

Newsgroup: rec.ham-radio
Date: 1990-05-04 12:00:14 UTC
From: wa2sff@cbnewsh.ATT.COM
Message-ID: <10082@cbnewsh.ATT.COM>
Source record: 11922

My friend had a similar problem with his ICOM 228H,
a trip to ICOM didn't solve the problem.
He eventually found a lose connecter. After removal and reinsertion,
the radio now works fine.
Joe Wilkes

2619. AOR-???? vs ICON ???? receiver recommendations

Newsgroup: rec.ham-radio
Date: 1990-05-04 13:01:56 UTC
From: mpe@shamash.cdc.com
Message-ID: <20498@shamash.cdc.com>
Source record: 11923

Could some kind soul out there in net-land please forward any and all experiences with receivers from AOR and ICOM. I'm interested in a very broad band receiver (say ~50khz through >1Ghz) with continuous band coverage in 50khz or less steps. Costs should be reasonable!!!

Some of the items of interest are the sensitivity of the unit versus frequency and the guaranteed frequency max (some unit's specs are only stated for a portion of the entire spectrum and have limits well inside the max freq the recevier is capable of tuning).

Thank you in advance for your help and patience...
Mike Ebsen mpe@shamash.cdc.com

2620. CW and conversation

Newsgroup: rec.ham-radio
Date: 1990-05-04 13:06:53 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9005050651.AA01128@ucbvax.Berkeley.EDU>
Source record: 11847

In a recent posting, John Broughton (WB9VGJ) related his experiences as a military CW interceptor. He mentioned that he could eventually carry on conversations while copying CW. This brought something to my mind.

I have been a ham for >20 years, and CW is enjoyable and no hassle at all. 20-30 WPM is routine. However, I have found that I simply cannot speak while sending. Listening to others speak, even while copying CW, is easy, but I can't utter a sound while sending. I suspect that the fact I'm left-handed has something to do with it (you know, brain organization and all that).

Has anyone else encountered this, or have any suggested interpretation?

Mike Owen W9IP

2621. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-04 13:40:19 UTC
From: battle@umbc3.UMBC.EDU
Message-ID: <3252@umbc3.UMBC.EDU>
Source record: 11924

In article <701@idacrd.UUCP> mac@idacrd.UUCP (Robert McGwier) writes:
>From article <3245@umbc3.UMBC.EDU>, by battle@umbc3.UMBC.EDU (Rick):
>>
>> The DSP stuff from PAC COM and AEA went over like a lead baloon
>> to the masses. No surprise there.
>>
>
>Does this mean you didn't like it or would you care to give us more details?
>I admit that I am not in an objective position but the level of excitement
>I saw was far from `went over like a lead balloon'.
>
>Bob

My interest in DSP began with WB2TNL over two years ago. Then more
recently with Brooks. I am a real fan of DSP and hope it takes off
like a rocket. Speaking of rockets you missed a good one at McNastys.
I had the pleasure of sitting next to MOV and across from Brooks and IWI.

Anyhow, my impression was that people who already had some knowledge
of DSP were real excited. Those who saw it for the first time could
not quite figure out what it was. Maybe some education in the form
of articles in mass circulation magazines. Ham Radio just did one,
but it propably isnt read widely enought.

Also, "like a lead baloon" may be too harsh. With all due respect
to those like yourself who have done MUCH work on the subject new
things take time to develop. I am sure that DSP will be a real hit
once it is in the market place and its benefit over a TNC is known.

Keep up the good work DR. BOB. I for one appreciate it.

73, KB3NG

2622. CW AND CONVERSATION

Newsgroup: rec.ham-radio
Date: 1990-05-04 14:46:36 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9005041446.AA28634@bunny.gte.com>
Source record: 11848

In response to W9IP's note about not being able to talk and send, I'm rirht
right handed am in the same boat. I can read the paper and copy/send cw, copy
two CW signals at once, copy and send at the same time, walk and chew gum at
the same time, but I can't talk and send. As I type this I have just discovered that I
can't type and talk either. I think I have multiple input ports but only
one output port.

73 John Pescatore WB2EKK PESCATORE_JT@NCSD.GTE.COM

2623. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-04 16:02:49 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880143@hpfcdc.HP.COM>
Source record: 11844

Anyone know the story behind the unused frequencies on 11 meters ? Are they dead frequencies, or allocated to another service ?

Perry/KF0CA

2624. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-04 16:42:13 UTC
From: root@ninja.dell.com
Message-ID: <4719@uudell.dell.com>
Source record: 11926
Cross-posted to: rec.autos.driving,rec.ham-radio

In article <5703@gollum.twg.com> sawyer@twg.com (Bruce B. Sawyer) writes:
|In article <90121.014009SPW103@psuvm.psu.edu> SPW103@psuvm.psu.edu writes:
|>>But that's ILLEGAL and against the rules! And the guy at the car stereo shop
|>>and cellular phone sales TOLD me that it was IMPOSSIBLE for anyone to listen
|>>in on my cell phone conversations, and that it was illegal anyways...
|>Oh, and of course the salesman told you it was impossible and illegal -- he
|>is a salesman, and likely was just as lost as I/we are. :-]
|"As long as you don't act on the basis of what you hear, you are breaking no
|laws." Now let me tell you the reality...
|
|It was hilarious, just as my friend promised me. (But not entertaining enough
|that I would even think of plunking down $4K+ for a 9000 of my own.)

You don't need to spend $4k for an 800 MHz receiver. The Bearcat (Uniden)
200XLT portable picks up all the cellular frequencies offset 21.7? MHz higher
(something to do with a harmonic and the way a superhet receiver works).
Retails for $250. If you want them to be at the correct place, there is a
modification (adding or removing a resistor) that unlocks the cellular band
(only the American ones are locked out because of the Electronic Privacy Act,
the foreign ones are made with the frequencies accessable). In addition to
the cellular band, you get 200 channel programming in 10 bands and coverage of
just about all Fire/Police/Emergency/Weather/cordless phone/CIA/FBI/etc..
frequencies, all in a portable with a rechargeable battery.

Randy Davis UUCP: ninja.dell.com!rjd
--

2625. n8emr bbs

Newsgroup: rec.ham-radio
Date: 1990-05-04 17:05:28 UTC
From: gws@cbnews.ATT.COM
Message-ID: <16232@cbnews.ATT.COM>
Source record: 11843

FYI.....

The N8EMR HAM BBS took a hard disk crashed yesterday...
I am attempting to put the system back togeather.. It will however
take a few days to get my disk referbished or replace. (need to round up
some cash). Until I get the system up again, the ARRL bulletins,w5yi,
qex,and the vk2sg rtty reports normally posted from my system will not
be posted. Sorry for any inconvience the system down time may cause.

Gary Sanders (N8EMR)
gws@cblph.att.com

--
Gary Sanders (N8EMR) AT&T Bell Labs, Columbus Ohio
gws@cblph.att.com 614-860-5965

2626. Re: WARC DANGEROUS RECORDINGS

Newsgroup: rec.ham-radio
Date: 1990-05-04 17:08:30 UTC
From: jla4983@ultb.isc.rit.edu
Message-ID: <3048@ultb.isc.rit.edu>
Source record: 11832

About the lack of spectrum space for the Land Modile service,
it seems to me, that the UHF television channels are underutilized.
In rochester we have channels 21 and 31, what is the rest of the
space from ~500 -> ~800 MHz used for, if anything?

73,

Jim

James Austin KA2RVO | Packet: KA2RVO @ WB2WXQ
| ka2rvo.ampr: [44.69.0.2]
Rochester Inst. of Tech. | jla4983@ultb.isc.rit.edu
Rochester, New York | jla4983@ritvax.BITNET

2627. Re: Temp linking of repeaters via autopatches

Newsgroup: rec.ham-radio
Date: 1990-05-04 17:31:20 UTC
From: mbutts@mentor.com
Message-ID: <1990May4.173120.1129@mentor.com>
Source record: 11833

From article <2509@crash.cts.com>, by mikey@pnet01.cts.com (Mike Shirley -- W B 6 W U I):
> I had a thought (watch out). Anyone interested in tying some repeaters
> together for a chat using autopatch to autopatch?
>
> I think it would be a kick to chew the fat coast to coast FM mobile. You
> know, reach out and touch (careful) someone. Interstate costs are quite
> inexpensive at 60% off prime on weekends. Say a Saturday afternoon or
> evening. Our 220 repeater club in Sandy Eggo would like to give it a try if
> there are any takers.

The folks on the Evergreen Intertie, which is a network of repeaters here in the Pacific NW, semi-regularly do this sort of thing on Tuesday evenings. A "local net control" station will autopatch into a distant repeater, where another station acts as net control in that area. I've said Hi into Atlanta and Ohio while mobiling home from work over that setup.

A related fun thing they do on the Intertie is tie in an HF big gun station for some real DXing. Last Christmas I used my 2 meter micro HT in a room in Timberline Lodge on Mt. Hood, Oregon, to exchange New Year greetings with hams in Beijing via the Intertie and a big HF station in Seattle.

This sort of thing is a very good idea.

--
Michael Butts, Research Engineer KC7IT 503-626-1302(fax:1282)
Mentor Graphics Corporation, 8500 SW Creekside Place, Beaverton, Oregon 97005
!{ogicse,sequent,tessi,apollo}!mntgfx!mbutts mbutts@pdx.MENTOR.COM
Any opinions are my own, and aren't necessarily shared by Mentor Graphics Corp.

2628. Re: Dayton-- Good Show!

Newsgroup: rec.ham-radio
Date: 1990-05-04 17:43:06 UTC
From: mbutts@mentor.com
Message-ID: <1990May4.174306.1197@mentor.com>
Source record: 11834

From article <701@idacrd.UUCP>, by mac@idacrd.UUCP (Robert McGwier):
> From article <3245@umbc3.UMBC.EDU>, by battle@umbc3.UMBC.EDU (Rick):
>>
>> The DSP stuff from PAC COM and AEA went over like a lead baloon
>> to the masses. No surprise there.
>>
>
> Does this mean you didn't like it or would you care to give us more details?
> I admit that I am not in an objective position but the level of excitement
> I saw was far from `went over like a lead balloon'.
>
> Bob

Jonathan Marks did his Radio Netherlands "Media Network" show from Dayton this
week, and did a feature on DSP in radio, mentioning the new AEA product and
some TAPR work said to be forthcoming, but without any details. Tell us more!!
--
Michael Butts, Research Engineer KC7IT 503-626-1302(fax:1282)
Mentor Graphics Corporation, 8500 SW Creekside Place, Beaverton, Oregon 97005
!{ogicse,sequent,tessi,apollo}!mntgfx!mbutts mbutts@pdx.MENTOR.COM
Any opinions are my own, and aren't necessarily shared by Mentor Graphics Corp.

2629. Re: Working Texas to NYC - what band?

Newsgroup: rec.ham-radio
Date: 1990-05-04 17:49:49 UTC
From: fyfe@bgsuvax.UUCP
Message-ID: <5793@bgsuvax.UUCP>
Source record: 11829

From article <9004271238.AA07424@cmr.ncsl.nist.gov>, by rc@CMR.NCSL.NIST.GOV (Robert Carpenter):
>
>
> In article <9004231749.AA00838@mbunix.mitre.org> ptb@MBUNIX.MITRE.ORG writes:
>>If you are in Texas and your girlfriend is in New York, it would have
>>to be an HF system of some kind (Distances are too long for VHF).

I'm from northern Ohio (by Toledo) which does not seem significantly different in lattitude from New York. I run a el-cheapo home-brew dipole on 10M and it seems that all I can hit is Texas (slightly exaggerated...). Bottom-line - 10M does work just fine for that distance. But other than that - don't ask me, I'm just a lowly tech :^).

--
****
* Bob Fyfe / EMT-A / Ham (KA8YWQ/KT) | INTERNET: fyfe@andy.bgsu.edu *
* University Computer Services | BITNET: fyfe@bgsuopie *
* Bowling Green State University (OH)| UUCP: ...!osu-cis!bgsuvax!fyfe *
****

2630. 3-yr olds and CW

Newsgroup: rec.ham-radio
Date: 1990-05-04 18:30:22 UTC
From: oo7@ut-emx.UUCP
Message-ID: <29481@ut-emx.UUCP>
Source record: 11830

I don't doubt it at all. You only have to listen to some phone pile-ups on HF to be convinced that there are many hams who are about this age.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

2631. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-04 18:36:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500521@ux1.cso.uiuc.edu>
Source record: 11840

> Thanks to intense lobbying by the cellular phone industry, a law was passed
> making it illegal to sell equipment capable of receiving cell phone calls or
> to listen to such calls. The implication of the former is that scanners sold
> new have the cell frequencies blocked, usually by the installation of a diode
> which most people easily find out how to remove. The fact that the latter is
> in direct conflict with the Radio Act doesn't seem to bother the lawmakers.
> The end result is that it is both possible and illegal to listen to cell phone
> calls.

The ECPA prohibits reception and listening of cellular (and some other)
type of communications. Scanners and receivers with the capability to
receive the frequencies cellular is on are still done legally, and are
even needed for some non-cellular applications (such as monitoring for
harmonics of your 2 meter transmission in order to verify compliance
with FCC rules on spectral purity, including the sixth harmonic which
happens to be on the cellular base transmit band).

> This subject has been discussed at great length in the moderated
> comp.dcom.telecom group. That's the best place to go for detailed, specific
> info on this topic.

Has comp.dcom.telecom's moderator been filtering out the truth of this
like most of the cellular salesmen do?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2632. Re: Kenwood TH-215A problem

Newsgroup: rec.ham-radio
Date: 1990-05-04 18:43:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500522@ux1.cso.uiuc.edu>
Source record: 11841

After I got my Icom IC-2GAT I was having trouble getting the tone encoder (built-in) to work right. I was trying to HEAR the tone on my scanner, but could not.

A few weeks later I finally installed the UT-40 tone squelch option. It is a board that replaces the tone encoder board and performs both encode and decode functions. When I removed the tone encoder, I found a bent pin. It was the power supply pin and was bent all the way to the side and never made contact.

Once the UT-40 was in, I could hear 250.3 Hz through the scanner.

There are always these little manufacturing glitches.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2633. What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-04 19:59:00 UTC
From: Ed@ALDERAAN.SCRC.SYMBOLICS.COM
Message-ID: <19900504195937.1.ED@PEREGRINE.SCRC.Symbolics.COM>
Source record: 11827

Date: 4 May 90 04:37:10 GMT
From: aai!leo@uunet.uu.net

Thanks to intense lobbying by the cellular phone industry, a law was passed
making it illegal to sell equipment capable of receiving cell phone calls...

There is no such prohibition. If you think there is, provide a citation.

The fact that the latter is
in direct conflict with the Radio Act doesn't seem to bother the lawmakers.

The ECPA supersedes the Communications Act of 1934 (in the area under
discussion.) There is no conflict. Both are reasonable, Constitutional
statutes which attempt to balance the rights of users of the spectrum
and the rights of random radio listeners. The fact that the random
listeners were further restricted by the ECPA is a matter of public
policy; if you don't like the policy you should change it by intense
lobbying of your own.

This subject has been discussed at great length in the moderated
comp.dcom.telecom group. That's the best place to go for detailed, specific
info on this topic.

If your information came from that group, you should go back to them and get
more accurate information.

2634. More info on callbook server

Newsgroup: rec.ham-radio
Date: 1990-05-04 20:33:49 UTC
From: lcz@dptspd.sat.datapoint.com
Message-ID: <473@dptspd.sat.datapoint.com>
Source record: 11831

I forgot to mention some things about the callbook server available via email to callbook@sat.datapoint.com.

First, there is an additional command, "path", that may be included in your message to specify a return address. Normally this should not be required, but if your requests seem to go unanswered, you might try it. Either a domain specification or a bang-path is acceptable.

Examples:
path bob@foo.com
path uunet!foo!bob

Second, the database includes only FCC assigned (U.S.) callsigns, but it does NOT include club stations. Club station information does not appear to be available from the FCC in machine readable form.

I have updated the help file to include the above information.

73/Lee, N5LYT
lcz@sat.datapoint.com

2635. PC-Pakratt patch

Newsgroup: rec.ham-radio
Date: 1990-05-04 20:35:31 UTC
From: jack@swlabs.uucp
Message-ID: <1990May4.203531.15322@swlabs.uucp>
Source record: 11852
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I have a PK-232 and had been running the PC-Pakratt software for
over a year on a genuine AT without incident.

I have recently put a 386SX in the shack and find that there is a timing
dependency in the PC-Pakratt software that prevents it from operating.
The software indicates that it is "Unable to establish communications
with Pakratt" and terminates.

When I called the tech support at AEA, they told me that indeed there
was a timing dependency in the PC-Pakratt software and that the
original authors of the code were nowhere to be found. I asked about
a fix and they indicated that they had a new program that was going to
be released during the summer. At that point, owners of PC-Pakratt would
be offered a "deal", I was told.

So it looks like the near term solution is to patch the timing loop to
eliminate the problem. To save the time, has anyone on the net
hacked/patched PC-Pakratt to eliminate this problem?

-Jack
--
Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612
uunet!swlabs!jack (UUCP) jack%swlabs.uucp@uunet.uu.net (INTERNET)
jack@kc1uh (TCP/IP) kc1uh@wb1cqo (AX.25)

2636. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-04 21:26:53 UTC
From: lyman@motcid.UUCP
Message-ID: <2794@violet15.UUCP>
Source record: 11835

mcmahan@netcom.UUCP (Dave Mc Mahan) writes:

>..... If you want to make it private, DONT'T do it on
>cellular.

> -dave

True! Very true, at least for now. Current domestic analog cellular communications use traditional FM transmission characteristics at least for the voice channels. The only thing that may provide a bit of a problem for eavesdroppers is that the in-progress call may migrate (hand-off) to another channel at any time so the listener will either need to hunt for the new channel or find another interesting conversation on another channel.

The beginning of the end of this is near however. The analog RF transmission will soon begin to be replaced by digital RF transmission where the base station equipement will transceive along with the mobile subscriber unit in a proprietary, digital format. It will still be possible to tune some scanner or piece of equipement to a busy channel but all that will be heard will be the bumble-bee buzz of the digital transactions. While I wouldnt say that it would be impossible to decode this, those thinking of it will be sumpremely challenged: One RF radio channel will have several digital voice channels multiplexed onto it and will be encoded using some pretty high-speed digital signal processors.

Like everything, this will take a little time but the scenarios like Dave described will soon disappear.

Mike
WA0ZVI

2637. Re: Rush and YYZ

Newsgroup: rec.ham-radio
Date: 1990-05-04 21:51:22 UTC
From: dewandel@emav11.webo.dg.com
Message-ID: <431@dg.dg.com>
Source record: 11845

```
And if you play it backwards...
---------------------------
dewandel@emav11.webo.dg.com
```

2638. Re: 3-year-old learns Morse Code

Newsgroup: rec.ham-radio
Date: 1990-05-04 22:08:43 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <9c4Ni1w161w@w8grt.fidonet.org>
Source record: 11846

neal@lynx.uucp (Neal Woodall) writes:

> In article <36037@genrad.UUCP> dls@genrad.com (Diana L. Syriac) writes:
>
> >I've heard rumors that there is a 3-year-old that just took AND PASSED
> >the 5 wpm Morse Code test in Oklahoma. Presumably, this 3-year-old cannot
> >read, does not know her alphabet yet, cannot write, so is normal in most
> >respects
>
> Not too suprising really.....most normal kids have a really amazing ability
> to learn language at this age, and since morse is really just another symbol
> system, as far as the kid's brain is concerned it is just "more of the same".

I still think this is another of those urban legends, perhaps even a deliberate invention. But even if it is true, it is just one more piece of evidence that the code test is a meaningless waste of time for anyone of any age.

I took a lot of flack when I asked once in the Fidonet HAM conference, "If ham radio did not exist and you were given the job of inventing it, would you include a code test and why?"

2639. Yaesu 208R and DC headsets.

Newsgroup: rec.ham-radio
Date: 1990-05-04 22:41:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9005050655.AA01435@ucbvax.Berkeley.EDU>
Source record: 11849

Ok all you ham/pilots (and there are many). I am looking to link my Dave Clark H10-30 headset to my Yeasu 208R with the little round plug type connector. Does anybody have any experience in this? How 'bout putting any headset on a 208? Most of the retailers I saw want about 50 bucks for a Yaesu installation, that a little steep.

Bob N5GNA

2640. Re: Cat's Wiskers

Newsgroup: rec.ham-radio
Date: 1990-05-04 22:57:34 UTC
From: whit@milton.acs.washington.edu
Message-ID: <3294@milton.acs.washington.edu>
Source record: 11836
Cross-posted to: sci.electronics,rec.ham-radio

In article <830@gazette.bcm.tmc.edu> hshine@watson.bcm.tmc.edu (Harold David Shine) writes:
>
>In my early years I'd see neat crystal radios made with "Cat's Whiskers". These
>devices were sets of mounted crystals and a probe to find a good spot on the
>crystal for radio reception. I'd like to make one. Can anyone tell me where
>I can get a set?

The crystals in question were galena; find a rockhound
or hobby shop and you should have no trouble locating some. A
bottle cap and some solid solder, heated on a stove, will give
you a bottom contact (just drop the galena in; it'll float).
An old fashioned safety pin makes a good probe.
Variations on galena are possible: almost anything chrome plated, or
a steel razor blade (with the blueing etched off) works fairly well.
In fact, I once took a crystal earphone, held the barrel of the
connector in my fingers and 'grounded' the tip to a variety of
household metal surfaces. Most of them rectified somewhat.
An old variation on a cat's whisker was a "coherer"; this was a
glass tube with metal chips. When the rectification failed, one simply
shook the tube to change the chips' contact points.

I am known for my brilliance, John Whitmore
by those who do not know me well.

2641. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-05 00:32:01 UTC
From: mcmahan@netcom.UUCP
Message-ID: <11677@netcom.UUCP>
Source record: 11842

In article <2794@violet15.UUCP> lyman@motcid.UUCP (Michael Lyman) writes:
>mcmahan@netcom.UUCP (Dave Mc Mahan) writes:
>>.............. If you want to make it private, DONT'T do it on
>>cellular.
>
>> -dave
>
>
>True! Very true, at least for now. Current domestic analog
>cellular communications use traditional FM transmission
>characteristics at least for the voice channels. The only
>thing that may provide a bit of a problem for eavesdroppers is
>that the in-progress call may migrate (hand-off) to another
>channel at any time so the listener will either need to hunt for
>the new channel or find another interesting conversation on another
>channel.

Yup, that was what always seemed to happen just as the conversations got
interesting. You would need lots more equipment to do a really proper job
of tracking down one desired phone of interest and keeping up both sides
of the conversation. One big problem was that the person being talked to
(the normal land line, not the mobile phone) was very faint. I was told that
the only reason we got both sides on the same demodulator was that we were
picking up energy mismatches (bad impedance matching) from the land line when
it was sent to the cellular. That would make sense, since some conversations
could only pick up the mobile side or the land side. Most conversations were
legible on both sides, though.

>The beginning of the end of this is near however. The analog RF
>transmission will soon begin to be replaced by digital RF transmission
>where the base station equipement will transceive along with the mobile
>subscriber unit in a proprietary, digital format. It will still be
>possible to tune some scanner or piece of equipement to a busy channel
>but all that will be heard will be the bumble-bee buzz of the digital
>transactions. While I wouldnt say that it would be impossible to
>decode this, those thinking of it will be sumpremely challenged: One
>RF radio channel will have several digital voice channels
>multiplexed onto it and will be encoded using some pretty high-speed
>digital signal processors.

I'm not sure if this will true. I figure that to keep costs of cellular down,
they won't go to anything too expensive like TDMA or packet. Takes too much
inside the phone, and makes the current system obsolete. They may digitize,
(probably will) but the transmission will be some kind of fairly simple scheme
that fits into today's FDMA mode of operation (It is FDMA isn't it? At least,

that is my understanding of how cell phones work. I could be wrong) Simple encoding schemes mean simple answers for tuning in, like taking a scanner output tuned to the cellular bands and feeding it into an old defective cell phone that understands decoding digital stuff. In fact, it might not be that hard to just trick your phone into receiving the same signal being sent to the active party. Since you wouldn't have transmit capability, you would be merely eavesdropping. Also, don't think that just because you scramble doesn't mean you can't be tuned into. There are going to be a proliferation of cellular test sets and various other pieces of equipment that are quite capable of the job. Who would have ever thought one could use a spectrum analyzer (and a paper clip) available off the shelf to do this? Not me, until I was shown. I still stick to my original premise:

If you want to make it private, DONT'T do it on cellular.

>
>Like everything, this will take a little time but the scenarios like
>Dave described will soon disappear.

Time will just up the stakes and introduce new wrinkles and variations on the theme. Most folks will cease to be able to get clear cellular broadcasts, but there are always the techno-zoids that will figure it out for kicks. And the CIA. And the FBI. And the NSA. And the.....

> Mike

-dave

P.S. - As a side note, how many folks read Tom Clancy's book called, "Clear and Present Danger"? In it, Mr. Clancy describes a very interesting means of tuning into cellular phones in Columbia to nab high profile drug dealers, all done by members of the U.S. Govt. Very High tech, more than just slightly believable. Does he know something we don't? If you want more info, read the book. It's very good, and I don't want to spoil it for those that haven't yet read the novel.

2642. Re: Hereditary Hams (was Re: 3-year-old learns Morse Code)

Newsgroup: rec.ham-radio
Date: 1990-05-05 02:40:19 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880144@hpfcdc.HP.COM>
Source record: 11837

>considering that it has been stated here by various VE's that using a
>typewriter to copy the code test isn't allowed cause the rules say by
>hand, I hardly expect they let anyone use a compputer.

The VEs here allow the use of typewriters. In discussing it, they felt
that it was ok, but would probably test them by themselves, so others
wouldn't be annoyed by the noise.

>Add into that
>the illogical (for a child) layout of a QWERTY keyboard and this story
>really looses credibility. I personally would need a lot more verified
>info before I believed it.

illogical ? Kids are really good at figuring out rules systems.
Mapping morse onto QWERTY is just another conditioned response. Maybe
I don't understand why a kid couldn't punch keys at 5 wpm.

Perry/KF0CA

2643. Re: Cat's Wiskers

Newsgroup: rec.ham-radio
Date: 1990-05-05 02:41:59 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880145@hpfcdc.HP.COM>
Source record: 11838

My old cub scout handbook said to use a safety pin and a piece of galena (lead crystal). You probe the galena until you find a spot that behaves like a diode.

I'd rather use a 1N34. :-)

Perry/KF0CA

2644. * SpaceNews 07-May-90 *

Newsgroup: rec.ham-radio
Date: 1990-05-05 02:48:10 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <285@ka2qhd.UUCP>
Source record: 11839
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0507

=========
SpaceNews
=========

MONDAY MAY 7, 1990

SpaceNews is published and distributed weekly around the world on USENET
and Amateur Packet Radio. It is available for unlimited distribution.

* STS-31 NEWS *
===============
STS-31 POSTFLIGHT CREW PRESS CONFERENCE SET

The STS-31 astronaut crew will meet with news media at the Johnson Space
Center on Wednesday, May 9, to discuss the recent mission to deploy the Hubble
Space Telescope. The event will begin at noon EDT and consist of a slide and
video presentation by the astronauts, followed by media questions.

News media may participate in JSC building 2, room 135, or via two-way
communications from NASA Headquarters, Washington, D.C., the Goddard Space
Flight Center, Greenbelt, Md., the Kennedy Space Center, Fla., or the Marshall
Space Flight Center, Huntsville, Ala.

Live NASA Select television coverage will be carried on Satcom F2R,
transponder 13, 72 degrees west longitude, frequency 3960.0 MHz.

[From: Peter E. Yee @ NASA Ames Research Center, Moffett Field, CA.]

* STS-35 NEWS *
===============
Launch of Columbia on the STS-35/Astro-1 mission remains targeted for May 16.
The official launch date will be set at the Flight Readiness Review to be held
May 7-8.

Astronaut and ham-radio operator Dr. Ron Parise (WA4SIR) will be carrying an
Amateur Radio station with him on this mission and will contact other
ham-radio operators on the earth below from the space shuttle.

* OSCAR-11 NEWS *
=================
ASCII Single Event Upset (SEU) downloads have been suspended. OSCAR-11 is now
transmitting Whole Orbit Data (WOD) and SEU data in a new "packetized" format.
The general format is as follows:

S0 S1 ID T0 T1 T2 T3 T4 T5 F0 F1 D0 D1...D63 C0 C1

S0,S1 : SYNC MSB,LSB
ID : Data Ident
T0..T5 : Timestamp
F0,F1 : Frame Counter MSB,LSB
D0..D63: 64 Data bytes
C0,C1 : Checksum MSB,LSB

Here is an On-Board Computer (OBC) status information bulletin received from
OSCAR-11 on 05-May-90 at 01:47:17 UTC:

* UOSAT-2 OBC STATUS INFORMATION *

DIARY OPERATING SYSTEM V3.1 SMH MLJM MSH

Today's date is 5 /5 /90 (Saturday)
Time is 1 :47 :17 UTC
Auto Mode is selected
Spin Period is - 274
Z Mag firings = 0
+ SPIN firings = 3
- SPIN firings = 1
SEU count = 6
RAM WASH pointer at E20D
WOD commenced 5 /5 /90 at 0 :0 :9
with channels 10 ,11 ,19 ,29 ,
Last cmnd was 109 to 0 , 0
Attitude control initiated, mode 1
Data collection in progress
Digitalker active

* NEW PACKET PATHS *
====================
SpaceNews has been sent out to: SPACE @ AMSAT for several weeks now, but
judging from the mail I have received, I am returning to: SPACE @ ALLBBS.
This change should clear up the distribution problems that have been occuring
recently. Any comments on this change would be appreciated.

* FEEDBACK WELCOMED *
=====================
Feedback regarding SpaceNews can be directed to the editor (John) via any
of the following paths:

UUCP : ...uunet!masscomp!ocpt!tsdiag!ka2qhd!kd2bd
AX.25 : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2645. ICOM R9000 Computer Control

Newsgroup: rec.ham-radio
Date: 1990-05-05 04:39:47 UTC
From: COLE@BABETTE.ISI.EDU
Message-ID: <641882387.0.COLE@babette.isi.edu>
Source record: 11850

This is a reply to Bert Campbell, N5KGT, regarding his request for info about some details regarding computer control of the ICOM R9000. I don't have easy access to Usenet to EMail Bert, and there might be more than two of us out there with R9000s, so please excuse the reply via the group.

To read a memory (say Memory 321) on the R9000, send the following sequence of packets:

Set memory: FE FE 2A F1 8 3 21 FD
Read freq: FE FE 2A F1 3 FD
Read mode: FE FE 2A F1 4 FD

(the above assumes the R9000's address is 2A, which is the default, and the computer's address is F1. All bytes are hex.)

To set a memory (for example to set Memory 456 to 1234.567890 MHz FM medium), send:

Set memory: FE FE 2A F1 8 4 56 FD
Set freq: FE FE 2A F1 5 90 78 56 34 12 FD
Set mode: FE FE 2A F1 6 5 2 FD
Write VFO to mem: FE FE 2A F1 9 FD

Here are some new commands which work on the R9000:

Command E followed by a second byte (subcommand) of 0 makes the radio stop scanning if it is scanning. However, I haven't been able to make it START scanning. Example: FE FE 2A F1 E 0 FD.

Command 10 followed by a subcommand sets the tuning step. Subcommand 0 sets 10 Hz, 1 sets it to 100 Hz, up to subcommand 9 which sets it to 100 kHz. I haven't found out how to READ the tuning step, however.

Command 11 followed by a subcommand sets the attenuator. Subcommand 00 turns it off, 10 sets it to 10 dB, 20 sets it to 20 dB, 30 sets it to 30 dB.

Command 12 followed by 0 turns the antenna select OFF. Command 12 followed by 1 turns it ON.

Command 13 replies with a positive response (FB) but I can't see what the heck it does. My best guess would be that it makes the optional speech synthesizer speak the frequency,

if you have one, which I don't.

Command 14 followed by a subcommand and a data byte sets AF gain, RF gain or the squelch level. Subcommand 01 sets AF gain to a value from 0 to 255 given in the data byte. Similarly subcommand 02 sets RF gain and 03 sets the squelch level. For example, FE FE 2A F1 14 01 80 FD would set the AF gain to a value of 128. It's obviously best to debug this one while NOT using headphones with the R9000.

Command 15 reads the S-meter. The reply message contains a data byte with a value from 0 to 255 which represents the current S-meter reading.

One of the mysteries of life is why ICOM USA is told so little about the computer interfaces on their rigs. I called ICOM and talked to Tom Moore of ICOM Customer Service, who is very helpful. He told me about Commands 11, 14 and 15. I found the others by experimenting. Don't they work all the time? Don't all R9000s have them?

Incidentally, I haven't had a whole lot of luck with baud rates above 1200. That goes for all the ICOM rigs, not just the R9000.

If anyone knows what Command 13 does, how to read the tuning step size, or how to start scanning, I'd certainly appreciate knowing.

Randy Cole KN6W
Citicorp-TTI
cole@babette.isi.edu
(213) 450-9111, x2628

2646. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-05-05 06:42:54 UTC
From: markz@ssc.UUCP
Message-ID: <685@ssc.UUCP>
Source record: 11854

In article <ecXLi1w161w@w8grt.fidonet.org>, jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:
>
> Everyone keeps overlooking the geology of Michigan's UP, much of which is
> RICH in copper and iron deposits. We're speaking in terms of the whole
> dadgummed peninsula being being one humongous bar magnet.

And maybe the Navy's submarine communication system is causing the
core to saturate :-).

Being next to a large body of nonconductive water may cause
just as many strange problems.

markz@ssc.uucp

2647. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-05 06:52:36 UTC
From: markz@ssc.UUCP
Message-ID: <686@ssc.UUCP>
Source record: 11855
Cross-posted to: rec.autos.driving,rec.ham-radio

In article <1990May4.043710.1130%aai@uunet.uu.net>, leo%aai@uunet.uu.net writes:
>
> Thanks to intense lobbying by the cellular phone industry, a law was passed
> making it illegal to sell equipment capable of receiving cell phone calls or
> to listen to such calls.

Not true. Sale is not outlawed, but Uniden and Radio Shack both have
a large interest in cellular phones. If that were true, the Icom
R-7000, R-9000, and Yaesu FRG-9600 would have disappeared years ago.

markz@ssc.uucp

2648. Cellular phone and Wall Street Week (5/4/90)

Newsgroup: rec.ham-radio
Date: 1990-05-05 07:02:28 UTC
From: markz@ssc.UUCP
Message-ID: <687@ssc.UUCP>
Source record: 11856

On tonights Wall Street Week, the guest paper hanger said that in two years the digital cellular phones will allow three times as many conversations.

But he said that the next generation after that will give another threefold increase. Is digital voice technology good enough so that 9 (Toll quality) conversations can take place in the 60 Khz of spectrum used by one analog cellular conversation? (Or is someone elses spectrum going to get used)

markz@ssc.uucp

2649. SSTV -- What's recent?

Newsgroup: rec.ham-radio
Date: 1990-05-05 11:13:30 UTC
From: crds@pyrite.uucp
Message-ID: <1990May5.111330.23661@usenet.ins.cwru.edu>
Source record: 11853

I'm interested in finding out the current state of Slow Scan Television -- preferably information about non-digital SSTV. Are there scan converters readily available to encode TV images into voice-bandwidth transmissions? Anything low-cost? What's "typical" (time-wise) for a complete 525 line transmission? What is available in the way of a decoder? Thanks in advance for the information -- No, I'm not a Ham Radio operator; I have a friend who is looking for this information (he doesn't have access to the network).

Glenn A. Emelko

crds@pyrite.SOM.CWRU.Edu

2650. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-05 11:22:21 UTC
From: edw@wells.UUCP
Message-ID: <233@wells.UUCP>
Source record: 11851

In article <7880143@hpfcdc.HP.COM>, perry@hpfcdc.HP.COM (Perry Scott) writes:
> Anyone know the story behind the unused frequencies on 11 meters ? Are
> they dead frequencies, or allocated to another service ?
>
> Perry/KF0CA

If you are referring to:
26.995, 27.045, 27.095, 27.145, 27.195
then you are referring to the Class "C" frequencies. These are intended
for non voice use. These frequencies are mostly used for remote
control applications. Radio Shack uses some of these frequencies for
their remote control cars, etc..

Is this what you were referring to?

--
==========
Edward E. Wells Jr., President Voice: (215)-943-6061
Wells Computer Systems Corp., Box 343, Levittown, Pa. 19058
{dsinc,francis,hotps,houxl,lgnp1,mdi386,pebco}!wells!edw

2651. Re: CQ buys HAM RADIO

Newsgroup: rec.ham-radio
Date: 1990-05-05 16:48:41 UTC
From: Justin_Randall_Padawer@cup.portal.com
Message-ID: <29630@cup.portal.com>
Source record: 11857

Here here, Bob. As a former feature writer for Ham Radio Horizons (remember that one?--late 1970s/early 1980s) published by the Ham Radio Group, I'll miss them as well. Let's hope they continue in some fashion under the new CQ ownership. --Randy Padawer WA4FJF

2652. Re: Rush and YYZ

Newsgroup: rec.ham-radio
Date: 1990-05-05 18:29:21 UTC
From: bmp@hpcupt1.HP.COM
Message-ID: <7120120@hpcupt1.HP.COM>
Source record: 11869

Rush was based out of Toronto 15 years back.
I don't know where they call home now.

Brian Perkin

2653. ICOM Receiver Whitewash

Newsgroup: rec.ham-radio
Date: 1990-05-05 18:55:56 UTC
From: schuster@dasys1.uucp
Message-ID: <1990May5.185556.2879@dasys1.uucp>
Source record: 11862

I'm on EEB's waiting list for an ICOM R-1. Today I received the
following letter in the mail:

Dear Customer,
EEB has been informed by ICOM that the new R1, R100, and R72A
have been removed from the market, until further notice.
Unfortunately, ICOM is unable to project any future delivery
date at this time.
We are suggesting that all orders be cancelled, but, will only
do so upon the customers request. Any money already paid against
the purchase of one of these units will be refunded, in full, at
the time the order is cancelled.
We apologize for any inconvenience.
Please feel free to call our customer service department at
1-800-368-3270 if you should have any questions or if we can be of
any further service to you.
As always EEB thanks you for your business.
Sincerely,
Patricia Hurt
Customer Service

OK folks, what's the deal?

--
l\ /l' _ Mike Schuster 70346.1745@compuserve.com
l \/ lll/(_ Big Electric Cat schuster@dasys1.UUCP CIS:70346,1745
l lll\(_ New York, NY USA DELPHI,GEnie:MSCHUSTER

2654. News From OSCAR-11 03-May-90

Newsgroup: rec.ham-radio
Date: 1990-05-05 19:00:31 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <287@ka2qhd.UUCP>
Source record: 11858
Cross-posted to: rec.ham-radio,sci.space

```
* UOSAT-2 OBC STATUS INFORMATION *

DIARY OPERATING SYSTEM V3.1 SMH MLJM MSH

Today's date is 5 /5 /90 (Saturday)
Time is 1 :47 :17 UTC
Auto Mode is selected
Spin Period is - 274
Z Mag firings = 0
+ SPIN firings = 3
- SPIN firings = 1
SEU count = 6
RAM WASH pointer at E20D
WOD commenced 5 /5 /90 at 0 :0 :9
with channels 10 ,11 ,19 ,29 ,
Last cmnd was 109 to 0 , 0
Attitude control initiated, mode 1
Data collection in progress
Digitalker active

**** UoSAT-OSCAR-11 BULLETIN - 215 03rd May 1990 ****

UoSAT MISSION CONTROL CENTRE
University of Surrey, Guildford, Surrey, GU2 5XH, England

* NEW DATA FORMATS *

The new Forth-Diary binary packetised data format is:

S0 S1 ID T0 T1 T2 T3 T4 T5 F0 F1 D0 D1...D63 C0 C1

S0,S1 : SYNC MSB,LSB
ID : Data Ident
T0..T5 : Timestamp
F0,F1 : Frame Counter MSB,LSB
D0..D63: 64 Data bytes
C0,C1 : Checksum MSB,LSB

1.SYNC

5041h for UoSAT-2, 4534h for UoSAT-3.

2.ID

01 Engineering frame. 1 packet
02 Memory dump. Variable number of packets, only for debug purposes
03 Telemetry. 3 packets
```

04 SEU data. 10 packets
05 Extended Engineering. 2 packets
80h..FFh WOD

The WOD ID byte is incremented every time a new WOD survey is started.
It starts with 80h, and goes to FFh before going back to 80h.
UoSAT-2 WOD outputs 372 packets, UoSAT-3 WOD is 352 packets.

3.Timestamp

Each frame is timestamped at transmission.
T0 is seconds, T1 minutes, T2 hour, T3 the day, T4 the
month and T5 the year. All are in BCD format.

4.Frame counter

Each frame is numbered according to the number of packets, as
specified in 2:ID.

5.DATA

5.1.Engineering frame

Byte
0: Day number. 1=Sunday, 7=Saturday.
1: NA
2: WOD survey start seconds (BCD)
3: '' minutes
4: '' hours
5: '' day
6: '' month
7: '' year
8: Diary Mode: 0=Auto, 1=Manual.
9: Last command received.
10: Command set/reset.
11: Command data.
12: Attitude control active.
13: Attitude control mode: 1=spin, 2=Mag Lock, 3=delib, 4=1 and 3.
14: WOD collection in progress.
15: WOD # channels
16: 1st WOD channel
.. ... ''
25: 10th ''
26: WOD Survey Number
27: Total SEU's (MSB)
28: '' (LSB)
29: WASH RAM pointer (MSB)
30: '' (LSB)
31: Manual mode time-out counter (minutes)

Followed by 32 bytes of engineering data.

5.2 Memory

Memory dump, variable number of packets.

5.3 Telemetry

Each TLM channel uses 2 bytes.

5.4 SEU

Each of the 64 SEU entries:

T0 T1 T2 T3 T4 T5 A0 A1 C0 C1

T0..T5 : time of SEU detection
A0, A1 : address of the SEU (msb,lsb)
C0, C1 : SEU counter (msb,lsb).

ASCII download of SEU has now been stopped.

7.5 Extended Engineering data

These are two frames of variable data, mainly Attitude Control
related.

5.6 WOD

Frame 0: T0..T5 N C0..C9 wod data..
All other frames: wod data

T0..T5 : survey start time
N : number of channels
C0..C9 : WOD channels
wod data: (4 channel example)

byte0 byte1 byte2 byte3 byte4 byte5 byte6 ...
MS MD LS MS MD LS MS MD LS MS MD LS MS MD LS ...
Channel1 Channel2 Channel3 Channel4 Channel1 Channel2 ...

MS: MSnibble, MD: Middle nibble, LS: LSnibble.

ASCII WOD: the checksum on UoSAT-3 should now add up to 204 (CC hex).

6.Checksum

Byte wise addition of all bytes, modulo 10000h.

** BID **

Please use BID $UOSAT.215 for PBBS use.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2655. Re: WARC DANGEROUS RECORDINGS

Newsgroup: rec.ham-radio
Date: 1990-05-05 19:24:17 UTC
From: julian@bongo.UUCP
Message-ID: <138@bongo.UUCP>
Source record: 11863

In article <30500520@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
>
> I recently had a conversation with a local ham, not over the air, concerning
> the density of amateur FM/repeater communications in large metropolitan areas.
> He had spoken with another ham from such an area who had the perspective that
> in his area (LA) the 2m, 1.25m, 70cm, and even the 23cm were FULL. He had
> the perspective that 1 QSO per day made the repeaters "busy".
>

I keep saying this, and I keep getting told that I don't understand
etc. But somehow there is a feeling that if a frequency has been
"assigned" it is being used. Most of the "assigned" repeaters etc on
70 cm in LA are not used. No, I don't call two co-owners who chat for
10 mins per week use. That is equipment testing.

Even on 2 meters, here in LA there are repeaters that are hardly
used. Once myself and a friend were using 145.55 for chats. We found
that there was a repeater near there. Yup, every Thursday at 19.00
the "Net" met there and played the Westlink tape. RF spectrum is a
precious resource, we have to stop piddling it away.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

2656. Re: WARC DANGEROUS RECORDINGS

Newsgroup: rec.ham-radio
Date: 1990-05-05 20:20:43 UTC
From: markz@ssc.UUCP
Message-ID: <689@ssc.UUCP>
Source record: 11870

In article <3048@ultb.isc.rit.edu>, jla4983@ultb.isc.rit.edu (J.L. Austin) writes:
> About the lack of spectrum space for the Land Modile service,
> it seems to me, that the UHF television channels are underutilized.
> In rochester we have channels 21 and 31, what is the rest of the
> space from ~500 -> ~800 MHz used for, if anything?

Given the ease with which an AM video signal can be interfered with,
allocating one channel means that several channels are blocked within
a given distance. Transmitters that are Co-channel, Adjacent Channel,
Sound Image, Picture Image, Local Oscillator, If Beat, and Intermod (almost
adjacent channels) (most assuming a 45 Mhz IF) have minimum seperation
distances specified by the FCC.

Add on top of that two things. Repeater/Translators for poor reception
areas, and the recent community low power TV activity (which is still up
in the air, and hasn't come down yet), and the spectrum looks a little
crowded. Not to mention the TV broadcasting is worth big $$$.

markz@ssc.uucp

2657. Re: The Black Hole Effect (additional data)

Newsgroup: rec.ham-radio
Date: 1990-05-05 20:52:02 UTC
From: mcmahan@netcom.UUCP
Message-ID: <11703@netcom.UUCP>
Source record: 11860

In article <685@ssc.UUCP> markz@ssc.UUCP (Mark Zenier) writes:
>In article <ecXLi1w161w@w8grt.fidonet.org>, jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:
>>
>> Everyone keeps overlooking the geology of Michigan's UP, much of which is
>> RICH in copper and iron deposits. We're speaking in terms of the whole
>> dadgummed peninsula being being one humongous bar magnet.
>
>And maybe the Navy's submarine communication system is causing the
>core to saturate :-).
>
>Being next to a large body of nonconductive water may cause
>just as many strange problems.

I'm not sure what a non-conductor would have to do with propagation problems.
In the normal case, your antenna is next to a large body of (non-conducting) air
when you transmit, and that doesn't seem to cause too many problems. Why would
water?

I too wondered about the Navy ELF project and it's effect on the 'black hole'
phenomena. I think these problems may have dated back to before that antenna
network was even thought of, though. Still, you have to wonder if the powers
that be thought about all that iron before they started digging trenches for
their antenna grid. Is it finished yet? Last time I was in the UP, the
environmentalists were still fighting hard.

>markz@ssc.uucp

-dave

2658. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-05-05 20:53:07 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9005060703.AA12026@ucbvax.Berkeley.EDU>
Source record: 11873

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #693 -
Alouette 1
1 00424U 62B-A 1 90122.60843781 .00000362 00000-0 42304-3 0 3228
2 00424 80.4658 331.0160 0024318 30.8943 329.3619 13.67340481376468
ATS 3
1 03029U 67111 A 90 98.80327994 -.00000102 00000-0 99999-4 0 3715
2 03029 13.1147 21.8007 0013799 220.0851 141.0844 1.00334296 82109
Cosmos 398
1 04966U 71 16 A 90123.97977836 .00077458 17374-4 43669-3 0 8404
2 04966 51.5171 349.4485 2307008 64.2148 317.8185 10.98517045586821
Starlette
1 07646U 75010 A 90117.67638898 -.00000070 00000-0 -72877-5 0 715
2 07646 49.8279 357.7942 0205978 24.3724 336.6732 13.82135599768797
LAGEOS
1 08820U 76039 A 90117.21641459 .00000002 00000-0 00000 0 0 715
2 08820 109.8549 337.6721 0044572 249.3013 110.3003 6.38664311 70686
GPS-0001
1 10684U 78020 A 90122.06400267 .00000008 00000-0 99999-4 0 4256
2 10684 63.7068 90.9763 0115879 199.3572 160.1908 2.00557774 74926
GPS-0002
1 10893U 78 47 A 90123.53331051 -.00000025 00000-0 00000 0 0 1767
2 10893 64.4045 331.7983 0164018 26.1366 334.7160 2.00546915 87779
SeaSat 1
1 10967U 78064 A 90124.07689042 .00001659 00000-0 61713-3 0 3255
2 10967 108.0108 229.1285 0002377 285.1887 74.8925 14.35626682620129
GPS-0003
1 11054U 90114.85145268 -.00000025 0 2208
2 11054 63.9265 328.3692 0059289 117.3760 243.8483 2.00567037 84616
Nimbus 7
1 11080U 78098 A 90120.72397049 .00000281 00000-0 28342-3 0 6726
2 11080 99.1970 26.7190 0008358 206.9812 153.0893 13.83426883581474
GPS-0004
1 11141U 78112 A 90120.43278518 .00000008 00000-0 00000 0 0 3741
2 11141 63.6887 90.9176 0060601 316.4886 43.0087 2.00559307 83429
GPS-0005
1 11690U 80 11 A 90108.60679715 .00000009 00000-0 00000 0 0 9253
```

```
2 11690 64.1815 93.3452 0113493 204.2889 155.1592 2.00556558 89049
GPS-0006
1 11783U 80 32 A 90123.37475127 -.00000024 00000-0 00000 0 0 1284
2 11783 63.7120 327.6622 0149676 60.5203 301.0320 2.00561023 73422
GOES 5
1 12472U 81049 A 90120.83182911 -.00000208 00000-0 99999-4 0 9274
2 12472 3.3073 79.7329 0206217 47.9632 313.7532 1.00218467 31771
DE 1
1 12624U 81 70 A 90123.03564986 .00006636 00000-0 34066-1 0 4285
2 12624 89.0132 148.3209 6205283 297.2926 12.8444 3.51035874260535
SME
1 12887U 81100 A 90123.76637050 .00031017 00000-0 60098-3 0 6338
2 12887 97.6396 168.6085 0002236 121.5142 238.6291 15.47653191474391
Salyut 7
1 13138U 82 33 A 90123.02659669 .00028276 00000-0 33943-3 0 2364
2 13138 51.6023 172.3466 0002114 35.4578 324.6077 15.60660303457795
Cosmos 1383
1 13301U 82 66 A 90123.04307206 .00000177 00000-0 19668-3 0 5722
2 13301 82.9340 333.8729 0026696 288.8952 70.9308 13.67823075391509
LandSat 4
1 13367U 82 72 A 90123.15102262 -.00000152 00000-0 -28750-4 0 3263
2 13367 98.1692 186.5541 0002165 281.2607 78.8389 14.57125812414746
IRAS
1 13777U 83 4 A 90122.35646873 .00000551 00000-0 40639-3 0 7710
2 13777 99.0307 319.8581 0012243 146.1983 213.9818 13.98786541 40530
Cosmos 1447
1 13916U 83 21 A 90121.22685591 .00000249 00000-0 25271-3 0 7224
2 13916 82.9417 46.7705 0036841 272.1903 87.5036 13.74035784356227
TDRS 1
1 13969U 83 26 B 90123.04309012 .00000129 00000-0 99999-4 0 9745
2 13969 4.3580 66.3682 0001852 301.7981 58.1483 1.00245946 92625
GOES 6
1 14050U 83 41 A 90122.98497244 .00000122 00000-0 99999-4 0 1735
2 14050 2.1164 78.7248 0003071 234.9925 125.0167 1.00273126 9819
OSCAR 10
1 14129U 83 58 B 90120.68709020 -.00000069 00000-0 00000 0 0 5211
2 14129 25.9692 206.5754 5971987 139.0605 286.0148 2.05882161 23750
GPS-0008
1 14189U 83 72 A 90122.93795877 .00000007 00000-0 99999-4 0 7569
2 14189 63.3228 89.3184 0148284 219.0061 139.8950 2.00707037 49855
LandSat 5
1 14780U 84 21 A 90123.72722193 -.00006966 00000-0 -15455-2 0 1828
2 14780 98.2068 184.4527 0001921 73.1444 287.0083 14.57076445328242
UoSat 2
1 14781U 84 21 B 90123.63419063 .00003095 00000-0 58161-3 0 7251
2 14781 97.9558 177.6394 0014296 29.0619 331.1214 14.65293925329445
GPS-0009
1 15039U 84 59 A 90123.52277677 .00000006 00000-0 00000 0 0 9256
2 15039 63.0926 88.4057 0023707 239.5411 120.4219 2.00617525 43141
Cosmos 1574
```

```
1 15055U 84 62 A 90119.97515335 .00000207 00000-0 21147-3 0 8710
2 15055 82.9559 97.8543 0028942 94.9245 265.5222 13.73348284293450
GPS-0010
1 15271U 84 97 A 90119.93345199 -.00000025 00000-0 00000 0 0 8263
2 15271 63.2350 327.3724 0105963 326.5625 32.8036 2.00574262 40181
Cosmos 1602
1 15331U 84105 A 90123.26273688 .00004746 00000-0 65256-3 0 2809
2 15331 82.5384 42.5393 0024501 115.2333 245.1330 14.77952933301452
NOAA 9
1 15427U 84123 A 90123.07462031 .00000711 00000-0 40504-3 0 5738
2 15427 99.1685 121.8593 0015910 132.6854 227.5656 14.12552271277619
Cosmos 1686
1 16095U 85 86 A 90123.79498517 .00055493 00000-0 65687-3 0 6249
2 16095 51.5982 168.4841 0003132 23.8892 336.1828 15.60702925259011
GPS-0011
1 16129U 85 93 A 90123.60166656 .00000007 00000-0 00000 0 0 5245
2 16129 63.8503 89.4048 0122634 149.5069 211.1867 2.00510470 33462
Mir
1 16609U 86 17 A 90123.25182427 .00080818 00000-0 10336-2 0 6357
2 16609 51.6173 196.9391 0011397 238.9344 121.1678 15.58437092241084
SPOT 1
1 16613U 86 19 A 90123.18922483 .00000175 00000-0 10007-3 0 9302
2 16613 98.7345 198.2074 0000839 37.6391 322.4779 14.20044189 57543
Cosmos 1766
1 16881U 86 55 A 90123.91931946 .00003312 00000-0 46053-3 0 9805
2 16881 82.5211 101.0355 0022013 129.2074 231.1064 14.77431807202613
EGP
1 16908U 86 61 A 90117.80270731 -.00000047 00000-0 -56616-4 0 2210
2 16908 50.0085 50.8868 0011721 66.2389 293.9677 12.44386374168588
NOAA 10
1 16969U 86 73 A 90123.29417257 .00001076 00000-0 48872-3 0 4235
2 16969 98.6054 152.2429 0014495 43.3384 316.8928 14.23586727188221
MOS-1
1 17527U 87 18 A 90123.23954317 .00000040 00000-0 43417-4 0 5291
2 17527 99.1099 196.3644 0000694 111.0710 249.0496 13.94867687162994
GOES 7
1 17561U 87 22 A 90121.68822209 -.00000055 00000-0 99999-4 0 5276
2 17561 0.0499 277.7710 0006685 123.5917 318.8084 1.00300087 4957
Kvant-1
1 17845U 87 30 A 90123.76474730 .00110598 00000-0 14062-2 0 1267
2 17845 51.6126 194.3730 0011064 243.4407 116.2266 15.58455411177212
DMSP B5D2-3
1 18123U 87 53 A 90123.19287485 .00001172 00000-0 63580-3 0 5742
2 18123 98.8208 314.3988 0014920 147.3279 212.8820 14.14010823148041
RS-10/11
1 18129U 87 54 A 90123.83032485 .00000025 00000-0 20926-4 0 1782
2 18129 82.9291 1.3024 0010324 240.2273 119.7856 13.72084548143360
Meteor 2-16
1 18312U 87 68 A 90120.02150411 .00000219 00000-0 18868-3 0 4216
2 18312 82.5604 328.4828 0013682 32.8256 327.3762 13.83639406136321
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Meteor 2-17
1 18820U 88 5 A 90120.34912288 .00000526 00000-0 46091-3 0 2718
2 18820 82.5404 28.4841 0018103 97.7110 262.6131 13.84331861113564
DMSP B5D2-4
1 18822U 88 6 A 90123.15159845 .00001224 00000-0 57707-3 0 4742
2 18822 98.6548 3.1051 0007685 46.0584 314.1223 14.21416288116423
AO-13
1 19216U 88 51 B 90120.10084605 -.00000122 00000-0 99999-4 0 1220
2 19216 57.0709 157.4258 6939931 226.1208 50.2013 2.09703206 14399
OKEAN 1
1 19274U 88 56 A 90123.82279741 .00001408 00000-0 19668-3 0 7786
2 19274 82.5181 199.7507 0020436 267.2221 92.6574 14.76867830 98375
Meteor 3-2
1 19336U 88 64 A 90123.59221715 .00000391 00000-0 99999-3 0 4755
2 19336 82.5270 308.9599 0019132 59.2964 300.9920 13.16891172 85085
NOAA 11
1 19531U 88 89 A 90122.09460767 .00000769 00000-0 44377-3 0 2730
2 19531 98.9789 70.3601 0013154 57.0470 303.1958 14.11575632 82469
TDRS 2
1 19548U 88 91 B 90122.86902574 .00000109 00000-0 99999-4 0 1225
2 19548 0.0198 179.4030 0003266 252.7651 287.8809 1.00213328 4989
Cosmos 2001
1 19796U 89 11 A 90122.83049642 -.00001033 00000-0 99999-4 0 4601
2 19796 63.1513 98.6564 7108008 319.9106 5.0332 2.00597212 8890
GPS BII-01
1 19802U 89 13 A 90123.59427135 .00000016 00000-0 99999-4 0 1226
2 19802 55.0640 199.1826 0057377 161.5314 198.7239 2.00562801 8852
Akebono
1 19822U 89 16 A 90123.70540616 .00020960 00000-0 15139-2 0 5837
2 19822 75.1135 260.4993 4189366 250.1419 60.8010 7.08224656 30275
Meteor 2-18
1 19851U 89 18 A 90123.05534771 .00000189 00000-0 16080-3 0 2222
2 19851 82.5183 264.4128 0015224 127.7028 232.5515 13.83962904 59328
TDRS 3
1 19883U 89 21 B 90122.50231026 -.00000235 00000-0 99999-4 0 1242
2 19883 0.0121 329.3754 0001054 289.0258 101.6376 1.00270904 3439
GPS BII-02
1 20061U 89 44 A 90123.27937764 -.00000032 00000-0 00000 0 0 1227
2 20061 54.6562 17.6862 0082385 172.9697 187.1647 2.00561456 6599
Nadezhda 1
1 20103U 89 50 A 90110.04342582 .00000123 00000-0 11985-3 0 957
2 20103 82.9596 327.8684 0036663 198.4669 161.5161 13.73580821 39733
GPS BII-03
1 20185U 89 64 A 90119.75847309 .00000016 00000-0 99999-4 0 1219
2 20185 54.9663 200.1934 0044416 135.4579 224.9552 2.00568291 5099
Activnyi
1 20261U 89 80 A 90122.98690294 .00000773 00000-0 23939-3 0 4831
2 20261 82.5912 257.2515 1258836 80.6148 293.4772 12.43650822 26978
Activnyi RB
1 20262U 89 80 C 90122.85360099 .00001737 00000-0 54213-3 0 2248
```

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2 20262 82.5938 257.3634 1261801 81.0075 293.1289 12.43164531 26955
Magion 2
1 20281U 89 80 B 90123.04529355 .00001758 00000-0 54675-3 0 4835
2 20281 82.5900 257.1583 1258641 80.3748 293.6924 12.43885063 26987
GPS BII-04
1 20302U 89 85 A 90117.50827118 -.00000029 00000-0 99999-4 0 1226
2 20302 54.6605 319.1298 0032212 317.6710 42.0967 2.00377042 3852
Meteor 3-3
1 20305U 90119.40317399 0.00000063 14900-3 0 1229
2 20305 82.5458 252.3905 0017278 89.0980 271.2129 13.15856016 24533
COBE
1 20322U 89 89 A 90122.52928375 .00004677 00000-0 30893-2 0 1236
2 20322 99.0174 133.2114 0008584 128.0975 232.0918 14.01966794 23099
Kvant-2
1 20335U 89 93 A 90123.76475968 .00121366 00000-0 15395-2 0 2244
2 20335 51.6155 194.3591 0011809 238.3884 121.3698 15.58461046 24810
GPS BII-05
1 20361U 89 97 A 90118.77983317 .00000015 00000-0 99999-4 0 737
2 20361 54.9715 142.2833 0058281 51.3734 309.2171 2.00578464 2736
SPOT 2
1 20436U 90 5 A 90123.22461809 -.00000068 00000-0 -23195-4 0 1796
2 20436 98.7349 198.2940 0001254 104.8166 255.3077 14.20019291 14360
UO-14
1 20437U 90 5 B 90123.84228150 -.00006925 00000-0 -27571-2 0 1276
2 20437 98.7071 200.0803 0010295 283.2031 76.7741 14.28572559 14532
UO-15
1 20438U 90 5 C 90122.87765867 .00000416 00000-0 18272-3 0 769
2 20438 98.7022 199.1063 0009859 291.3172 68.6956 14.28348636 14394
PACSAT
1 20439U 90 5 D 90123.06498864 .00000610 00000-0 25869-3 0 735
2 20439 98.7037 199.3696 0010642 290.0196 69.9839 14.28696641 14429
DO-17
1 20440U 90 5 E 90122.43216607 .00001059 00000-0 43654-3 0 729
2 20440 98.7050 198.7437 0010811 293.1027 66.8983 14.28740642 14334
WO-18
1 20441U 90 5 F 90122.49449625 .00000935 00000-0 38618-3 0 720
2 20441 98.7046 198.8173 0011385 294.1113 65.8874 14.28842306 14341
LO-19
1 20442U 90 5 G 90122.06957788 .00000965 00000-0 39769-3 0 730
2 20442 98.7055 198.4074 0012078 293.8972 66.0940 14.28910261 14283
GPS BII-06
1 20452U 90 8 A 90120.95426063 .00000000 00000-0 99999-4 0 717
2 20452 54.5996 257.8970 0030859 43.0656 317.1470 2.00877255 1897
MOS-1B
1 20478U 90 13 A 90123.05056882 .00000607 00000-0 47857-3 0 2331
2 20478 99.1902 193.4552 0001362 129.0929 231.0473 13.94824315 11840
FO-20
1 20480U 90 13 C 90123.02251318 .00000358 00000-0 85342-3 0 727
2 20480 99.0440 178.0518 0541653 150.7938 212.4662 12.83133392 10952
1990 013D
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1 20491U 90116.13925673 0.00000564 11082-2 0 718
2 20491 99.0470 174.6675 0471570 153.0728 209.5717 13.02737081 9623
Soyuz TM-9
1 20494U 90 14 A 90123.95711867 .00113092 00000-0 14366-2 0 1240
2 20494 51.6203 193.4041 0010577 244.9515 114.7182 15.58475204 12761
LACE
1 20496U 90 15 A 90123.62855114 .00008124 00000-0 50216-3 0 1290
2 20496 43.0953 207.4331 0012384 66.2306 293.9581 15.10101485 11788
RME
1 20497U 90 15 B 90123.55396743 .00011853 00000-0 34705-3 0 1323
2 20497 43.1068 192.1883 0012318 53.3493 306.8411 15.35149171 11978
Nadezhda 2
1 20508U 90 17 A 90120.06685682 .00000254 00000-0 26152-3 0 716
2 20508 82.9510 95.3881 0046254 118.9413 241.6375 13.73204051 8400
OKEAN 2
1 20510U 90 18 A 90123.84056236 .00001327 00000-0 20279-3 0 1285
2 20510 82.5244 138.5600 0021799 61.0052 299.3207 14.73010320 9541
INTELSAT-6
1 20523U 90 21 A 90123.81338124 .00042234 00000-0 30157-2 0 1309
2 20523 28.3478 194.6390 0016454 65.5590 294.6268 15.03134611 7760
Cosmos 2060
1 20525U 90 22 A 90116.74325817 .00006881 00000-0 11809-3 0 1224
2 20525 65.0254 293.0192 0009915 265.8547 94.0928 15.51981409 6691
Cosmos 2061
1 20527U 90110.23391170 0.00000127 12989-3 0 209
2 20527 82.9406 188.7193 0030435 184.8026 175.2840 13.71244824 4285
1990 023B
1 20528U 90 23 B 90116.25209824 .00000318 00000-0 33441-3 0 711
2 20528 82.9402 184.2292 0025359 154.1527 206.0898 13.72643528 5101
GPS BII-07
1 20533U 90 25 A 90121.04701449 -.00000032 00000-0 00000 0 0 425
2 20533 55.0509 17.8427 0033474 100.7629 259.6508 2.00592729 656
1990 025C
1 20535U 90 25 C 90119.93776890 .00236304 16509-4 17720-2 0 779
2 20535 37.5934 350.2506 5957213 233.0842 56.2815 4.22207149 1462
1990 026A
1 20536U 90 26 A 90122.10370766 -.00001185 00000-0 99999-4 0 780
2 20536 62.9350 19.4659 7361653 318.4665 4.7275 2.00601511 721
1990 026D
1 20539U 90 26 D 90123.19890815 -.00000836 00000-0 35903-4 0 467
2 20539 63.1476 18.9963 7337411 318.6473 4.7855 2.03011371 773
Offeq 2
1 20540U 90 27 A 90124.02019390 .00475468 -13921-4 12735-2 0 894
2 20540 143.1913 263.1658 0812721 288.6637 62.7878 14.32950404 4337
1990 027B
1 20541U 90 27 B 90123.04805883 .00708832 -16106-4 16657-2 0 794
2 20541 143.1984 260.2975 0736069 284.9261 66.9139 14.51751386 4221
PegSat
1 20546U 90 28 A 90123.59786235 .00005023 00000-0 31921-3 0 783
2 20546 94.1216 191.4250 0154451 131.9372 229.5124 14.99537240 4159
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1 20547U 90 28 B 90122.74447785 .00003392 00000-0 26009-3 0 760
2 20547 94.1448 191.0320 0130894 131.0001 230.2685 14.95392931 4025
Cosmos 2064
1 20549U 90116.01026782 0.00000057 43968-3 0 404
2 20549 73.9807 224.1524 0017296 242.0227 117.9069 12.47018719 2487
Cosmos 2065
1 20550U 90 29 B 90123.10692118 -.00000007 00000-0 00000 0 0 410
2 20550 73.9831 214.6497 0008708 267.9873 92.0182 12.48998567 3377
Cosmos 2066
1 20551U 90115.81425470 -.00000007 0 403
2 20551 73.9816 223.8136 0049303 55.5001 305.0697 12.59478807 2484
Cosmos 2067
1 20552U 90116.00096998 -.00000007 0 405
2 20552 73.9808 223.6499 0039668 63.6918 296.8202 12.57707620 2504
Cosmos 2068
1 20553U 90116.10683679 -.00000007 0 405
2 20553 73.9825 223.5724 0030768 57.5033 302.8992 12.56043351 2514
Cosmos 2069
1 20554U 90116.05451226 -.00000006 0 400
2 20554 73.9822 223.7680 0021679 55.3317 304.9776 12.54315162 2509
Cosmos 2070
1 20555U 90 29 G 90120.39446764 -.00000024 00000-0 -11083-3 0 414
2 20555 73.9810 218.0025 0013351 33.6226 326.5671 12.52583315 3042
Cosmos 2071
1 20556U 90116.11146780 -.00000006 0 405
2 20556 73.9812 223.8670 0002499 64.6070 295.5240 12.50727511 2500
1990 029J
1 20557U 90 29 J 90122.70329070 .00001049 00000-0 95280-2 0 453
2 20557 73.9852 216.8636 0148428 234.1468 124.5703 12.22657531 3258
AsiaSat-1
1 20558U 90 30 A 90118.10702338 -.00000306 00000-0 99999-4 0 434
2 20558 0.1484 304.1688 0000300 214.8139 201.0181 1.00269829 235
1990 030B
1 20559U 90 30 B 90123.37630193 .00016701 00000-0 55540-2 0 458
2 20559 31.2506 14.7032 7321258 192.9662 124.9166 2.22754442 584
Cosmos 2072
1 20568U 90 33 A 90123.01682695 .00280613 42417-4 34045-3 0 877
2 20568 64.7609 89.3863 0039544 81.1683 279.4044 16.06170169 3093
Palapa-B2R
1 20570U 90 34 A 90121.06453170 -.00000335 00000-0 99999-4 0 452
2 20570 0.0437 321.0004 0027209 173.2788 225.9360 1.00274653 135
1990 034B
1 20571U 90 34 B 90123.62917983 .00002487 00000-0 42190-3 0 464
2 20571 22.7608 242.7104 0628522 1.2691 358.9245 13.82037719 2724
1990 034C
1 20572U 90 34 C 90119.37076817 .00052024 00000-0 58137-2 0 452
2 20572 18.9104 354.1670 7384465 189.4385 136.6721 2.17332807 337
Cosmos 2074
1 20577U 90 36 A 90120.37918530 .00000244 00000-0 24880-3 0 410
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2 20577 82.9454 149.8755 0025582 262.6178 97.2106 13.73709349 1314
1990 036B
1 20578U 90 36 B 90123.06252700 .00000321 00000-0 32482-3 0 480
2 20578 82.9423 147.8765 0018514 239.3207 120.6125 13.75016174 1682
HST
1 20580U 90123.38473101 .00002613 00000-0 28943-3 0 472
2 20580 28.4684 174.5462 0005255 27.9918 332.0948 14.84158644 1310
Cosmos 2075
1 20581U 90 38 A 90123.02460804 .00009411 00000-0 40692-3 0 557
2 20581 74.0251 40.7204 0022372 326.9451 33.0511 15.22334411 1145
1990 038B
1 20582U 90 38 B 90123.73947571 .00011770 00000-0 48518-3 0 553
2 20582 74.0300 39.1804 0027129 338.0631 21.9406 15.23784654 1258
Molniya1-77
1 20583U 90 39 A 90123.22545298 .00000043 00000-0 99999-4 0 538
2 20583 62.7893 187.0528 7362052 288.1998 9.5247 2.00771677 156
1990 039B
1 20584U 90 39 B 90123.08934191 .00598148 89505-5 11889-2 0 571
2 20584 62.7776 162.1295 0222894 122.7912 239.4940 15.68135583 1099
1990 039C
1 20585U 90 39 C 90123.06005509 .00723360 36027-4 96108-3 0 543
2 20585 62.8211 162.3824 0279785 116.6852 246.4282 15.61318375 1093
1990 39D
1 20586U 90 39 D 90123.75555566 .00000464 00000-0 -18245-3 0 57
2 20586 62.8226 186.8883 7405301 288.1206 9.3057 1.96417526 148
Cosmos 2076
1 20596U 90 40 A 90122.97504858 -.00000146 00000-0 99999-4 0 122
2 20596 63.0226 339.1435 7371144 318.2501 4.6420 2.01929713 97
1990 40B
1 20597U 90 40 B 90124.05548805 .00606643 93782-5 11921-2 0 195
2 20597 62.8216 319.6441 0255940 118.7987 243.9106 15.61423167 869
1990 40C
1 20598U 90 40 C 90124.02528178 .01702222 37133-4 11390-2 0 226
2 20598 62.8580 319.4128 0249818 123.1757 239.3725 15.75365047 869
1990 40D
1 20599U 90 40 D 90122.95795911 .00001083 00000-0 93857-2 0 120
2 20599 63.1506 338.8549 7356890 318.3777 4.6550 2.03458890 90
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tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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2659. ARRL DX Bulletin #18

Newsgroup: rec.ham-radio
Date: 1990-05-05 20:57:10 UTC
From: oo7@ut-emx.UUCP
Message-ID: <29536@ut-emx.UUCP>
Source record: 11861

(posting this for Jim Reisert AD1C):

QST de W1AW
DX Bulletin 18 ARLD018
>From ARRL Headquarters
Newington CT May 4, 1990
To all Radio Amateurs

Thanks to Paul, KB1BE and the Connecticut DX Association for the following DX information.

>From the DXCC desk. Do not submit QSL cards for Walvis Bay before June 1. Cards submitted before that date will be returned with no credit. DXCC credit for Walvis Bay will be given for contacts on or after September 1, 1977.

Spratly. 1S0XV The Russian group is still active. They are waiting for a new generator as well as additional fuel. They should be back on the air by May 4th and operating for about 10 days. The QSL route is still in question, but it is possible that a stateside manager is in the works.

South Yemen. A very good possibility for an operation on May 19th with 9K2 operators. They have received verbal permission and written permission is expected soon. Keep your fingers crossed and your radios warmed up.

Conway Reef. 3D2 Another mid May DXpedition to the South Pacific by part of the recent Jarvis team of Martti, OH2BH, Wayne, N7NG, and Ron, ZL1AMO. They will be joined by Matt, SM7PKK. These DXers, with good conditions, could really do a big job on the recently new DXCC country island.

Rotuma. 3D2 Bing, VK2BCH, will make his third visit and amateur operation from Rotuma in the South Pacific starting on May 20th. Bing will operate 80 through 10 meters using mostly SSB with some CW. QSL to his home call.

Cocos Keellng Island. VK9 May 19 to 26 operation of VK9EW by WC5N, and VK9WB by W5EW.

Dodecanese. SV5 Starting May 21st for 10 days, N2OO, WA3TYF and SV0AA will sign /SV5. They will also be in the WPX CW contest and will be active on 160 through 10 meters on both CW and SSB before and after the contest.

Kerguelen Island. FT4XG, Francois, has been very active on 10 SSB on the weekends. Listen on 28574 KHz around 1500Z working 5 up. Also, FT5XH and FT5XA show up on 14165 KHz several mornings a week at 1100Z or later via long path. QSL for FT4XG via FD1ASS or F1ASS or to 1990 CBA.

USSR special event station. Ian, G3BWN has been given permission to operate a special event station in Moscow operating from May through 12. His call will be EK45WV/G3BWN. Ian will also operate as UA3/G3BWN from the home station of the local radio club president. The special event station will be operated by local war veterans and Ian. Ian was a radio operator during WW2 on the Russian convoys. The WV in the call stands for War Veterans. The special event will be on 20, 15 and 10 meters, both CW and SSB.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

2660. Re: SlowScan on Amiga

Newsgroup: rec.ham-radio
Date: 1990-05-05 21:09:18 UTC
From: coxc0010@ucselx.sdsu.edu
Message-ID: <1990May5.210918.10907@ucselx.sdsu.edu>
Source record: 11859

In article <3573@jato.Jpl.Nasa.Gov> hammock@mars.jpl.nasa.gov (Randy Hammock KC6HUR) writes:
>I am looking for a program that will support the sending and receiving
>of slow-scan images using an Amiga computer. It seems that something
>that supports sending directly from an IFF should be fairly simple to
>do. I'd like to hear what anyone else has on this.
>
>73's
>Randy
>AMIGA /// | hammock@mars.jpl.nasa.gov Telos - Jet Propulsion Laboratory - NASA
> /// | KC6HUR >>> Space reseved for future use <<<
> \\\/// |---
> \XX/ C= | "When I want your opinions, I'll give them to you!" - Mock

Amiga Video Terminal is a software and hardware product for Amiga computer by AEA. It can do SSTV in colour, rx WEFAX, NEWSFAX, group 1,2 fax,over phone sending and receiving pictures w/many image processing utilities, it can be hooked up to phone line, transceiver etc. (it is a kind of modem).

I read it in QST and talked to a ham today at an Amiga dealer looking at the the brand new demo unit of Amiga 3000! (M68030/68882 25Mhz, 8 VLSI custom chips and the new OS is very professional). check out the comp.sys.amiga(.tech/.hard-ware) on usenet. He uses the AVT above and he likes it a lot, sending color SSTV on HF all over!

```
/*****************************************************************************/
/* */
/* David Tse Internet: coxc0010@ucselx.sdsu.edu (expire 5/31/90) */
/* */
/* U.S. Mail: P.O. Box 15634, San Diego, CA 92115-0634, USA */
/* */
/* Organisation: San Diego State University, California, USA */
/* */
/*****************************************************************************/

--

/*****************************************************************************/
/* */
/* David Tse Internet: coxc0010@ucselx.sdsu.edu (expire 5/31/90) */
```

2661. Re: Numbers station on 6841 kHz

Newsgroup: rec.ham-radio
Date: 1990-05-05 22:55:55 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29644@cup.portal.com>
Source record: 11864
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In a recent posting, weir@husc8.UUCP (Robert Weir) writes:

> I have heard an interesting "numbers station" over the past 4 months or so
> and was wondering if anyone out on the NET might have any leads as to its
> location.

> The station is heard putting the carrier on about 2320-2330 each evening
> on 6841 kHz, simulcast on 5050 kHz. The YL, EE announcer goes through a
> few minutes of "1 2 3 4 5 6 7 8 9 0" before going into her 3/2 numbers
> routine. What makes me wonder is the incredible signal strength I receive
> here in Boston. IT ALMOST OVERLOADS MY RECIEVER WITH THE ANTENNA UNATTACHED!
> This station is not coming from Cuba, but most likely from someplace in the
> New England area.

This station is located on 6840 kHz, and its parallel on 5047 kHz. It's a classic computer generated 3/2 format English Numbers transmission which has been positively located on a National Communications System site in the Warrenton/Remington area of Virginia. This determination was made some years ago and has been detailed in several publications.

This station is heard at regular four hour intervals throughout the daylight hours with excellent signal strength throughout the northeastern United States. The earliest known interception has been at 1500 UTC, with additional loggings of this station at 1900 and 2300 UTC.

The format (as described in an article I published this month in The A*C*E Bulletin) follows:

Type Five Transmission Formats (3/2 English)

"361" (repeated three times)
"1234567890"
(This header, consisting of the identifier and the
count from 1-0 is repeated for a full five minutes).
---------- (10 electronic tones)
"Count xx" (Repeated twice - corresponds to group count)
"xxx xx xxx xx . . . (Cipher text or crypt)
"Repeat"
"Count xx"
"xxx xx xxx xx . . . (As above)
"End"

You'll never find any 'sins of omission' with transmissions of this type. They are perfectly timed, well modulated, brisk and utterly bionic. While 5-D Spanish are often so technically inept as to be amusing, there isn't a

single hair out of place with this group.

The cadence moves like this - 123.45..123.45..123.45.. where '.' equates to a pause equivalent to the spacing between the numbers. So if you were to pace it through, each group of 3/2 numbers when combined with its spaces yields a count of 8 - one full 3/2 set with its spaces occupies an 8 second block. [As published in The A*C*E Bulletin, a publication which focuses on Pirate, Clandestine and Covert Radio, Numbers Stations and other similar topics].

Another National Communications System site, located in Miami, was the subject of a recent Popular Communications article about KKN-39 - another of those stations we'd all like to know more about.

Best -
/HM

_____
| |
Los Numeros On-Line	HAVANAMOON@cup.portal.com
MoonBeam Press	sun!portal!cup.portal.com!HAVANAMOON
PO Box 149	HAVANA.MOON (GEnie)
Briarcliff Manor, NY 10510	1:272/39 (FidoNet)
_____

2662. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-06 00:02:15 UTC
From: lindh@uhasun.hartford.edu
Message-ID: <69@ultrix.uhasun.hartford.edu>
Source record: 11866

Is there any digital use allowed on CB channels? I am think about
packet radio....not RC stuff for cars. And what channels can you use
for it?

--
Andrew Lindh, a student at the University of Hartford -- Computer Science
BITNET: LINDH@HARTFORD.bitnet INTERNET: lindh@uhasun.uofh.edu
UUCP/Usenet: lindh@evecs.uucp ---- When will I grduate???
NOTE: All views here are MINE!!! Not the schools or thoes of anyone else!

2663. Re: Numbers station on 6841 kHz

Newsgroup: rec.ham-radio
Date: 1990-05-06 01:26:44 UTC
From: lindh@uhasun.hartford.edu
Message-ID: <74@ultrix.uhasun.hartford.edu>
Source record: 11867
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <2795@husc6.harvard.edu>, weir@husc8.HARVARD.EDU (Robert Weir) writes:
> The station is heard putting the carrier on about 2320-2330 each evening
> on 6841 kHz, simulcast on 5050 kHz. ....
> Here in Boston. IT ALMOST OVERLOADS MY RECIEVER WITH THE ANTENNA UNATTACHED!
> This station is not coming from Cuba, but most likely from someplace in the
> New England area. She has a Boston accent, one I didn't notice because I am
> so used to it.

Get a Radio Direction Finder......find where the signal is comming from.
Or just call the FCC....That is their job they should be able to find it.
I am now moving so I don't have my radio set up....so I can't see
if I get it in Hartford, CT.
I know there are other number stations that the FCC has tried to find
but there were not in the US....so they could not go after the people.

--
Andrew Lindh, a student at the University of Hartford -- Computer Science
BITNET: LINDH@HARTFORD.bitnet INTERNET: lindh@uhasun.uofh.edu
UUCP/Usenet: lindh@evecs.uucp ---- When will I grduate???
NOTE: All views here are MINE!!! Not the schools or thoes of anyone else!

2664. Re: ICOM Receiver Whitewash

Newsgroup: rec.ham-radio
Date: 1990-05-06 01:43:15 UTC
From: crisp@mips.COM
Message-ID: <38545@mips.mips.COM>
Source record: 11865

In article <1990May5.185556.2879@dasys1.uucp> schuster@dasys1.UUCP (Michael Schuster) writes:
>I'm on EEB's waiting list for an ICOM R-1. Today I received the
>following letter in the mail:
>
>Dear Customer,
> EEB has been informed by ICOM that the new R1, R100, and R72A
>have been removed from the market, until further notice.
> Unfortunately, ICOM is unable to project any future delivery
>date at this time.
> We are suggesting that all orders be cancelled, but, will only
>do so upon the customers request. Any money already paid against
>the purchase of one of these units will be refunded, in full, at
>the time the order is cancelled.
> We apologize for any inconvenience.
> Please feel free to call our customer service department at
>1-800-368-3270 if you should have any questions or if we can be of
>any further service to you.
> As always EEB thanks you for your business.
> Sincerely,
> Patricia Hurt
> Customer Service
>
>
>OK folks, what's the deal?
>
>--
>l\ /l' _ Mike Schuster 70346.1745@compuserve.com
>l \/ lll/(_ Big Electric Cat schuster@dasys1.UUCP CIS:70346,1745
>l lll\(_ New York, NY USA DELPHI,GEnie:MSCHUSTER

I was told that there are patent infringment lawsuits pending on these radios. I don't know if this is true or not, it's just what I heard.

--
Making the world safe for technocracy.

2665. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-06 05:01:20 UTC
From: don@gp.govt.nz
Message-ID: <1178.264446f2@gp.govt.nz>
Source record: 11868
Cross-posted to: rec.ham-radio,rec.autos.driving

In article <5703@gollum.twg.com>, sawyer@twg.com (Bruce B. Sawyer) writes:
> In article <90121.014009SPW103@psuvm.psu.edu> SPW103@psuvm.psu.edu writes:
>>
>>Oh, and of course the salesman told you it was impossible and illegal -- he
>>is a salesman, and likely was just as lost as I/we are. :-]
>>
> "As long as you don't act on the basis of what you hear, you are breaking no
> laws." Now let me tell you the reality...
>
> I have a close friend here locally (N...) who is the proud new owner of a
> R9000. After a good deal of urging, he persuaded me to join him for a
> few beers and listen to the 9000. So up to 800MHz we went, and in a half
> hour I got...
> - a dope deal being set up;
> - a replay of last night's sex scene between Mr. X and his secretary,
> together with how X was planning on getting away from the wife and
> kids again tonight;
> - several discussions of corporate takeover strategies (this is Silicon
> Valley);
> - etc.

To quote from Telecom Cellular's (part of Telecom Corporation of New
Zealand, the still government owned but probably not for much longer
NZ-wide telephone company) brochure "All the facts about cellular phones
and how they work":

How private is a call on a cellular phone?

A cellular phone is virtually as secure as your normal phone.
If you would normally have a scrambler, you should also use one
with your cellular phone.

But of course people don't usually listen to a tapped wire "over a few
beers", do they? There are a few people running around out there with
scanners, and in NZ, a scanner that goes to 800MHz is expensive, but not
vastly so; quite a few people have them. The radio regs in NZ make it a
crime to act on or relay radiocommunications not intended for the
listener, but it's an awful difficult thing to prove.

Don Stokes, ZL2TNM / / PSI%(5301)47000028::DON
Systems Programmer /GP/ Government Printing Office Postmaster@gp.govt.nz
_____/ /__Wellington__New_Zealand_____don@gp.govt.nz
Judgement comes from experience; experience comes from poor judgement.

2666. virus from Japan, affecting Sharp pc

Newsgroup: rec.ham-radio
Date: 1990-05-06 06:05:02 UTC
From: rfc@briar.Philips.Com
Message-ID: <94379@philabs.Philips.Com>
Source record: 11871

I don't know if this Sharp X68000 is an IBM pc clone, so the following may or may not be significant.

copied from Amateur radio packet:

Msg# TSF Size #Rd Date/Time MsgID From To
25681 BF 3274 0 0503/1054 13249_NA2B N2IXL VIRUS@NYNET ()
Sb: Virus in Japanese Software

RELAYED BY N2IXL, FROM BITNET (VIRUS-L DIGEST):
From: Yoshio Oyanagi <oyanagi@is.tsukuba.ac.jp>
Subject: Virus found in Japanese game software (Sharp)
VIRUS FOUND IN A JAPANESE GAME SOFTWARE ON THE MARKET
Yoshio Oyanagi

University of Tsukuba, Japan Newspapers reported on April 24 that a virus was found in a simulation game software "FAR SIDE MOON" (9500 yen) for Sharp personal computer X68000. It has been sold by Artdink Inc. since April 13 in Japan. The virus was detected by Computer Virus Institute (Takao Yamamoto, director) of Federation of Japanese Computer Clubs. According to Yamamoto, this virus is programmed so that it keeps inactive until July and after that data on floppy or in the computer will automatically be erased whenever one switches on the computer. So far 3000 sets have been sold, among which half are contaminated. It is conjectured that the computers in Artdink Inc. are invaded by the virus while developping the game software. Today (May 2) Asahi Shinbun (one of the major daily newspaper in Japan) disclosed that it succeeded in making contact with one of the virus makers. According to the report, the maker is a high school boy of age 17, who lives in Kagawa prefecture. Forty people collaborated in making the virus and got several tens of thousand yen (several hundred dollars) for each from the client, who ordered through PC network for hackers. The virus program was completed in three months and distributed secretly since last September. Federation of Japanese Computer Clubs told that there have been two viruses (viri?) for X68000, named "Namba I" and "Namba II". "Namba I" becomes active on July 4 this year and it deletes data on the computer or foppy disks. If the computer is contaminated with both "Namba I" and "Namba II", some X68000 do not accept any floppy after 0:00 May 2. The federation has developped a vaccine and distributing it among PC shops and users. If, however, a computer is contaminated with both viruses, it does not even accept the floppy disk of the vaccine. In this case, user should bring the computer to the maker and ask to change the parts.

1332z, 757 msgs, #25693 last @KD6TH-4 MailBox>

2667. Kenwood TH-215A Problems

Newsgroup: rec.ham-radio
Date: 1990-05-06 07:02:08 UTC
From: nfunamura%mis2.decnet@NUWES-LLL.NAVY.MIL
Message-ID: <9005060701.AA11640@ucbvax.Berkeley.EDU>
Source record: 11872

In Message-ID: <1990May2.130539.3645@maverick.ksu.ksu.edu> Myron A. Calhoun writes:

<In a sample population of about 60 amateurs in this town, three of us
<own Kenwood TH-215A HT's, all purchased separately at different times
<from different sources....

<ALL THREE have developed an audio problem in the last eight months:
<the audio (both from the microphone and from the keypad) simply
<disappears at unpredictable intervals. And all three can be "fixed"
<by WHACKING the HT with the palm of one's hand--until it happens again.
....
<If your TH-215A has this problem, if you know of someone else whose
<HT has this problem, or if you know how to solve it, please let me know.
<One of these days a WHACK isn't going to work, and we need help!
<--Myron.

I have a TH-215A that had similar problems....and fixes. I don't know if I was also losing the keypad tones but the audio, both send and receive was dropping out as described. It first started out with losing the receive audio, then some time later I got some reports of no audio on transmit. I also experienced intermittent loss of power (everything off and nothing on the display). The fix was as described....a WHACK!
The first time I experienced the problem was when the rig was about a year old. I was able to fix it by re-soldering the connection on the jacks. I found cold solder joints on two of the three jacks (speaker and external mic). For some reason (maybe related to the large mounting holes on the PC board), the jacks appeared to be hand soldered.....with large globs of solder. Everything else appeared to be machine soldered.
The next problem I had was with the power jack. The rig would intermittently just lose power. In some cases I could fix it with a whack and in other cases it required running a thin non-conductor into the jack and pushing on the wiper arm on the side of the jack. I later changed the jack. The new jack lasted about a year and has now been changed also.
About six to eight months ago I began having problems with the audio out again so I quit using the speaker mic until I could change the jack. I have now changed both audio jacks and am back on the speaker mic. I expect to continue getting this problem about once a year so when I ordered the parts from Kenwood I bought three of each jack. (Not a good solution but trying to be practical...and keep the rig going).
I think the coiled cord on the speaker mic subjects the jacks to too much tension so I now run the cord under the rig to relieve the tension on the jack. The molded double plug configuration of the speaker mic does not help the situation (causes a rotational moment and pressure on one jack). I think that the biggest problem with all three of these jacks is that they cannot

withstand heavy/rough use.
I don't know how Dr. Calhoun or his friends use their rigs, but my problem has been mainly related to using it in my car. I don't think that anyone who strictly uses the rig on battery power and the internal speaker and mic would experience nearly as much problems as I have. However, I think that the problems would still occur to a lesser degree. The smart thing to do if the jacks are not used is to use the rubber jack-covers supplied with the rig. (Kenwood trying to tell us something?) This reduces the chances of contamination of the normally through contact on the jacks. (The suspected problem area is the normally through contacts on the jacks not making a good contact and being shocked back into contact when whacked).
It might be interesting to survey the number of people who have/have not experienced the problem and find out what percentage use the rig in their cars...with speaker mic, external power etc.
I have also heard of people having problems with the push-to-talk switch on this rig. It might be noted that the monitor switch (next to the PTT switch) uses the same switch and can be used as a replacement...if desired.

73, Norman
KH6R (808) 668-3087

2668. * FULL SAREX DETAILS!! *

Newsgroup: rec.ham-radio
Date: 1990-05-06 17:20:16 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <288@ka2qhd.UUCP>
Source record: 11874
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,sci.space

```
* STS-35 NEWS *
==============
Highlighting mission STS-35, the 36th flight of the
Space Shuttle and 10th mission of orbiter Columbia, will
be around-the-clock observations by the seven-member crew
using the ultraviolet astronomy observatory (Astro) and
the Broad Band X-Ray Telescope (BBXRT). Both instruments
are located in Columbia's payload bay and will be
operated during 12-hour shifts by the crew.

Liftoff of the 10th flight of Columbia is scheduled
for 12:45 a.m. EDT on May 17 from launch pad 39-A at the
Kennedy Space Center, Fla. Columbia will be placed into
a 218 statute (190 nautical) mile circular orbit,
inclined 28.5 degrees to the equator. Nominal mission
duration is expected to be 8 days 19 hours 55 minutes.
Deorbit is planned on orbit 139, with landing scheduled
for 8:40 p.m. EDT on May 25 at Edwards Air Force Base,
Calif.

Columbia's middeck will carry the Shuttle Amateur
Radio Experiment (SAREX) to communicate with amateur
radio stations within line-of-sight of the orbiter in
voice mode or data mode. This experiment has previously
flown on STS-9 and STS-51F. Also on this mission,
Columbia will function as the subject for ground sensor
operations as part of the Air Force Maui Optical Site
(AMOS) calibration test.

Commander of the seven-member crew is Vance Brand.
Pilot is Guy Gardner. STS-35 is Brand's fourth trip to
space. He previously flew on the Apollo-Soyuz Test
Project mission in 1975. He also commanded Shuttle
missions STS-5 in November 1982 and STS-41B in February
1984. Gardner previously piloted STS-27 in December
1988.

Mission Specialists are Mike Lounge, Jeffrey Hoffman
and Robert Parker. Lounge previously flew on STS-51I in
August 1985 and STS-26 in September 1988. Hoffman flew
as a Mission Specialist on STS-51D in April 1985.
Parker's previous spaceflight experience was STS-9 in
November 1983.
```

Payload Specialists Ronald Parise and Samuel Durrance
round out the STS-35 crew. Both are making their first
space flights.

* STS-35 QUICK LOOK *
====================
Launch Date: May 17, 1990
Launch Window: 12:45 a.m. - 3:09 a.m. EDT
Launch Site: Kennedy Space Center, Fla.
Launch Complex 39-A
Orbiter: Columbia (OV-102)
Altitude: 218 statute miles (190 nm)
Inclination: 28.45
Duration: 8 days, 19 hours, 55 minutes
Landing Date/Time: May 25, 1990, 8:40 p.m. EDT

Primary Landing Site:
Edwards Air Force Base, Calif.

Abort Landing Sites:
Return to Launch Site -- Kennedy Space Center, Fla.
Trans-Atlantic Abort -- Banjul, The Gambia
Abort Once Around -- Edwards AFB, Calif.

Crew:
Vance D. Brand -- Commander Red/Blue Team
Guy S. Gardner -- Pilot -- Red Team
Jeffrey A. Hoffman -- Mission Specialist 1/EV -- Blue Team
John M. "Mike" Lounge -- Mission Specialist 2/EV2 -- Blue Team
Robert A.R. Parker -- Mission Specialist 3 -- Red Team
Samuel T. Durrance -- Payload Specialist 1 -- Blue Team
Ronald A. Parise -- Payload Specialist 2 -- Red Team

Red Team shift is approximately 10:30 p.m. -- 10:30 a.m. EDT
Blue Team shift is approximately 10:30 a.m. -- 10:30 p.m. EDT

Cargo Bay Payloads:
Ultraviolet Astronomy Telescope (Astro)
Broad Band X-Ray Telescope (BBXRT)

Middeck Payloads:
Air Force Maui Optical Site (AMOS)
Shuttle Amateur Radio Experiment (SAREX)

SHUTTLE AMATEUR RADIO EXPERIMENT (SAREX)

Conducting shortwave radio transmissions between
ground-based amateur radio operators and a Shuttle-based
amateur radio operator is the basis for the Shuttle
Amateur Radio Experiment (SAREX).

SAREX communicates with amateur stations in line-of-
sight of the orbiter in one of four transmission modes:
voice, slow scan television (SSTV), data or (uplink only)

fast scan television (FSTV).

The voice mode is operated in the attended mode while SSTV, data or FSTV can be operated in either attended or unattended modes.

During the mission, SAREX will be operated by Payload Specialist Ron Parise, a licensed operator (WA4SIR), during periods when he is not scheduled for orbiter or other payload activities. At least four transmissions will be made to test each transmission mode.

Ronald A. Parise, 38, also will serve as a Payload Specialist. Parise is a senior scientist in the Space Observatories Department, Computer Science Corporation in Silver Spring, Md. He is a member of the research team for the Ultraviolet Imaging Telescope, one of the instruments scheduled for flight as part of the Astro payload. He is from Warren, Ohio.

Parise has participated in flight hardware development, electronic system design and mission planning activities for the Ultraviolet Imaging Telescope project. He is pursuing his astronomical research interests with the International Ultraviolet Explorer satellite under a NASA grant.

He received a bachelor of science degree in physics, with minors in mathematics, astronomy and geology from Youngstown State University, Ohio, and a master of science degree and a doctor of philosophy degree in astronomy from the University of Florida.

The primary pair of frequencies intended for use during the mission is 145.55 MHz as the downlink from Columbia, with 144.95 MHz as the uplink. A spacing of 600 KHz was deliberately chosen for this primary pair to accommodate those whose split frequency capability is limited to the customary repeater offset.

SAREX crew-tended operating times will be dictated by the time of launch. As a secondary payload, SAREX will be operated by Parise during his pre- and post-sleep activities each day. This means that wherever the Shuttle is above Earth during those operating windows, amateur stations can communicate with Columbia. Currently, those windows provide coverage for Australia, Japan, South America and South Africa.

The continental United States has little or no coverage except through a network of ground stations in other parts of the world in conjunction with relay links back to the United States.

Another part of the SAREX is the "robot," providing an automated operation which can proceed with little human intervention. The robot will generally be activated during one of the crew-tended windows and deactivated during the next one. This gives approximately 12 hours on and 12 hours off for the robot, with the operational period chosen to cover all of the U.S. passes.

SAREX has previously flown on missions STS-9 and STS-51F in different configurations, including the following hardware: a low-power hand-held FM transceiver, a spare battery set, an interface (I/F) module, a headset assembly, an equipment assembly cabinet, a television camera and monitor, a payload general support computer (PGSC) and an antenna which will be mounted in a forward flight window with a fast scan television (FSTV) module added to the assembly.

Antenna location does not affect communications and therefore does not require a specific orbiter attitude for operations. The equipment is stowed in one middeck locker.

SAREX is a joint effort of NASA and the American Radio Relay League (ARRL)/Amateur Radio Satellite Corporation (AMSAT).

STS-35 COLUMBIA SAREX FREQUENCIES

Shuttle Transmit Accompanying Shuttle
Frequency Receive Frequencies

Group 1 145.55 MHz 144.95 MHz
145.55 144.91
145.55 144.97

Group 2 145.51 144.91
145.51 144.93
145.51 144.99

Group 3 145.59 144.99
145.59 144.95

Group 4 145.55 144.95
145.55 144.70
145.55 144.75
145.55 144.80
145.55 144.85

Note: The 145.55/144.95 combination is in both Groups 1 and 4
because alternate uplink frequencies from Group 1 would be
used over North and South America while those from

Group 4
would be used generally in other parts of the
world.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2669. MFJ 1278 Multilevel Fax Format and notes

Newsgroup: rec.ham-radio
Date: 1990-05-06 20:31:43 UTC
From: paulf@jessica.Stanford.EDU
Message-ID: <9334@lindy.Stanford.EDU>
Source record: 11875

The MFJ 1278 8 level grayscale fax capability isn't terribly well documented (for that matter, even the 4 level docs are lousy). Here's some info for those of you who want to implement software:

1. Sync detect. At the beginning of a transmission, fax stations send about 20 lines of black ('o') with sync bars ('0'). The sync bars are roughly 14 characters (28 pixels) wide; I sync on the middle of the sync bars.

2. As one would expect, data is packed two pixels per byte, offset by 48d.

3. Assuming that you include the sync bars in the picture, the frame format is 607x1200 for WEFAX. Unfortunately, the clocking is a bit off, and you need to cut off one pixel at the end of every other line (eg, they're really sampling at a rate of 1215 pixels per second). The images are actually 600x600, so you need to compress the y-axis by a factor of 2.

4. Your software must be capable of an average throughput of 6kbps if you can do xon/xoff flow control, or minimum 6kbps without flow control. MacKermit, for example, can keep up, but only if you have xon-xoff flow control set.

5. The results are well worth it. I have some sat pix that I've downloaded and converted to GIF using pbmplus and some simple routines I've written; the quality is far better than commercial wxfax marine units. It works suprisingly well even in a fading environment.

-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

2670. Mods/Info For Yaesu FT-470 Wanted

Newsgroup: rec.ham-radio
Date: 1990-05-06 21:17:14 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <4383@ubbs-nh.MV.COM>
Source record: 11630

Just picked up a couple FT-470's for myself and the spouse who just got her ticket a few weeks ago (N1HMW).

I really like the radio and am curious if it has additional capabilities.

To make a long story much shorter, if you have any mods or other information concerning this piece of equipment I would appreciate hearing from you and/or receiving it.

Thanks!
Noel
KC1RB
--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

2671. More Questions and a Couple of Comments

Newsgroup: rec.ham-radio
Date: 1990-05-07 02:50:49 UTC
From: DXANDY@WIDENER.BITNET
Message-ID: <5A0506150428006E-MTABWIDENER*DXANDY@widener>
Source record: 11629

Hello All!
I would like to thank everyone who replied to my last batch of questions. Your advice was invaluable. I have another couple of questions that I would like to ask. I got a lot of replies from people who thought that the Kenwood TS-440S with the automatic antenna tuner was probably the best buy. When I buy a linear amp, I assume that I can no longer use the tuner in the rig since it can only handle 100W and it will be in the wrong place anyway. I am right?
My other question reguards satelite operations; I read an article in the ARRL handbook about using the OSCAR satelites and it sounded very interesting. The information was a bit out of date and it didn't mention whether there were any satelites in geostationary orbit. What kind of equipment is needed to track satelites that aren't in a geostationary stationary orbits; and is this easy to do?

And now for the promised comments! I have read a lot of postings from hams concerned about the future of Amateur Radio. There is a lot of talk about the "no-code" license to encourage new hams to get on the air. I don't think this will have that much of an effect. I don't think Morse is that hard to learn, all it takes is a little time. I think the biggest factor stopping people from becoming hams is that most people have absolutely no idea what Amateur Radio is.
Both the ham stores in my area are not easy to find. So noone will just stop by just have a look, because you can't see them from the road. You very rarely see any mention of Amateur Radio on the television. I think that if Amateur Radio had a higher public profile, then there wouldn't be the need for lowering the standards to get more people interested.
Another thing that concerns me is the volume of insults that see to fly around airwaves at various times. For some reason, most of this seems to go on on the 20m band (I don't know if it is me, or whether it happens on other bands and I haven't noticed). This cannot do the service any good at all. If you want to attract people to the service, then there has to be a serious effort to curb this kind of behaviour.

Andy Greenshields [dxandy@widener.BITNET]

2672. Kenwood TH-75A mods

Newsgroup: rec.ham-radio
Date: 1990-05-07 03:35:01 UTC
From: pvh@Apple.COM
Message-ID: <40771@apple.Apple.COM>
Source record: 11876

Could someone please send me the details on how to modify the Kenwood TH-75A dual band radio for out of band receive etc.?

Thanks,

Pete

2673. Magazine for scanners and mods

Newsgroup: rec.ham-radio
Date: 1990-05-07 05:31:09 UTC
From: taxman@drycas.club.cc.cmu.edu
Message-ID: <5243@helios.TAMU.EDU>
Source record: 11627

Is there a magazine that I can buy at a newsstand that would have info
on scanners and modifications thereof. I have and old Bearcat 210 that
Id like to teach some new tricks.

Thanks...

Mike...Ya know it! Taxman@Drycas Taxman@Drycas.Club.Cc.Cmu.Edu
Drycas::Taxman !Uunet!Drycas.Club.Cc.Cmu.Edu!Taxman
Aj696@Cleveland.Freenet.Edu Mike.Wommack@Samba.Acs.Unc.Edu
How ya gonna dis me when ya don't even know me?

2674. Re: Kenwood TH-75A mods

Newsgroup: rec.ham-radio
Date: 1990-05-07 06:40:04 UTC
From: brent@network.ucsd.edu
Message-ID: <2394@network.ucsd.edu>
Source record: 11628

In article <40771@apple.Apple.COM> pvh@Apple.COM (Pete Helme) writes:
>Could someone please send me the details on how to modify the Kenwood TH-75A
>dual band radio for out of band receive etc.?
>
>Thanks,
>
>Pete

The TH75 mod is pretty easy to perform. It might help to have the
service manual handy to reference against the board layout diagrams on
page 54.

Remove the front panel of the radio by removing the two screws next to
the PTT switch, one screw on the opposite side of the radio, and the two
front screws of the battery plate. Looking at the inside front cover,
the lithium battery is at the top and the CPU just below that. Near the
bottom left corner of the CPU is a short jumper wire. Using this as a
reference, locate two surface mount diodes directly above the wire on
the board. They are d3 and d4 from bottom to top.

```
D4 ---| cpu
D3 ---|
jumper wire> |____ ---------
W1 |||||||
```

D4 connects to the second pin from the bottom on the left of the CPU.
- Remove d4.

- Also cut the jumper wire. It's labeled W1 in the service manual.

This will give receive and transmit capability over the entire VCO
locking range; 136 to approx 168 on 2M, and 385 to approx 455 on UHF.
I did not try re-tuning the VHF VCO since that range seemed sufficient.
On UHF though, I moved the range upward on my radio to cover from 430
to 473MHz; a little bit more useful segment. Getting to the VCOs to
tweak on them is a bitch though, and I do not recommend trying it
without the service manual. You will find also that you'll want to
re-align the UHF front end if you plan on any serious work above 455MHz.
The radios come tuned for the 430 to 450 range, and as such, sensitivity
dropped to worse than 10uV at 460MHz. A little tweaking on L242 and
L243 band pass filters solved that problem.

Happy out-of-banding!

Brent Jones, KB1UK (former KC4AAA)

2675. Re: QST article?

Newsgroup: rec.ham-radio
Date: 1990-05-07 13:49:50 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <49@thoreau.nsc.com>
Source record: 11631

In article <56500004@uxa.cso.uiuc.edu>, aaa33750@uxa.cso.uiuc.edu writes:
>
> If it`s possible, and there`s an article on it, is there a file someplace
> to grep to find the issue of QST that would have an article on crystal
> shaving?
> (What good would computers be if I had to use the Readers` Guide or had to
> thumb through a couple dozen index issues:-)
> pse e-mail aaa33750@uxa.cso.uiuc.edu or a-arnett1@uiuc.edu
> tnx
> .

Don't know if there's an index on the net but what you want is real ancient history. I did some grinding back in the 50's to get a couple of rocks into the Novice bands (we use to be limited to Xtal control and 75 watts dc input then)!

I assume you have some FT-243 crystals or the old Blailey mounts in mind; these hermetics are a bear to work on, particularly the HC-18's and the little watch bar blanks. The mounted rocks are the easiest to work on, the hermetics usually have the electrical contacts plated on so you can't make them go very far. You mostly take material off a crystal, that makes the frequency go up. You can put a little pencil lead on to bring the frequency down but that usually ruins the stability and can "wear-off" after a while. In any case the activity often suffers from any work you do on the blanks.

If you are still of a mind to do this kind of work here is what I know. (damn little compared to some of the old masters)

Materials:

a piece of FLAT 1/4th inch plate glass 9" x 9" is a good size
some carborundum or diamond dust, grade 600 or 1200 grit is best
distilled water
solvent alcohol
a cookie sheet
several small cleaning dishes
a CLEAN place to work

Procedure:

Remove the blank from the mount. For the FT-243 holders this can be done with a small screw driver. Take note of the assembly sequence so you can remount when needed. For the hermetic rocks you first unseal the can at the evacuation hole using a small soldering iron then unsolder the can around the base; be careful not to crack the base.

For the plane blanks you can grind the face but for the plated blanks as are more common now you have to grind the edges. The difference here is that you can move a blank further by grinding a face than you can by grinding the edges. If you are working with plane blanks and only need to move it a few hundred hertz then try cleaning the blank first and remounting it before you go to work, make note of the starting frequency and ending frequency. To clean, first rinse off in the distilled water and blow dry, then a couple of dunks in the alcohol and dry again. If you have access to an utlrasonic bath these are great for cleaning. One thing to mention is once the blank is clean DON'T TOUCH it with your hands. I guess you could use CLEAN rubber gloves or a pair of tweezers with a bit of neoprene on the tips to handle the blank. The reason for cleanlieness is that any dirt on the blank will lower the frequency and reduce the activity of the crystal.

As you reassemble the blank and holder (you did clean the holder too didn't you?) you can move the frequency by changing the spring tension of the holder though don't try to move it too much.

Now comes the real messy work. To really move a crystal blank you need to take material off the blank or put it on. Make a few pencil marks on the surface of the blank near the center to lower the frequency. Grinding material off the blank (face or edge) raises the frequency. Make a slurrey of the grinding powder and water, some people use a bit of "terps" to keep it from drying out. Put about 1/4th teaspoon of powder on the face of the plate glass and add a couple drops of water and mix to form a light paste about the consistancy of tomatoe soup or a little lighter.

If you are grinding the edges then determine the current angle of the edge and try to keep the blank at that angle all during the work. The plated blanks have usually been touched a bit and so have a flat spot on the edge, work there. Use straight strokes through the slurrey which you have spread thinly over the working area of the plate glass. Maintain constant pressure and angle while you work. Stroke parallel to the edge of the blank. After a 5 or 10 strokes on the edge clean up the blank and remount the crystal to check how far you've moved the frequency. Do this a few times until you know how many hertz per stroke you are getting out of this blank. Each blank will move at a different rate so forget about any rule of thumb.

Now if you are bolder you will be grinding the face of the blank. You need to work out how to hold the blank flat and parallel to the surface. A small piece of plate glass about 2" square will probably work. Spread out the slurrey with one face of the small holder glass, get things as even as you can. You may need more slurrey to evenly cover the holder glass. You don't want too much slurrey, only enough to be about as thick as the blank. Place the blank in the center of the slurrey, put the holder glass on top and maintaining even and ballanced pressure on the holder glass (try using a pencil eraser in the center) drive the holder glass and blank in circles to grind the blank down. Again start off in small steps, check your progress frequently and clean the blank and holder well. If you notice some loss in activity then reclean the blank, if that doesn't bring

it back to life then you are probably getting the blank off axis. It's best to give up on a blank which has lost much activity as it will be darn near impossible to get it back on axix.

Anything else is cut and try, go find a real OH (some one from the the time before RF transistors) and see what they have to say about crystal grinding. I've got a fairly extensive collection of QST, CQ, 73 and Ham Radio (latter 3 from the first issue, QST back to 1928) I don't remember a lot of detail on grinding crystals, what I know I picked up from my Dad (licenced in 1919) who was one of those guys who could do or fix **ANYTHING**.

Good luck

Ron Todd, K3FR the PATHFINDER guy

2676. Re: Hereditary Hams (was Re: 3-year-old learns Morse Code)

Newsgroup: rec.ham-radio
Date: 1990-05-07 14:24:02 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <50@thoreau.nsc.com>
Source record: 11634

In article <681@ssc.UUCP>, markz@ssc.UUCP (Mark Zenier) writes:
> In article <36037@genrad.UUCP>, dls@genrad.com (Diana L. Syriac) writes:
> > I've heard rumors that there is a 3-year-old that just took AND PASSED
>
> The Question is: How many children, who's parents are NOT ham radio
> operators, are learning morse code?
>
> markz@ssc.uucp

My guess is darned few, they don't even require Morse code for the First Class Boy Scout Rank anymore!! Can you imagine a couple of boys doing 7 wpm with a flag on a 5 foot pole? Hint: dots right, dash left and space down. My buddy (ex WV2LMQ) and I did it for the council scout-o-ramma, it takes a bit hustle but we could probably have done 13. I wonder if that would be an acceptable way for hearing impared persons to take the code test?

Ron Todd, K3FR the PATHFINDER guy

2677. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-07 14:40:48 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <51@thoreau.nsc.com>
Source record: 11633

In article <7880143@hpfcdc.HP.COM>, perry@hpfcdc.HP.COM (Perry Scott) writes:
> Anyone know the story behind the unused frequencies on 11 meters ? Are
> they dead frequencies, or allocated to another service ?
>
> Perry/KF0CA

There's a couple of Radio Control channels in there, the smart RC's don't use them though because of the HF'ers and other pirates.

Ron K3FR

2678. Coherers

Newsgroup: rec.ham-radio
Date: 1990-05-07 15:32:00 UTC
From: Ed@ALDERAAN.SCRC.SYMBOLICS.COM
Message-ID: <19900507153227.5.ED@PEREGRINE.SCRC.Symbolics.COM>
Source record: 11652

Date: 4 May 90 22:57:34 GMT
From: usc!zaphod.mps.ohio-state.edu!uwm.edu!ogicse!blake!milton!whit@ucsd.edu (John Whitmore)

An old variation on a cat's whisker was a "coherer"; this was a glass tube with metal chips. When the rectification failed, one simply shook the tube to change the chips' contact points.

Coherers don't work by rectification, they work by cohering.

```
--------------------- <-glass tube
ant--o------|:.:.:.:.:.:.:.:|----o--gnd <-electrodes, connected to antenna
| --------------------- | .:.: iron filings
| |
\----battery---headphones---/
```

The loose agglomeration of iron filings in a coherer had a high resistance; an increase in current from the antenna would cause the filings to "cohere" and the resistance would drop suddenly, causing an audible click in the headphones. To detect the next signal, the tube would have to be tapped to loosen the filings again. Automatic decoherers were invented to help out: the increased current flow through the coherer would trigger a small solenoid which would tap the coherer, thereby setting up for the next pulse.

2679. Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-07 16:42:13 UTC
From: bfc@hpislx.HP.COM
Message-ID: <10110001@hpislx.HP.COM>
Source record: 11632

As a newcomer to ham radio, I am looking for some advice on purchasing
my first rig, a 2m HT. I want to start with a couple-year-old used one
so I can start operating without shelling out the bucks for the
latest-and-greatest.

Features I know I want:
- Synthesized tuning
- DTMF pad
- Tone burst for repeater access
- At least a few freq. memories
- Power output on the high side of allowable range
- Rechargeable batteries with decent capacity and good replacement availability

What else should I look for? Could you suggest some models I should consider?
When I head to my first swapfest, I want to know something about what I'm
looking for. Thanks in advance!

Bryan Carpenter
(no call yet, I'll be watching the mailbox.)
bfc%hpislx@hplabs.hp.com

2680. TRIO TR-2200GX MANUAL/ CIRCUIT DIAGRAM HELP!

Newsgroup: rec.ham-radio
Date: 1990-05-07 17:09:29 UTC
From: smacsuibhne@dit.ie
Message-ID: <7462.2645abc9@dit.ie>
Source record: 11650

Hi,
I am looking for a manual and / or circuit diagram for

a TRIO TR-2200GX FM TRANSCEIVER. I wounder can any body help?

The set I have is faulty and I'd like to get it working again.

Thanks

Sean Mac Suibhne
Telecoms Dept.
Kevin Street C.O.T.
Kevin Street
Dublin 8
Ireland

SMACSUIBHNE@DIT.IE

2681. Re: Cat's Wiskers

Newsgroup: rec.ham-radio
Date: 1990-05-07 17:38:33 UTC
From: jim@ghp.UUCP
Message-ID: <586@ghp.UUCP>
Source record: 11637

In article <7880145@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>My old cub scout handbook said to use a safety pin and a piece of
>galena (lead crystal). You probe the galena until you find a spot
>that behaves like a diode.

How about a paper clip held down with a thumbtack and probing an
old penny?

>I'd rather use a 1N34. :-)

Me too!
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

2682. Cordless Phone Monitoring in USA and GERMANY

Newsgroup: rec.ham-radio
Date: 1990-05-07 17:41:38 UTC
From: flash@lopez.UUCP
Message-ID: <1990May7.174138.28262@lopez.UUCP>
Source record: 11635
Cross-posted to: rec.radio.shortwave,rec.ham-radio

SAY *YES* To rec.radio.scanner (If it ever comes to a vote)

The topic of cordless phone monitoring is a bit controvercial. If you have any compunctions against evesdropping on your neighbors (legally, of course), skip to the next article.

On our local system, The Great White North UPLink (Public Access Unix), we not only have SIGS devoted to radio and scanning, but we have a cordless phone monitor SIG. Not everyone who owns a scanner will admit that they devote a lot of time monitoring 46-47 mHz for the pedistal transmitters of cordless phones, but I would say most folks with scanners have at least punched the range in just to see what is there.

With the addition of a good outside antenna (Like the CHANNEL MASTER 5094A) these signals can be picked up at distances over a mile, meaning that even in a small town you will get PLENTY of action on this band. In fact, you might find conversations stacked several signals deep during prime phone times.

Listening to cordless phone calls in the USA is still legal under the ECPA, from everything we have been able to determine. In fact, courts continue to uphold convictions for crimes committed over the cordless phone when a listener turns in a drug dealer, prostitute, or terrorist. (USE your own conscience, YOU have to live with yourself).

There are supposedly only 10 cordless frequencies in use here:

46.61, 46.63, 46.67, 46.71, 46.73, 46.77, 46.83, 46.87, 46.93, and 46.97.

Looking at this list, you see the pattern, and notice that there should be operations on 46.81 and 46.91, if things were "true to form". Well SURPRISE, SURPRISE.... There ARE some cordless phones on these two frequencies! Not many, but they exist. Technically these are illegal, but the old style cordless phones also sometimes wound up in the amateur 160 meter band, also not legal, but they existed. (Note, there is STILL activity to be had on the 1600-1800 band, though cordless phones THERE use FM. Your ham tranceiver switched to FM will do just fine, though modulation levels seem quite low here. I have found ONE local phone on 1740khz, and this is NOT an authorized frequency either. These older style phones are no longer made, but show up at garage sales and Goodwill stores all the time.

The handsets operate in the 49-50 mhz range, but you only hear ONE side of the conversation on these frequencies, so they are not practical, although this is a way to find activity where the pedistal is in the

1600-1800 range (MF).

If you have a PRO 2004 or PRO 2005, a handy thing to do is to program a range from 46.61 to 46.97 as a permanent search bank. Your scanner will search the entire range in just over a second, and you have the advantage of picking up units that are not on the "approved" frequencies.

NOTE: Recently the FCC gave the go ahead to double the channel capacity by splitting the channels by 5khz (46.615, 43.635, etc).

So much for the good old USA.

You might be interested to know that there are cordless phones in other countries, but things work differently.

In GERMANY, it is illegal to own a 46/49 type cordless phone (the USA type), though MANY people there do use them. The legal cordless phone system in West Germany is quite complicated, and offers the scanner owner a real challenge. Instead of the 10 (or 12) frequencies we have here, there are 1,800 channels in potential use in Germany. A cordless phone there operates in the 931-976 mhz band (way up there!) with a channel plan of: XXX.X10, XXX.X35, XXX.X60, XXX.X85) (25khz spacing). The German phones "hunt" for a clear frequency, so the phone NEVER is on the same frequency twice for all practical purposes. Using 5 khz steps, it takes 5 minutes to scan the whole band, so you stand a good chance of missing conversations. 50khz steps mean you will MISS frequencies, and 12.5KHZ steps do not seem to line up properly for some reason. The phones also are known to SWITCH frequencies in the middle of a conversation, if the caller is quiet for a while.

German legal cordless phones can ONLY be obtained (rented) from the PTT. You can not "own" one, as you can here.

NOTE: In Germany it is ILLEGAL to monitor cordless phones. In GERMANY it is illegal to monitor anything. Scanners are verboten. However, in practice, there are enthusiasts who DO listen.

Perhaps someone with a 2004 or 2005 might have ideas on how to make cordless phone monitoring a bit simpler in areas where there ARE so many channels.

I am curious about cordless phones in other countries. What bandplans, legalities, etc. apply to other nations? Is the USA the only country where it is legal (so far) to monitor low power unlicensed cordless telephones?

No flames please. It is a legal hobby here, and sure beats TV soap operas!
--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==

=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

2683. Mod's and Fixes for Kenwood 7850

Newsgroup: rec.ham-radio
Date: 1990-05-07 17:52:58 UTC
From: jim@ghp.UUCP
Message-ID: <587@ghp.UUCP>
Source record: 11638

I have an old Kenwood 7850. A friend was telling me about some
mod's to increase its frequency coverage (this request is asked
so often we should assign a number for this request, we could have
73, 88, and 51--extend frequency coverage :-) He also told me
about a fix to apply when replacing the finals (this is more serious).

He saw these in a newsletter from International Radio and Computer
of Port St.Lucie FL. Of course, he couldn't find which issues they
were in, he put the indexes in a _SAFE_ place... Anybody know of these?

PS: I am also looking for the Operator's Manual...

tnx
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

2684. Re: Cellular Telephone

Newsgroup: rec.ham-radio
Date: 1990-05-07 17:53:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500523@ux1.cso.uiuc.edu>
Source record: 11641

From what I've heard and read, I've put together that digital cellular will be or has been allocated spectrum in or around 1600 MHz. It will be purely digital and not compatible whatsoever with the analog system. Since the existing analog phones cannot operate on 1600 Mhz, compatibility is moot. I also understand that LA will be the first place to see digital cellular since it is now the most crowded, followed by the other major cities as financial resources come available. I have not determined if the present dual-provider requirements will be part of the 1600 MHz digital system.

I've also heard that there will be dual technology phones available, which will be, of course, much more expensive, so that the user can choose between digital and analog. You would need the analog side just to be able to travel to places that don't have digital. The analog service, even in LA, would continue to exist for 10 or more years beyond the introduction of digital cellular. Can you say "poor man's cellular"?

I am curious, as digital cellular starts to get going, if salesmen will suddenly start promoting the security aspects of digital over analog? If they do before digital is available everywhere analog is, then they will be admitting that some people don't have a choice but to use a secure cellular system. Since digital will be more expensive, they will need to push it in some way. In places like LA it might be easy enough to push as a service with available channels. I understand the situations is a mess there now, with cell full situations causing no call completion and failed hand-off's.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2685. Re: INFO-HAMS Digest V90 #480

Newsgroup: rec.ham-radio
Date: 1990-05-07 18:03:22 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9005071803.AA03245@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 11651

Subject: Re: Heriditary Hams...

"7 wpm with a flag on a 5 foot pole". The way to speed up that mode of transmission is to use a shorter pole. The speed is limited by the time it takes to move the flag which has very high air resistance. By shortening the pole you reduce the path length for the flag. I normally use a 3 ft pole with a 2x2 flag. That is a lot easier to move over an extended transmission. I have sent around 10 wpm without serious problems, but it required hams at both ends. If you make a transmission error, it takes a lot of time for 8 dits. Speed average is blown away. Also, the normal (old Boy Scout) protocol was an ack at the end of each word. That takes two people at the receiving end to keep up the transmission speed - one working the flag and the other copying. Then you have to use a slightly modified form of block ahead transmission - start the next word before the previous word ack is received. With a little practice, it works quite well. I would guess, however, that in practical use, 5 wpm is going pretty fast. It works when nothing else does, but it sure is easier to reach over and grab that HT.

-- Doug WA6VVV

2686. RE: INFO-HAMS Digest V90 #473

Newsgroup: rec.ham-radio
Date: 1990-05-07 18:46:47 UTC
From: RI79011@UDLAPVMS.MTY.ITESM.MX
Message-ID: <900507134647.64e@UDLAPVMS.MTY.ITESM.MX>
Source record: 11655

DX's today (may 7 1990) we are going to transmit with special prefix from
the Pope Juan Pablo II during the visit to Mexico, the frecuency is 14226Mhz
in the family hour.
The special prefix is 6DAPAX this prefix it will be operated by the Radio
Club Azteca from: Mexico City, Puebla City, Cuernavaca Morelos & Mexico
City's metropolitan area.
Today's operators:

6DAPAX oper. XE1LD QRA: Raymundo Lopez Ayo
6DAPAX oper. XE1KH QRA: Mss. Carmelita de Lopez.
6DAPAX oper. XE1OZG QRA: Oscar.
Sorry...XE1ZOG not XE1OZG...
6DAPAX oper. XE1MLG QRA: Mario.
6DAPAX oper. XE1RHZ QRA: Hector Rodriguez (Mexico City.)
6DAPAX oper. XE1SRA QRA: Hector Rodriguez Jr. (Puebla City)

Those are the today's operators With this prefix.

Hector Rodriguez Armendariz
XE1SRA
RI79011@UDLAPVMS.BITNET
P.O. Box 434
University of the Americas foundation.
72820 Sta. Catarina Martir
Puebla, United Mexican States. (Mexico)

2687. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-05-07 19:40:02 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250157@hpnmdla.HP.COM>
Source record: 11642

>I suppose that a morse code fan would have liked being assigned my call:
>WA2ISE all dits in the suffix! .. ... .
>I never operate code myself, though.

>73 de WA2ISE

My favorite is the (at one time) very active contest station WB5EEE
(known in some circles as "WB5S"). After the first dash in the "B", it's
all dits: .__ _... ....

There used to be an operator at W1AW with the call WA9HHH. On CW, this
sounds like the error signal. ....

de N1AL

2688. ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-07 20:51:51 UTC
From: paulf@jessica.Stanford.EDU
Message-ID: <9354@lindy.Stanford.EDU>
Source record: 11636

Just for grins and giggles, I called ICOM this morning, to find out what was up with the shipments of the R1. The rep told me that, at the moment, ICOM was concentrating on filling back orders for other equipment, and as a result, production for the R1 hasn't been ramped up yet. She discounted the rumor about the patent lawsuit, and also told me that the R1 is currently selling in Japan.

Incidentally, I talked to Dick at AES, and he said that the level of interest in the R1 has been phenomenal...

-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

2689. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-07 22:06:03 UTC
From: keithm@wicat.UUCP
Message-ID: <457@wicat.UUCP>
Source record: 11647

In article <7880143@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Anyone know the story behind the unused frequencies on 11 meters ? Are
>they dead frequencies, or allocated to another service ?
>
>Perry/KF0CA

The next time that you walk through a hobby or
toy store, notice that many of the less expensive
radio-control cars etc. operate on 27Mhz.

The unused channels are for radio-control.

--
Keith McQueen, Wicat Systems Inc. , (801)224-6400 | My opinions are |
N7HMF @ NV7V.UT.USA.NA (84058), 147.34+, 449.675- | all mine... |

2690. Re: SlowScan on Amiga

Newsgroup: rec.ham-radio
Date: 1990-05-07 22:31:29 UTC
From: paul@wa1omm.UUCP
Message-ID: <3464.AA3464@wa1omm.UUCP>
Source record: 11649

Check out the gadget AEA has on the market. It does FAX, and I believe
it copies slow scan and sends slowscan. There should be an ad for it in
the May QST.

--

```
/\ /\
//\\//\\
+-----------------------------------------+
| From the shack of WA1OMM -- Paul MacDonald |
| Using the power of the multitasking Amiga! |
| |
| Compuserve: 70411,626 PLink: UPPERCRUST |
| Amateur Packet Radio: WA1OMM@KB4N.NH.USA |
+-----------------------------------------+
\\//\\//
\/ \/
```

2691. Copying Code In Your Head

Newsgroup: rec.ham-radio
Date: 1990-05-07 23:18:36 UTC
From: donm@hpnmdla.HP.COM
Message-ID: <1250159@hpnmdla.HP.COM>
Source record: 11648

What determines the top speed that you can copy CW in your head? Is it how your ears hear the interrupted pulse trains (mechanical) or is it how it's processed by your brain (software)? How about the inner ear (interface)? Why can some copy 60+ wpm and others only 30? Why doesn't practice make perfect? Or does it come down to the cold, hard facts that some people "have it" and others don't???

73
Don K6LTS

2692. Re: Cat's Wiskers

Newsgroup: rec.ham-radio
Date: 1990-05-08 00:22:56 UTC
From: michaelk@copper.WR.TEK.COM
Message-ID: <2465@wrgate.WR.TEK.COM>
Source record: 11640

My old cub scout handbook said to use a safety pin and a piece of
galena (lead crystal). You probe the galena until you find a spot
that behaves like a diode.

How about a paper clip held down with a thumbtack and
probing an old penny?

I'd rather use a 1N34. :-)

Me too!

Not me. If I'm going though the trouble of making a crystal radio, why
use a 1N34? Might as well use a commerical radio.

The whole point of a crystal radio (in my mind anyway) is the hunk of
galena.

I plan to build a crystal radio, using state-of-the-art IC's for the
rest of the unit. However, I already have bought my galena crystal
(nice looking one too) at a rock-and-gem "show" (for a quarter not
counting the entrance fee -- I was going there anyway).

Haven't figured out the mechanics to hold the safety pin yet. What's
the optimum material for the pin?

Too bad the one I built thirty years ago (as a 7 or 8 year old) isn't
around anymore....sigh.... :-)

--
Mike Kersenbrock
Tektronix Microprocessor Development Products
michaelk@copper.WR.TEK.COM
Aloha, Oregon

2693. SAREX Information And Operating Hints

Newsgroup: rec.ham-radio
Date: 1990-05-08 01:14:27 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <289@ka2qhd.UUCP>
Source record: 11639
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,sci.space.shuttle

SAREX-II is a secondary payload on STS-35, currently scheduled for launch on May 17, 1990. It will be located in the Aft Flight Deck of the Space Shuttle Columbia. Ron Parise, WA4SIR, the Payload Specialist and astronomer on Columbia will be the Astronaut ham operator.

SAREX-II-02 is a secondary payload on STS-37, currently scheduled for launch on November 1, 1990. It will be located in the Aft Flight Deck of the Space Shuttle Atlantis. Ken Cameron, KB5AWP, the pilot of Atlantis will be the Astronaut ham operator.

The American Radio Relay League (ARRL) is the customer on the SAREX-II payloads. NASA gave its authorization for SAREX operations for the following reasons:

To encourage our youth to become excited about science and technology, and

To familiarize large numbers of the general public with manned space flight

NASA's intent in making astronauts available for SAREX operations is to involve the largest possible number of people, particularly youngsters, in Amateur Radio and the US space program. With amateur radio clubs and hams, our astronauts will speak over amateur frequencies directly with large groups of students, showing teachers, parents and communities how Amateur Radio energizes youngsters about science, technology, and learning.

You can easily become a part of this activity in your local school, as the astronauts will operate the SAREX equipment in the amateur two meter band. You will be able to send and receive messages via packet for periods of about 12 hours daily. The astronauts' work schedules will determine your chances for a voice or television message, but Ron and Ken may have an hour or more each day for these modes.

The Johnson Space Center's Amateur Radio Club station, W5RRR, in Houston, Texas, will re-transmit astronaut's signals to WA3NAN, at Goddard Space Flight Center, in Greenbelt, MD (near Washington, DC), and to W6VIO, at the Jet Propulsion Laboratory in Pasadena, CA. These stations, plus W1AW and several VHF and UHF repeater groups, will re-transmit the signals on most amateur bands so that you and the students can copy the communications. You will hear NASA Mission Commentary, frequent bulletins to advise listeners of astronaut planned transmissions, and all amateur two-way voice and amateur television transmissions with the shuttles. Using a simple hand-held transceiver, you can open the world of science to hundreds of youngsters. Students themselves can take part in the shuttle flight via a packet

connection, and some will even be able to talk directly to the astronauts in orbit.

ARRL and AMSAT are co-sponsoring these exciting missions, with AMSAT heading up technical operations. Hundreds of Amateur Radio operators have already been working behind the scenes for months. The ARRL takes the lead with information and educational support. ARRL Educational Activities Branch (EAB) and NASA HQ will create lesson plans for teachers. All you need to provide is a 2-meter rig or a packet radio setup. If you are a teacher or instructor, contact ARRL EAB to get everything you will need and regular news updates. If you are a parent or a grandparent, contact ARRL EAB and a local school. EAB will send you materials, including ways to convince teachers and school administrators that Amateur Radio is an important discipline the school should take advantage of on a full-time basis.

This a tremendous opportunity for you to showcase SAREX 1990 and amateur radio to kids of all ages in a big way. Plan on being a part of it; contact ARRL EAB now and give your best to our exciting hobby and to our hope for tomorrow: America's youth.

Listen to the ARRL Bulletins on W1AW (see QST for CW and voice bulletins) on a daily basis; and to the AMSAT Nets on Tuesdays (U. S.), 3.840 MHz, 01:30Z to 03:00Z, and on Sundays (international), 14.282 MHz, 18:00Z to 21:00Z, +/- QRM.

[ANS would like to thank ARRL and NASA for this contribution. Stay tuned next week to the ANS bulletins for more details about the STS-35 mission and its amateur radio operations.]

The WA4SIR flight aboard the STS-35 flight of the Shuttle Columbia is still officially scheduled for early May 16th (GMT), although there are some hints that it might slip by one day. The SAREX mission will carry the packet ROBOT automatic QSO machine which will allow many amateurs around the world to have two-way packet QSO's with the Shuttle during the times when our ham astronaut, Ron Parise is busy.

To work the ROBOT, you transmit on 144.950 MHz and listen to the Shuttle on 145.550 MHz. Subsequent SAREX information bulletins will give you operating hints and describe the schedule in more detail.

If you are successful in making a two-way QSO, you call and your unique QSO serial number will be automatically logged and you will receive a QSL card after the mission. You will know you met all requirements of a two-way QSO by seeing your call in the QSL beacon which will be sent every 2 minutes and looks something like:

WA4SIR>QSL <UI>:
NI3F/186 WB2TNL/185 W3IUI/179 WB3AFL/177 NF3N/176 WA3EPT/175
N4QQ/174 W3IWI/172 JY1/153 U6MIR/127

If you are heard by the ROBOT, your call will appear in the QRZ beacon which will look something like:

WA4SIR>QRZ <UI>:
#3405-NE3H NI3F K1LNJ WB2TNL WB3ILO N3ACL N3FWX WA3TSD WA3USG
etcetera

where the #3405 is a serial number incremented every 2 minutes when the QRZ beacon is sent.

Unlike the QSL "worked" list, the QRZ "heard" list is not retained in the ROBOT and the laptop computer on the shuttle. In order to send SWL cards to those who were heard, it will be necessary to have amateurs around the world help to collect the list. When you are monitoring the WA4SIR SAREX transmissions, try to capture the beacons and send them in to us in machine readable format. We are only interested in the QRZ and QSL beacon information; please strip out everything else (like QSOs monitored, any other beacons, etc.). You may send it through the amateur packet network addressed like this:

SP SAREX @ W3IWI.MD.USA

or via the Internet addressed like:

sarex@tomcat.gsfc.nasa.gov

and make the Subject: field contain the date/time of the beacons like:

May 19 @ 03:42z

Here are several hints that may help you make a successful packet QSO with the SAREX ROBOT that will fly with Ron Parise, WA4SIR in mid-May.

1. Frequencies: Your transmitter uplink frequency should be 144.950 MHz and you should listen for the shuttle downlink 600 kHz higher on 145.550 MHz. Under no conditions should you transmit on the 145.550 downlink!

Since there may be other packet or voice activity in your area on these frequencies, local coordination to insure a clear frequency during the ten day STS-35 mission may be needed.

2. Modulation: The uplinks and downlinks are ordinary AFSK/FM 1200 BPS signals, just like most terrestrial VHF packets. No special modems are needed. You are advised to check your transmitter's FM deviation and set it to 3 kHz or less. Most radios are typically set to 5-6 kHz and this will be too wide because of doppler shifts. If you don't have a deviation meter, listen on another radio and crank the tone level down until you hear the volume drop noticeably. Most people run too much deviation on their packet signals anyway, and you will probably find this improves the reliability on terrestrial paths too!

3. When to hear/work the shuttle: During the mission Keplerian elements and predictions will be sent frequently by WA3NAN, W5RRR, W6VIO, and many local FM repeaters, as well as by packet bulletins addressed to @AMSAT. Check with your local AMSAT area coordinators for information in your area. In general in the USA, the windows are in the late evening and early morning hours. Don't expect the SAREX hardware to be activated until the second day of the ten-day mission. Because the inclination of

the shuttle orbit is only 28.5 degrees, the signals can only be heard between about +43 and -43 degrees latitude.

4. LISTEN!!!: Most packeteers don't listen to the BRAAAAP! from their radios, but you should listen during the shuttle activity. If Ron is personally available, he may turn off the SAREX packet hardware and be QRV on voice.

5. Connecting to the shuttle: All you do is to issue a connect. If you are heard, you will see something like this:

```
cmd: CONNECT WA4SIR
*** Connected to WA4SIR
#191--- Tnx QSO with the SAREX Shuttle "ROBOT" automatic QSO machine
*** DISCONNECTED
```

When the ROBOT hears your "ack" of its transmission, it will disconnect and you will be in the log. Because the ROBOT queues information for 3 seconds and sends several replies in one transmission, you should set your DWAIT to about 4 seconds.

6. Multiple QSO's: Once you have worked the ROBOT and make it into the log, no further QSO's from you will be logged (even if you use a different SSID). Give others a chance and don't connect multiple times!

7. Monitor!!!: Every 2 minutes a beacon addressed to QRZ will list stations heard recently, and the QSL beacon will list those worked. Every 3 minutes the Metabeacon (up to 1.7 kbytes in 7 packet frames) addressed to QST will send text describing shuttle activities. Monitor these beacons to keep informed. In Bulletin #1 we ask for you to submit copies of the QRZ and QSL beacons you copy.

8: Your chances for success: Signals from many hundreds of stations can be heard from the shuttle. With FM transmissions, only the strongest signal "wins", just like in a DX pileup. To help, the ROBOT can have up to 9 QSO's in progress at any one time. Perserverance and a well equipped station will help -- but if activity levels are high and the uplink channels are busy, it will be a matter of luck.

[From: w3iwi%w3iwi.md.usa@bbs.nn2z.ampr.org]

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2694. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-08 01:54:05 UTC
From: doug@hokulea.hig.hawaii.edu
Message-ID: <7597@uhccux.uhcc.hawaii.edu>
Source record: 11643
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <9354@lindy.Stanford.EDU> paulf@jessica.Stanford.EDU (Paul Flaherty) writes:
>Just for grins and giggles, I called ICOM this morning, to find out what was
>up with the shipments of the R1. The rep told me that, at the moment, ICOM
>was concentrating on filling back orders for other equipment, and as a result,
>production for the R1 hasn't been ramped up yet. She discounted the rumor
>about the patent lawsuit, and also told me that the R1 is currently selling
>in Japan.

I talked to someone at EEB, and he told me that ICOM was recalling all scanners
and EEB was pulling their ads because of a "patent problem". This he said
was the unofficial reason. He said the scanners were still available outside
the country. He seemed to indicate that there was a real reason the radios
weren't available any more and a official reason that they were told to tell
customers. Eather ICOM is giving you some BS or this guy was giving me the
run around.
I also called Grove Enterprises and they confirmed that ICOM was no longer
making the R1 available in the US.

==
* Douglas Myhre <doug@loihi.soest.hawaii.edu> *
* Hawaii Institute of Geophysics *
* Research Computing Facility *
* 2525 Correa Rd. *
* Honolulu, HI 96822 (808) 948-8713 *
==

2695. Re: Magazine for scanners and mods

Newsgroup: rec.ham-radio
Date: 1990-05-08 01:58:50 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29700@cup.portal.com>
Source record: 11644

Scanner Mods Magazine
You might try MONITORING TIMES. While not generally available on the stands, this magazine does --at times-- go into scanner mods in a limited manner.

You also might try Dromedary Techincal Services, 141, Jackson Road, Roopville, Georgia 30170. Phone: 404/854-8846.

2696. Re: CQ buys HAM RADIO

Newsgroup: rec.ham-radio
Date: 1990-05-08 04:02:27 UTC
From: Justin_Randall_Padawer@cup.portal.com
Message-ID: <29709@cup.portal.com>
Source record: 11645

That should have read "Hear, hear..." I stand duly corrected. :-)

2697. Packet with FT-207R????? help

Newsgroup: rec.ham-radio
Date: 1990-05-08 04:06:32 UTC
From: Justin_Randall_Padawer@cup.portal.com
Message-ID: <29710@cup.portal.com>
Source record: 11646

I have an FT-207r... Can anyone send me a wiring diagram to
interface with the MFJ-1224 and Commodore 64. Please recommend
software as well for the Commodore 64 and for the Mac. (I may end
up trying to interface with the Mac instead.) Help? I understand there's
a world waiting for me...
--Randy Padawer

2698. Public Perception of Ham Radio

Newsgroup: rec.ham-radio
Date: 1990-05-08 07:06:24 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9005080706.AA13957@ucbvax.Berkeley.EDU>
Source record: 11654

I N T E R O F F I C E M E M O R A N D U M

Date: 7-May-1990 10:05am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL)

Subject: Public Perception of Ham Radio

>learn, all it takes is a little time. I think the biggest factor stopping
>people from becoming hams is that most people have absolutely no idea what
>Amateur Radio is.
> Both the ham stores in my area are not easy to find. So noone will just
>stop by just have a look, because you can't see them from the road. You very
>rarely see any mention of Amateur Radio on the television. I think that if
>Amateur Radio had a higher public profile, then there wouldn't be the need
>for lowering the standards to get more people interested.

Bravo! You hit the mail right on the head. It's the chicken-and-egg problem --
No one knows we're here, so no one joins, thereby reducing the attractiveness of
the market to potential retailers, which results in hidden stores, which no one
can see, so no one knows we're here, etc., etc. :-(

> Another thing that concerns me is the volume of insults that see to fly
>around airwaves at various times. For some reason, most of this seems to
>go on on the 20m band (I don't know if it is me, or whether it happens on
>other bands and I haven't noticed). This cannot do the service any good
>at all. If you want to attract people to the service, then there has to be
>a serious effort to curb this kind of behaviour.
>
>Andy Greenshields [dxandyidener.BITNET]

Also true, unfortunately.

Jeff Miller, WD6CQV/KH6 | "Just because I'm a Californian,
USAF MARS: AFA8JM | it doesn't mean I'm not an
Chief, Engineering Workload Control | American!"
1843 EIG/EIP | -- Agnes DiPesto,
Wheeler AFB, HI 96854-6348 | "Moonlighting"
Commercial: (808) 656-1226 |
AUTOVON: (315) 456-1226 |

Opinions? Me? On government time? Ya gotta be kidding!

USAF MARS: Providing the Reins of Command -- In an Emergency

2699. Heath followup

Newsgroup: rec.ham-radio
Date: 1990-05-08 12:51:19 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9005090704.AA20783@ucbvax.Berkeley.EDU>
Source record: 11653

Some weeks back, there was a discussion on the list about Heath, and several of us mentioned that we filled out a marketing survey from them and sent it in with letters of comment and suggestion. I just thought I'd mention that I just received a letter of acknowledgement from Heath, singed by "Lisa Tarpoff", a marketing research analyst there, thanking me for my comments. So it appears that at least someone is reading such letters.

Regards, Will

2700. Coherers and primitive receivers.

Newsgroup: rec.ham-radio
Date: 1990-05-08 13:14:23 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <08.May.90.14
Source record: 11656

Coherers; yes they need a mechanical shock to restore the high resistance state. The Science Museum in London had a fine collection of these in the 'sixties. Some used metal filings, with a clockwork (yes, wound-up-spring!) mechanism that tapped the filings in the tube at regular intervals to de-cohere it. Another had a trembler mechanism like an electric bell, with the armature tapping the filings. There was also the 'mercury wheel' coherer - a metal disk mounted above a pool of mercury in a dish, so that the wheel just touched the mercury. A thin film of thin mineral oil was then put on top of the mercury -this formed an insulating barrier between the disk and the mercury. High-frequency voltages broke down the oil-film, so the device conducted. A clockwork motor rotated the disk slowly (so as to bring a new film of oil between the disk and the mercury and achieve 'de-coherence'.) I also have dim memories of a coherer using two metal balls separated by an oxide-film and mounted in an evacuated bell-jar; also i guess that bio-galvanic mechanisms could have been used: wonder what the DX record is for a pair of frogs legs?

Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

2701. Re: PC-Pakratt patch

Newsgroup: rec.ham-radio
Date: 1990-05-08 13:20:12 UTC
From: frank@ut-emx.UUCP
Message-ID: <29621@ut-emx.UUCP>
Source record: 11667
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1990May4.203531.15322@swlabs.uucp>, jack@swlabs.uucp (Jack Bonn) writes:
> The software indicates that it is "Unable to establish communications
> with Pakratt" and terminates.
>
> So it looks like the near term solution is to patch the timing loop to
> eliminate the problem. To save the time, has anyone on the net
> hacked/patched PC-Pakratt to eliminate this problem?
> --
> Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612
> uunet!swlabs!jack (UUCP) jack%swlabs.uucp@uunet.uu.net (INTERNET)
> jack@kc1uh (TCP/IP) kc1uh@wb1cqo (AX.25)

I also had a problem as you described above.

What I did to resolve it was to turn down the volume, disconnect the audio-in
or set the DCD Threshold to a point where the CD light doesn't come on.

Then reinitialize the I/O.

Works every time for me. PK-232/MBX with PC-Pakratt.

I suspect that having active data transitions while it's trying to initialize
just blows their firmware's mind..

hope this helps
later
frank

--
Frank Abernathy, University of Texas at Austin, frank@ut-emx.utexas.edu
Work: (512)-471-3216 Home: (512)-244-0625 (ans. mach always on...)

2702. Crystal shaving...

Newsgroup: rec.ham-radio
Date: 1990-05-08 13:21:55 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <08.May.90.14
Source record: 11657

One way to change the frequency of a crystal is to use chemical methods;
a solution of hydrofluoric acid will etch the rock (making it thinner so raising
the frequency) whereas it is also possible to plate materials onto the rock
electrolytically. This lowers the frequency by loading the rock.
Hydrofluoric acid is hazardous stuff; if i had any, i would run away quick!
I would not recommend using it, specially in unskilled hands. It dissolves
glass in a most spectacular way. Likewise human flesh, clothing etc.
Plating a rock is easy; use copper sulphate solution, 0.1 molar. Link both the
electrodes of the crystal together, and dangle the rock into a beaker of the
solution. Hang a copper wire into the beaker too, making sure it does not
touch the rock. Connect a variable-voltage power unit to the wire and rock
(anode is wire, cathode is crystal). Give it about 10 milliamps for a
minute or so, take the rock out, wash it in industrial alcohol to remove
any remaining solution, dry it off, then put it in circuit and see what
frequency you hit. Repeat this until you get the right frequency. Of course
if you go too far, you can reverse the polarity of the supply, and strip
off some of the plating. Beware though; activity falls as you increase
the plated-on loading, and cannot always be restored by the reverse-polarity
trick (because the plated-on material is not deposited evenly).
I shifted a HC6U rock from 7055KHz down to 7001KHz this way (i was
aiming for 7000KHz but could pull it the last 1KHz with the trimmer). It seemed
to still have reasonable long-term stability (drifted about 2KHz high
over 5 years).

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

2703. re: Getting a ham radio operator's licence.

Newsgroup: rec.ham-radio
Date: 1990-05-08 14:58:11 UTC
From: hugh_davies.WGC1RX@XEROX.COM
Message-ID: <900508-105459-13844@Xerox>
Source record: 11658

In Vol 90, #477, usc!cs.utexas.edu!helps!bongo!julian@ucsd.edu (Julian Macassey) says;

<...I have heard a rumour that US exams are given at a
British ham fest...>

Not a rumour. US exams are given regularly here, by a number of VEs. I was considering getting a US call because of frequent visits (my parents live in the USA), but hell, reciprocal licenses are free, give Tech privileges, and I don't have to sit another *stinking* Morse exam.

Hugh, G0CNR.

2704. Re: Morse Code Standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-05-08 15:15:39 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9005081515.AA03174@cmr.ncsl.nist.gov>
Source record: 11659

And then there was Jack Colson, W3TMZ. When Extras were given the chance
of picking a two-letter call of their choice, Jack picked W3OZ.

W3TMZ . _ _ . . . _ _ _ _ _ _ _ . .
W3OZ . _ _ . . . _ _ _ _ _ _ _ . .

However, when one could no longer hold twe calls, he chose to give up W3OZ!
How about K2RTH, also known as K2R6 by the way he sends it.

Many people couldn't understand why W3EIS turned it in and got a 2-letter call

Bob W3OTC

2705. Help - glass-mount antennas?

Newsgroup: rec.ham-radio
Date: 1990-05-08 15:42:06 UTC
From: mwester@waveguide.central.sun.com
Message-ID: <156@texsun.Central.Sun.COM>
Source record: 11670

I posted this question a week ago or so, but I don't think it made it out...

I'm looking for any thoughts/opinions/experiences with on-glass antennas and tinted windows. Specifically I have an Antenna Specialists 2-meter glass-mount and a Chrysler mini-van with the factory "sun-screen" windows. Has anyone tried this combination or anything similar.

I'm concerned because the antenna came off my Monte Carlo last year 'cause everytime I keyed up, the cruise control turned off. There was no way to mount the shoe on the rear window without straddling at least one defroster wire... the salesman claimed that it didn't matter, just center the shoe between two wires and it would work fine (so much for my faith in instruction manuals and salesmen).

I heard somewhere that some company makes an on-glass antenna that has a groove cut in the shoe to allow straddling the defroster wires... Does anyone have any idea who this might be?

Thanks,
Mike (KA9WSB) [mike.westerhof@Central.Sun.COM]

2706. Re: QST article?

Newsgroup: rec.ham-radio
Date: 1990-05-08 16:02:00 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250160@hpnmdla.HP.COM>
Source record: 11674

>>
>> If it`s possible, and there`s an article on it, is there a file someplace
>> to grep to find the issue of QST that would have an article on crystal

>Materials:

> some carborundum or diamond dust, grade 600 or 1200 grit is best
> distilled water
> solvent alcohol

Back in the good old days, I got a half-dozen surplus crystals right at the bottom end of the 40 meter Novice band and ground them up using a piece of plate glass and a "slurry" of water and Ajax cleanser. This works OK if you are only trying to move the frequency 20 or 30 kHz, but it does tend to reduce crystal activity if you are not careful. The trick is to try to keep the two crystal faces exactly parallel -- in other words, try to make the grind as even as possible.

I had heard that toothpaste works well for crystal grinding. I could never make it work. Perhaps a "whiter than white" abrasive-type toothpaste would work better.

Good luck!

Al N1AL

2707. Re: CW and conversation

Newsgroup: rec.ham-radio
Date: 1990-05-08 16:02:39 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720066@hplsla.HP.COM>
Source record: 11671

>/ rec.ham-radio / MROWEN@STLAWU.BITNET (Mike Owen W9IP) sez:
>
> However, I have found that I simply
>cannot speak while sending. Listening to others speak, even while
>copying CW, is easy, but I can't utter a sound while sending. I suspect
>that the fact I'm left-handed has something to do with it (you know,
>brain organization and all that).
>
>Has anyone else encountered this, or have any suggested interpretation?
>
>Mike Owen W9IP
>----------

I'm right handed, but suffer from the same "disability". My wife
finds this extremely amusing; she'll ask me a question while I'm sending,
I get red in the face, stop sending for a second, blurt out a reply,
and resume. Guess my brain has DOS for an operating system instead of UN*X
;-)

Charlie KX7L

2708. Re: RE: 2 meter simple j-pole

Newsgroup: rec.ham-radio
Date: 1990-05-08 16:54:29 UTC
From: billt@hprnd.HP.COM
Message-ID: <1140030@hprnd.HP.COM>
Source record: 11660

One of the problems in making twin lead J poles is that not all twin lead is the same. Low loss twin lead has a different velocity factor and hence the lengths are different. If possible check out the J pole on a network analyzer to find out what its resonant frequency and impedance is.

2709. Cat's Whiskers

Newsgroup: rec.ham-radio
Date: 1990-05-08 17:07:00 UTC
From: Ed@ALDERAAN.SCRC.SYMBOLICS.COM
Message-ID: <19900508170731.3.ED@PEREGRINE.SCRC.Symbolics.COM>
Source record: 11661

Date: 8 May 90 00:22:56 GMT
From: zephyr.ens.tek.com!wrgate!copper!michaelk@uunet.uu.net (Michael D. Kersenbrock)

I plan to build a crystal radio, using state-of-the-art IC's for the
rest of the unit.

Well, gee, why not build a totally digital crystal set? For the detector,
you'll need an XOR gate, a flip-flop and about two feet of wire.
Connect one input of the XOR gate to a square wave generator at the carrier
frequency (Fc) of the station you intend to receive. Connect the output of the
XOR to the other input with the two feet of wire, arranged so that you can
vary the length of the wire. The output of the XOR gate will be very narrow
pulses at Fc. Connect the output of the XOR to the trigger of the flip-flop.
Adjust the two-foot hunk of wire until the flip-flop triggers about half
the time-- that is, make the pulses so narrow that they fail to trigger the
flip-flop half the time. By connecting an antenna to the trigger of
the flip-flop, you can let RF energy vary that triggering percentage, and
the output of the flop will vary with the instantaneous modulation on the
signal. Of course, you need a low-pass filter and audio stage; a small
speaker connected to an output of the flop will serve nicely.

Please note that the device described above does not meet
Part 15 specifications concerning spurious emissions.

2710. Little ceramic things

Newsgroup: rec.ham-radio
Date: 1990-05-08 17:21:19 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9005090706.AA21086@ucbvax.Berkeley.EDU>
Source record: 11662

Several weeks ago, a netmember asked about some 3/8" diam.
ceramic cylinders, rounded at the end. I just figured out
what they are. If the person would like to know what they
are, contact me via BitNet at MROWEN @ STLAWU

Mike Owen W9IP/2

2711. Re: Cat's Whiskers

Newsgroup: rec.ham-radio
Date: 1990-05-08 18:55:35 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <44315@iuvax.cs.indiana.edu>
Source record: 11673

> My old cub scout handbook said to use a safety pin and a piece of
> galena (lead crystal). You probe the galena until you find a spot
> that behaves like a diode...

The crystal set that has been diagrammed in the Cub Scout handbook forever DOES NOT WORK because the sliding coil-tap makes shorted turns. Kits were even produced, and they didn't work either. I suspect the original author never tested it.

It's about time they published something workable, using available parts. There have been lots of excellent but simple crystal-set articles in magazines like _Popular Electronics_ since the '60s. Does anybody out there have connections with the BSA publishing establishment?

--

Frank Reid reid@ucs.indiana.edu

2712. Want tech info on cellular

Newsgroup: rec.ham-radio
Date: 1990-05-08 21:23:07 UTC
From: steveh@hpcvra.CV.HP.COM
Message-ID: <5710009@hpcvra.CV.HP.COM>
Source record: 11779

I've heard a lot of talk about cellular radio, cellular phones, monitoring this-and-that, etc. I would like to know if there is somewhere a definitive technical tutorial on cellular technology: past, present, and future... What is it, how does it work, who are the players and what are they doing...???
I would appreciate any information very much.

Thanks,
Steve KF7WY

2713. Re: INFO-HAMS Digest V90 #482

Newsgroup: rec.ham-radio
Date: 1990-05-08 22:59:03 UTC
From: PL6AAIU@VM.TCS.TULANE.EDU
Message-ID: <9005110727.AA02756@ucbvax.Berkeley.EDU>
Source record: 11663

unsub Andrew Nulman

2714. On-glass antennas

Newsgroup: rec.ham-radio
Date: 1990-05-08 23:29:14 UTC
From: Pete_Simpson@dgc.mceo.dg.COM
Message-ID: <9005090029.AA00031@adam.DG.COM>
Source record: 11664

CEO summary:
I'd advise against using them for all but low power transmitters. I have had personal experience with one and it has a very narrow bandwidth, so the SWR rises very quickly as you change frequency. I also know a commercial radio dealer who tried them and then offered me the 5 remaining ones, free! His comments were along the lines of "burns up real quick," but remember, this was commercial gear with 30 to 100 watt output. The cellular guys seem to get away with them but they're only running a watt or two. Don't know how they get wide bandwidth...
(I punched a 3/4 inch hole in my roof and put in a Larsen NMO mount and a 1/4 wave spike...ran the coax down the front roof pillar to the radio. Done it that way in 3 Japanese cars. Power for my 25 watt rig comes from the cigarette lighter (I don't smoke) and the rig is installed where the ash tray used to fit.)
Whichever way you go, I'd suggest putting "anti-seize" compund (a greasy material with flakes of metal in it...available at auto parts stores) on all threads exposed to weather and on the whip element where it enters the clamping socket. Seals against water (and salt) getting in there and corroding the connection...thereby raising SWR. Silicone grease on all "o" rings, of course.

2715. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-09 00:01:12 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990May9.000112.7833@portia.Stanford.EDU>
Source record: 11665

In article <7597@uhccux.uhcc.hawaii.edu> doug@loihi.soest.hawaii.edu (Doug Myhre) writes:
>I talked to someone at EEB, and he told me that ICOM was recalling all scanners
>and EEB was pulling their ads because of a "patent problem". This he said
>was the unofficial reason. He said the scanners were still available outside
>the country. He seemed to indicate that there was a real reason the radios
>weren't available any more and a official reason that they were told to tell
>customers. Eather ICOM is giving you some BS or this guy was giving me the
>run around.

Another call to ICOM [(206) 454-8155] and the Amateur Radio Sales Rep was
made. Again, she she said that the problem was production, and that there
was no plan whatsoever not to market the R1 in the US.

>I also called Grove Enterprises and they confirmed that ICOM was no longer
>making the R1 available in the US.

Well, she also talked to Bob Grove, and he in turn relayed EEB's comments.
She has no idea what's behind EEB's move, and that she told Grove that they'd
be shipping Real Soon Now.

Calls to AES and HRO revealed no plans to stop marketing.

Doug, something truly strange is going on here. Somebody isn't telling the
truth; either EEB is hallucinating, or ICOM is full of it...
-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

2716. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-09 01:59:00 UTC
From: dwsmith@uxh.cso.uiuc.edu
Message-ID: <30000024@uxh.cso.uiuc.edu>
Source record: 11781

I hear that the ICOM IC-R1 did not show up at Dayton despite a scheduled appearance. Any truth to this?

Dave, N4DSZ
dwsmith@uiuc.edu

2717. Re: Cordless Phone Monitoring in USA and GERMANY

Newsgroup: rec.ham-radio
Date: 1990-05-09 03:32:29 UTC
From: roger@hpfcmgw.HP.COM
Message-ID: <1690052@hpfcmgw.HP.COM>
Source record: 11666

> In GERMANY, it is illegal to own a 46/49 type cordless phone (the USA
> type), though MANY people there do use them. The legal cordless phone

> NOTE: In Germany it is ILLEGAL to monitor cordless phones. In GERMANY
> it is illegal to monitor anything. Scanners are verboten. However, in
> practice, there are enthusiasts who DO listen.

Interesting story about the invisible cordless audience out there...

I was considering giving a 46/49 Mhz set for my American friend living in Germany. Do you know what the chances of him getting caught with it and if he does, what are the consiquences?

Roger Jollis
Ft. Collins, CO

2718. QST article?

Newsgroup: rec.ham-radio
Date: 1990-05-09 07:08:40 UTC
From: nfunamura%mis2.decnet@NUWES-LLL.NAVY.MIL
Message-ID: <9005090708.AA21263@ucbvax.Berkeley.EDU>
Source record: 11780

In Message-ID: <49@thoreau.nsc.com> Ron Todd writes:

>.............................
>I assume you have some FT-243 crystals or the old Blailey mounts in mind;
>these hermetics are a bear to work on, particularly the HC-18's and the
>little watch bar blanks.
>.............................
>If you are still of a mind to do this kind of work here is what I know. (damn
>little compared to some of the old masters)

>Materials:

> a piece of FLAT 1/4th inch plate glass 9" x 9" is a good size
> some carborundum or diamond dust, grade 600 or 1200 grit is best
> distilled water
> solvent alcohol
> a cookie sheet
> several small cleaning dishes
> a CLEAN place to work

>Procedure:

> Remove the blank from the mount. For the FT-243 holders this can
>be done with a small screw driver. Take note of the assembly sequence
>so you can remount when needed. For the hermetic rocks you first unseal
>the can at the evacuation hole using a small soldering iron then unsolder
>the can around the base; be careful not to crack the base.

>.............................

In the Mid fifties we (high school kids using 1 tube transmitters) used
to grind FT-243 xtals up to the 40 meter novice band (7.15 to 7.20 MHz in
those days) from stock xtals in the 6.95 to 7.10 MHz range. As I recall,
all we used was a piece of window glass, some COMET or AJAX scouring powder,
and plain ordinary tap water.
We were told that grinding should be done in a figure eight motion to
assure an even grind, and also to try to only grind one side of the crystal.
The grinding table was the window glass which was prepared with a couple drops
of water on which the COMET had been sprinkled. We used the index finger
directly on the crystal (no separate glass plate). After grinding, the
crystals were washed and dried and from this point only handled by the edges.
I would estimate that our success rate was nearly 100% when grinding the
crystal up 50 KHz or less. The failure rate increased as the frequency
shift requirement increased. Also the crystal activity suffered and more
chirpy signals resulted. I don't think we were able to achieve a shift of
over 200 KHz with much luck. Anyway, don't ask me about stability of the

crystal etc. but it was good enough to get us on the air.
I'm posting not to dispute anything Ron has posted....There's a right way
and a not so right way....So if you have enough crystals, and want to get your
feet wet, jump in!

73, Norman
KH6R (808) 668-3087

2719. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-05-09 12:45:19 UTC
From: msjohnso@ensub.Wichita.NCR.COM
Message-ID: <325@ensub.Wichita.NCR.COM>
Source record: 11668

In article <1250157@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>
>My favorite is the (at one time) very active contest station WB5EEE
>(known in some circles as "WB5S"). After the first dash in the "B", it's
>all dits: ._ _... ....
>There used to be an operator at W1AW with the call WA9HHH. On CW, this
>sounds like the error signal. ....

My call sign is a real turkey in Morse (WB9QLR) and little better on phone.
My first name, however, has a nice swing to it, since after the initial
double dah, it alternates:

_ _ · _ · _ · _ · __

Haven't run code in years, but thought I'd throw in my .02 worth. On top
of that, I can't think how many times people thought they heard an extra
dah on my last name and called me "Mary" - instant gender change :-)

--
Mark Johnson WB9QLR/0 NCR Peripheral Products Division
Mark.Johnson@Wichita.NCR.COM 3718 N. Rock Rd.
(316) 636-8189 Wichita, KS 67226

2720. RE:TV UFH Spectrum (Was WARC RECORDINGS)

Newsgroup: rec.ham-radio
Date: 1990-05-09 12:45:33 UTC
From: GCW.WBST207V@XEROX.COM
Message-ID: <900509-063741-17267@Xerox>
Source record: 11669

Jim Austin KA2RVO writes :-

>About the lack of spectrum space for the Land Modile service,
>it seems to me, that the UHF television channels are underutilized.
>In rochester we have channels 21 and 31, what is the rest of the
>space from ~500 -> ~800 MHz used for, if anything?

I suppose that there must be similar circustances in a lot of other cities
in the country ie apparently only 1 or 2 UFH stations in town.
I also live in Rochester and have recently noticed a new rather weak signal
on the air on channel 38 signing W38AW. On questioning a few people locally
I find it is a new low power (less than 1,00 watts by FCC definition)
Commercial TV station. The local FCC people did not no a great deal about
them except that there are a large number of construction permits for these
type of TV stations already issued, and an even greater number of potential
applications pending. The stations according to the FCC are meant to have
a range of 10 miles, but must not cause interrference with other channels.

Anyway I guess the bottom line is that vast wasteland of UFH that appears
to be currently unused in many areas may be very soon be consumed by the
allocated users. All of this will undoutedly put an even greater pressure
on the Ham bands.

PS anybody have some more info on these low power TV stations ?

Cheer' s and 73's Geoff G4JJO

-- Geoff C. Williams,
Building 207-02B Landline 716-422-7422
Xerox Corporation
800 Philips Road ARPA G4JJO.WBST207V@Xerox.COM
Webster NY

2721. Re: Crystal shaving...

Newsgroup: rec.ham-radio
Date: 1990-05-09 13:30:49 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990May9.133049.6281@elroy.jpl.nasa.gov>
Source record: 11782

In article <08.May.90.14:29:08.BST.#3573@UK.AC.NWL.IA> PJML@ibma.nerc-wallingford.ac.UK ("Pete Lucas, NCS-TLC, Swindon U.K.") writes:
>Plating a rock is easy; use copper sulphate solution, 0.1 molar. Link both the

... concise technical discussion of correct way to adjust xtal frequencies ...

>I shifted a HC6U rock from 7055KHz down to 7001KHz this way (i was
>aiming for 7000KHz but could pull it the last 1KHz with the trimmer).
>...
> Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

Geeee.... We were poor kids - we'd unsolder the cover on the crystal
can, take a number 2 pencil and put a mark on the crystal surface.
The added mass would change the resonance frequency just enough to
get us out of the Extra band or into it...

73 - Jon
NW6H/exWA6IRH/exWN6IRH (chirp and drift)

--
Jon Trent Adams, NW6H | "Per Aspera Ad Astra" A Dead Roman
JTA@hydra.jpl.nasa.gov | Way-Rad : Opinionated : Single : Prevaricator :
"jpl don't know me from squat"| Raconteur : Engineer : President, Local Chapter
Ghenghis Khan Fan Club : Honorable Mention, "Calvin" Lookalike Contest

2722. Re: Icom R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-09 13:56:47 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <44418@iuvax.cs.indiana.edu>
Source record: 11784

>I hear that the ICOM IC-R1 did not show up at Dayton despite a
>scheduled appearance. Any truth to this?
>
>Dave, N4DSZ dwsmith@uiuc.edu

True. I don't think they had R100 or R72A either. An (American)
Icom rep claimed "production delays" of 6 months to a year.

--

Frank W9MKV reid@ucs.indiana.edu
PS - I didn't find a CRM-114 :-)

2723. New AEA Antenna & Unrelated Matters

Newsgroup: rec.ham-radio
Date: 1990-05-09 14:25:22 UTC
From: MEDELMA@CMS.CC.WAYNE.EDU
Message-ID: <9005110725.AA02604@ucbvax.Berkeley.EDU>
Source record: 11672

I was looking at an ad for the new AEA antenna ad in AES's latest catalog, and I'm slightly intrigued. It's another varient on the small capacitively tuned loop idea- just a loop and a big remotely tuned capacitor mounted on the roof (or tower, or whatever).

Has anyone played with this thing yet, or perhaps with other varients on the same idea..?

In a completely unrelated matter: I apologize in advance for asking on this list, but since I have run into a number of blind alleys and this group has so many educated technical types....:

I need a software package- micro (IBM, Mac) or mainframe (IBM), object or source, for monitoring our University's compliance with NRC license requirements regarding radioisotopes. It should keep track of who's got what, compute decay rates and so forth. I'm sure there's something out there better than the awful FORTRAN program someone wrote here 20 years ago...and I don't feel up to writing another one :). Thanks...

Mike Edelman KE8YY
medelma@cms.wayne.cc.edu
medelma@waynest1 (bitnet)

2724. Current 10 meter Propagation

Newsgroup: rec.ham-radio
Date: 1990-05-09 14:29:09 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990May9.142909.8701@elroy.jpl.nasa.gov>
Source record: 11785

WB6HQK, WB6ZSU, K6JRR, WA6CGR, myself and a few others are beginning to get our 10-meter-mobile plans ready for summertime vacations and driving, and we've got a couple of questions for those who regularly use 10 meters.

Since I hope that there'll be more than a few responses to these questions, please mail all response to

grian!puffin!wb6hqk@elroy.jpl.nasa.gov

You may also merely reply to this message and I'll forward the responses to HQK...

^L
**********10 Meter Propagation Survey**********

Please answer these questions based upon only your 10m experience of the past 12 months.

We are looking for specific information on achieved and predicted operation on 10m over a 100 - 2000 mile range zone.

For each question, please note any propagation differences between CW, voice (AM, FM, SSB) and packet operation.

The term "reliable" means at least marginal (or better) communications 50% of the time (in other words, the ability to exchange callsigns, signal strengths and locations during a short QSO).

1) How much power do you generally run on 10m?

2) How much power do the majority of your contacts on 10m use?

3) What type of antennas do you use for your various 10m operations?

4) During the daytime hours, what kind of range do you reliably expect and achieve on 10m?

5) During nighttime hours, what kind of range do you reliably expect and achieve on 10m?

6) For the upcoming 12 month period, predict a range over which a pair of 10m, 10-watt mobile installations could enjoy reliable communications.

Bonus Essay Question (10 extra points)

Given two to four hundred dollars and a 12-volt, trickle-charged
car battery as your power source, which of the current 10-meter
radios would you purchase and why? (Yes, you can spend the
money ONLY on a 10m radio...)

Thanks for your time. I will post a summary of the
information gathered via this Survey.

73 - Jon NW6H
--
Jon Trent Adams, NW6H | "Per Aspera Ad Astra" A Dead Roman
JTA@hydra.jpl.nasa.gov | Way-Rad : Opinionated : Single : Prevaricator :
"jpl don't know me from squat"| Raconteur : Engineer : President, Local Chapter
Ghenghis Khan Fan Club : Honorable Mention, "Calvin" Lookalike Contest

2725. Re: Re: Cat's Whiskers

Newsgroup: rec.ham-radio
Date: 1990-05-09 14:44:06 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250161@hpnmdla.HP.COM>
Source record: 11790

>
> > My old cub scout handbook said to use a safety pin and a piece of
> > galena (lead crystal). You probe the galena until you find a spot
> > that behaves like a diode...
>
> The crystal set that has been diagrammed in the Cub Scout handbook
> forever DOES NOT WORK because the sliding coil-tap makes shorted
> turns. Kits were even produced, and they didn't work either. I
> suspect the original author never tested it.
>
> It's about time they published something workable, using available
> parts. There have been lots of excellent but simple crystal-set
> articles in magazines like _Popular Electronics_ since the '60s. Does
> anybody out there have connections with the BSA publishing
> establishment?
>

I suspect they may be a lost cause... I remember the section in
the radio/electronics merit badge manual about transistors in the early
1960s:

".... the transistor, made from small pieces of metal and a few thin wires,
can amplify electrical signals more than a million times."

Now I bet the net didn't know that CK722s had that much Beta....

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

2726. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-09 15:20:02 UTC
From: kenw@col.hp.com
Message-ID: <18230009@col.hp.com>
Source record: 11788

There was an announcement from EEB in the Icom section of HamNet (Compuserve) that ICOM was recalling the R1, the R100, and the R72A wideband receivers from the US market. They (EEB) are recommending that their customers who have these radios on order cancel.

2727. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-09 15:32:58 UTC
From: jws@hpfcso.HP.COM
Message-ID: <7500020@hpfcso.HP.COM>
Source record: 11795

Brian,

At least in northern Colorado, you will want an HT with PL (subaudible tone) generation capability, NOT "tone burst". Many European (and a very few U.S.) repeaters require a tone burst on the front of a transmission (often 1800 Hz) to open the repeater. In this area, repeaters which are not completely carrier-controlled require a subaudible tone which is continuous during the duration of the transmission from the HT. This is sometimes used to implement "private" repeaters, but is coming into wider use as a means to control interference problems (unfortunately).

BTW, in used HT's, I'd go for one of the ICOM-02AT's, or a 2AT with an add-on PL generator. For a new model, I'd probably consider the Icom 2GAT for 2m only, or one of the new dual-band HT's (220 and 440 are both becoming more active in this area).

73,

John Schmidt, NK0R

2728. Sunspot Cycle 22 - What's going on ?

Newsgroup: rec.ham-radio
Date: 1990-05-09 16:43:52 UTC
From: n2ic@druhi.ATT.COM
Message-ID: <4781@druhi.ATT.COM>
Source record: 11675

Many of you may have noticed the sharp drop in the solar flux this month (down to 121), and wondered what's going on with sunspot cycle 22 !

Are we headed back down already ? Will 10 meters be any good this fall and winter ?

By using solar flux data from the SESC (given to me by W1GD), I have examined the current sunspot cycle, and have tried to make some comparisons with the previous 3 sunspot cycles.

To examine the sunspot cycles, I have taken a 12 month running average of the solar flux numbers. I call this the "smoothed solar flux". This tends to damp out the day-to-day and month-to-month variations that confuse the issue !

Cycle 22 (the current cycle) rose monotonically until June, 1989, peaking at a smoothed solar flux of 214. The smoothed solar flux stayed at 213 or 214 from June 8, 1989, until July 12, 1989. From mid-July, until November, 1989 (the latest date from which a 12 month running average can be constructed), there has been a downward trend in the smoothed solar flux. The flux has been between 205 and 206 from September 12, 1989 until the most recent date (November 6, 1989). This represents a 9 point drop from the peak. Another way to look at the peak interval is to examine the interval of time that the flux was within 9 points of its peak value. For cycle 22, the smoothed flux was 205 or greater from April 17, 1989 until the "current" date of November 6, 1989 - an interval of slightly less than 7 months.

Now, a comparison with previous solar cycles:

Cycle 21 rose monotonically until April, 1980 (smoothed flux = 199), then dropped 3 points, then rose to a smoothed flux of 201 in October, 1980. Cycle 21 then dropped 6 points, before rising to the cycle peak of 204 in April, 1981. There was then a 4 point drop, followed by another cycle peak of 204 in September, 1981. Finally, cycle 21 dropped rapidly.

Cycle 21 was within 9 points of its peak value for an interval of 25 months.

Cycle 20 was bizarre ! There was no pronounced peak. The smoothed flux maximum was only 156. However, cycle 20 was within 9 points of its peak value for an interval of 40 months.

Cycle 19 rose monotonically until June, 1957 (smoothed flux = 233), dropped 2 points, then rose to 243 in December, 1957. Cycle 19 then dropped 2 points, before rising to the cycle peak of 245 in March, 1958. The flux fell rapidly following the cycle peak. Cycle 19 was within 9 points of its peak value for an interval of 9 months. However, cycle 19 had a smoothed

solar flux above 200 for 33 consecutive months !

Observations:

It seems that the higher the absolute value of the maximum smoothed solar flux, the more "peaked" is the cycle (a faster rise and decay).

If cycle 22 has already passed its peak, it will be remarkable in terms of the short length of time it was near its peak value. This tends to imply that perhaps cycle 22 has not yet reached its peak value.

On the other hand, cycle 22 has already dropped 9 points from its peak value. None of the other 3 sunspot cycles that I compared against had dips of more than 6 points before rising to the cycle peak. The 9 point drop of cycle 22 seems to imply that we are past the peak.

Conclusion:

The jury is still out on cycle 22. Only time will tell !

Steve, N2IC/0

2729. Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-09 17:19:26 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9005110729.AA02891@ucbvax.Berkeley.EDU>
Source record: 11676

Well, folks it appears that the ICOM R-1 was either vaporware or just couldn't be sold in the U.S. The ICOM folks at Dayton said the radio has been "cancelled indefinitely" and EEB says that they may still get some someday. EEB said ICOM was citing "production problems" as the reason for cancelling the receiver.

What's interesting is that ICOM ran a back cover ad on the May issue of Popular Communications advertsing their new receivers. EEB (a major ICOM dealer) had also run ads for May, 1990. The people at EEB sounded really annoyed at ICOM for pulling this rig so suddenly. I sense a production yield or tariff problem here. I personally think the radios exist and they and they can't get them into the U.S.
This is a Stone Cold Bummer :-(:-(. I was really looking forward to that radio.

Anyone else heard anything?

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

2730. Info needed from 8/89 _73_ article

Newsgroup: rec.ham-radio
Date: 1990-05-09 17:24:10 UTC
From: gateh@CONNCOLL.BITNET
Message-ID: <9005091724.AA13978@mvax.cc.conncoll.edu>
Source record: 11777

This is posted for a friend without net access:

Hello Info-Hams folks,

I am looking for the value of two capacitors (C1 & C2) from the article
"Need FM?" in the August 1989 issue of the magazine _73_. It is missing
from my local library.

Thanks much in advance! - George

George Blahun Quaker Hill, CT KS1U

Folks may respond directly to me if you feel so inclined. Thanks - Gregg

Gregg TeHennepe | Academic Computing Services | Yes, but this
gateh@conncoll.bitnet | Connecticut College, New London, CT | one goes to 11...

2731. PACKET RADIO GATEWAYS

Newsgroup: rec.ham-radio
Date: 1990-05-09 17:35:53 UTC
From: asco001@MONMOUTH-EMH3.ARMY.MIL
Message-ID: <9005110728.AA02796@ucbvax.Berkeley.EDU>
Source record: 11778

ARE THERE ANY HOSTS/DOMAINS/TACS GATEWAYED INTO A LOCAL NET? I HAD
HEARD THAT US NAVAL ACAD WAS GATEWAYED INTO MIDSHIPMAN'S SYSTEM FOR E-MAIL
PURPOSES. ANYBODY WITH ANY INFO? THANKS.
73,
GARY, N4OCW

2732. Re: Cat's Whiskers

Newsgroup: rec.ham-radio
Date: 1990-05-09 17:44:48 UTC
From: michaelk@copper.WR.TEK.COM
Message-ID: <2477@wrgate.WR.TEK.COM>
Source record: 11787

1 Date: 8 May 90 00:22:56 GMT
2 From: zephyr.ens.tek.com!wrgate!copper!michaelk@uunet.uu.net (Michael D. Kersenbrock)
3
4 I plan to build a crystal radio, using state-of-the-art IC's for the
5 *rest* of the unit.

x Well, gee, why not build a totally digital crystal set? For the detector,

Actually, I like this idea. Maybe a A/D and a DSP for processing.

You did miss my point that I still needed the cat's whisker and galena crystal (which I've already gotten). It's like a BBQ'd chicken: you can change the trimmings and still be a BBQ'd chicken, but you can't change the chicken. I can change the radio's trimmings and still be a crystal set, but I have to keep the galena crystal!

Thanks for your (unintentional) good idea. I'll probably do it.

--
Mike Kersenbrock
Tektronix Microprocessor Development Products
michaelk@copper.WR.TEK.COM
Aloha, Oregon

2733. Re: QST article?

Newsgroup: rec.ham-radio
Date: 1990-05-09 18:39:50 UTC
From: engle@wdl1.UUCP
Message-ID: <4820025@wdl1.UUCP>
Source record: 11786

>.............................
>I assume you have some FT-243 crystals or the old Blailey mounts in mind;
>these hermetics are a bear to work on, particularly the HC-18's and the
>little watch bar blanks.
>.............................

A few postings about altering FT-243 crystal frequencies have been put up here. I and a few others also used the ajax cleaner method of raising the frequencies with some degree of success. However, being a little over eager we over-shot the desired frequency range a few times (i.e., made the crystal blank too thin) and had to lower the frequency. Another poster described how to lower the frequency of FT-243 blanks by copper plating. We were not that clever. Instead what we did was rub a piece of solder on the crystal to build up the thickness. We found this to work to a limited degree and was able to lower the frequency by 5-10 kHz (kilo-cycles in those days). Any more solder that that amount seemed to kill off the blank. As I recall we got the solder idea from a Hints and Kinks article in QST or a republished H&K booklet.

Anybody out there know what the community now calls these measures?
cps, kmc, mickey-mikes.

I'll post the answer in a day or two.

Regards, Dave

David Engle, KE6ZE - engle@wdl1.wdl.fac.com - 408/473-4419 @ Ford Aerospace
Facts, what facts. I don't got to show you no stinking facts. These are opinions expressed here. "Any clod can have the facts, its an art to have an opinion" Herb Caen, SF Chronicle.

2734. Question on Sony-2010/Active Antena

Newsgroup: rec.ham-radio
Date: 1990-05-09 19:02:16 UTC
From: nrg@nsscb.UUCP
Message-ID: <1575@nsscb.UUCP>
Source record: 11792
Cross-posted to: rec.ham-radio,att.ham-radio

I am using AC-1 active antena for my SONY-ICF 2010. Most of the time
I play around tuning to All India Radio stations. Ever since I installed
this active antena, the signal strength of AIR is touching the maximum
even in the afternoon. Here is the catch. I cut open the loop of the
AC-1 antena and connected it to a 60feet external antena(wire). Also
there is absolutely no distortion/static/overload. Also I could able
to tune to AIR home services.

Now, I would like to know whether by coupling AC-1 and the external antenna
blows out the front end of my SONY-2010 or any other side effects.

G.Narotham Reddy
--

2735. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-09 19:06:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500524@ux1.cso.uiuc.edu>
Source record: 11793

> >I hear that the ICOM IC-R1 did not show up at Dayton despite a
> >scheduled appearance. Any truth to this?
> >
> >Dave, N4DSZ dwsmith@uiuc.edu
>
> True. I don't think they had R100 or R72A either. An (American)
> Icom rep claimed "production delays" of 6 months to a year.

Meaning they sent it back to engineering to design out the patent conflict. There is no such thing as a production delay of such a long period in Japan. The Japanese definitely have their act together on the production line floor, stocking parts, etc. The guys who don't have it together at all are the American sales people.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2736. Re: RE: 2 meter simple j-pole

Newsgroup: rec.ham-radio
Date: 1990-05-09 19:13:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500525@ux1.cso.uiuc.edu>
Source record: 11794

> From: billt@hprnd.HP.COM
>
> One of the problems in making twin lead J poles is that not all twin lead is
> the same. Low loss twin lead has a different velocity factor and hence the
> lengths are different. If possible check out the J pole on a network
> analyzer to find out what its resonant frequency and impedance is.

Gee, if we all had access to a network analyzer, life would sure be
greatly improved. However, a network analyzer of the quality you would
expect from companies like HP and Tektronix are overkill for most
amateur needs. A "poor man's" network analyzer might be a nice
project or junk product for someone to make. It could be based on
a sweep oscillator and feed into a PC for memory zeroing. Complex
response would not be needed for many things, either. The PC software
could be customizable to do nifty stuff like a Smith chart.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2737. crystal sets

Newsgroup: rec.ham-radio
Date: 1990-05-09 20:45:36 UTC
From: oo7@ut-emx.UUCP
Message-ID: <29689@ut-emx.UUCP>
Source record: 11789

Trouble is, if you build a crystal set, what is there to listen to
on it? Just junk.

<Old Pharte Mode On>

Now, in my day, laddie, from G-land, you could hear the good old Beeb,
as well as Radio Moscow. By suitable twiddling, you could also hear these
guys chattering away to each other late at night - turned out to be "hams"
or something. Nowadays the same old guys are chattering away, but it's
all this modern SSB stuff that you can't understand on a crystal set, and
the "AM" band is just junk. How's that going to turn anyone on to the joys
of DXing and similar fine pastimes? Grumble, grumble..

<Old Pharte Mode Off>

Anyone built the Radio Shack AM/ShortWave Radio (ages 2 and up)? I can
hear 2, or at most 3, stations on mine, the selectivity is nil. I dunno,
maybe it's all these modern transistor things etc - you never really know
if they're working or not. They don't light up or nuffink.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

2738. No audio on Icom...general fixing things

Newsgroup: rec.ham-radio
Date: 1990-05-09 21:15:26 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005092117.AA27237@ti.com>
Source record: 11783

Jim Stewart asked if there was a book (or whatever) that covers problems
and the tricks to finding and fixing them.

Unfortunately, no one book exists that covers the full range of problems
one is likely to encounter in troubleshooting equipment. There are a lot
of periodicals, books, articles, etc. about locating those hard-to-pin-
down problems with TV's; and most of these come from guys with a lot of
experience with them. Many people keep a little "diary" in which they
list those "dog" problemsfor which some unusual repair was required.
Often, these rare problems/fixes apply only to one model or manufacturer;
and may be tried on other equipment when all else fails.

Troubleshooting faults in radios, nd TV's,
TV's, autos, and yes, even human bodies,
requires a fair amount of knowledge of the BASICS on which their systems
are built. You can get this from books, schools, etc. Further, good
fast troubleshooting also requires a knowledge of the equipment itself and
how it works---how it incorporates the BASICS you learned about in the
books and schools. Here is where the experience comes in. The most well-
read person who understands thoroughly the BASICS can't just go into a
complex piece of gear and find a fault. A study of how it works is in order.
By the rule of the Learning Curve, the more problems you deal with on a
particular piece of gear, the better you get at finding and fixing problems
with that gear. (Learning Curve = Experience).

Your own ability to keep your thoughts organized; to apply knowledge of past
problems and their fixes; and the knowledge of and ability to follow a logical
and methodical course of action are the catalyst that brings knowledge of
BASICS and knowledge of equipment together to solve the problem at hand.

Many people reading this will recognize that the general problem-solving
principles apply as well here as to determining why a product is losing
market share. Why did I stress BASICS? Simply because a knowledge of the
fundamentals is an absolute necessity without which knowledge of equipment
is almost a hindrance; and proper experience canl not be gained.

With a thorough understanding of the BASICS you can find and fix a problem
eventually on a piece of gear you've never seen before. Add a knowledge
of how it works, and you find and fix it faster. Now add a year's
experience on that gear, and it almost seems as if there is no problem.

73,
Dube Todd N5PDK

2739. ATV frequencies of upcoming SAREX mission

Newsgroup: rec.ham-radio
Date: 1990-05-09 23:08:49 UTC
From: davet@tsdiag.ccur.com
Message-ID: <951@tsdiag.ccur.com>
Source record: 11791

Has anyone heard what frequencies will be used and what schedule will
be followed for ATV during the upcoming SAREX mission? I assume (hope)
it will be one of the 70cm ones, since that's where my DaveTV equipment
listens. Thank you in advance,
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

2740. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-09 23:21:21 UTC
From: michaelb@mikebat.UUCP
Message-ID: <324@mikebat.UUCP>
Source record: 11799

In article <9354@lindy.Stanford.EDU>, paulf@jessica.Stanford.EDU (Paul Flaherty) writes:
> She discounted the rumor
> about the patent lawsuit, and also told me that the R1 is currently selling
> in Japan.

Considering the Japanese Patent Office finally granted Texas Instruments
a basic technology patent for inventing the integrated circut sometime
in the summer of _1989_ it isn't all that surprising that the rig could
still be selling in Japan.

(They also made the effective date sometime in the 60's so TI gets to
collect royalties for about four or five more years. I think the
Japanese courts awarded TI several tens of millions of dollars back royalties.)

Michael
--
Michael Batchelor / \113\101\067\132\116\132 uunet!wshb!mikebat!michaelb

I'd gladly trade 10 years off the whole population's life
expectancy to give us an even shot at dominating the galaxy.

2741. Re: PC-Pakratt patch

Newsgroup: rec.ham-radio
Date: 1990-05-09 23:50:25 UTC
From: k4bnc@cbnewsh.att.com
Message-ID: <1990May9.235025.11271@cbnewsh.att.com>
Source record: 11796
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <29621@ut-emx.UUCP>, frank@ut-emx.UUCP (Frank Abernathy) writes:
> > with Pakratt" and terminates.
> >
> > So it looks like the near term solution is to patch the timing loop to
> > eliminate the problem. To save the time, has anyone on the net
> > hacked/patched PC-Pakratt to eliminate this problem?
> > --
> > Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612
>
> I also had a problem as you described above.
>
> What I did to resolve it was to turn down the volume, disconnect the audio-in
> or set the DCD Threshold to a point where the CD light doesn't come on.
>
> Then reinitialize the I/O.
>
> Works every time for me. PK-232/MBX with PC-Pakratt.
>
> I suspect that having active data transitions while it's trying to initialize
> just blows their firmware's mind..
>
>
> hope this helps
> later
> frank
>
>
> --

2742. shuttle amateur transmissions - info request

Newsgroup: rec.ham-radio
Date: 1990-05-10 00:37:02 UTC
From: kawai@csli.Stanford.EDU
Message-ID: <13544@csli.Stanford.EDU>
Source record: 11798

Rumor has it that space shuttle astronauts will communicate directly with their counterparts onboard the Soviet MIR stations. Is this true? If so, what are the schedule times and frequencies? I would also appreciate times and frequencies for amateur traffic between the shuttle and earth.

All leads appreciated,

---------- stanford university + sri international
--- Goh Kawai --- arpanet/junet: kawai@csli.stanford.edu
---------- compuserve: 76056,1726 radio: n6uok

2743. Re: Little ceramic things

Newsgroup: rec.ham-radio
Date: 1990-05-10 00:59:26 UTC
From: mikey@pnet01.cts.com
Message-ID: <2603@crash.cts.com>
Source record: 11797

MROWEN@STLAWU.BITNET (Mike Owen W9IP) writes:
>Several weeks ago, a netmember asked about some 3/8" diam.
>ceramic cylinders, rounded at the end. I just figured out
>what they are. If the person would like to know what they
>are, contact me via BitNet at MROWEN @ STLAWU
>
>Mike Owen W9IP/2

Gosh, why not let the entire net know what these goodies are/were? It only seems fair after watching the traffic concerning them.

| Mike Shirley, WB6WUI INET: mikey@pnet01.cts.com |
| PO Box 460 ARPA: crash!pnet01!mikey@nosc.mil |
| Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet01!mikey |

2744. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-10 12:09:40 UTC
From: wa2sff@cbnewsh.att.com
Message-ID: <1990May10.120940.22342@cbnewsh.att.com>
Source record: 11800

In article <30000024@uxh.cso.uiuc.edu>, dwsmith@uxh.cso.uiuc.edu writes:
> I hear that the ICOM IC-R1 did not show up at Dayton despite a scheduled
> appearance. Any truth to this?

I asked for a data sheet for the R1 at the ICOM booth.
An ICOM rep stated that the R1 was in production delay
so there were no samples or data sheets.

I didn't ask him why.

Joe Wilkes
att!hound!wa2sff

2745. Source for scanner parts and repair

Newsgroup: rec.ham-radio
Date: 1990-05-10 13:46:47 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990May10.134647.4406@cbnewse.att.com>
Source record: 11812
Cross-posted to: rec.radio.shortwave,rec.ham-radio,sci.electronics

I just received a Spring 1990 flyer from G & G Communications
that may interest scanner hobbyists.

The flyer lists hundreds of used scanner "carcasses" and
parts for sale, as well as pagers, ICs, and crystals.
It states:

"...Our specialty is scanner repair.
We will attempt to fix most any scanner with few exceptions.
The Bearcat 250s, 300s, and 210s that most shops
are unable to repair, we fix daily..."

You can get a flyer by contacting:

G & G Communications
9247 Glenwood Drive
Le Roy, NY 14482
USA
tel. 1(716)768-8151

Disclaimer: I have had no experience with G & G. Call them, not me.
--
==
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

2746. Re: crystal sets

Newsgroup: rec.ham-radio
Date: 1990-05-10 13:47:51 UTC
From: zslf0a@trc.amoco.com
Message-ID: <1626@apctrc.UUCP>
Source record: 11822

In article <29689@ut-emx.UUCP> oo7@ut-emx.UUCP (Constructive Frivolling) writes:
>
> Trouble is, if you build a crystal set, what is there to listen to
>on it? Just junk.
>
><Old Pharte Mode On>

True, alas. But back in olden times, I was first introduced to the magic of radio via a crystal set. I was in elementary school, an era marked by by Sputnik, the hula-hoop and a little gadget called a 'rocket radio'. This was a little crystal set shaped like a v2 rocket. It worked! Of course, I immediately tore mine apart to see what was inside. That this little collection of strange objects could actually make sounds was utterly facinating. I built dozens of different crystal sets of dubious technical merit. Most of them worked!

A few years later, my family moved to within five miles of KVOO radio - a 50Kw 'clear channel' am broadcast station with a phased array of 3 *HUGE* verticals. I could no longer get anything else, but reception of KVOO was fantanstic! A simple crystal detector could even drive a small speaker. In fact, just about anything metalic in the house was a potential receiver.

I learned the code while throwing my paper route. A friend and I would ride our bikes and whistle back and forth. When we went for our Novice tickets, the test was given by a Ham that lived within a mile of the KVOO towers. When he turned his garbage disposal on, you could plainly hear (very distorted) music coming from beneath the sink :-)

73's - Steve WA5RPF

2747. Numbers Stations

Newsgroup: rec.ham-radio
Date: 1990-05-10 14:23:46 UTC
From: charlie@oakhill.UUCP
Message-ID: <3285@radio.oakhill.UUCP>
Source record: 11803
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I believe the numbers station is a great way to send messages
to remote areas without fear of looking suspicious on the
receiving end. Multiband radios are common drug store items
and don't look like spy equipment. Who wants to have crypto
spy equipment laying around your house if you are involved
in covert activities??? Remember in many 3rd world countries
a search warrant may be non-existent and the authorities bust
down your door and ramsack your place. If all you have is
a little radio you look a lot less suspicious.

As far as the code goes remember that a SUBSTITUTION CIPHER
is virtually un-crackable if you don't have the key. Like
the famous Beale Cipher the key can be a common document
like the Declaration of Independence. If the people sending
these messages are smart they will use a changing key such
as the first letter of each word of the front page article
in the local daily newspaper.

I believe that the numbers system is fairly secure as long
as you don't have a clue as to what the substitution cipher
key is derived from.

Hence all of this simplicity is fairly secure and doesn't require
a lot of expensive (and vulnerable to capture) crypto equipment.

That's my theory....
How'd I do... CIA???

-C.T.

2748. Currents of Death -- technical review

Newsgroup: rec.ham-radio
Date: 1990-05-10 15:43:49 UTC
From: brian@positron.amd.com
Message-ID: <1990May10.154349.18641@mozart.amd.com>
Source record: 11805
Cross-posted to: rec.ham-radio,sci.electronics

There is a technical review/editorial on Paul Brodeur's "Currents of Death" in the April 1990 IEEE Antennas & Propagation Magazine (Vol. 32, No. 2). The reviewer (J. Robert Ashley, Ph.D., IEEE Fellow) concludes that Brodeur's book is "so much scientific error and malice."

Brian McMinn brian@amd.com
Advanced Micro Devices N5PSS
Austin, Texas 1-(512)-462-5389
"You can't leap a chasm in two jumps."

2749. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-10 15:56:37 UTC
From: kenw@col.hp.com
Message-ID: <18230010@col.hp.com>
Source record: 11809

Anyone know what the alleged patent problem pertains to on these rigs?
Or is the whole problem just a cell-phone problem?

2750. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-10 16:21:12 UTC
From: kenw@col.hp.com
Message-ID: <18230011@col.hp.com>
Source record: 11810

I second John's opinions above. Particular brands to stay away from (in my opinion) are Yeasu (all of them) and probably some models of Kenwood. Also, the Icom IC-24AT might be one to avoid for a while until they start selling a better antenna (poor gain compared to other dual band flex types) and improving the display readability. Yeasu radios typically have poorly designed receivers and are subject to intermod and spurious reception.

I have purchased many Icom models and one Kenwood. Although Icom seems a bit stodgy (conservative) regarding features, they seem to make a very high quality and reliable product. The one Kenwood I bought (TH-21) has had nothing but problems.

The IC-2AT was a good model, but has no memories (thumbwheel switches set a single freq at a time). The IC-02AT was a good general purpose radio with all the features you are desiring. The IC-2GAT is also good if you want to run up to 7 watts of power. However, there is a tradeoff between power and battery life. I feel that 2-4 watts is a good range to stick with as you will still have adequate operating life, plus most repeaters will work fine with those power levels; especially in Colorado where most repeaters are 3 to 5 thousand feet above you! Icom also has very good service support. They have provided me with small parts for free and are always very helpful. Kenwood also seems to have good service support, but I recently had to order an electret microphone element for my TH-21. The mic element was about the size of an aspirin tablet and weighed maybe all of 1/100th of an ounce, but they insisted on charging $4.00 for "shipping and handling"! The part itself wasn't so bad (about 5.50).

As an aside, when I owned the IC-2AT, I was riding my motorcycle/sidecar rig down the highway at about 45 mph. It came unclipped from my belt, fell to the pavement, bounced up and hit the bottom of the sidecar, and again hit the pavement, then slid along the ground for a while. After all that, it still worked ok! Nice rig. I now have a IC-32AT and have come to really love it. At $550, it is not the cheapest radio, but it covers both 2m and 440MHz, has 20 memories, and can receive public service on VHF-Highband and UHF (with some simple mods).

2751. Motorola HT Questions...

Newsgroup: rec.ham-radio
Date: 1990-05-10 16:41:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9005110710.AA01720@ucbvax.Berkeley.EDU>
Source record: 11825

Hello out there in Net-Land...

I picked up a Motorola MX-330S while I was in Dayton last month.
It's a 48 channel PROM programmable 2.5 watt HT.
Does anyone know of a source that other than Motorola that is
willing to sell and program a PROM unit at a reasonable price ??
I beleive Motorola wants something like 150 dollars for their services !

My second question is...

Does anyone know of any MT-1000 on UHF that can be configured to go
from 430-480 Mhz or wider ??? Is the relatively narrow bandwidth a limitation
of the software used to program it or of the radio itself ??

Anyone who has a similar interest in Motorola equipment can get in touch with
me via E-Mail.

73's
de
4X1DA
Richard Harel

2752. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-10 17:07:56 UTC
From: dana@lando.la.locus.com
Message-ID: <8816@oolong.la.locus.com>
Source record: 11808

In article <10110001@hpislx.HP.COM> bfc@hpislx.HP.COM (Bryan Carpenter) writes:
>As a newcomer to ham radio, I am looking for some advice on purchasing
>my first rig, a 2m HT. I want to start with a couple-year-old used one
>so I can start operating without shelling out the bucks for the
>latest-and-greatest.
>
>Features I know I want:
> .... [various common features deleted].....

>- Power output on the high side of allowable range
>- Rechargeable batteries with decent capacity and good replacement availability

On the high side of allowable range? Like more than 500W? Hmmmm.......
You may discover that the batteries for such a monster don't meet criterion :-)

```
*****************************************************************
* Dana H. Myers KK6JQ | Views expressed here are *
* (213) 337-5136 (ex WA6ZGB) | mine and do not necessarily *
* dana@locus.com | reflect those of my employer *
*****************************************************************
```

2753. Re: Re: Cat's Whiskers

Newsgroup: rec.ham-radio
Date: 1990-05-10 17:52:44 UTC
From: dougb@hpnmdla.HP.COM
Message-ID: <1250162@hpnmdla.HP.COM>
Source record: 11813

I remember those days -- I did get the kit, and got it to work
with the help of a neighbor TV repairman. The way I believe we got it going
was to *NOT* sand the turns on the coil, and substitute an air variable
capacitor for tuning. We spent about a half hour trying to get the galena
chunk to rectify, and after much frustration, finally tuned in a station but
with mediocre results. My mentor then left, but shortly returned with a
germanium diode! What a radio! :-)

73, "I saw it all on my radio..." -- Lionel Cartwright
Doug WW6D
dougb@hpnmd.hp.com

2754. Feeler - VOA Broadcast Schedule

Newsgroup: rec.ham-radio
Date: 1990-05-10 18:13:13 UTC
From: eab@voa3.UUCP
Message-ID: <27@voa3.UUCP>
Source record: 11818
Cross-posted to: rec.ham-radio,rec.radio.shortwave,misc.test

I am putting out this feeler to see if anyone is interested in a posting
of Voice of America broadcast times and frequencies and how often it
should be reposted. Be advised, this schedule is 500-600 lines long.

Thanks.

--
E. Allen (Al) Brown VOA/BBC (Bureau of Broadcasting) Voice of America
...uunet!voa3!eab WA3FYZ/ZF2LY Cohen Building, Room G-748
Chief, Operations Branch Washington, DC 20547
Computer Services Division +1 202 485 7021

2755. 500 most common words in English

Newsgroup: rec.ham-radio
Date: 1990-05-10 18:20:50 UTC
From: kawai@csli.Stanford.EDU
Message-ID: <13554@csli.Stanford.EDU>
Source record: 11807

Dear all,

Being an aspiring linguist as well as an aspiring CW operator, I have come up with a list of words that occur frequently in English. The data comes from the so-called Brown Corpus. This is a large database of sentences from a wide variety of English text (with a notable bent towards journalism), and is considered to represent modern English prose fairly accurately. Appended below are the five hundred most common words. Since there isn't any amateur radio jargon in the list, the list is not so useful for practicing CW on software that will send you code from a text file. Does anybody have a list of Q-signals and common abbreviations? I can add them to the list, and make it more fun for CW random word practice. With, say, two hundred amateur radio words (including Q-signals and abbreviations), the list would grow to seven hundred words. If I could copy seven hundred words with the ease I copy "the", "fb", and "rst" (not to mention "CQ" and "73"), I would get much closer to ragchewing indeed. Any help and comments most welcome.

----------------- stanford university + sri international
--- Goh Kawai --- arpanet/junet: kawai@csli.stanford.edu
----------------- compuserve: 76056,1726 radio: n6uok

----------(begin list)----------

the of and to a in that is was he for it with as his on be at by i
this had not are but from or have an they which one you were her all
she there would their we him been has when who will more no if out so
said what up its about into than them can only other new some time
could these two may then do first any my now such like our over man me
even most made after also did many before must through back years
where much your way well down should because each just those people mr
how too little state good very make world still own see men work long
here get both between life being under never same day another know
while last might us great old year off come since go against came
right used take three states himself few house use during without
again place american around however home small found mrs thought went
say part once high general upon school every don't does got united
left number course war until always away something fact though water
less public put think almost hand enough far took head yet government
system set better told nothing night end why called eyes didn't find
look going asked later point knew next program city business give
group toward young days let room president side social several given
present order national rather possible second face per among form
important often things looked early white case john large become need

big four within felt along children saw best church ever least power development thing light seemed family interest want mind members country others area done turned although open god service certain kind problem different began thus door help sense means whole matter perhaps itself it's york times human law line above name example action company hands local show whether five history gave either today feet act across taken past quite anything having seen death body experience really half week words word field car already themselves information tell i'm together shall college period money sure held keep probably real free seems behind cannot miss political question air making office brought whose special heard major problems ago became moment study federal known available street result economic boy reason position change south board individual job society areas west close turn love true community full force court seem cost am wife future age voice wanted department center woman common control necessary policy following sometimes front six girl clear further land able feel party music provide mother university education effect level child students short run stood town military morning total outside figure rate art century class usually north washington leave therefore plan top sound evidence million black hard strong various believe play says type surface value soon mean near modern lines table peace red road tax situation personal minutes process alone gone nor idea women english schools increase living started america longer book cut dr finally nature

2756. Phone patch to FT-23R ?

Newsgroup: rec.ham-radio
Date: 1990-05-10 19:20:39 UTC
From: bilbo@zephyr.berkeley.edu
Message-ID: <24951@pasteur.Berkeley.EDU>
Source record: 11806

Is it possible / feasible to use a Yaesu FT-23R as the base station for a CSI phone patch? A friend is trying to do just that, and was told he needs to connect to the 23R "before" the de-emphasis network, but even with the schematics he doesn't know where that is. Anyone with experience in this area? Adivce would be greatly appreciated. (He doesn't have b-board access.)

Thanks!

Bill

2757. Re: 2m remote opperation

Newsgroup: rec.ham-radio
Date: 1990-05-10 19:25:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500526@ux1.cso.uiuc.edu>
Source record: 11817

> Heard from a friend that there had been a ruling by the FCC allowing
> remote opperation on 2m recentally. Is this true?? Are 2m simplex
> autopatches finally legal?? Enquiring minds what to know.....

I have seen no such ruling, nor even the NPRM that must preceed it.
If it does come up, I will be commenting against it.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2758. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-10 21:09:30 UTC
From: jle@hpfcdc.HP.COM
Message-ID: <7880146@hpfcdc.HP.COM>
Source record: 11801

> / hpfcdc:rec.ham-radio / bfc@hpislx.HP.COM (Bryan Carpenter) / 10:42 am May 7, 1990 /

> What else should I look for? Could you suggest some models I should consider?
> When I head to my first swapfest, I want to know something about what I'm
> looking for. Thanks in advance!

> Bryan Carpenter

Brian,

Go and lookup John Coelho, N0LHW, at the Loveland HP plant. Telnet... 2955.
He has just done a lot of investigation and will probably pass it on!

(email didn't work, so I posted).

Jer/ Eberhard, (SLASH), HAM = N0FZD | Hewlett-Packard - MS99, 1UP10, 15' East
CAP SAR Pilot, COMM,INST,CFI-GLIDER | 3404 East Harmony Road (303) 229-2861
UUCP:hplabs!hpfcla!jle | Fort Collins, Colorado 80525-9599
ARPA:jle%hpfcla@hplabs.HP.COM

2759. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-10 21:18:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500527@ux1.cso.uiuc.edu>
Source record: 11816

> Also, the Icom IC-24AT might be one to avoid for a while until they start
> selling a better antenna (poor gain compared to other dual band flex types)
> and improving the display readability. Yeasu radios typically have poorly
> designed receivers and are subject to intermod and spurious reception.

You could use the antenna from the IC-32AT (FA-1443 or some such model).

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2760. Summary of NEC type products. (LONG)

Newsgroup: rec.ham-radio
Date: 1990-05-10 21:39:24 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <1990May10.213924.23707@dg-rtp.dg.com>
Source record: 11820

For those not familiar with NEC, it is a numerical code developed primarily for the analysis of antennas. I've been searching for it, but it doesn't seem to be available unless you need it, and then you have to prove it, and then you have to pay. It, of course, was developed and is distributed by our government. We certainly wouldn't want foreign nationals developing nuclear wire antennas!

Next - thanks to all those that responded to my request for information. I appreciate your efforts and hope this serves everyone well.

Anyway, there are products that are available both free and commercially that can fill the gaps. Here is what I know:

MININEC was develped in 1982 by A Julian, J Logan, and J Rockway at the Naval Ocean Systems Center (NOSC). It is described in Technical Document 516. It is a single program written in BASIC and is intended to be run on a PC. It is a scaled down NEC, but it is very adequate for Ham type antenna design and analysis. For "grounds", you get no ground, or a perfect ground. You can do the standard pattern runs, determine impedence, etc. Input must be in meters (a pain). I don't know where it is available, but you'd want MININEC3 anyway - which is available.

MININEC3 is a successor to MININEC. It was developed in 1986 by J Logan, and J Rockway at the NOSC. It is described in TD 938. It consists of several programs: MNPRE - a pre processor for NEC input files, MININEC3 - the workhorse, and MNPOST - a post processor for munging the various data computed by MININEC3. Some of the new bennies include: 1) input of NEC files (instead of by hand each time) via MNPRE, 2) computation of both near fields, 3) field patterns in DB or V/M, 4) more flexibility in saving different data to different files, 5) Specification of specific ground wires if desired (or use perfect), 6) it computes the wire endpoint connections for you, and 7) and a host of plotting options (none graphical - just data selection). This is written in BASIC. The .ARC file includes both DOS compiled executables in addition to the sources. GWBASIC won't run the sources for some reason. Sizing can be a problem for a complex antenna (about 50 segments or so is the limit without rebuilding them). These crunch numbers, so the faster the CPU, the better. If you have a BASIC compiler and a math co-processor, you're really set. MININEC3 is available from the simtel server on the internet. It's in the PC ham radio subdirectories. Suck it down, un-arc it, and you're off. You can figure out most of it w/o the document. Input, again, is in meters

Just mail the following line to "listserv@vm.ecs.rpi.edu"

/PDGET MAIL PD1:<MSDOS.HAMRADIO>MININEC3.ARC UUENCODE

There is a wealth of other neat stuff on simtel also - ham, pc, etc.

By the way, I tried to order the TD from NOSC. They told me that it wasn't available unless I was a Gov contractor and needed it. So, I went to the campus library and copied it. You'll need to go to the special government docuements librarian to find it. It isn't in the card catalogs.

NOSC
5285 Port Royal Rd.
Springfield, VA 22161
(703) 487-4650

MININEC3 is free and works well. You can complement it with some utilities that graph the patterns on you're screen. While it's fairly well written BASIC, it would be a chore to port to C (if somebody ports it, I want it)

YAGINEC. YAGINEC is under active development by Lew Gordon, K4VX. It was described in the March '89 QST under technical cooerespondence. I have version 7.01 and it is super. It contains several programs: GAMMA - for gamma matching computations, TAPER - for composite tubing element length equivalents, HAIRPIN - for hairpin matches, and YN - the Yagi optomizer program.
YAGINEC is written in QuickBasic and is shipped w/o sources. He does give some sample antenna input files. Some of the features are 1) non metric dimensions, 2) very slick data and menu input, 3) file input, 4) very slick and feature full plotting options (to screen or printer), 5) automatic frequency sweeps, and, 6) an optomizer - you can have it optomize a given design to your constraints (gain, f/b, etc). It is a very nice package. It is available for the super bargain price of $5.00 directly from the author. You'll get your disk in 2 weeks or less. My only beef with this program is that the YN program itself only works on YAGI antennas. (I play around alot with other antenna configurations.) Hopefully he'll add an arbitrary input menu to it. It is based upon MININEC1.

NOTE: I have a fortran version of MININEC which I'll describe later. Briefly, while fortnec (MININEC) and MININEC3 give me different answers for the same configurations, they're both close, and they both converge to the same numbers. Just slightly different algorithms. (MININEC3 does seem to converge faster, however). Note that you should read the documents to learn about the "problem" areas - such as needing more segments for anti-resonance situations, etc. This will help you get convergence faster and get more accurate answers if you don't bother with the convergence tests.

FORTNEC. FORTNEC was reviewd in the Feb 1990 issue of RF Design magazine. It is basically a fortran version of MININEC1. Good news for us workstation folk! The article was by Alan Carr. It has minor input and output format changes, but is basically MININEC1. You get

both compiled fortran (for a PC), and the fortran sources. It was
a minimal porting effort to port it to my DG AVIION workstation.
I use this extensively as it runs on my workstation which 1) is
a fast risc machine, and 2) has native fp support. A five minute run
on a 10 MHZ '286 takes about 30 seconds on my workstation. As the
interface is primitive (for PC stuff), I've written a bunch of pre and
post filters to support it. (Kind of like that Star Trek probe "Voyager"
that comes back as "Veger") Anyway, it is available for $9.00 from
RF Design Magazine. Order "Disk RFD-0290: February 1990" from:

RF Design Software Service
P.O. Box 3702
Littleton, Colorado,
80161-3702

MN3.0 This is the Brian Bezzley, K6STI, software. It was reviewed
in several recent issues of Ham Radio Magazine. It is, of course
feature laden with free form input, frequency sweeps, lots of
pulses, speed optomizations, automatically finds the take off angles,
computes the max gain, f/b radio, patterns, swr, etc....(I'm reading
this from his Ad in the May 1990 Ham Radio issue on page 74).
It got a good review. My biggest beef is that it costs $110. A MNjr
costs $55 (don't know content). I haven't been able to get my hands
on a copy locally to play with it. Also, 1) I'm cheap, 2) and it won't
run on my workstation anyway (yea-yea - get a PC; I know....)

YO3.0 is a similar product also by Brian. Lots of nifty features for
basic design and optomizations. Stuff for stacking, speed improvements,
etc. It includes support for designing gamma, T, hairpin, and beta
matches, taper computations, frequency scaling, and others. (again,
I'm reading the ad) It also was reviewed in a recent HR issue (they
were in subsequent issues). He wants $130 for this puppy, and, of
course, to bait you, has a Jr version for $65.

The reviews for MN3.0 and YO3.0 were good, but they are pricey - esp
for us hamfest hounds. Seems like Brian and Lew are duking it out for
price/performance features on YO3.0 vs YAGINEC.

Brian Beezley, K6STI
507-1/2 Taylor,
Vista, CA 92084

ELNEC. ELNEC is a product from Row Lewallen, W7EL. It is based upon
MININEC. I havent seen a review of this, nor have I tried it. I'm
reading this from the same issue of HR (May 1990) on page 78. It,
like MN3.0, has automatic pulse placement (VERY NICE), and has builtin
plotting, printing, etc. He touts "true current sources". Offhand, it
appears to be MININEC with auto source placement, current sources,
and some plotting features. It is available for $49.00.

Row Lewallen, W7EL
P.O. Box 6658

Beaverton, OR 97007

So! That is what I've learned from my research.

If you'd just like to tinker, I'd chose (not in order)

1) MININEC3. Flexible, and free

2) FORTNEC. Not quite as good, $9.00 and the sources
sources are probably usable on a non pc workstation.
You'd drop $9.00 on a 'coupla beers after work.

3) YAGINEC. Wonderful if you're into Yagi beams. great if
you just want the harpin and other utilities. $5.00
You'd drop $5.00 during lunch.

If you're into heavy modeling, I'd chose (not in order)

1) FORTNEC (just because you might have a mainframe or
a risc workstation lying around - *speed*) $9.00

2) MN3.0 and YO3.0 These seem to be very fully featured
and very nice. You pay for it also. $110 and $130.
You'd drop that on a Bencher paddle.....

3) YAGINEC It doesn't seem to have *quite* the features
of YO, but is sure looks close. $5.00 (Rumour has it
that Lew designed the "elephant gun" (10 element 10M beam
- 45 foot mast) with it.

In addition, most of the magazines bookstores sell MICROSMITH (sp?)
which has graphical and computer solution of smith chart type
problems. $49 (I think). I haven't looked at this yet.

These opinions are my own, and I hope I haven't miss represented
any products. Let me hear from you - with reviews of the ones I haven't
played with, or ,especially if you port MININEC3 to "C".

regards,
Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

2761. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-10 22:17:26 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <3129@ultb.isc.rit.edu>
Source record: 11728

Is there no where that one can purchase an R1 in the U.S.?

Are the US and Japanesse models the same?

If so will anyone in Japan buy me one?

Lance

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

2762. Any Bay area Hamfests - June & July??

Newsgroup: rec.ham-radio
Date: 1990-05-10 22:39:38 UTC
From: rockwood@kean.ucs.mun.ca
Message-ID: <86128@kean.ucs.mun.ca>
Source record: 11802

With a trip planned for the Sacramento, San Francisco area for the last week of June and the first two in July, does anyone know of any Hamfests underway in the area around those times? Specific dates aren't established, so I'm being somewhat vague. We're also planning a week in Los Angeles, but that is booked - start to finish.
Would appreciate info.
73
Art Rockwood VO1AX

2763. AMSAT bulletins via FTP?

Newsgroup: rec.ham-radio
Date: 1990-05-10 23:42:43 UTC
From: elmquist@nachos.SSESCO.com
Message-ID: <191@nachos.SSESCO.com>
Source record: 11815

I posted this awhile ago and got no response....perhaps it didn't go out.

Does anyone keep the latest AMSAT bulletins on-line anywhere for anonymous FTP?

Someone was posting them to this newsgroup for awhile (KA9Q ??) but that action seems to have stopped.

The AMSAT BBS is nice...but continuously busy. I can perhaps offer to be the FTP site if someone will e-mail me current bulletins (including the AO-13 mode schedule please...)

Thanks. 73, N0JCF

(and Pat Barkey @ indiana.edu... I'll be e-mailing you shortly. Our packet connection is gone again...)

2764. Re: Numbers Stations

Newsgroup: rec.ham-radio
Date: 1990-05-11 00:39:27 UTC
From: ben@val.com
Message-ID: <1990May11.003927.21037@val.com>
Source record: 11819
Cross-posted to: rec.ham-radio,rec.radio.shortwave

charlie@oakhill.UUCP (Charlie Thompson) writes:

>I believe that the numbers system is fairly secure as long
>as you don't have a clue as to what the substitution cipher
>key is derived from.

>Hence all of this simplicity is fairly secure and doesn't require
>a lot of expensive (and vulnerable to capture) crypto equipment.

This is true so long as the receiving party doesn't need the
information within a week of receipt :-). This mode doesn't
break any speed records.

My theory is that the numbers stations ARE in fact the key
to some cipher that is transmitted via a different medium...

Ben

--

Ben Thornton packet: WD5HLS @ KB5PM Internet: ben@val.com
Video Associates Labs uucp: ...!cs.utexas.edu!val!ben
Austin, TX fidonet: 1:382/40 - The Antenna Farm BBS

2765. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-11 06:25:37 UTC
From: winter@Apple.COM
Message-ID: <40883@apple.Apple.COM>
Source record: 11823

In article <18230011@col.hp.com> kenw@col.hp.com (Ken Wyatt) writes:
>I have purchased many Icom models and one Kenwood. Although Icom seems
>a bit stodgy (conservative) regarding features, they seem to make a very
>high quality and reliable product. The one Kenwood I bought (TH-21) has
>had nothing but problems.

Ken--

What kind of problems have you had? I've had a TH21AT for 3-4 years,
and it's never hiccupped once. I've also had an ICOM 2AT for about 8
years and a Kenwood 7600 mobile rig for 10 years; both have been
very reliable.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

2766. Re: ATV frequencies of upcoming SAREX mission

Newsgroup: rec.ham-radio
Date: 1990-05-11 06:30:03 UTC
From: winter@Apple.COM
Message-ID: <40884@apple.Apple.COM>
Source record: 11824

In article <951@tsdiag.ccur.com>davet@tsdiag.ccur.com(Dave Tiller N2KAU) writes:
>
>Has anyone heard what frequencies will be used and what schedule will
>be followed for ATV during the upcoming SAREX mission? I assume (hope)
>it will be one of the 70cm ones, since that's where my DaveTV equipment
>listens. Thank you in advance,

Is there any real evidence that there even will *be* any ATV (FS or SS)
on STS-35?

I know there was a mention of it in a NASA press release, but I haven't
seen any mention in the materials from the ARRL, and I trust them more
than I do NASA on this one.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

2767. WWV

Newsgroup: rec.ham-radio
Date: 1990-05-11 07:28:51 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9005110728.AA02844@ucbvax.Berkeley.EDU>
Source record: 11826

I N T E R O F F I C E M E M O R A N D U M

Date: 9-May-1990 08:11am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL)

Subject: WWV

>Where is WWV on HF? Do they give solar flux/sunspot numbers?
>Trying to work 10m without such information is turning out to be
>a pain. Please e-mail direct, if possible.
>Thanks,
>Doug
>
>---
>B. Douglas Reeves (N6XHW) D. ReevesInternet, of course!)

This is *not* a personal flame against Doug, but rather our collective education/examination process...

How in the h*ll could someone get a Tech/General ticket without learning this most basic information about HF?

Consider that...those of you who think our tests are too difficult now...

Flame me all you want -- just throwing out some food for thought!

73,

Jeff WD6CQV/KH6 AFA8JM (USAF MARS)

2768. UHF TV band in Europe.

Newsgroup: rec.ham-radio
Date: 1990-05-11 08:20:27 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <11.May.90.09
Source record: 11804

UHF TV: well over this side of the Pond we have almost all our terrestrial
TV on UHF (Channels 21 through 68). Different countries use different
modulation methods and audio/video splits. We have PAL (most of Europe)
and SECAM (France) with 5.5, 6 or 6.6MHz audio/video splits.
Some also use inverse video modulation. Vive la Difference!
We *used* to have VHF TV (on 41 to 68MHz, 'Band 1' and 174 to 216MHz
'Band 3') 405 lines monochrome, but these stations are almost all gone now
(completely gone here in the UK some years ago).
The band 41-68MHz has over the last few years been reallocated to
land mobile (hams getting 50MHz) and likewise 174-216MHz has gone to a
trunked, digitally-controlled mobile service.
The band 66-88MHz was never used for TV in Europe (West europe has mobile radio
in there, some Eastern countries have FM broadcast radio in here too).
The European frequency allocations arent always understood by equipment makers;
for example the number of scanners imported with the 30-50MHz range enabled is
quite great - all you could hear until recently was TV video buzz! Should have
had 66-88MHz enabled for Europe, but seems 'nobody told the importers'! HI

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

2769. Loop antennas - a UK Perspective.

Newsgroup: rec.ham-radio
Date: 1990-05-11 11:14:09 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <11.May.90.12
Source record: 11811

Someone was asking about loop antennas (relating to new AEA product). Well i thought i would draw your attention to a British series of products; made by a company called CAP*CO. There are several versions on the theme; all are loops with tuning capacitors (loop mounted so its diameter is in the vertical plane). They do remote-tune versions so you can stick the beastie up a tower. Theres also receive-only versions. The transmit versions use thick tube (about 1.5 to 2 inch diameter), to keep losses down. I have had no personal experience of these loops, if anyone is interested I will post details and address (when i can find them). CAP*CO also do nice antenna tuners (lovely big silverplated roller-coaster coils and *W*I*D*E* spaced tuning capacitors; real beefy jobs). Price (and weight!) is as would be expected for such a style of manufacture (we are talking quite a few hundred pounds sterling) but having seen inside one, nothing short of hitting with a sledgehammer would damage it. If it was not for the TVI problems, i guess they could make a transparent-cased version and sell the thing as art. It really is beautifully engineered and constructed!

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

2770. Ceramic things

Newsgroup: rec.ham-radio
Date: 1990-05-11 11:41:01 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9005121026.AA28511@ucbvax.Berkeley.EDU>
Source record: 11814

Ok, guys -

I wasn't deliberately trying to be elusive. Those 3/8"
ceramic do-dads are from a ball mill. Several of them are
placed in a steel cylinder and rolled/tumbled for a few hours
to pulverize rocks or other brittle material. The dust
that is left is used for X-ray analysis. I have no idea
who the original poster was, or why he wanted the information.
He said somthing about a crime, so perhaps some of these things
were used as slingshot ammo - I dunno.

2771. Need QSL route for JT1CS

Newsgroup: rec.ham-radio
Date: 1990-05-11 13:21:00 UTC
From: <>
Message-ID: <386400008@.Prime.COM>
Source record: 11821

A friend of mine recently worked JT1CS in Mongolia and has been unable
to come up with a QSL route for him. If you know the route, please
email to me. Thanks!
- Scott KC1ST
==========
Scott Sminkey, TCP/IP Development
Prime Computer, Inc. ss@s47.prime.com
500 Old Conn Path 10-20 {sun,decvax}!cvbnet!s47.prime.com!ss
Framingham, MA 01701 (508) 879-2960 x4097
Disclaimer: If captured, my employer will disavow all knowledge of my opinions.

2772. Crystal grinding - use rouge.

Newsgroup: rec.ham-radio
Date: 1990-05-11 14:18:46 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <11.May.90.15
Source record: 11752

If you want to try grinding a crystal, i suggest you try Jewellers Rouge as the abrasive. This is much finer than household scouring powder (AJAX) and although it takes a lot longer to grind, you are less likely to lose the crystal activity (activity loss is, in part, due to the unevenness of the ground surface as a result of the harsh abrasives).
Rouge is used for polishing some types of lens; you can get an optically good surface if you are careful.

And i thought 'kitchen table engineering' was a thing of the past...!

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793-411613

2773. Re: Summary of NEC type products. (LONG)

Newsgroup: rec.ham-radio
Date: 1990-05-11 14:25:00 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <1990May11.142500.29866@dg-rtp.dg.com>
Source record: 11730

> So! That is what I've learned from my research.
>
> If you'd just like to tinker, I'd chose (not in order)
>
>
> If you're into heavy modeling, I'd chose (not in order)
>
> These opinions are my own, and I hope I haven't miss represented
> any products. Let me hear from you - with reviews of the ones I haven't
> played with, or ,especially if you port MININEC3 to "C".

Sorry - I forgot to include ELNEC in my summary. Anyway, I don't know whether to put it in tinker or modeling as I don't have enough info on it. I'd reccomend getting more info from the authors before you drop the $$ on the pricey packages just to be sure you know what you're getting and what you're not getting. Remember, your mileage may vary.

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

2774. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-11 14:29:50 UTC
From: jdn@casux4.uucp
Message-ID: <23109@bellcore.bellcore.com>
Source record: 11729

In article <9005110729.AA02891@ucbvax.Berkeley.EDU> MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
>
>Well, folks it appears that the ICOM R-1 was either vaporware or just
>couldn't be sold in the U.S. The ICOM folks at Dayton said the radio
>has been "cancelled indefinitely" and EEB says that they may still get
>some someday. EEB said ICOM was citing "production problems" as the
>reason for cancelling the receiver.
>
>What's interesting is that ICOM ran a back cover ad on the May issue of
>Popular Communications advertsing their new receivers. EEB (a major ICOM
>dealer) had also run ads for May, 1990. The people at EEB sounded really
>annoyed at ICOM for pulling this rig so suddenly. I sense a production
>yield or tariff problem here. I personally think the radios exist and they
>and they can't get them into the U.S.
>This is a Stone Cold Bummer :-(:-(. I was really looking forward
>to that radio.
>
>Anyone else heard anything?
>
Here is what I heard from a friend who travels regularly to Japan
and has contacts with Icom in Japan.

The radio, as currently designed, is capable of receiving the
cellular phone band. Since it is illegal to intercept cellular
phone, Icom is having difficulty getting FCC type acceptance and
importing the radios. Therefore, Icom has decided to pull the
current radio, and come out with a slightly modified version
which does not receive cellular phone. I think you will see
this radio back on the market in modified form very shortly.
I also suspect that enterprising hams will find a way to
"remodify" the radio back to its original form.

By the way, my friend picked one up last month in Tokyo and he
really loves it. Don't worry. Icom has no problems with the
radio or its production. You will be able to buy one real soon
now.

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

2775. Re: Numbers Stations

Newsgroup: rec.ham-radio
Date: 1990-05-11 14:42:12 UTC
From: amull@Morgan.COM
Message-ID: <960@s6.Morgan.COM>
Source record: 11727
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990May11.003927.21037@val.com>, ben@val.com (Ben Thornton) writes:
> charlie@oakhill.UUCP (Charlie Thompson) writes:
>
> >I believe that the numbers system is fairly secure as long
> >as you don't have a clue as to what the substitution cipher
> >key is derived from.

I would have trouble with this: given the regularity of the traffic,
I think you'd be able to intercept enough to break a simple substitution.
>
> >Hence all of this simplicity is fairly secure and doesn't require
> >a lot of expensive (and vulnerable to capture) crypto equipment.

This would tend toward the 'low-grade' or easy to break cipher point
of view.

>
> This is true so long as the receiving party doesn't need the
> information within a week of receipt :-). This mode doesn't
> break any speed records.
>
> My theory is that the numbers stations ARE in fact the key
> to some cipher that is transmitted via a different medium...

Well I doubt this. If you put the key out there in plaintext for all
to catch, then you have really compromised the cipher, and all the
opponent needs to do is intercept the traffic.

Later,
Andrew Mullhaupt

2776. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-11 15:32:02 UTC
From: laubach@aspen.IAG.HP.COM
Message-ID: <3080003@aspen.IAG.HP.COM>
Source record: 11751

Unlike the other HP responses, I have had great success with Kenwood HT products. I've had a TR2600A for 3+ years that I've just retired to be my packet radio transceiver. To upgrade, I purchased a new Kenwood TH-26AT last month, which I like alot.

The problem with trying to find a reasonably priced used HT with all the feature sets you are after is that they are all getting grabbed up quickly by folks looking for portable packet radios. Unless you've got a good swap source, you'll be trying to buy in a seller's market and the $'s you spend won't be reasonable.

My advice, would be to buy new. 1) you get all the features you want now, 2) you get the manufacturer's warranty, and 3) you can incrementally add on options within the lifetime of the product. This last point is important in that the radio model probably won't go obsolete too quickly.

73's - Mark, N3BMN

2777. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-05-11 15:33:35 UTC
From: john@anasaz.UUCP
Message-ID: <2221@anasaz.UUCP>
Source record: 11742

In article <325@ensub.Wichita.NCR.COM> msjohnso@ensub.Wichita.NCR.COM (Mark Johnson) writes:
]In article <1250157@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
]>
]>My favorite is the (at one time) very active contest station WB5EEE
]>(known in some circles as "WB5S"). After the first dash in the "B", it's
]>all dits: .__ _... ....

I used to have the call WA6SIE. Very nice for CW (at least the suffix).
Unfortunately, the entire time I had the call I lived in apartments with
no HF gear or antennae, so I never used it on CW.
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

2778. 8J90XPO - ?

Newsgroup: rec.ham-radio
Date: 1990-05-11 15:35:34 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720067@hplsla.HP.COM>
Source record: 11731

On 15m CW last night, I worked a bizzare one:

8J90XPO

Conditions were fading, so it was a quick QSO. According to my list,
this prefix belongs to Japan. Sounds like a special events station.
Anyone know anything about it?

Charlie, KX7L

2779. Re: New AEA Antenna & Unrelated Matters

Newsgroup: rec.ham-radio
Date: 1990-05-11 15:42:36 UTC
From: kawai@csli.Stanford.EDU
Message-ID: <13578@csli.Stanford.EDU>
Source record: 11737

Mike Edelman (KE8YY) inquires:

>I was looking at an ad for the new AEA antenna ad in AES's ...
>another variant on the small capacitively tuned loop idea ...
>Has anyone played with this thing yet, or perhaps with other variants
>on the same idea..?

To shorten an antenna, you have to load it. However, most of the RF gets eaten up by the coils. So you start taking off as many turns on the coil as you can. But you have to offset the L component with a C component. So you have a big capacitor at the end. Which gives you very narrow bandwidth. I have not used the AEA loop (looks like a football stadium portable seat to me), but a friend calculated that the bandwidth should be in the range of 10 to 20 kHz with around 80% efficiency - that is, you sacrifice bandwidth for the sake of RF.

>goh<

2780. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-11 16:08:25 UTC
From: henryb@hpspdra.HP.COM
Message-ID: <12280005@hpspdra.HP.COM>
Source record: 11735

In article <2794@violet15.UUCP> lyman@motcid.UUCP (Michael Lyman) WA0ZVI writes:

>mcmahan@netcom.UUCP (Dave Mc Mahan) writes:
>>.............. If you want to make it private, DONT'T do it on cellular.
>
>True! Very true, at least for now. Current domestic analog
>cellular communications use traditional FM transmission
>characteristics at least for the voice channels. The only
>thing that may provide a bit of a problem for eavesdroppers is
>........ ^^^^^^^^^^^^^
The use of emotive words like "eavesdroppers" to try to sway arguments is called innuendo, the neutral word would be "listeners". Listening to cellular telephone conversations may be _illegal_ in the US, but radio waves have a history of not respecting national boundaries. The question of whether it is morally wrong to take radio transmissions that are not intended for your reception is, in my opinion, moot. However cellular transmissions are a special case only inasmuch as there are large and powerful vested interests. A problem with all telephone systems is that the users have been systematically lied to about how much privacy they have.
>
>The beginning of the end of this is near however. The analog RF
>transmission will soon begin to be replaced by digital RF transmission... .
>. . . . . . . While I wouldnt say that it would be impossible to
>decode this, those thinking of it will be sumpremely challenged: One
>RF radio channel will have several digital voice channels
>multiplexed onto it and will be encoded using some pretty high-speed
>digital signal processors.
>
Unless of course experimenters acquire commercial equipment and modify it. Radio experimenters have something of tradition of doing just this.

If cellular radio really will be secure against unathorized reception, then surely there should be no law against such reception, after all we don't have laws against teleportation or telepathy do we?

Henry Black (G4NOC, KK6JR) henryb@hpspd.HP.COM +1 415 857 6655
These are my views, not necessarily my employer's views.

P.S. I'm in favour of radiotelephony including cellular, but also in favour of truth and openness.

2781. Re: QST article?

Newsgroup: rec.ham-radio
Date: 1990-05-11 16:41:02 UTC
From: engle@wdl1.UUCP
Message-ID: <4820026@wdl1.UUCP>
Source record: 11736

Here are the answers to the question I posed a few days ago. Kevin mailed
the answers so, I'll just use his posting and add a litle more explaination.

>From: "Kevin B. Kenny [the Arch-Traitor] KE9TV" <kenny@cs.uiuc.edu>
>
>>Anybody out there know what the community now calls these measures?
>>cps, kmc, mickey-mikes.
>
>Hertz, `gigs' (GHz), and `puffs' (pF), respectively.

cps is cycles per second, which we now know as Hertz.
kmc is kilo-mega-cycles, which we now know as giga-Hertz.
mickey-mikes is for micro-micro-farads, micro-micro is now referred to as
pico or puffs and is usually used when referring to capacitor Farad values.

regards, Dave

David Engle, KE6ZE - engle@wdl1.wdl.fac.com - 408/473-4419 @ Ford Aerospace
Facts, what facts. I don't got to show you no stinking facts. These are
opinions expressed here. "Any clod can have the facts, its an art to have
an opinion" Herb Caen, SF Chronicle.

2782. Re: WWV

Newsgroup: rec.ham-radio
Date: 1990-05-11 17:25:16 UTC
From: perley@galaxy
Message-ID: <7560@crdgw1.crd.ge.com>
Source record: 11732

In article <9005110728.AA02844@ucbvax.Berkeley.EDU>, 1843eie@HICKAM-EMH ("1843 EIG/EIE") writes:
>
>>Where is WWV on HF? Do they give solar flux/sunspot numbers?

>This is *not* a personal flame against Doug, but rather our collective
>education/examination process...

>How in the h*ll could someone get a Tech/General ticket without learning this
>most basic information about HF?

Since WWV doesn't transmit near any of the old ham bands (80,40,20,15,10),
no ham reciever I have ever owned can pick up WWV. I think this is
pretty typical of pre PLL receivers. In light of that trend, how can you
say that WWV information is most basic?

Regarding the exam process, I think the idea of a small fixed question pool
is more of a problem than whether WWV is covered in the pool.

-don perley
perley@trub.crd.ge.com

2783. Re: Phase-Sequence filters for SSB

Newsgroup: rec.ham-radio
Date: 1990-05-11 18:07:24 UTC
From: rkarlqu@hpscdc.scd.hp.com
Message-ID: <5490097@hpscdc.scd.hp.com>
Source record: 11749

> / hpscdc:rec.ham-radio / rjk@sequent.UUCP (Robert Kelley) / 11:13 am Apr 28, 1990 /
> One way to implement the audio phase difference for the phasing method
> of SSB generation is described in _The_ARRL_Handbook_ and in Horowitz
> and Hill's _The_Art_of_Electronics_ 2nd ed. page 295. They call it a
> PHASE-SEQUENCE FILTER and it consists of a cyclic network of resistors
> and capacitors, driven by two signals of 180 degree phase difference,
> producing four outputs 90 degrees apart. Does anyone here have any
> experience with these filters? In particular, how are they designed and
> analyzed? References?
>
> Thanks,
> Bob Kelley
> ----------

BIBLIOGRAPHY OF PHASE-SEQUENCE FILTER PAPERS
(Polyphase modulation)

Note: this covers *only* the phase-sequence type of networks,
not the much more common lattice quadrature networks.

Hartley, RVL: "Modulation system", patent 1,666,206, April 17, 1928

Macdiarmid, IF & Tucker, DG: "Polyphase modulation as a solution
of certain filtration problems in telecommunications"
Proc. IEE, 97, part III, p 349, 1950.

Tucker, DG: "A two-phase telecommunication system", Electronic
Engineering, 20, p 150 and p 192 (1948)

Tucker, DG: "Modulators and frequency changers", 1953, p 51-61

Gingell, MJ: "Single sideband modulation using sequence
asymmetric polyphase networks", p 21-25, Electrical
Communication, Vol. 48, No. 1 &2, 1973

McGee, WF: "The analysis and synthesis of modulator filters
using symmetrical components, Intl. Symp. of large
engineering systems, Univ. of Waterloo, May 15-16, 1978,
p15-22, Sandford Educ. Press, Waterloo, Ont.

Mikhael, WB: "Sequence discriminators and their use in
frequency division multiplex communication systems,
IEEE transactions on circuits and systems, Feb. 1979, p117-129

Daoud, E & Mikheal, WB & Swamy, MNS: New active RC-networks
for the generation and detection of single-sideband signals
IEEE transaction of circuits and systems, Dec. 1980,

p 1140-1154 see especially p 1141-1143.

See also: Rogers, AEE: "Broad-band passive 90 degree RC hybrid with low component sensitivity for use in the video range of frequencies, Proc. IEEE, Nov. 1971, p 1617-1618.

Also is described in any recent ARRL handbook in chapter on "Voice Communications" as "A high performance audio phase shifter made from ordinary loose-tolerance components, Figure 13".

Rick Karlquist N6RK
rkarlqu@hpscdc.scd.hp.com

2784. Re: WWV

Newsgroup: rec.ham-radio
Date: 1990-05-11 18:40:37 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990May11.184037.10155@elroy.jpl.nasa.gov>
Source record: 11734

In article <7560@crdgw1.crd.ge.com> perley@trub.crd.ge.com (Donald P Perley) writes:
>In article <9005110728.AA02844@ucbvax.Berkeley.EDU>, 1843eie@HICKAM-EMH ("1843 EIG/EIE") writes:
>>
>>>Where is WWV on HF? Do they give solar flux/sunspot numbers?
>...
>Since WWV doesn't transmit near any of the old ham bands (80,40,20,15,10),
>no ham reciever I have ever owned can pick up WWV. I think this is
>pretty typical of pre PLL receivers. In light of that trend, how can you
>say that WWV information is most basic?
>
Well, the Yaesu FT101 (pre-PLL) had a special bandswitch position for
WWV/JYY, and I believe some/most Collins could get to WWV...

- 73 - jon
--
Jon Trent Adams, NW6H | "Per Aspera Ad Astra" A Dead Roman
JTA@hydra.jpl.nasa.gov | Way-Rad : Opinionated : Single : Prevaricator :
"jpl don't know me from squat"| Raconteur : Engineer : President, Local Chapter
Ghenghis Khan Fan Club : Honorable Mention, "Calvin" Lookalike Contest

2785. DOVE! Info please?

Newsgroup: rec.ham-radio
Date: 1990-05-11 18:52:24 UTC
From: wille@hpccc.HP.COM
Message-ID: <5540034@hpccc.HP.COM>
Source record: 11733

I have some questions regarding DOVE-Oscar-17.

1. Has the beacon on 145.825 been turned back on yet? If not, when?
I think I hear a weak signal at times that correspond approximately
to DOVE's period, but not to my orbit predictions (see #3).

2. When DOVE-1 starts transmitting voice, will it be on 145.825 FM,
or on some other frequency?

3. How long are orbital elements good for and where can I get updates
when the ones I have get old? I know they are occasionally posted
to the net. The ones I have don't work, or it might be that the
beacon is just turned off.

4. How do I capture the DOVE telemetry data? (I realize that this
was discussed a while back, but I didn't have my PK-232 then! :-)

Thank you for your help,

Ross - N6SJD

+==+
Ross Wille - N6SJD	Email: wille@hpda.hp.com	"Undetectable errors are
Hewlett Packard	-or- wille@hpccc.hp.com	treated as if no error
Cupertino, CA	Phone: (408)447-0215	occurred." - IBM Manual
+==+

2786. Re: 8J90XPO - ?

Newsgroup: rec.ham-radio
Date: 1990-05-11 19:46:44 UTC
From: kawai@csli.Stanford.EDU
Message-ID: <13587@csli.Stanford.EDU>
Source record: 11745

Charlie (KX7L) asks:

> On 15m CW last night, I worked a bizzare one:
> 8J90XPO
>Anyone know anything about it?

Intimately. You got the call right; there's a big controversy among JA hams about the "90" in the callsign. Packet people don't like the numbers of characters. Purists argue that there is no call district 90 and insist on the /JA3 suffix.

8J90XPO, or, according to nit-pickers, 8J90XPO/JA3, is the "Osaka Hana no Banpaku Kinenkyoku" ("Osaka Flower Festival Special Events Station"). As all other special events stations, it is sponsored by JARL, and is open for use by JARL members (a rule I hate). The Flower Festival itself has been a fair success; you have gardens both indoors and outdoors, with hothouses for tropical plants and air-conditioned rooms for Arctic flora. The Japanese have always been passionate about flowers, and this time, people are queueing for several hours just to see flowers! And they pay for it, too.

8J calls are being assigned, by convention, to special events stations. Other 8J calls include 8J1XPO, 8J1YES, and so on.

Incidentally, 7J calls (which also belong to Japan - Japan has JA thru JS, 7J thru 7N, and 8J thru 8N) are assigned to recriprocal calls. Unfortunately, recriprocal licenses are terribly expensive in Japan (9,000 yen, or roughly 60 dollars). I hate this, and have argued against it, but have been ignored so far. (I'm Japanese, so I can't get a recripocal anyway, but I don't think it's polite to have your guests pay for a hobby that you share.)

---------- stanford university + sri international
--- Goh Kawai --- arpanet/junet: kawai@csli.stanford.edu
---------- compuserve: 76056,1726 radio: n6uok

2787. Ham Radio Magazines of the World

Newsgroup: rec.ham-radio
Date: 1990-05-11 20:06:14 UTC
From: gb@sunpix.East.Sun.COM
Message-ID: <1483@sunpix.East.Sun.COM>
Source record: 11738

Magazines related to ham radio from Ulrich's International Periodicals Directory 1988-89 edition. Comments on the content or value of any of these from those who have seen them would be appreciated. I might have missed some of the foreign language ones since it didn't always give a hint as to the subject matter. Also, the US magazine "Ham Radio" was not included in their list. I don't know what the criteria was for inclusion in their listing. If you notice an omission, please send me the relevant info, so I can maintain the list. Enjoy.

gb wa4fut

section: Communications - Radio and Television

384.5 CS
AMATERSKE Radio. 1952. m. 60 Kcs($27.30) Vydavatelstvi Nase Vojsko, Vladislova 26, 11366 Prague 1, Czechoslovakia. Ed. Frantisek Smolik.

621.38 CS
AMATERSKE RADIO B. 1965. bi-m. 30 Kcs. Vydavatelstvi Nase Vojsko, Vladislavova 26, 11366 Prague 1, Czechoslovakia (Subscr. to: Artia Ve Smeckach 30, 111 27 Prague 1) Ed. Jan Klabal. circ. 85,000

621.38 AT ISSN 0002-6859
AMATEUR RADIO. 1933. m. Aus $45. Wireless Institute of Australia, Box 300, South Caulfield Vic. 3162, Australia TEL 03-528-5962. Ed. W. Rice. adv. bk. rev. abstr. charts. illus. cum.index every 5 years. circ. 8,700. Indexed: Pinpointer.

621.34 UK ISSN 0264-2557
AMATEUR RADIO. 1982. m. L10.80 Goodhead Publications. Ltd., 27 Murdock Rd., Bicester, Oxon, England. Ed. Richard Lamont. adv. circ. 30,000.

621.38 US ISSN 0889-6089
AMATEUR SATELLITE REPORT. 1981. bi-w. $24 6000. Radio Amateur Satellite Corporation, 850 Sligo Ave., No. 601, Silver Spring, MD 20910. TEL 301-589-6062. Ed Vern Riportella. (back issues avail.)

621.38 IT ISSN 0003-5386
ANTENNA; rassegna mensile di technica elettronica. 1928. m. L. 10000. Editrice Il Rostro, Via Monte Generoso 6-A, Milan, Italy. Ed. Alfonso Giovene. adv. charts. illus. index. circ 25,0000. Indexed: Sci.Abstr.

384.5 BL ISSN 0101-9112
ANTENNA - ELETRONICA POPULAR. 1926. m. $25 (Cz.$450) Antenna Edicoes Tecnicas Ltda. Av. Marechal Floriano 143, 20060 Rio De Janeiro RJ, Brazil. TEL (021) 223-2442. Ed. Gilberto A. Penna. adv. bk. rev. index every 6 mos. cir. 25,000.

384.5 001.6 621.381 UK
BERNARDS AND BABANI PRESS RADIO & ELECTRONICS & COMPUTER BOOKS. 1971. irreg., no.5, 1972. Bernard Babani (Publishing) Ltd. The Grampians, Shepherds Bush Rd., London W67NF, England

621.38 NZ ISSN 0006-9523
BREAK-IN. 1928. m. NZ. $50. New Zealand Association of Radio Transmitters, Inc. Box 1733, Christchurch, New Zealand. TEL 3-484-739. Ed. C.R. Craford. adv. bk. rev. charts. illus index. circ. 3,600. Description: Monthly journal for members of New Zealand amateur radio society (NZART) including technical construction articles, news and general operating information.

621.384 US ISSN 0007-893X
CQ; the radio amateurs' journal. 1945. m. $18. CQ Publishing, Inc., 76 N. Broadway, Hicksville, NY 11801. TEL 516-681-2922. Ed. A.M. Dorhoffer. adv. bk. rev. charts. illus. circ. 107,000. Indexed: Sci. Abstr.

621.384 JA ISSN 0007-8964
CQ HAM RADIO. (Text in Japanese) 1946. m. 13680 Yen($55) CQ Publishing Co., 1-14-2 Sugamo, Toshima, Tokyo 170, Japan. Ed. Mitsunobu Koiso. adv. charts. illus.

621.38 CN ISSN 0318-0867
The CANADIAN AMATEUR; Canadian amateur radio from coast to coast. Short title: TCA. 1973. m (Jul. & Aug. combined) CAN $25($25) (Canadian Amateur Radio Federation Inc.) C.A.R.F. Publications Ltd., Box 356, Kingston, Ont. K7L4W2, Canada. TEL 613-545-9100. Ed. George Sansom. adv. cir. 5,000.

621 VE
CIRCUIT - FOTON. 1980. m. Bs.200($40) M.G. Ediciones Especializadas S.A., Ave. Maturin No. 15, Urb. Los Cedros, El Bosque, Caracas 1050, Venezuela. adv. cir. 3,500.

621.384 GW ISSN 0178-269X
CQ DL. 1927. m. DM.52 for no-members. Deutscher Amateur-Radio-Club, Lindenallee 6, 3507 Baunatal, W. Germany (B.R.D.) Ed. Dr.Hans Schwarz. adv. bk. rev. charts. illus. tr.lit. index. cum-index: 1951-1954; 1960-1965; 1966-1970. circ. 50,000.

621.384 NE ISSN 0013-4767
ELECTRON: maandblad voor de Nederlandse radio-amateur. 1945. m. fl.62.50. Vereniging voor Experimenteel Radio Onderzoek in Nederland, Postbox 1166, 6801 BD Arnhem, Netherlands. TEL (085)426760. Ed. H.H. Duivenvoorden. adv. bk. rev. charts. illus. tr.lit. index. circ. 13,000. Description: publication for radio amateurs covering news and information, technology, amateur satelites, antennas, international news, reports of events, and contest results. Includes calendar of events, and association library news.

384 GE
FUNK AMATEUR. m. M.60.40. Militaerverlag der Deutschen Demokratischen

Republik, Storkower Str. 158, 1055 Berlin, E. Germany (D.D.R.) Ed. Karl-Heinz Schubert. charts. illus.

621.38 JA
HAM JOURNAL. (Text in Japanese) q. CQ Publishing Co., 1-14-2 Sugamo, Toshima, Tokyo 170, Japan Ed. TOmo Hayami.

621.38 II ISSN 0019-624X
INDIAN RADIO AMATEUR. 1966. 3/yr. Rs.11. Amateur Radio Society of India. Treasurer, 5-E Connaught Place, New Delhi 1, India. Ed. O.P. Verma. adv. charts. illus.

621.38 CN ISSN 0048-1734
ONTARIO AMATEUR. 1964. bi-m. membership. Radio Society of Ontairo, Inc. Box 246, Port Credit Postal Station, Mississauga, Ont. L5G4L8, Canada. TEL 416-925-3311. Ed. R.D. Pellowe. adv. circ. 1,400.

621.38 DK
OZ; tidsskrift for amatoer-radio. 1927. m. Kr.385. Landsforeningen Edsperimenterende Danske Radioamatoerer, Postbox 172, DK-5100 Oden: C, Denmark, Ed. Flemming Hessel. adv. bk. rev. charts. illus. index. circ. 6,000.

384.4 UK ISSN 0141-0857
PRACTICAL WIRELESS. 1932. m. $22.40. I P C Magazines Ltd., Pratical Group, Westover House, West Quay Rd., Poole, Dorset BH15 1JG, England. Ed. Geoff Arnold. circ. 41752.

621.38 US ISSN 0886-8093
QEX ARRL EXPERIMENTERS' EXCHANGE AND AMSAT SATELLITE JOURNAL. m. $12 to non-members. American Radio Relay League, Inc. 225 Main St., Newington, CT 06111. Ed. Paul L. Rinaldo. circ. 4,500.

621.38 US ISSN 0033-4812 TK1
QST; devoted entirely to amateur radio. 1915. m. $25 to non-members. American Radio Relay League, Inc., 225 Main St. Newington, CT 06111. Ed. Paul Rinaldo. adv. bk. rev. charts. illus. index. circ. 145,000.

621.384 SW ISSN 0033-4820
QTC. 1927. 11/yr. Kr.127.50($16.30) Foereningen Sveriges Saendareamatoerer, Oestmarksgatan 43, S-123 42 Farsta, Sweden. Ed. Sven Granberg. adv. bk. rev. illus. circ. 7,300.

621.38 RH
QUA (Text in English) 1966. bi-m. controlled circulation to members only. Zimbabwe Amateur Radio Society, Box 2377. Harare, Zimbabwe. Ed. Molly Henderson. (processed)

621.38 US ISSN 0033-7161
RTTY JOURNAL. 1953. 10/yr. $10. RTTY Journal, 9085 La Casita Ave., Fountain Valley, CA 92708. TEL 714-847-5050. Ed. Dale S. Sinner. adv. bk. rev. charts. illus. pat. tr.lit. index. cum-index: 1956-1980. circ. 5,700.

621.38 YU ISSN 0033-8168
RADIO-AMATEUR; casopis Saveza radio-amatera Jugoslavije. 1947. m. 3360 din($30) (Savez Radio-Amatera Jogoslavije) Technicka Knjiga 7 Jula 26, Belgrade, Yugoslavia. Ed. Zarko Resanovic.

621.38 US ISSN 0033-779X CODEN: PRCAAO
RADIO CLUB OF AMERICA, PROCEEDINGS. 1920. s-a. $6. Radio Club of America. Inc., c/0 John Oirrisey, Ed., 45 S. Fifth St. Park Ridge, NJ 07656. TEL 201-246-7271. bk. rev. illus. index. circ. 1,200. Indexed: Sci.Abstr.

384.5 UK ISSN 0033-7803
RADIO COMMUNICATION. 1924. m. membership. Radio Society of Grat Britain, Lambda House, Cranborne Rd., Potters Bar, Herts EN63Je, England. Ed. A.W. Hutchinson. adv. bk. rev. bibl. charts. index. circ. 36,000.

791.4 FR ISSN 0033-7668
RADIO - PLANS. 1933. m. 50 F. Publications Georges Ventillard, 2.12 rue de Bellevue, 75940 Paris Cedex 19, France. Ed. J.C. Roussez. adv. charts. illus. index. circ. 49,000.

621.3 II
RADIO_TRANSITRONIC CONSTRUCTOR; radio, television audio electronics. (Text in English) vol. 7, 1970.m. Rs.8. 132-3612 Pantnagar, Bombay 75, India. Ed. Sushil Bhatia. adv. bk. rev. charts. illus. tr.lit.

681.384 UK ISSN 0037.4261
SHORT WAVE MAGAZINE. 1937. m. L3.75. Short Wave Magazine Ltd., 34 High Street, Welwyn, Herts, England. Ed. Paul Essery. adv. charts. illus. circ. 15,000. Indexed: Br.Tech.Ind.

621.38 CN ISSN 0049-5778
V E 6. 1964. m. Can. $5. Amateur Radio League of Alberta, Box 447, Thorhild, Alta. TOA 3J0, Canada. Ed. Vic Prodanink. adv. circ. 500.

384.5 US
WORLDRADIO. 1971. m. $12. Worldradio, Inc., 2120 28th St. Sacramento, CA 95818. TEL 916-457-3655. Ed. Christine Wilson. adv. bk. rev. illus. circ 26,600.

621.384 US ISSN 0883-234X TK9956
73 FOR RADIO AMATEURS. 1960. m. $24.97. C.W. Communications, Inc. (Peterborough), 80 Elm st., Peterborough, NH 03458. TEL 603-924-9471. Ed. Susan Philbrick. adv. bk. rev. illus. index. circ 65,000.

2788. Re: AMSAT bulletins via FTP?

Newsgroup: rec.ham-radio
Date: 1990-05-11 20:43:55 UTC
From: gurney@cpsin2.uucp
Message-ID: <1990May11.204355.26227@msuinfo.cl.msu.edu>
Source record: 11740

In article <191@nachos.SSESCO.com> elmquist@nachos.SSESCO.com (Chris Elmquist) writes:
>I posted this awhile ago and got no response....perhaps it didn't
>go out.
>
>Does anyone keep the latest AMSAT bulletins on-line anywhere for
>anonymous FTP?
>
>Someone was posting them to this newsgroup for awhile (KA9Q ??)
>but that action seems to have stopped.
>
>The AMSAT BBS is nice...but continuously busy. I can perhaps
>offer to be the FTP site if someone will e-mail me current
>bulletins (including the AO-13 mode schedule please...)
>
>Thanks. 73, N0JCF

I would also like to see an FTP site for Amateur related news items.
Especially for the electronic versions of the ARRL Newsletter, GateWay,
QEX Experimenters Exchange, and maybe even the W5YI Electronic Version
from Compu$erve(??).

I know of an FTP site named 'hamster', but I don't know if they have the
latest bulletins. Also, 'k9iu.bacs.indiana.edu' seems to have SOME of the
ARRL Newsletters and Gateways, but not always the most recent ones.

(The reason I'm interested is for extracting useful articles for our club
newsletter, so I don't have to key them in manually. :-) If someone gets
them regularly and we be so kind as to mail them to me, I'd also be very
interested.)

aTdHvAaNnKcSe,

--
Eddy J. Gurney, N8FPW

gurney@frith.egr.msu.edu -- gurney@cpsin.cps.msu.edu -- gurney@cpsin.uucp
17158ejg@ibm.cl.msu.edu -- 17158ejg@MSU.BITNET ...pick one that works for you!

2789. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-11 21:02:48 UTC
From: crisp@mips.COM
Message-ID: <38722@mips.mips.COM>
Source record: 11739

In article <23109@bellcore.bellcore.com> jdn@casux4.UUCP (jonathan nagy) writes:
>In article <9005110729.AA02891@ucbvax.Berkeley.EDU> MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
>Here is what I heard from a friend who travels regularly to Japan
>and has contacts with Icom in Japan.
>
>The radio, as currently designed, is capable of receiving the
>cellular phone band. Since it is illegal to intercept cellular
>phone, Icom is having difficulty getting FCC type acceptance and
>importing the radios. Therefore, Icom has decided to pull the
>current radio, and come out with a slightly modified version
>which does not receive cellular phone. I think you will see
>this radio back on the market in modified form very shortly.
>I also suspect that enterprising hams will find a way to
>"remodify" the radio back to its original form.
>
>

I don't understand how the Icom R9000, Icom R7000, and Yaesu FRG9600
are type accepted if this is true.

--
Making the world safe for technocracy.

2790. Re: RE: 2 meter simple j-pole

Newsgroup: rec.ham-radio
Date: 1990-05-11 21:18:33 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880147@hpfcdc.HP.COM>
Source record: 11747

> One of the problems in making twin lead J poles is that not all twin lead is
> the same. Low loss twin lead has a different velocity factor and hence the
> lengths are different. If possible check out the J pole on a network
> analyzer to find out what its resonant frequency and impedance is.

Gee, and all I had was a $20 SWR meter to trim the J, and an hour to
kill probing for the 50 ohm point.

Contrary to popular belief, HP engineers don't use a $50,000 instrument
to build a $5 circuit.... Unless it just happens to be on the shelf. :-)

Perry Scott

2791. Online call-book in UK

Newsgroup: rec.ham-radio
Date: 1990-05-11 21:24:08 UTC
From: willisa@cs.glasgow.ac.uk
Message-ID: <5183@samoa.cs.glasgow.ac.uk>
Source record: 11746

Does anyone have a copy of the UK callbook available online or for ftp?

Thanks,

Mark

--
JANet: willisa@gla.cs |
Internet: willisa@cs.glasgow.ac.uk | and:
USENET: ...!mcsun!ukc!cs.glasgow.ac.uk!willisa | GI7GDF
BITNET: willisa%cs.glasgow.ac.uk@ukacrl.bitnet | willisa@gla.geology

2792. Re: WWV

Newsgroup: rec.ham-radio
Date: 1990-05-11 21:44:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500528@ux1.cso.uiuc.edu>
Source record: 11743

> Since WWV doesn't transmit near any of the old ham bands (80,40,20,15,10),
> no ham reciever I have ever owned can pick up WWV. I think this is
> pretty typical of pre PLL receivers. In light of that trend, how can you
> say that WWV information is most basic?

I started getting interested in ham radio with an old Hallicrafters SX-111
receiver. It had WWV builtin with a 100 khz calibrator that I could use
as well.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2793. Re: Sony 2010 receiver

Newsgroup: rec.ham-radio
Date: 1990-05-11 21:46:34 UTC
From: perley@galaxy
Message-ID: <7578@crdgw1.crd.ge.com>
Source record: 11741
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I am considering a Sony 2010, but have a couple of questions that are unanswered by the reviews I have read here and in Passport.

1) What are the dimensions? I can just guess that the thickness is slightly larger than a D cell diameter.

2) With SSB and CW, there is no carrier for the synchronous detector to lock on to.. Does it just act like a normal BFO for these signals?

3) Would it be suitable as a ham reciever for field use or at home, maybe with a homebrew qrp tranmitter. I guess I would just turn it off during transmit if there is no "standby" mode.

Thanks,

Don Perley
perley@trub.crd.ge.com

2794. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-11 21:53:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500529@ux1.cso.uiuc.edu>
Source record: 11744

> The radio, as currently designed, is capable of receiving the
> cellular phone band. Since it is illegal to intercept cellular
> phone, Icom is having difficulty getting FCC type acceptance and
> importing the radios. Therefore, Icom has decided to pull the
> current radio, and come out with a slightly modified version
> which does not receive cellular phone. I think you will see
> this radio back on the market in modified form very shortly.
> I also suspect that enterprising hams will find a way to
> "remodify" the radio back to its original form.

If the FCC is refusing type-acceptance just because it is capable
of receiving frequencies that happen to also be used for cellular
services, then we need to know about this, and immediately. There
is no authority I know of for the FCC to refuse the type acceptance
on such grounds since the ECPA does not outlaw the ownership, sale,
or import of such devices. There *IS* legitimate use for hams to
receive signals on such frequencies without receiving cellular.
If you don't know what I mean, get out your interference handbook
and reread it.

If Icom is having this problem, then we need to find out from them
just who at the FCC is their contact, or who it is that has ordered
the type-acceptance refusal, and do something about it. But we need
to get this info (or the truth, whatever it really is) from Icom.
I plan to call Icom as soon as I find the phone numbers again and
talk to them about it. I certainly won't accept the silly "production
delays" answers since my question will be one for their lawyers instead
of their marketers. Perhaps I should ask for their legal office right
at the first answer.

> By the way, my friend picked one up last month in Tokyo and he
> really loves it. Don't worry. Icom has no problems with the
> radio or its production. You will be able to buy one real soon
> now.

Well, since we know this, we certainly know the "production delay"
problem is more than just a delay. It certainly is one of these
various possible cases. I just hate to see us get shafted with
a lesser useful radio because of Icom-America buckling under some
sort of uncalled for pressure from the FCC or the cellular industry.

WE NEED TO GENERATE SOME COUNTER PRESSURE!

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2795. Re: WWV

Newsgroup: rec.ham-radio
Date: 1990-05-12 00:14:11 UTC
From: dana@lando.la.locus.com
Message-ID: <8913@oolong.la.locus.com>
Source record: 11748

In article <1990May11.184037.10155@elroy.jpl.nasa.gov> jta@hydra.Jpl.Nasa.Gov (Jon T. Adams) writes:
>
>Well, the Yaesu FT101 (pre-PLL) had a special bandswitch position for
>WWV/JYY, and I believe some/most Collins could get to WWV...
>

My TS-520S, bless its PTO VFO, tunes WWV/JJY on 15.000000000000000000 Mhz

****
* Dana H. Myers KK6JQ | Views expressed here are *
* (213) 337-5136 (ex WA6ZGB) | mine and do not necessarily *
* dana@locus.com | reflect those of my employer *
****

2796. Re: TV UFH Spectrum (Was WARC RECORDINGS)

Newsgroup: rec.ham-radio
Date: 1990-05-12 03:06:50 UTC
From: dvh@cci632.UUCP
Message-ID: <36838@cci632.UUCP>
Source record: 11753

In article <900509-063741-17267@Xerox>, GCW.WBST207V@XEROX.COM writes:
>
> Jim Austin KA2RVO writes :-
> >In rochester we have channels 21 and 31, what is the rest of the
> >space from ~500 -> ~800 MHz used for, if anything?
>
> I suppose that there must be similar circustances in a lot of other cities
> in the country ie apparently only 1 or 2 UFH stations in town.
> I also live in Rochester and have recently noticed a new rather weak signal
> on the air on channel 38 signing W38AW. On questioning a few people locally
> I find it is a new low power (less than 1,00 watts by FCC definition)
> Commercial TV station. The local FCC people did not no a great deal about
> them except that there are a large number of construction permits for these
> type of TV stations already issued, and an even greater number of potential
> applications pending. The stations according to the FCC are meant to have
> a range of 10 miles, but must not cause interrference with other channels.
>
> PS anybody have some more info on these low power TV stations ?
>

I have some more info on these low-power UHF TV stations. Licenses are
being applied for and granted, rapidly, as the new FCC rules take
effect. Here in Rochester, we now have two such transmitters- W15AL on
channel 15, and as mentioned, W38AW on channel 38. More are in the plans
for this area within the year. They are basically allowed to run any
type of programming they choose, except they cannot run any of the major
network stuff, and they are not to be picked up by local cable operators.
W15AL transmits music videos 24 hours a day, and you can call a 900
number to request a video- they put a menu up periodically with the codes
for the selections. They charge $2.50 a call, and that's how the station
is supported. They are apparently tied in to something called "The
Jukebox Network", a loosely formed group of these broadcasters based in
Miami (I think). They are limited to 1 kW and the expected range is 8-10
miles, but W38AW seems to do better than W15AL- I get a MUCH better picture
from their test pattern than I do W15AL's video, both transmitters are
(to the best of my knowledge) located on Pinnacle Hill with all the other
TV transmitters in Rochester.

These stations are one of the reasons the FCC mandated that cable operators
supply customers with an A-B switch so the customer could get live stuff
off the antenna if he wanted it.

I hadn't heard that they were only supposed to operate on a non-interference
basis. Seems like that would be a problem, since these stations are
money-making entities and as such, are not likely to "turn the transmitter

off" because of an interference problem. I think the power limit is the factor which will limit interference, since the range is so short.

BTW,last time I checked, W38AW was still only putting out a test pattern. I understand they should go live any time with old reruns or something.

73 Dave KD5RO/2

2797. Re: QST article?

Newsgroup: rec.ham-radio
Date: 1990-05-12 08:07:14 UTC
From: tomh@tekfdi.FDI.TEK.COM
Message-ID: <4289@tekfdi.FDI.TEK.COM>
Source record: 11750

Someone wrote asking about an old crystal grinding article. (I missed
the original article while at MTT-S).

There is indeed a computerized way of finding old Ham related articles.
It is a program supplied by: didah publishing
P.O. Box 7368
Nashua, NH. 03060

I just ran the copy I bought at Dayton, and got a list of some 390 or so
articles related to "crystal". The ones following looked like they
might relate to the original question of grinding or shaving freq:

QST jul '52 p68
QST jun '49 p120
CQ oct '49 p36
QST apr '30 p41
73 jul '68 p50
CQ jul '45 p16
QST aug '56 p65
QST apr '53 p51
QST jul '53 p48
QST mar '53 p138

I used my own guess from the listed titles to choose these, so for better
completeness , run your own copy of the program. (runs on a PC.)

Tom, WA3RMX

2798. Re: Ham Radio Magazines of the World

Newsgroup: rec.ham-radio
Date: 1990-05-12 13:36:05 UTC
From: ckp@cup.portal.com
Message-ID: <29834@cup.portal.com>
Source record: 11754

Two additions to the list:

RADIOSCAN MAGAZINE - Spanish Edition - 175 Fontainebleau Boulevard, Suite 2K-5, Miami, FL 33172. Subscriptions: Domestic - one year $19.95, two years $38, three years $58.00. Foreign Air Mail - one year $50.00, two years $90.00, three years $130.00. Circulation is to 21 Spanish-speaking countries.

RADIOSCAN MAGAZINE - English Edition - ISSN 1049-9121 - published monthly by RADIOSCAN Corporation, 175 Fontainebleau Boulevard, Suite 2K05, Miami, FL 33172. Subscriptions: Domestic - one year $14.95, two years $30.00, three years $40.00. Canada/Mexico - one year $19.95. Foreign Air Mail: one year $70.00.

2799. TM731A function beep disable procedure

Newsgroup: rec.ham-radio
Date: 1990-05-12 14:20:08 UTC
From: rfc@briar.Philips.Com
Message-ID: <95115@philabs.Philips.Com>
Source record: 11678

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
26203 BF 2688 1 0426/1600 6834_KA5BML KG5JJ ALL@NYNET ()
Sb: Kenwood TM 731A Function Beeps

I found no mention of how to disable those irritating status and function beeps in the manual supplied with this rig, and stumbled across it by accident.
1-Turn rig off.
2-Depress call key and hold.
3-Turn rig on.
4-Release call key.
This will ensure your sanity under any and all operating conditions.
--73-- de KG5JJ (Mike) @ KA5BML.AR.USA
==========
A notice found on a piece of test equipment made in Japan:
"IT PUT ON THE VINYL SHEET ON THE SURFACE OF UPPER & LOWER PANEL FOR THE PROTECTION PLEASE USE AFTER TEAR OFF VINYL SHEET WHEN USING.

2800. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-12 14:59:14 UTC
From: john@anasaz.UUCP
Message-ID: <2239@anasaz.UUCP>
Source record: 11759
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <30500529@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
]
]> The radio, as currently designed, is capable of receiving the
]> cellular phone band. Since it is illegal to intercept cellular
]> phone, Icom is having difficulty getting FCC type acceptance and
]> importing the radios. Therefore, Icom has decided to pull the
]> current radio, and come out with a slightly modified version
]> which does not receive cellular phone. I think you will see
]> this radio back on the market in modified form very shortly.
]> I also suspect that enterprising hams will find a way to
]> "remodify" the radio back to its original form.
]
]If the FCC is refusing type-acceptance just because it is capable
]of receiving frequencies that happen to also be used for cellular
]services, then we need to know about this, and immediately. There
]is no authority I know of for the FCC to refuse the type acceptance
]on such grounds since the ECPA does not outlaw the ownership, sale,
]or import of such devices. There *IS* legitimate use for hams to
]receive signals on such frequencies without receiving cellular.
]If you don't know what I mean, get out your interference handbook
]and reread it.

While I agree with Phil's concerns, I suspect that they are misplaced.

I think the R-1 hangup is patent related. Uniden, having acquired ALL
domestic makers of scanners, now owns a lot of scanner patents, and
apparently is starting to enforce them against other scanner makers.
For example, selective scan delay and front end track tuning are
patents held by Uniden. i.e. - if you want to buy a good scanner,
it will have to be either made by or licensed by Uniden. I don't
know what other patents they may hold.

I personally think this is a crock - both of those techniques are
obvious, and one requirement to uphold a patent is that it be
non-obvious! However, I don't know of any scanner manufacturers
fighting the patent. Hmm.... I built a working scanner in 1965,
which was more than 17 years ago and thus clearly predates
any scanner patents still in force... should have patented
it (however, it didn't have either selective scan delay or track
tuning)!

]WE NEED TO GENERATE SOME COUNTER PRESSURE!
]

Only if we find the FCC is really at fault, and this this is not
just an urban rumor.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

2801. Packet/Internet gateways

Newsgroup: rec.ham-radio
Date: 1990-05-12 15:30:17 UTC
From: thomas@mvac23.UUCP
Message-ID: <223.UUL1.3#5131@mvac23.UUCP>
Source record: 11756

I've often seen messages on this net which have been reproduced from packet sources. I'm wondering if there is either 1. a gateway packet machine which allows someone like me to send e-mail to a packet site or 2. someone on the east coast of the USA who is interested in performing that function.

Reason: my uncle in the Shanandoah valley of Virginia is getting into packet radio and will soon be on packet e-mail. However, I don't have enough time to add packet radio as Yet Another Hobby to my list (sorry guys). But I'd still like to be able to communicate with him electronically since it is e-mail in both places and internet networking is on my Officially Recognized Hobbies list.

Thanks for any help,

- tom

--
internet : mvac23!thomas@udel.edu or thomas%mvac23@udel.edu
uucp : {ucbvax,mcvax,psuvax1,uunet}!udel!mvac23!thomas
Europe Bitnet: THOMAS1@GRATHUN1 Location: Newark, DE, USA
Quote : The only way to win thermonuclear war is not to play.

--
The UUCP Mailer

2802. * SpaceNews 14-May-90 *

Newsgroup: rec.ham-radio
Date: 1990-05-12 16:37:35 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <290@ka2qhd.UUCP>
Source record: 11755
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,sci.space.shuttle,sci.space

Bulletin ID: SPC0514

=========
SpaceNews
=========

MONDAY MAY 14, 1990

SpaceNews is published and distributed weekly around the world on USENET
and Amateur Packet Radio. It is available for unlimited distribution.

* STS-35 NEWS *
===============
The launch of STS-35 has been delayed at least until 31-May-90 due to a
Shuttle hardware problem.

Here is the expected operating schedule for unattended SAREX operations by
Ron Parise (WA4SIR):

Mission Elapsed Time
(D/HH:MM)

Start End
========+========
0/22:00 - 1/10:20
1/21:15 - 2/08:35
2/20:00 - 3/07:55
3/19:00 - 4/06:40
4/18:30 - 5/05:45
5/17:20 - 6/05:50
6/17:40 - 7/05:35
7/17:45 - 8/04:45

Listed below are the frequencies presently intended to be used by SAREX for
both packet and voice. Note, that in no case is "simplex" operation
indicated. DO NOT CALL WA4SIR ON THE SAME FREQUENCY YOU HEAR HIM!!

Shuttle Accompanying Offset
Transmit Freq. Shuttle Receive Freqs. Designation

Group 1 145.55 MHz 144.95 MHz Primary
145.55 MHz 144.91 MHz Secondary No. 1
145.55 MHz 144.97 MHz Secondary No. 2

Group 2 145.51 MHz 144.91 MHz Primary
145.51 MHz 144.93 MHz Secondary No. 1
145.51 MHz 144.99 MHz Secondary No. 2

Group 3 145.59 MHz 144.99 MHz Primary
145.59 MHz 144.95 MHz Secondary No. 1

Group 4 145.55 MHz 144.95 MHz Primary
145.55 MHz 144.70 MHz Secondary No. 1
145.55 MHz 144.75 MHz Secondary No. 2
145.55 MHz 144.80 MHz Secondary No. 3
145.55 MHz 144.85 MHz Secondary No. 4

The 145.55/144.95 combination is in both Groups 1 and 4 because alternate uplink frequencies from Group 1 would be used over North and South America while those from Group 4 would generally be used in other parts of the world, such as Europe and Africa.

Dissemination of Shuttle information to those participating in SAREX, as well as all interested amateurs will be via a system of key stations, particularly WA3NAN, at Goddard in Greenbelt, MD, W5RRR, at the Johnson Space Center in Houston, and W6VIO at the Jet Propulsion Lab, in Pasadena, California. These stations, and others, will operate on HF and VHF 24 hours a day carrying official NASA supplied voice communication between Mission Control in Houston and the Shuttle crew. To further provide information specific to SAREX communication opportunities and related information, bulletins originated by amateurs stationed at the Johnson Space Center will be fed via a computer network to these stations and others including W1AW. The SAREX Metabeacon may also be used for announcements. It is planned the frequencies listed below will be used for this service. The selection of frequencies will be made depending on HF propagation conditions during the mission.

Station Approx. Nominal Frequencies in MHz
QTH (+/- QRM)

WA3NAN Wash. DC 3.860, 7.185, 14.295, 21.395, 28.650. 147.45 (FM)
W5RRR Houston 3.850, 7.227, 14.280, 21.350, 28.495, 146.64 (FM)
W6VIO L.A. 3.840, 21.280, 224.04 (FM)
W6FXN L.A. 145.46 (FM)

All are SSB using the sideband normally used on the band unless otherwise noted.

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ...uunet!masscomp!ocpt!tsdiag!ka2qhd!kd2bd
AX.25 : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

2803. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-12 16:38:23 UTC
From: <>
Message-ID: <225@nic.stolaf.edu>
Source record: 11757

>Here is what I heard from a friend who travels regularly to Japan
>and has contacts with Icom in Japan.
>
>The radio, as currently designed, is capable of receiving the
>cellular phone band. Since it is illegal to intercept cellular
>phone, Icom is having difficulty getting FCC type acceptance and
>importing the radios. Therefore, Icom has decided to pull the
>current radio, and come out with a slightly modified version
>which does not receive cellular phone. I think you will see
>this radio back on the market in modified form very shortly.
>Jonathan Nagy
>jdn@navaho.cc.bellcore.com

What about the Icom R-7000? As far as I know, this receiver easily receives
all of the cellular band, and you can buy it at any participating
amateur radio store (25MHz to 2GHz coverage). Maybe the R-7000 received
type acceptance before the ECPA passed Congress? Do you need FCC type
acceptance on receiving devices before you may sell them in the United States?

The patent conflict seems more likely.

==
Eric A. Bartsch N0JVP Senior
St. Olaf College Philosophy/Political Science
Northfield, MN 55057 bartsch@thor.acc.stolaf.edu

2804. How frequencies are assigned ??

Newsgroup: rec.ham-radio
Date: 1990-05-12 18:58:40 UTC
From: nrg@nsscb.UUCP
Message-ID: <1578@nsscb.UUCP>
Source record: 11758
Cross-posted to: rec.ham-radio,rec.ham.radio

First of all, I would like to know how frequencies are assisgned to various radio stations. Because on most of the frequencies, lot of stations will be relaying at the same time causing lot of distortion/interference. With this which ever station is stronger or closer will take over leaving no scope for weaker stations. If there is any governing body they should not assign same freq. to more than one station who start at the same time.

Secondly, one station is relaying on 15120 and 9610 khz at a particular time.(that country's home services). How difficult is it if they want to extend the same transmission to 11620 khz besides 15120 and 9610 at the same time. (Assuming they have more than one transmitter).

Narotham Reddy
--

2805. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-12 19:39:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500530@ux1.cso.uiuc.edu>
Source record: 11761

> What about the Icom R-7000? As far as I know, this receiver easily receives
> all of the cellular band, and you can buy it at any participating
> amateur radio store (25MHz to 2GHz coverage). Maybe the R-7000 received
> type acceptance before the ECPA passed Congress? Do you need FCC type
. acceptance on receiving devices before you may sell them in the United States?

Radio devices do need part 15 certification to be sold or imported into
the United States.

This certification says NOTHING about what the radio's capabilities or
authorized uses are; it is strictly dealing with the radio's (in)ability
to interfere with other radios.

There is no authority in the ECPA that prevents the sale of devices
capable of receiving the frequencies the cellular service uses. If
the FCC is denying part 15 certification because a receiver is able
to receive the cellular frequencies (825-845 and 870-890) then it is
my opinion the FCC is acting illegally.

There is another possible cause for retrograding the radio to delete
those frequencies. The cellular industry might have threatened Icom
with a law suit, which we know will costs lots of money even though
Icom would win. The extremely sad state of legal affairs in this
country makes it possible to manipulate business this way. I don't
know that this has happened, but if it has, then I would like to see
the hams form an organization that can do its own form of legal
threatening.

Of course there still exists the possibility that a patent conflict
exists for a patent whose owner failed to obtain protection overseas.
An owner who makes demands at such a level as to force someone to go
back and redesign their invention out of the device has done poorly
in making sure of his own profits.

The rumors on this will go on for a while. When the radio does ship
in the US, its features or lack thereof will tell some of the story.
If the cellular frequencies are removed, then I personally would urge
that the radio be boycotted as a form of counter pressure to the
manufacturers to convince them that buckling under to pressure from
other sources is not to be taken trivially. There is no valid reason
to delete any frequency range in the receiver.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2806. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-12 20:13:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500531@ux1.cso.uiuc.edu>
Source record: 11762

> The use of emotive words like "eavesdroppers" to try to sway arguments is
> called innuendo, the neutral word would be "listeners". Listening to
> cellular telephone conversations may be _illegal_ in the US, but radio
> waves have a history of not respecting national boundaries. The question
> of whether it is morally wrong to take radio transmissions that are not
> intended for your reception is, in my opinion, moot. However cellular
> transmissions are a special case only inasmuch as there are large and
> powerful vested interests. A problem with all telephone systems is that
> the users have been systematically lied to about how much privacy they
> have.

I believe we really SHOULD do something about this. One simple way is to simply spread the word around to everyone you know that cellular telephone conversations have a somewhat better expectation of privacy than cordless phones, but definitely not infinitely so.

Why cellular communications have some increased expectation of privacy:

1. There are 666 channels to scan through instead of 10.
2. There are fewer radios that can scan 800 Mhz, and they are a bit more expensive on average, but they exist and are in common use.
3. It is illegal to listen to cellular transmissions, no matter what frequency they are found on, but we know how much respect most people have for laws that prohibit what people do in their homes that cause no harm to anyone.
4. The voice channel on cellular uses exactly the same method of modulation as conventional two-way radios.

Why cellular communications are not completely secure:

1. Older TV sets with channels 70-83 still in them can receive cellular transmissions on channels 73-75 and 80-83. This fact should be taken with extreme concern by persons who are easily offended by strong language, especially if they have children.
2. Legitimate non-cellular uses exist for receivers that are capable of receiving the same frequencies as the cellular service uses.
3. Methods of making receivers that have cellular frequencies removed capable of receiving on cellular frequencies exist and are well known. Most units can be modified by adding or clipping some control diodes. Those that cannot, and for those not wanting to go inside, block converters exist that convert the 800 Mhz frequency block down to more conventional scanner frequencies.

I don't necessarily have all the reasons posted. If you come up with some others, you might want to post them.

My general advice to anyone considering the purchase of a cellular phone is to consider the communications on the phone to be open and public to people who for the most part you do not know. Unlike amateur radio, you can conduct business on the phone. Most hams don't worry about the privacy of their ham communications, and were business to be legal they would probably be ordering tons of pizza regularly. However with cellular, those who listen might try doing things nasty just because they think you have an expectation of privacy, like calling up the pizza place, citing the same phone number you just gave them, and changing your order. To prevent this, upon the initial order, tell the pizza place that ANY changes must be verified by calling you back since you are calling from a cellular phone.

Be sure you understand me; I am not saying cellular phones are bad; I am just trying to get the perspective straight. I am even considering buying a cellular telephone myself. One definite advantage of one of those portable cellular phones, if you get an AC power supply or a spare set of chargeable battery packs, is to avoid having to use that dreaded "call waiting" when you are using your home computer calling out on a modem. Just forward your phone to the cellular, or tell your cellular number to your friends, and go ahead and use the main phone line on the computer.

> If cellular radio really will be secure against unathorized reception,
> then surely there should be no law against such reception, after all
> we don't have laws against teleportation or telepathy do we?

Well, so far I have never met anyone who can teleport.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2807. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-12 21:24:13 UTC
From: tad@ssc.UUCP
Message-ID: <705@ssc.UUCP>
Source record: 11768

In article <23109@bellcore.bellcore.com>, jdn@casux4.uucp (jonathan nagy) writes:
> In article <9005110729.AA02891@ucbvax.Berkeley.EDU> MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
> >
> >
> >What's interesting is that ICOM ran a back cover ad on the May issue of
> >Popular Communications advertsing their new receivers. EEB (a major ICOM
> >dealer) had also run ads for May, 1990. The people at EEB sounded really
> >annoyed at ICOM for pulling this rig so suddenly. I sense a production
> >yield or tariff problem here. I personally think the radios exist and they
> >and they can't get them into the U.S.
> >This is a Stone Cold Bummer :-(:-(. I was really looking forward
> >to that radio.
> >
> >Anyone else heard anything?
> >
> Here is what I heard from a friend who travels regularly to Japan
> and has contacts with Icom in Japan.
>
> The radio, as currently designed, is capable of receiving the
> cellular phone band. Since it is illegal to intercept cellular
> phone, Icom is having difficulty getting FCC type acceptance and
> importing the radios. Therefore, Icom has decided to pull the
> current radio, and come out with a slightly modified version
> which does not receive cellular phone. I think you will see

I don't get it......Icom already sells radios that make no attempt to restrict cellular coverage. No mods required. What is special about this one that would attract the FCC's interest? I thought the ECPA only prohibited selling devices that are SPECIFICALLY designed to intercept cellular phone calls.

Any ideas on this? Or did Icom's other radios come out before the ECPA, and then get grandfathered?

I always thought that the reason that Tandy restricted cellular coverage on their scanners was because of marketing considerations due to the fact that they also market cellular phones, not because of legal problems.

Can someone enlighten us on this?

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089

MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2808. Re: New AEA Antenna & Unrelated Matters

Newsgroup: rec.ham-radio
Date: 1990-05-12 21:33:09 UTC
From: tad@ssc.UUCP
Message-ID: <706@ssc.UUCP>
Source record: 11769

In article <13578@csli.Stanford.EDU>, kawai@csli.Stanford.EDU (goh kawai - n6uok) writes:
> Mike Edelman (KE8YY) inquires:
>
> >Has anyone played with this thing yet, or perhaps with other variants
> >on the same idea..?
>
> you have a big capacitor at the end. Which gives you very narrow bandwidth.
> I have not used the AEA loop (looks like a football stadium portable seat
> to me), but a friend calculated that the bandwidth should be in the range
> of 10 to 20 kHz with around 80% efficiency - that is, you sacrifice
> bandwidth for the sake of RF.
>
> >goh<

The AEA antenna gets around the bandwidth problem by having a motor
driven capacitor. At any one setting, the bandwidth may be narrow,
but to change frequency you just nudge the remote cap control for
minimum reflected power.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2809. So you think ham radio has spectrum management problems?

Newsgroup: rec.ham-radio
Date: 1990-05-12 22:54:38 UTC
From: karn@ka9q.bellcore.com
Message-ID: <23169@bellcore.bellcore.com>
Source record: 11760

From the RISKS digest:

Date: 5 May 90 02:34:32 GMT
>From: chuq@Apple.COM (The Bounty Hunter)
Subject: So many weapons, so little radio spectrum

>From the May, 1990 issue of Monitoring Times, Page 4:

Electronic Blizzard Brings Down U.S. Planes

The Scene is Libya, 1986. High in the sky, an armada of 33 high-tech U.S. fighter planes begin their attack. But something is wrong. One plane, carrying two crew members, crashes. Of the surviving 32 planes -- including five F-11's -- seven are unable to get off even a single shot. The probably reason: an electronic blizard that, according to Pentagon officials, came not from the Libyans but from high-powered U.S. military transmitters that filled the night sky with electronic signals designed to jam Libya's anti-aircraft defenses, hunt down targets, guide weapons and communicate.

According to Air Force Colonel Charles Quisenberry, during the Libran strike, U.S. weapons "were interfering with each other." Numerous U.S. weapons, some of which were electronically guided, went astray during the attack, damaging three foreign embassies and diplomatic residences, uncluding those of France and Japan.

Further, says Quisenberry, some of this interference can "actually effect the ... aircraft's flight controls as well as its fuel controls," either putting a plan into an uncontrolled turn or dive or turning off its fuel supply.

The Pentagon recently finished a classified seven-month investigation of the prolem which led officials to order a more detailed three-year probe. Preliminary studies of one war plan shows "thousands of [frequency] conflics" among weapons. Says Quisenberry, "There are major, major problems out there..."

2810. Ok, How do I get started?

Newsgroup: rec.ham-radio
Date: 1990-05-12 23:06:16 UTC
From: buckij@agnes.acc.stolaf.edu
Message-ID: <238@nic.stolaf.edu>
Source record: 11763

Hi.
I've finally been convinced that I should perhaps look into
becoming a Ham radio operator. Where do I start? Addresses?
Books? etc.

ALL INPUT APPRECIATED....please use e-mail

Jonathan S. Bucki
buckij@{thor, agnes}.acc.stolaf.edu

2811. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-12 23:32:50 UTC
From: markz@ssc.UUCP
Message-ID: <709@ssc.UUCP>
Source record: 11767

In <23109@bellcore.bellcore.com>, jdn@casux4.uucp (jonathan nagy) writes:
> In article <9005110729.AA02891@ucbvax.Berkeley.EDU> MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
> >
> >Well, folks it appears that the ICOM R-1 was either vaporware or just
> >couldn't be sold in the U.S.
>
> The radio, as currently designed, is capable of receiving the
> cellular phone band. Since it is illegal to intercept cellular
> phone, Icom is having difficulty getting FCC type acceptance and
> importing the radios.

Scanning radios are not type-accepted. They are certified (See Title 47 part 15, and part 2 subpart J). This is the same procedure that personal computers go through. (The list include Verification, Notification, Certification, Type Acceptance and Type Approval, and, boy, am I glad I'm not a lawyer and have to read this sort of stuff all the time.)

Sounds like the R-1 puts out too much spurious stuff.

markz@ssc.uucp

2812. Re: Any Bay area Hamfests - June & July??

Newsgroup: rec.ham-radio
Date: 1990-05-13 00:30:11 UTC
From: laubach@aspen.IAG.HP.COM
Message-ID: <3080004@aspen.IAG.HP.COM>
Source record: 11764

While it is not really a hamfest, on the second Saturday of each month, a rather large and *very* popular ham flea market is held at the Foothill Junior College in Los Altos Hills, CA. This is about 35 miles south of San Francisco. You get to it by taking Route 280 South from San Francisco to the El Monte Road exit. Talk in is on 145.27- which is a repeater local to the south bay/Mountain View area.

73's
Mark, N3BMN

2813. RTTY DX Notes, 5/11/90

Newsgroup: rec.ham-radio
Date: 1990-05-13 02:14:33 UTC
From: gws@n8emr.UUCP
Message-ID: <1489@n8emr.UUCP>
Source record: 11770

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ RTTYDX $RTDX1105
RTTY DX Notes, 1of3, 5/11/90

RTTY DX Notes for Weekending 11th May 1990.
Part 1 of 3.
BID: $RTDX1105

It seems to me that some DXpeditions go out well prepared, with good
gear and good operators, while others do not. But speaking of
dxpeditions, DX1 has heard of one that will be going to Lord Howe
Island, signing VK9LI, for the A.N.A.R.T.S. Contest June 9th to 11th.
The operation will be for three days prior to the contest and two or
three days after the contest. This will be an RTTY only operation,
and will not be running linears. As DX1 appears to know about it, you
might as well send your QSL etc to him.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, JA1ACB, JA1BLV, OD5NG,
TG9VT, VK2EG, W1DA, W2JGR and the Tri-State DX Association VHF packet
cluster. Your information is really appreciated.

Bandpass

Friday 4

LY1BZD 14082 at 0929Z
RI8AP 21090 at 1214Z
YC6KHL 21088 at 1737Z
SV5TS 21086 at 1758Z
EO5O 14089 at 2345Z QSL/Note

Saturday 5

TJ1MW 14088 at 0630Z
TR8JLD 14085 at 0645Z
BY4AA 21085 at 0750Z QSL
T32AB 21085 at 0751Z QSL
J28TY 21091 at 1320Z
TF4LB 14092 at 1350Z
VU2DPG 21073 at 1456Z ARQ
UZ3AYR 21091 at 1520Z
UA9CHK 21083 at 1649Z
ZS9A 21095 at 1710Z QSL
```

ZP5FGS 28089 at 1740Z
BV4VB 14095 at 2001Z
RO5OO 14084 at 2305Z
EA9MY 14082 at 2310Z

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX1205
RTTY DX Notes, 2of3, 5/11/90

RTTY DX Notes for Weekending 11th May 1990.
Part 2 of 3.
BID: $RTDX1205

Sunday 6

UZ3AYR 14086 at 0300Z
UB5HQ 14088 at 0305Z
UQ2HO 14084 at 0942Z
EM3W 14083 at 1140Z
RO5OO 14086 at 1253Z
BY1QH 14090 at 1318Z
YC1YMN 21081 at 1520Z
TL8TM 21089 at 1528Z
FM5FA 21083 at 1950Z
KE0YG/TF 21082 at 1952Z
HS1BV 21087 at 2240Z
R3AFG 14083 at 2240Z Note
V31AR 14074 at 2350Z FEC
TR8JLD 21087 at 2350Z
SU1HN 14083 at 2355Z

Monday 7

EO5O 14085 at 0532Z
UA3PNN 14086 at 0550Z
6Y5PK 14085 at 0552Z
TJ1MW 14086 at 0555Z
XW8KPL 21085 at 0900Z QSL
9M2AX 21087 at 1755Z
TA3F 21097 at 1810Z

Tuesday 8

EO5O 14081 at 0035Z
T32AB 21084 at 0344Z ARQ
EN8TJ 14086 at 0351Z QSL
SV9AHZ 14086 at 0555Z
RF6FC 14087 at 1620Z
UQ2HO 14090 at 1707Z
9H1DW 14090 at 1740Z
TR8JLD 21091 at 2114Z

Wednesday 9

UA3PNN 14085 at 0331Z
UC1TWR 14086 at 0500Z QSL
EN8TJ 14088 at 0524Z
TJ1TA 14082 at 10552Z
XW8KPL 21088 at 0911Z
EA8ABD 21088 at 1743Z

Thursday 10

UZ9CWA 14095 at 0302Z
HC8VB 14086 at 0518Z
UB4TWQ 14089 at 0520Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX1305
RTTY DX Notes, 3of3, 5/11/90

RTTY DX Notes for Weekending 11th May 1990.
Part 3 of 3.
BID: $RTDX1305

QSL Information.

BY4AA will QSL via Box 085-205, Shanghai, Republic Of China.

T32AB says to send his cards to N7YL.

XW8KPL for some reason says to QSL to Box 310, Vientiane, Laos. (His home call is JA3MNP).

EO5O will receive his cards via Box 7 Chadyp-Lunga 27870, USSR.

EN8TJ will QSL via UT5JCF.

UC1TWR will QSL via Box 57, Grodno, 230003 Bylorussia, USSR.

Notes of Interest.

XW8KPL is active on 20 and 15 meters for a period of 1 to 2 weeks. After that stint they hope to operate from XZ (Burma) and S2 (Bangaladesh) with RTTY in both places. Though from reports from a reliable source, it is considered that RTTY would be impossible from both places. But we will wait and see what happens.

Conway Reef should appear from 17th to 29th May with six operators, though there is some doubt about RTTY.

Kuria Muria, A43KM/0 is expected about 17th to 24th May, again there is some doubt about RTTY.

Spratly has gone QRT, despite rumours to the contrary.

YV0AA cards should be available mid June.

Jan Mayen, JX9CAA reports that there are four operators there at the moment. JX2FL will operate SSB and CW from April until July, JX7XL and JX7DF will be there from April until October and will QSL via (call) N8013, Jan Mayen , Norway. While JX9CAA will be there from April until October and will be the only RTTY station operating and will QSL via LA5NM, he will be on RTTY on 14085 KHz and packet (at LA9FV) on 14109 KHz.

R3AVE, EO5O and the other odd Russian calls are special calls for the celebration of the end of WW2 with Germany.

Finally, don't forget the A.N.A.R.T.S. RTTY Contest June 9th 0000Z until June 11th 0000Z. See you there, and look for VK9LI. A report received says that JT0DX cards are being received in JA land. More hope.

GL DE DX1 (VK2SG).

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

2814. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-13 04:12:41 UTC
From: coxc0010@ucselx.sdsu.edu
Message-ID: <1990May13.041241.576@ucselx.sdsu.edu>
Source record: 11765

To: kenw@col.hp.com
Subject: Re: Looking for 2m HT purchase advice.
Newsgroups: rec.ham-radio
In-Reply-To: <18230011@col.hp.com>
References: <10110001@hpislx.HP.COM>
Organization: San Diego State University Computing Services
Cc:
Bcc:

But Icom IC-28 line is worse than Yaesu 211 line in intermod and and selectiv-
ity. (I'm just talking about mobile units).
Icom 02AT line is good and rug.
Except for Yaesu bad reputation in costomer services, I don't see their design
being inferior nor their durability. Why stay away?
I had a Kenwood 21AT for some years and it has no problem, but I understand
it's layout is not very neat inside.
The current Kenwood HTs is lacking features (and size) to Icom and Yaesu.
But my Kenwood TH-215 has very sensitive and selective receiver, best I've
seen yet.
All three brands are as good to me. Standard (Heath Kit) follows very close.
I noticed most people prefered Icom. why?
Kenwood wins out in looks too.
Icom wins in accessories compatibilities, and size in new ones.
Yaesu is still good in features (back lit keyboard in 470), and design.
My lost FT-23 was the best features/size at that time!

I want a 470 or 24AT later.

--

/***/
/* */
/* David Tse Internet: coxc0010@ucselx.sdsu.edu (expire 5/31/90) */

2815. Re: Feeler - VOA Broadcast Schedule

Newsgroup: rec.ham-radio
Date: 1990-05-13 04:57:37 UTC
From: sivagnan@handel.CS.ColoState.Edu
Message-ID: <SIVAGNAN.90May12225737@handel.CS.ColoState.Edu>
Source record: 11766
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I am very much interested in having the VOA Broadcast Schedule posted to the net. At the very least (if there in no sufficient interest) have it available via some ftp site such as uunet.

About the frequency of posting it, if and when the schedule changes. You can post the diffs, or post everything again. This depends on how often the schedule changes and how much is changed. If the VOA Magazine is published bimonthly, then lets have it bimonthly.
--
Vasanthan
Dept. of CS, CSU.

2816. Audio descrambler

Newsgroup: rec.ham-radio
Date: 1990-05-13 05:59:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005130710.AA00212@ucbvax.Berkeley.EDU>
Source record: 11771

Someone once posted that they had schematics for a circuit that would descramble frequency-inverted audio. I would like to see these. If you know of such schematics and where I can get them, or perhaps you know the address the original poster gave to send an SASE, please let me know.

Mark C. Lowe - KB5III

MCL9337@TAMVENUS.BITNET

2817. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-13 06:33:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500532@ux1.cso.uiuc.edu>
Source record: 11772

> Except for Yaesu bad reputation in costomer services, I don't see their design
> being inferior nor their durability. Why stay away?

They have a thin plastic feel to me. Also I've heard Yaesu has least
frequency stability. The specs of a few rigs confirmed this.

> I noticed most people prefered Icom. why?

Icom's larger HT's have all used the same accessories including batteries.
They have a wider battery choice and were first in second source batteries.
Kenwood's current twist-on battery pack on the TH-215 and like are reputed
to have breakable tabs.

> Kenwood wins out in looks too.

I cannot agree. I prefer the simplicity look of Icom.

> Icom wins in accessories compatibilities, and size in new ones.

So I guess you answered your question.

> Yaesu is still good in features (back lit keyboard in 470), and design.

Can you really read EVERYTHING on it in the dark?

> I want a 470 or 24AT later.

You are favoring the smaller size units?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2818. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-13 06:46:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500533@ux1.cso.uiuc.edu>
Source record: 11774

> I think the R-1 hangup is patent related. Uniden, having acquired ALL
> domestic makers of scanners, now owns a lot of scanner patents, and
> apparently is starting to enforce them against other scanner makers.
> For example, selective scan delay and front end track tuning are
> patents held by Uniden. i.e. - if you want to buy a good scanner,
> it will have to be either made by or licensed by Uniden. I don't
> know what other patents they may hold.

Could you post a description of what the various scanner features
actually do and how they are operated? A lot of times, the "sales
talk" description of these scanning features does not really say
how they really work.

One thing I personally would like in a scanner is for SEPARATE timing
controls on the time to stay while a signal is present and the time to
stay after a signal goes absent. I have seen NO scanner that has this.

Another feature I'd like to see is to allow a single memory to define a
block of frequencies in terms of the frequency step. When scanning hits
this memory, it steps through all the defined frequencies and once done,
goes on to the next memory. It would take but a few memories to program
the complexity of the 2 meter band this way, not to mention the mess we
call VHF land mobile.

Yet another feature is programmable lists, where scanning is performed
via a programmable list of memories (including block ones from above).
Thus I can set up several different scan groups which even have overlaps
and pick the one I want quickly when I want it, rather than have to step
through all the memories and set a SKIP on the ones I don't want.

> I personally think this is a crock - both of those techniques are
> obvious, and one requirement to uphold a patent is that it be
> non-obvious! However, I don't know of any scanner manufacturers
> fighting the patent. Hmm.... I built a working scanner in 1965,
> which was more than 17 years ago and thus clearly predates
> any scanner patents still in force... should have patented
> it (however, it didn't have either selective scan delay or track
> tuning)!

Let's just hope that Uniden doesn't start "look and feel" arguments.
I am boycotting Apple for as long as they hold their position.

>]WE NEED TO GENERATE SOME COUNTER PRESSURE!
>]
>
> Only if we find the FCC is really at fault, and this this is not

> just an urban rumor.

Or if it comes from the cellular industry itself.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2819. Re: What is a CB radio?

Newsgroup: rec.ham-radio
Date: 1990-05-13 06:49:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500534@ux1.cso.uiuc.edu>
Source record: 11773

> >The ECPA supersedes the Communications Act of 1934 (in the area under
> >discussion.)....Both are reasonable, Constitutional statutes....if you
> >don't like the policy you should change it by intense lobbying of your own.
>
> Or perhaps by ignoring it :-)
>
> BTW, what makes you think that the ECPA is constitutional, or that the Supreme
> Court will uphold the legality of the ECPA prohibitions on listening to certain
> frequencies?

The ECPA does not prohibit receiving specific frequencies; it prohibits receiving specific kinds of communications. The subtle difference here is very important. You can listen to your own harmonic of your own radio transmissions that happen to be in the same frequency band as cellular is assigned, but you may not legally listen to cellular communications even if you happen to catch it on an intermod or harmonic.

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<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2820. Re: How frequencies are assigned ??

Newsgroup: rec.ham-radio
Date: 1990-05-13 06:51:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500535@ux1.cso.uiuc.edu>
Source record: 11775

There are not enough frequencies. I believe most SWBC stations try to aim their signals to only a small portion of the globe on any given frequency or from any given antenna farm. You might be in a boundary between two of the regions for some services.

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<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2821. Re: Cellular Telephone

Newsgroup: rec.ham-radio
Date: 1990-05-13 07:00:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500536@ux1.cso.uiuc.edu>
Source record: 11776

> >From what I've heard and read, I've put together that digital cellular will
> >be or has been allocated spectrum in or around 1600 MHz. It will be purely
> >digital and not compatible whatsoever with the analog system.
>
> Phil, I would be interested in where you read or heard this, as it is about
> 180 degrees out of phase with what I have read (see my posting about the
> digital capable cellular phones).

Motorola has hired some RF engineers and located them in the same place
where cellular development is going on. The advertising for their jobs
stated "cellular" and "1600 Mhz". These were in some RF industry magazines.

> Of course, since all this is still in the R&D phase, it would not suprise me
> one bit if there are several different systems being developed by different
> companies......they decision to actually implement a system might not be made
> for several years yet.....

And therefore things are not in stone, yet. But certain companies are very
big sway at the FCC, and Motorola is mentioning availability of digital
cellular very soon. I am keeping watch on FCC developments via FR.

> BTW, some people get "antsy" about holding a portable cell phone near their
> head, and these transmit in the high 800 MHz region.....you can bet that these
> same people will be doubly antsy if 1.6 GHz cell phones become available!

That's where salesmen come in. Remember those guys? They are the ones that
have the public convinced that cellular is absolutely secure. They will
simply convince the public that cellular is absoluetly SAFE and make more
profit. Simple, eh?

> Even though I am not a ham, I feel for you fellows....having your spectrum
> stolen is bad enough, but then to be insulted by the Land Mobile industry so
> brazenly.......it is enough to make your blood boil.

They are just in it for the money. We know that.

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<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2822. Re: Cellular Telephone

Newsgroup: rec.ham-radio
Date: 1990-05-13 07:08:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500537@ux1.cso.uiuc.edu>
Source record: 11677

> From what I have read, it is unlikely that there will be a new set of freqs
> assigned for a new system, and upward compatibility will be the goal of the
> new digital cellular system. Lots of people who own the presently available
> analog cell phones are not going to rush out and buy a brand new digital
> capable cell phone......they have already made an investment in equipment
> and are going to want that equipment to continue to work.

An article in Mobile Electronics has said that there will be dual mode phones
available because people won't want digital only to begin with. They mentioned
that even if digital can be made as cheap as analog, which is not expected,
that the dual mode would still be even more costly. Yet for some who really
want a channel in downtown LA at rush hour, the cost might well be worth it.

> Also, analog only phones will probably be available for some time after the
> digital capable phones come on the market....the digital capable phones will
> be more expensive at first, but will drop in price as the production ramps up.
> A few years after digital is available, I expect to see all phones offered for
> sale to have digital capability, the result of lower cost of the phones and
> the cell companies' desire to increase the availability of useable channels to
> consumers.

I can believe this.

You might even see salesmen telling customers that the new digital cellular
is even "MORE SECURE than analog", even though analog is still "completely
secure".

> The plans that I have read about will use the standard cell freqs with an FDMA
> scheme, and will multiplex four digital voice signals onto one present 30 KHz
> channel....a kind of FDMA/TDMA system. Each of the new digital cellphones will
> be assigned a time division slot and a channel each time it switches from cell
> to cell, when it is operating in the digital mode. The new digital cellphones
> will be upward compatible with the old system in a fashion similar to the way
> the expanded spectrum phones (832 chanels) are upward compatible with the old
> original specturm phones (666 channels).

And what is the slicing rate? That automatically forces a wider signal if it
is very high. They cannot slice ABOVE the audio range as that would splatter
all over the place. They will have to packetize somewhere in the 100 hz
range.

> The digital cell phones will also be capable of using the analog system, and
> will be agile enough to switch quickly so that a user is not even aware
> (except perhaps by an increase in noise when the analog is being used). Thus,
> as the user of a digital capable phone moves from one cell to another, the
> switchover might involve not only a channel switch, but a change from use of

> the analog signal format to the digital signal format!

Would be a nice feature. But surely they can do this on two cellular bands
as well.

> Initially, digital will probably only be available in the most dense urban
> areas, and only a few channels per cell will be assigned to the digital
> service. The MTSO, which handles all of the channel assignements as the
> cell phones move from cell to cell, will know which phones are capable of
> digital, and which are analog only. It will then assign channels and time
> slots, and analog/digital modes, with this information accounted for.

> As digital phones become more popular, the number of channels at each cell
> site that is assigned to digital will be increased.....this will happen more
> quickly in major urban areas, and perhaps not for another 20 years or so
> in the sparsely populated rural areas of the US. I think the process will
> be rather like the way that the digital pagers took over the frequencies
> assigned to analog pagers: it happend gradually over a period of years, mostly
> in major urban areas, and in some rural areas not yet, if ever.

I would hope this is the approach they will take.

> Also, I read that the first tests of compatible digital cellular were
> succesfully carried out.....digital is on its way!

But what about the salesmen who lie about security?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2823. Talking to someone in Korea

Newsgroup: rec.ham-radio
Date: 1990-05-13 08:54:50 UTC
From: 6600dong@ucsbuxa.ucsb.edu
Message-ID: <5274@hub.ucsb.edu>
Source record: 11679

I do now know much about Ham-Radio and I just want to know how I can communicate with my friend in korea thru ham-radio.
Is the novice license enough for me to talk to me friend in Korea?
Do I need to buy a very good radio since Korea is so far from USA?

2824. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-13 14:58:30 UTC
From: ke4zv@kd4nc.UUCP
Message-ID: <4487@kd4nc.UUCP>
Source record: 11680

This is a reply to the spate of Yaesu bashing in this thread.
While I have owned every Icom radio imported into this country
at one time or another, the radio that regularly hangs on my
belt is a Yaesu FT470. This radio has been dropped on cement,
stepped on, sat on, and dropped in water yet it continues to
function perfectly. It has more USABLE features than any handheld
that I have ever used. In side by side comparisons with my IC2AT,
u2AT, and IC4AT, it wins in sensitivity and is no worse in intermod
performance than my IC900 mobile rig. It has a METAL case that doubles
as it's heat sink (yes it can get hot if you yak a lot on UHF with
the 12 volt battery pack). It has the best night illumination of
ANY handheld, even the TTpad keys are backlit. The scaning system
is the most flexible I have seen. The ability to work duplex is
superb. It will act as a crossband repeater with NO mods. I have
only two complaints, the belt clip supplied is too flimsy--use an
ICOM clip -- and the internal speaker is too small and inefficent--
use a headset or earphone. If Yaesu fixes the audio and supplies
a stiffer belt clip, this would be the perfect handheld available
for $396. Icom makes excellent radios even if they are stodgy and
pricey, and Kenmore (er Kenwood) makes some cheap HiFi equipment,
but for the best HT for the money the FT470 has no competition.

Gary KE4ZV

2825. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-13 15:57:42 UTC
From: john@anasaz.UUCP
Message-ID: <2242@anasaz.UUCP>
Source record: 11682

In article <30500530@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
]The rumors on this will go on for a while. When the radio does ship
]in the US, its features or lack thereof will tell some of the story.
]If the cellular frequencies are removed, then I personally would urge
]that the radio be boycotted as a form of counter pressure to the
]manufacturers to convince them that buckling under to pressure from
]other sources is not to be taken trivially. There is no valid reason
]to delete any frequency range in the receiver.

Errr.... if they make it trivially easy to restore the coverage (remove
a diode or chip resistor), then I see no reason to flame them. They
(and we) get the best of both worlds: the cell phone profiteers are
satisified and don't further screw things up; and, we still have
full coverage.

I would point out that the cell phone profiteers had enough power in 1986
to get absurd provisions added to the ECPA. They could do it again if
sufficiently threatened. How would you like them to buy congress to
pass a law that said: "Import, manufacture or modification of a receiver
which results in a capability to receive the xxx-yyy frequency range
is a class x felony" or some such rot?
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

2826. Mac to Icom IC-765

Newsgroup: rec.ham-radio
Date: 1990-05-13 16:57:06 UTC
From: kschang@fog.ann-arbor.mi.us
Message-ID: <1990May13.165706.855@fog.ann-arbor.mi.us>
Source record: 11681

Is anyone aware of a program to interface my IC-765 and Mac through
Icom's computer interface? If so, please describe the program and
advise of how I could obtain it.
Tnx and 73 de Ken, W8LU

2827. Two scanner patents

Newsgroup: rec.ham-radio
Date: 1990-05-13 22:18:01 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990May13.221801.10819@cbnewse.att.com>
Source record: 11683
Cross-posted to: rec.ham-radio,rec.radio.shortwave

x
TWO SCANNER PATENTS

by Bob Parnass, AJ9S

Here is the information I published a few years ago about two of the scanner patents held by General Research Electronics (GRE), makers of most Radio Shack scanners. You can find out this type of information by spending a few minutes in your corporate or academic law library.

A Channel Lockout Invention

Almost every model scanner sold today provides a way to bypass, or "lock out" channels from being scanned. It wasn't always this way. The first Bearcat scanner, a crystal controlled model with a row of red lights, had no lockout provision.

On February 26, 1974, a U.S. patent was granted to a Japanese citizen for a "frequency skipping system" for scanning receivers. Patent 3,794,925 was granted to Kazuyoshi Imazeki, of Tokyo for a "Frequency-Skipping System for a Signal-Seeking Receiver."

Filed almost two years earlier, Imazeki's development was described as a "switching network" operable "to cause the scanning circuit to skip those frequencies which the operator does not want to monitor."

The need for a lockout circuit was evident: "in some situations the operator may not be interested in receiving one or more of the channels. Unless some provision is made for skipping these undesired channels, the system automatically tunes the receiver to them whereupon the operator must either listen to the undesired channel until it goes off the air or manually advance the receiver to the next channel."

Earlier lockout schemes had drawbacks. The circuitry was "relatively complex and expensive" and had "the further disadvantage of requiring almost as much time to skip a channel as that required to tune to, and through, that channel. In a system having ten or more channels of which only two or three are of interest to a particular operator, a relatively substantial amount of time is lost tuning through the 'skipped' channels."

An example of this slower scheme was the way the Heathkit GR-110 scanner accomplished lockout, by merely providing a switch in series with each crystal.

In Imazeki's scheme, an extra clock pulse was applied to the scanning counter circuit when a locked out channel was next in the scan sequence. This innovation allowed faster scanning of desired channels, by forcing the scanner to the next channel.

The patent assignee is General Research of Electronics Inc.

Priority Scanning Scheme

It was 16 years ago last month that a U.S. patent was granted to a Japanese citizen for a priority scheme for scanning receivers. On April 2, 1974, patent 3,801,914 was granted to Kazuyoshi Imazeki, of Tokyo for a "Priority-Frequency System for a Signal-Seeking Receiver".

Filed almost two years earlier, the system provided for a "signal seeking receiver to automatically tune" ... "to a priority signal whenever it is received. During non-priority receiver operation, a scanning circuit causes the receiver to automatically scan a plurality of predetermined frequencies and tune to a received signal have a frequency corresponding to one of the predetermined frequencies."

In Imazeki's scheme, a low frequency priority oscillator periodically halts the scanner's clock circuit, interrupting the normal scan sequence. The priority oscillator's output is also connected through a multi-position switch, which allowed the user to designate an arbitrary channel as the priority channel.

The circuit diagram in the patent looks familiar. That's because it forms the basis for the priority feature found in many crystal controlled scanners. The assignee is General Research of Electronics Inc.
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Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

2828. Were US scanner makers pressured to omit frequencies?

Newsgroup: rec.ham-radio
Date: 1990-05-13 22:36:37 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990May13.223637.11411@cbnewse.att.com>
Source record: 11684
Cross-posted to: rec.ham-radio,rec.radio.shortwave

x
WERE SCANNER MANUFACTURERS PRESSURED
TO LIMIT FREQUENCY COVERAGE?

by Bob Parnass, AJ9S

The 406 - 420 MHz band has long been used by federal govern-
ment agencies for communication of sensitive information.
Until just a few years ago, this range was not receivable on
programmable scanners sold by Electra (Bearcat), Regency, or
Radio Shack.

Speaking at a scanner club meeting in Berkeley, Illinois, an
engineer from Electra confirmed the rumor that it was US
government pressure which persuaded scanner manufacturers,
eager for timely FCC Part 15 certification, to omit this
band from their models.

Tradition was broken in 1982 when Radio Shack imported the
2020 scanner, made by General Research Electronics of Tokyo,
which featured coverage down to 410 MHz. Sales literature
for JIL's imported SX200 even went so far as to openly tell
customers that they could "Tune Military, FBI, ..., DEA,
Defense Department, Justice Department, plus other res-
tricted radio bands no other scanner is programmed to pick
up."

Not to be outdone by the imports, Electra introduced its
American made Bearcat 200 with coverage to 406 MHz.
Regency, whose American scanners were spec'd down to only
440 MHz, made service manuals available which revealed cov-
erage below 440 MHz was possible on all its programmables by
simply striking the "." key before entering the frequency
digits.

Today, government agencies are using digital voice scram-
bling and spread spectrum techniques to ensure privacy of
sensitive communications.
--
==
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

2829. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-05-14 02:49:25 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9005140701.AA12002@ucbvax.Berkeley.EDU>
Source record: 11685

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #696 -
Alouette 1
1 00424U 62B-A 1 90127.58418270 .00000318 00000-0 37011-3 0 3232
2 00424 80.4654 326.1110 0024348 18.5381 341.6615 13.67342437377148
ATS 3
1 03029U 67111 A 90125.73156569 -.00000074 00000-0 99999-4 0 3725
2 03029 13.0883 21.4149 0014705 206.1412 153.7924 1.00270338 82367
Cosmos 398
1 04966U 71 16 A 90128.89192676 .00076341 17261-4 42479-3 0 8493
2 04966 51.5025 337.2630 2303870 73.3551 310.6169 10.99292128587364
Starlette
1 07646U 75010 A 90125.84688953 .00000019 00000-0 11061-3 0 728
2 07646 49.8254 325.5533 0205959 51.4088 310.5075 13.82138316769929
LAGEOS
1 08820U 76039 A 90117.21641459 .00000002 00000-0 00000 0 0 715
2 08820 109.8549 337.6721 0044572 249.3013 110.3003 6.38664311 70686
GPS-0001
1 10684U 78020 A 90127.05006167 .00000008 00000-0 99999-4 0 4262
2 10684 63.7089 90.8254 0116033 199.3418 160.1732 2.00557309 75026
GPS-0002
1 10893U 78 47 A 90123.53331051 -.00000025 00000-0 00000 0 0 1767
2 10893 64.4045 331.7983 0164018 26.1366 334.7160 2.00546915 87779
SeaSat 1
1 10967U 78064 A 90128.81511761 .00000356 00000-0 16662-3 0 3305
2 10967 108.0118 238.9079 0002294 262.4796 97.5630 14.35622745620800
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1 11054U 78093 A 90128.31249529 -.00000024 00000-0 00000 0 0 2228
2 11054 63.9359 327.9507 0059505 117.1370 243.4902 2.00567099 84885
Nimbus 7
1 11080U 78098 A 90126.14820543 .00000195 00000-0 20602-3 0 6734
2 11080 99.1975 32.0217 0008489 191.5725 168.5235 13.83428053582222
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1 11141U 78112 A 90128.90908593 .00000008 00000-0 00000 0 0 3777
2 11141 63.6938 90.6516 0060664 316.3301 43.1524 2.00558640 83595
GPS-0005
1 11690U 80 11 A 90126.05823953 .00000009 00000-0 00000 0 0 9729
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2 11783 63.7249 327.5170 0150594 60.4341 301.0832 2.00556689 73525
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1 12472U 81049 A 90126.79775538 -.00000217 00000-0 99999-4 0 9290
2 12472 3.2950 76.6886 0007806 309.7188 50.2171 1.00234549 31834
DE 1
1 12624U 81 70 A 90127.02491309 -.00000031 00000-0 -42428-3 0 4307
2 12624 89.0172 148.2989 6205199 295.9642 14.0165 3.51021837260672
SME
1 12887U 81100 A 90128.29203711 .00024116 00000-0 46495-3 0 6409
2 12887 97.6404 173.3895 0002561 130.4370 229.7103 15.47848121475096
Salyut 7
1 13138U 82 33 A 90128.91704628 .00038333 00000-0 45193-3 0 2458
2 13138 51.6015 142.6644 0002607 54.9404 305.1465 15.60971735458717
Cosmos 1383
1 13301U 82 66 A 90123.04307206 .00000177 00000-0 19668-3 0 5722
2 13301 82.9340 333.8729 0026696 288.8952 70.9308 13.67823075391509
LandSat 4
1 13367U 82 72 A 90128.85049923 .00000536 00000-0 12880-3 0 3315
2 13367 98.1686 192.1449 0002139 248.3624 111.7346 14.57139156415571
IRAS
1 13777U 83 4 A 90125.36074002 -.00000020 00000-0 -13310-5 0 7736
2 13777 99.0282 322.8185 0013358 139.9092 220.3056 13.98780762 40956
Cosmos 1447
1 13916U 83 21 A 90121.22685591 .00000249 00000-0 25271-3 0 7224
2 13916 82.9417 46.7705 0036841 272.1903 87.5036 13.74035784356227
TDRS 1
1 13969U 83 26 B 90127.03241609 .00000129 00000-0 99999-4 0 9790
2 13969 4.3440 66.3834 0001536 317.9794 41.8173 1.00256135 92660
GOES 6
1 14050U 83 41 A 90126.97314079 .00000121 00000-0 99999-4 0 1753
2 14050 2.1304 78.4714 0002898 252.8062 107.1706 1.00275218 9855
OSCAR 10
1 14129U 83 58 B 90125.54117172 .00000005 00000-0 00000 0 0 5222
2 14129 25.9728 205.7937 5970316 140.3781 283.6886 2.05880041 23857
GPS-0008
1 14189U 83 72 A 90122.93795877 .00000007 00000-0 99999-4 0 7569
2 14189 63.3228 89.3184 0148284 219.0061 139.8950 2.00707037 49855
LandSat 5
1 14780U 84 21 A 90128.94616784 -.00000751 00000-0 -16179-3 0 1905
2 14780 98.2070 189.5957 0001786 67.0556 293.0835 14.57089569329001
UoSat 2
1 14781U 84 21 B 90128.20942196 .00002199 00000-0 41582-3 0 7306
2 14781 97.9527 182.0634 0014420 16.5194 343.6345 14.65299153330114
GPS-0009
1 15039U 84 59 A 90128.50748595 .00000006 00000-0 00000 0 0 9295
2 15039 63.0908 88.2981 0021778 242.2257 117.5445 2.00612719 43249
Cosmos 1574
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1 15055U 84 62 A 90125.36647347 .00000155 00000-0 15553-3 0 8726
2 15055 82.9540 93.8758 0029259 81.6674 278.7798 13.73349821294199
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1 15271U 84 97 A 90123.92199928 -.00000025 00000-0 00000 0 0 8275
2 15271 63.2352 327.2413 0105522 326.6741 32.6976 2.00574450 40267
Cosmos 1602
1 15331U 84105 A 90128.20506878 .00002903 00000-0 39764-3 0 2873
2 15331 82.5402 37.9603 0025121 99.8845 260.5168 14.77962154302186
NOAA 9
1 15427U 84123 A 90128.24543126 .00000316 00000-0 19201-3 0 5783
2 15427 99.1665 127.1516 0016240 119.5743 240.7047 14.12554028278343
Cosmos 1686
1 16095U 85 86 A 90128.85303292 .00038332 00000-0 45193-3 0 6294
2 16095 51.6000 142.9498 0002246 51.1147 309.0468 15.60973509458704
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1 16129U 85 93 A 90127.09273594 .00000007 00000-0 00000 0 0 5264
2 16129 63.8652 89.3043 0122009 149.5144 211.1675 2.00510597 33536
Mir
1 16609U 86 17 A 90129.02218507 .00055286 00000-0 69765-3 0 6483
2 16609 51.6161 167.9661 0011247 266.1458 93.8201 15.58957057241986
SPOT 1
1 16613U 86 19 A 90128.19203166 .00000449 00000-0 22870-3 0 9370
2 16613 98.7352 203.1458 0000491 27.5962 332.5280 14.20005854 58253
Cosmos 1766
1 16881U 86 55 A 90128.93110908 .00001889 00000-0 26115-3 0 9869
2 16881 82.5229 96.3863 0022838 113.4879 246.8695 14.77438373203355
EGP
1 16908U 86 61 A 90117.80270731 -.00000047 00000-0 -56616-4 0 2210
2 16908 50.0085 50.8868 0011721 66.2389 293.9677 12.44386374168588
NOAA 10
1 16969U 86 73 A 90128.56554787 .00000791 00000-0 36420-3 0 4262
2 16969 98.6045 157.3944 0014194 28.4142 331.7806 14.23590134188971
MOS-1
1 17527U 87 18 A 90128.18894298 -.00000015 00000-0 19155-5 0 5354
2 17527 99.1100 201.2508 0000780 122.4078 237.7170 13.94866757163688
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1 17561U 87 22 A 90127.66973979 -.00000059 00000-0 99999-4 0 5309
2 17561 0.0363 268.9641 0004829 120.8783 330.1878 1.00300593 5019
Kvant-1
1 17845U 87 30 A 90128.95811072 .00011416 00000-0 15015-3 0 1312
2 17845 51.6126 168.2843 0011924 258.1713 101.9722 15.58926778241977
DMSP B5D2-3
1 18123U 87 53 A 90128.92448438 .00000713 00000-0 39444-3 0 5792
2 18123 98.8209 320.0533 0015136 131.8913 228.3543 14.14012628148853
RS-10/11
1 18129U 87 54 A 90128.93492094 .00000195 00000-0 20309-3 0 1832
2 18129 82.9292 357.5325 0010616 224.0737 135.9606 13.72085655144061
Meteor 2-16
1 18312U 87 68 A 90125.95122763 .00000220 00000-0 18868-3 0 4225
2 18312 82.5557 323.7766 0012930 17.6903 342.4703 13.83641648137147
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Meteor 2-17
1 18820U 88 5 A 90124.68578301 .00000364 00000-0 31555-3 0 2723
2 18820 82.5479 25.0423 0018193 84.9990 275.3243 13.84334414114167
DMSP B5D2-4
1 18822U 88 6 A 90128.92376769 .00000745 00000-0 35854-3 0 4799
2 18822 98.6545 8.7600 0007498 32.9005 327.2637 14.21418094117247
AO-13
1 19216U 88 51 B 90125.34576345 .00000168 00000-0 99999-4 0 1238
2 19216 57.0583 156.6296 6943088 226.4635 49.6630 2.09696073 14500
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2 19274 82.5188 195.1027 0020460 249.7826 110.1213 14.76879138 99115
Meteor 3-2
1 19336U 88 64 A 90126.93518888 .00000391 00000-0 99999-3 0 4789
2 19336 82.5247 306.5914 0018623 49.0002 311.2706 13.16892241 85522
NOAA 11
1 19531U 88 89 A 90124.07930769 .00000457 00000-0 27229-3 0 2746
2 19531 98.9789 72.3456 0013042 51.4595 308.7740 14.11575449 82748
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1 19548U 88 91 B 90122.86902574 .00000109 00000-0 99999-4 0 1225
2 19548 0.0198 179.4030 0003266 252.7651 287.8809 1.00213328 4989
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1 19796U 89 11 A 90128.31416926 -.00001042 00000-0 99999-4 0 4669
2 19796 63.1567 97.9639 7105178 319.9113 5.0253 2.00586106 9003
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1 19802U 89 13 A 90126.58577878 .00000016 00000-0 99999-4 0 1240
2 19802 55.0602 199.0648 0057508 161.6471 198.6252 2.00562626 8918
Akebono
1 19822U 89 16 A 90127.80077564 .00020334 00000-0 14531-2 0 5862
2 19822 75.1276 258.5137 4188984 247.5433 63.6093 7.08389251 30567
Meteor 2-18
1 19851U 89 18 A 90125.44114857 .00000189 00000-0 16080-3 0 2237
2 19851 82.5181 262.5108 0015482 120.9289 239.3396 13.83963833 59653
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1 19883U 89 21 B 90122.50231026 -.00000235 00000-0 99999-4 0 1242
2 19883 0.0121 329.3754 0001054 289.0258 101.6376 1.00270904 3439
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2 20061 54.5938 17.6142 0083115 174.7513 185.3657 2.00559212 6650
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2 20103 82.9577 317.1798 0037514 157.5059 202.7736 13.73587310 41723
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1 20185U 89 64 A 90125.73878346 .00000016 00000-0 99999-4 0 1231
2 20185 54.9108 199.9267 0022204 151.8242 208.4422 2.00629936 5218
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2 20261 82.5925 253.7293 1258661 68.0692 304.9289 12.43661053 27662
Activnyi RB
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2 20302 54.6434 318.7943 0032388 317.9007 41.8612 2.00376671 4021
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1 20305U 89 86 A 90125.79021151 .00000017 00000-0 32380-4 0 1231
2 20305 82.5490 247.8897 0017481 75.4119 284.8925 13.15855819 25374
COBE
1 20322U 89 89 A 90126.52582993 .00004491 00000-0 29656-2 0 1253
2 20322 99.0186 137.1646 0008560 116.3418 243.8569 14.01999644 23655
Kvant-2
1 20335U 89 93 A 90128.95808275 .00067218 00000-0 84593-3 0 2298
2 20335 51.6244 168.2660 0009783 265.0053 94.9817 15.58963606241974
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1 20361U 89 97 A 90124.26376158 .00000015 00000-0 99999-4 0 748
2 20361 54.9715 142.0705 0058784 50.4509 310.1127 2.00578522 2849
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1 20436U 90 5 A 90128.72064256 .00000055 00000-0 34819-4 0 1868
2 20436 98.7358 203.7207 0001210 99.4886 260.6426 14.20008351 15147
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1 20437U 90 5 B 90128.18467471 -.00002912 00000-0 -11529-2 0 1334
2 20437 98.7015 204.4080 0010697 263.2419 96.7084 14.28587248 15151
UO-15
1 20438U 90 5 C 90128.27156329 -.00000070 00000-0 -19956-4 0 798
2 20438 98.7018 204.4836 0009210 272.9326 87.0806 14.28348675 15162
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2 20439 98.7042 202.7928 0010616 280.6159 79.3827 14.28697544 14916
DO-17
1 20440U 90 5 E 90128.52491509 .00000611 00000-0 25869-3 0 766
2 20440 98.7047 204.8206 0010441 277.9662 82.0333 14.28742434 15204
WO-18
1 20441U 90 5 F 90126.48601299 .00000654 00000-0 27527-3 0 758
2 20441 98.7040 202.7989 0011235 283.6659 76.3258 14.28843483 14910
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1 20442U 90 5 G 90126.41102021 .00000622 00000-0 26250-3 0 769
2 20442 98.7043 202.7345 0011264 282.6813 77.3029 14.28911423 14909
GPS BII-06
1 20452U 90 8 A 90126.43006909 .00000000 00000-0 99999-4 0 720
2 20452 54.5978 257.6754 0030665 44.1464 316.0651 2.00876980 2006
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1 20478U 90 13 A 90128.50223064 -.00000277 00000-0 -19284-3 0 2411
2 20478 99.1913 198.8851 0001430 125.4667 234.6650 13.94827589 12605
FO-20
1 20480U 90 13 C 90126.60941508 -.00000034 00000-0 -47653-4 0 740
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1 20494U 90 14 A 90128.82990727 .00011410 00000-0 15015-3 0 1294
2 20494 51.6173 168.9333 0011391 266.6715 93.4674 15.58915886241955
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1 20496U 90 15 A 90128.25869174 .00001726 00000-0 11746-3 0 1370
2 20496 43.0947 182.0270 0012727 107.3065 252.8903 15.10110598 12486
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2 20497 43.1032 164.3497 0013098 89.5363 270.6962 15.35208288 12722
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2 20523 28.3467 161.1122 0016294 119.2217 240.9986 15.03111797 8532
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1 20527U 90110.23391170 0.00000127 12989-3 0 209
2 20527 82.9406 188.7193 0030435 184.8026 175.2840 13.71244824 4285
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1 20528U 90 23 B 90116.25209824 .00000318 00000-0 33441-3 0 711
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1 20535U 90 25 C 90119.93776890 .00236304 16509-4 17720-2 0 779
2 20535 37.5934 350.2506 5957213 233.0842 56.2815 4.22207149 1462
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2 20539 63.1476 18.9963 7337411 318.6473 4.7855 2.03011371 773
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2 20540 143.1996 289.5649 0790221 324.9834 30.2856 14.38306325 5030
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Cosmos 2067
1 20552U 90116.00096998 -.00000007 0 405
2 20552 73.9808 223.6499 0039668 63.6918 296.8202 12.57707620 2504
Cosmos 2068
1 20553U 90116.10683679 -.00000007 0 405
2 20553 73.9825 223.5724 0030768 57.5033 302.8992 12.56043351 2514
Cosmos 2069
1 20554U 90116.05451226 -.00000006 0 400
2 20554 73.9822 223.7680 0021679 55.3317 304.9776 12.54315162 2509
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2 20556 73.9817 213.3030 0002572 55.7863 304.3394 12.50727585 3491
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1 20557U 90 29 J 90122.70329070 .00001049 00000-0 95280-2 0 453
2 20557 73.9852 216.8636 0148428 234.1468 124.5703 12.22657531 3258
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1 20558U 90 30 A 90118.10702338 -.00000306 00000-0 99999-4 0 434
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1 20568U 90128.55259758 0.00358175 69915-4 35317-3 0 948
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1 20570U 90 34 A 90126.05079716 -.00000335 00000-0 99999-4 0 478
2 20570 0.0485 324.3207 0025541 170.0350 225.7651 1.00268722 182
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1 20571U 90 34 B 90128.46837171 .00001618 00000-0 25665-3 0 509
2 20571 22.7564 215.1517 0628014 49.8477 315.5296 13.82044053 3391
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1 20572U 90 34 C 90120.74881329 .00016808 00000-0 18790-2 0 469
2 20572 18.9298 353.6071 7384275 190.3849 134.8717 2.17363475 368
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1 20577U 90 36 A 90125.98761081 .00000108 00000-0 10511-3 0 436
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2 20577 82.9454 145.7322 0025533 246.9162 112.9301 13.73709280 2084
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1 20578U 90 36 B 90123.06252700 .00000321 00000-0 32482-3 0 480
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2 20580 28.4710 139.9104 0005462 79.7768 280.3476 14.84172083 2120
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1 20581U 90128.54463238 0.00015451 66362-3 0 623
2 20581 74.0242 29.0983 0022380 314.0965 45.8526 15.22451424 1989
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1 20582U 90 38 B 90128.20381079 .00012109 00000-0 49720-3 0 581
2 20582 74.0305 29.7676 0027738 326.9783 32.9680 15.23895717 1939
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1 20583U 90 39 A 90128.20619738 .00000170 00000-0 72862-3 0 587
2 20583 62.8164 186.3338 7361595 288.2028 9.0028 2.00616887 259
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1 20584U 90129.00650041 0.00622640 97912-5 10655-2 0 696
2 20584 62.7747 139.7957 0198518 123.8425 238.2010 15.75159490 2028
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1 20585U 90128.87121967 0.00907339 36533-4 10200-2 0 688
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1 20586U 90 39 D 90128.33749515 .00000059 00000-0 -59815-3 0 109
2 20586 62.8110 186.2100 7402915 288.1381 9.3556 1.96428991 230
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1 20596U 90127.97485842 -.00001921 -10051-1 0 205
2 20596 63.0153 338.3885 7380724 318.2969 4.5863 2.00636250 199
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2 20597 62.8191 301.0463 0232274 119.4674 242.9830 15.68031258 1649
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1 20598U 90129.00891074 0.02602077 39200-4 10867-2 0 418
2 20598 62.8521 300.2755 0175033 122.8706 239.0278 15.96218455 1656
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1 20599U 90 40 D 90127.87298639 .00000792 00000-0 29134-2 0 157
2 20599 63.1588 338.1092 7355706 318.4265 4.6199 2.03458325 197
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1 20602U 90 41 A 90129.02221472 .00011413 00000-0 15015-3 0 104
2 20602 51.6142 167.9742 0010876 265.6195 94.5088 15.58932302 500
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1 20604U 90129.32422831 0.00556617 39078-4 26573-3 0 86
2 20604 62.8428 89.0059 0150687 65.9637 299.1184 16.00080371 255
1990 042B
1 20605U 90128.82365000 0.01844714 40335-4 88767-3 0 96
2 20605 62.8235 91.0018 0089235 117.5106 255.2482 16.11699605 178
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tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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2830. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-14 15:55:27 UTC
From: <>
Message-ID: <15780003@.HP.COM>
Source record: 11686

I have had good luck with both Kenwood and Yaesu (TH-21AT and Ft-411). The 411 uses the same battery packs/accessories as the Ft-23. I also prefer the smaller HT's so that I can carry them in my pocket. Because they are small, I can take them on lots of occaisions where I wouldn't want to have a radio hanging off of my belt. Several times I have forgotten that it is there!. Five other people here at HP in roseville have the Kenwood TH-25AT and are very happy with them. One person has both the TH-25At and the FT-411 in his family. The father prefers the TH-25AT and the son prefers the ft-411. One problem I have worried about with the newer radios is that they in general are more suseptable to intermod and interference because of the wide recieve coverage. I would think that it would be harder to keep IM and interference down on a front end that tunes 40MHz than on a front end that only tunes 4Mhz.

I guess my advice is; figure out what your requirements are and then talk to as many people as possible with different radios as possible. (I would have looked at ICOM more seriously when I bought my Ft-411 if I could have found someone that had one in my area!) If they will let you, play with the radio and see how it feels and how easy it is to operate, whether the controls are solid and in the right place (especially if you are left handed!). Don't forget to ask people where they bought it and if they have had any problem with service.

Last of all, when you get your radio, BUY THE SERVICE MANUAL. They usually cost about $15 and are well worth the cost even if you don't intend to work on it yourself. Buy it now, not three years from now when somthing breaks, the service center is out of copies and has to order it from Japan, or the local dealer says "Gee, I could fix it real soon, but I don't seem to have the service manual for your model .....". The manual is also good for figuring out what that extended receive/cellular/more memory/RS-232/etc mod really does (This may take some work , the manual gives you clues, not answers).

Good luck,

Stan

~~~~~~
~ Stan Witherspoon ~ Disclaimer ~
~ Systems Technology Division ~~~~~~~~~~~~~~~~~~~~~~~~
~ Hewlett Packard Company ~ These are my ~
~ 8010 Foothills Blvd. ~ personal opinions ~
~ Roseville Ca. 95678 ~ and do not represent ~
~ Phone: (916) 785-5071 ~ the views of anyone ~
~ RF: N6SCE ~ or anything else ~
~ Email: ucbvax!hplabs!hprpcd!stan ~
~~~~~~

2831. RE: Crossed Field Antennas (CFAs)

Newsgroup: rec.ham-radio
Date: 1990-05-14 16:02:32 UTC
From: geirha@hornet.uio.no
Message-ID: <CMM.0.88.642700952.geirha@hornet.uio.no>
Source record: 11687

I have heard something about a new antenna called Crossed Field Antenna.
This antenna is said to be as good as ordinary antennas, but is very
small in size, and can be placed in the desk, at a window. Is there
anybody out there, who has tried this kind of antenna?

-geh

2832. Re: Packet/Internet gateways

Newsgroup: rec.ham-radio
Date: 1990-05-14 16:50:43 UTC
From: neal@smcnet.smc.edu
Message-ID: <1990May14.165043.20321@smcnet.smc.edu>
Source record: 11689

In article <223.UUL1.3#5131@mvac23.UUCP> thomas@mvac23.UUCP (Thomas Lapp) writes:
>I've often seen messages on this net which have been reproduced from packet
>sources. I'm wondering if there is either 1. a gateway packet machine which
>allows someone like me to send e-mail to a packet site or 2. someone on the
>east coast of the USA who is interested in performing that function.
>internet : mvac23!thomas@udel.edu or thomas%mvac23@udel.edu
>uucp : {ucbvax,mcvax,psuvax1,uunet}!udel!mvac23!thomas

Unfortunately, this is not currently permissible. Internet permits the
seven bad words, commercial messages, and any other form of free
expression.

Under FCC rules, an Internet (as in the existing DARPA Internet) Gateway
would need *amazing* computational power to filter each message and
determine if it was commercial for sale junk, bad words, etc.

We were interested in using packet to distribute the UseNet BBS type
of news system that exists on the Internet. While the technology
was not a problem, even for 1 MegaBit Links, the Rules were a
definite obstacle.

Neal

--
Neal Pollack - Santa Monica College Telecommunications Department
N6YFM 1900 Pico Blvd., Santa Monica, CA 90405-1628
Voice: Work- 213-450-5150 x9845 Internet: neal@smc.edu
UUCP: uunet!ucla-cs!smcnet!neal or ...!csun!smcnet!neal

2833. Re: Status of the ICOM R-1

Newsgroup: rec.ham-radio
Date: 1990-05-14 16:56:20 UTC
From: bj@dc.luth.se
Message-ID: <1460@hagbard.dc.luth.se>
Source record: 11688

Hi!

I talked to the Swedish ICOM rep. (Swedish Radio Supply) today about
the availability of ICOM R1 and R100. They have starded shipping R100s
to their customers now, and expect the first batch of R1's in the
beginning of June. The person I spoke with didn't expect any trouble
in getting the R1 (they are getting the radios directly from Japan).

They have orders on the R1 covering two months of deliveries so if I
order one now, I will get it in the end of July.... There are also a
shortage of R100's, one month delivery time there.

If ICOM in the US are having trouble, perhaps there is a possibility
for some of You to buy japaneese radios from Europe :-) SRS are
accepting major credit cards etc.

(No - I am not paid by SRS to say this, I'm not even sure they're
selling things overseas.)

--Borje

Borje Josefsson, Computer centre, University of Lulea, S-951 87 Lulea, Sweden
Tel: +46 920 91 262 (direct), +46 920 91 000 (operator). Fax: +46 920 972 88

Domain: bj@dc.luth.se Path: {uunet,mcsun,sunic}!dc.luth.se!bj

2834. Re: Two scanner patents

Newsgroup: rec.ham-radio
Date: 1990-05-14 18:02:16 UTC
From: scotto@crash.cts.com
Message-ID: <2665@crash.cts.com>
Source record: 11690

In article <1990May13.221801.10819@cbnewse.att.com> parnass@cbnewse.att.com (Bob Parnass, AJ9S) writes:
>x
> TWO SCANNER PATENTS
>
> by Bob Parnass, AJ9S
>
>...
> A Channel Lockout Invention
>...
> Priority Scanning Scheme

Would these patents only apply to scanning RECEIVERS or would they also apply to scanning TRANSCEIVERS?

I have a Motorola Saber-III HT that scans with _Dual-Priority_ and _Lockout_ capabilities. Motorola calls this "SaberScan" (of course they also have scanning on their other radios) and has a TM on the name. I wonder if they must license the use of PRIORITY & LOCKOUT?

Also, IMHO, "PRIORTY" is a poor choice of wording for scanners & amateur radios that check a predetermined frequency once every X seconds. I have seen this from 2 to 5 seconds, never faster. Commerical gear, on the other hand, samples the pre-determined frequency several times a second allowing the operator to hear the entire transmission instead of the trailing carrier or "hang-time" of a repeater.
--
Scott O'Connell - KC6KFX UUCP: {nosc, hplabs!hp-sdd}!crash!ipars!scotto
ARPA: crash!ipars!scotto@nosc.mil
INET: scotto@ipars.cts.com

2835. New scanner

Newsgroup: rec.ham-radio
Date: 1990-05-14 20:28:24 UTC
From: sra@linus.UUCP
Message-ID: <108998@linus.UUCP>
Source record: 11703

I have just received information on a new AOR scanner AR1000 that features such things as 1000 channels in a hand held.

Does anyone have experience with AOR scanners and could compare them with others in their class

Stan Ames

2836. Re: Two scanner patents

Newsgroup: rec.ham-radio
Date: 1990-05-14 21:11:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500538@ux1.cso.uiuc.edu>
Source record: 11692

These patents describe circuitry techniques to achieve certain goals that are no longer needed with today's microprocessor controlled scanners.

A feature such as skipping or not skipping a single channel is actually rather primitive considering what could be done in software these days.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2837. Re: Were US scanner makers pressured to

Newsgroup: rec.ham-radio
Date: 1990-05-14 21:14:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500539@ux1.cso.uiuc.edu>
Source record: 11693

I would like to know what level of technology that is used in the radios
used by the secret service agents when they are covering the president,
vice-president or other important white house staff. I would suspect they
use the low 400 Mhz frequencies. Can someone confirm?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2838. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-14 21:16:48 UTC
From: don@gp.govt.nz
Message-ID: <1194.264f3cfe@gp.govt.nz>
Source record: 11691

In article <30500532@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>> Yaesu is still good in features (back lit keyboard in 470), and design.
>
> Can you really read EVERYTHING on it in the dark?

Most things. There are a couple of labels on the keypad that you can't
see, but they aren't terribly important.

A nice feature of some Icom HTs is the way the lamp stays on for a time
after pressing the lamp button. I wouldn't mind this feature on the my
470.

Don Stokes, ZL2TNM / / PSI%(5301)47000028::DON
Systems Programmer /GP/ Government Printing Office Postmaster@gp.govt.nz
_____/ /__Wellington__New_Zealand_____don@gp.govt.nz
There is never time to do it right, but always time to do it over.

2839. BC-654A wanted

Newsgroup: rec.ham-radio
Date: 1990-05-14 22:00:21 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005150105.AA21392@ti.com>
Source record: 11697

I'm looking for a BC-654A radio, and/or schematics. This was a WW-II radio transmitter-receiver operating in the frequency range of about 3.7 to 5.8 MHz. Any information appreciated.

Thanks,
Dube Todd N5PDK

2840. Atari Portfolio on packet = interference

Newsgroup: rec.ham-radio
Date: 1990-05-15 02:56:33 UTC
From: mka@cs.odu.edu
Message-ID: <12527@xanth.cs.odu.edu>
Source record: 11695
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I need some help from the interference gurus out there. I am trying to set up a portable packet station using a kenwood th-21at, a heathkit hk-21 tnc and a portfolio. The problem is that the portfolio creates a whining sound right around 145.01 and 223.5 Mhz. I doubt that anyone has specific info on the atari but how about some general idea on supressing computer interference that are applicable to the portfolio. I know that the computer is the culpret through the process of elimination, and the realy nice part it that it only interfers when running a program, especially the term program for it. I am going to try some other programs but it's serial port is not quite standard at the low level so I doubt that they will work, also they (the other programs) are very big. The term program for the portfolio is just over 2k and includes xmodem file transfers and programmable function key strings. Oh well, any help will be appreciated.

2841. Need QSL Info

Newsgroup: rec.ham-radio
Date: 1990-05-15 03:24:06 UTC
From: daveh@compnect.UUCP
Message-ID: <574@compnect.UUCP>
Source record: 11704

I am looking for QSL routes and/or addresses for some stations I worked during the CQ WPX phone contest March 24th. I believe most of these are special calls assigned for the contest. None of them are in the 90 callbook. I would rather not QSL via the buro because these stations are probably not known to the buro anyway. The ones I still need are ED4VPM, FF1COM, FF1MKK, PB0AIU, TM6A and Y38I.

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

2842. License Renewal

Newsgroup: rec.ham-radio
Date: 1990-05-15 04:11:31 UTC
From: 6600dong@ucsbuxa.ucsb.edu
Message-ID: <5300@hub.ucsb.edu>
Source record: 11694

Does the Ham-Radio license have to be renewed every certain years like driver's license?

2843. difference between SONY ICF-20002 and 2003???

Newsgroup: rec.ham-radio
Date: 1990-05-15 04:26:52 UTC
From: Justin_Randall_Padawer@cup.portal.com
Message-ID: <29916@cup.portal.com>
Source record: 11696
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I have a Sony ICF-2002. I notice Sony now sells the ICF-2003.
What is the difference between the two radios? For that matter,
what was the difference between the ICF-2001 and the ICF-2002?
How about it, Sony experts? Can anyone shed some needed light
on this one? --Randy

2844. MFJ address

Newsgroup: rec.ham-radio
Date: 1990-05-15 05:56:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005150702.AA03349@ucbvax.Berkeley.EDU>
Source record: 11698

Not to try and propagate any ill feelings or anything here, but I bought an MFJ half-wave telescoping antenna for the HT last year for about $16. Though some will say it doesn't help any because you don't have a ground plane, my transmission and reception improved dramatically (ANYTHING beats the ol' stubby dummy load!).

Well, I had this for only a couple months before the antenna came separated from the connector!! This was long, long ago, and I decided to just blow it off thinking how much trouble it would be to get a replacement. Now I think I would like MFJ's address, because I think they may be interested in good PR and might actually ship me a new one. So...

Anyone got the address?? Any stories about how "friendly" they are?

Thanks!

Mark C. Lowe - KB5III

MCL9337@TAMVENUS.BITNET

2845. Re: Two scanner patents

Newsgroup: rec.ham-radio
Date: 1990-05-15 06:56:06 UTC
From: mikey@pnet01.cts.com
Message-ID: <2674@crash.cts.com>
Source record: 11701

>
>I have a Motorola Saber-III HT that scans with _Dual-Priority_ and _Lockout_
>
>Also, IMHO, "PRIORTY" is a poor choice of wording for scanners & amateur
>radios that check a predetermined frequency once every X seconds. I have
>seen this from 2 to 5 seconds, never faster. Commerical gear, on the other
>hand, samples the pre-determined frequency several times a second allowing
>the operator to hear the entire transmission instead of the trailing carrier
>or "hang-time" of a repeater.
>--
>Scott O'Connell - KC6KFX UUCP: {nosc, hplabs!hp-sdd}!crash!ipars!scotto

OK, so what's your point? And will this be a long story?

****
Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
PO Box 460 ARPA: crash!pnet03!mikey@nosc.mil
Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet03!mikey
****

2846. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-15 07:01:14 UTC
From: coxc0010@ucselx.sdsu.edu
Message-ID: <1990May15.070114.20570@ucselx.sdsu.edu>
Source record: 11699

In article <4487@kd4nc.UUCP> ke4zv@kd4nc.UUCP (Gary Coffman) writes:
>This is a reply to the spate of Yaesu bashing in this thread.
thanks for standing w/ my posting, (i.e. Yaesu is not that bad!)

>pricey, and Kenmore (er Kenwood) makes some cheap HiFi equipment,
>but for the best HT for the money the FT470 has no competition.
>
>Gary KE4ZV

Kenwood makes mediocre Hi-Fi, not too cheap (Yorx from Taiwan is cheap :-)
Kenwood once makes the best affordable tuner for Hi-Fi, you ham guys should
guess the reason of Kenwood experience of RF manufacturing, and instuments
like scopes.

I'm disappointed about the audio of FT470, I wish they fix it since the FT23!
Is it better than FT23 though?

how is it compare to the IC24? audio? freq. range? functions?

73,

David
--
/***/
/* David Tse Internet: coxc0010@ucselx.sdsu.edu (expire 5/31/90) */
/* U.S. Mail: P.O. Box 15634, San Diego, CA 92115-0634, USA */
/* Organisation: San Diego State University, California, USA */

2847. Re: Boat Anchor Restoration

Newsgroup: rec.ham-radio
Date: 1990-05-15 07:36:04 UTC
From: mikey@pnet01.cts.com
Message-ID: <2675@crash.cts.com>
Source record: 11702

mgaidos@mentor.com writes:
>
> Yep, I'm one of those nuts you see at flea markets and swap meets,
>loading into my trunk some 100 lb hunk of iron that someone was relieved to
>be rid of. It's got to have green glowing dials, generate hundreds of watts
>of heat and weigh more than a Hyundai, or it's not a real receiver.
>
> My current project/basket case is a Hallicrafters SX-25 which has been
>
>Mark Gaidos

Reminds me what a nut I can be/am while at the local Ham Swap Meets. And yes, this might be a long story and no Scott, it has no point.

Being an avid buyer, I lack the spirit in the sales arena. But for a few months I did manage to get out there and try to hustle a buck. To whit, I rounded up most of my boat anchers and fork lifted them into the family ride and trucked off to younder arena at O'dark thirty O'clock in the morning.

...stuff and 3 wasted hours deleted...now the sun is out and I haven't made even coffee money yet. Well, I thinks that maybe these lead piles (did I tell you that these are Motorola Motracs, L recievers?) are getting the proper exposure sitting next to me, stacked 8 high. So I take one of 'um and move it out into the isle, so that folks would, well you know, sorta trip over it and discover precious cargo beneath their feet. Well, it worked right off in broad (sorry, BRIGHT) daylight. This guy picks it up and brings it back to me. What an idiot, he didn't wanna buy it. He thought somebody moved it. DAMB right! I had to lug the pile back out into the roadway. Always some yuck out there tryin' to screw with the advertizing.

Meanwhile, back at the sales lot. Another guy pulls it over to the other side of the seller's space. To my competition no less. Well Chuck is mad now. He's sellin' Micors and some CHP pull-outs with repeater options and he don't like my stinkin' Trac trashing up his neighborhood. He chucks (no pun) it across the road at me. Suc{er wieghs better than 80 pounds. Shoulda blown his arm out, but life's not fair. So I got my Trac back less some heat sink fins. I discretely placed it back into it's normal display location and

more stuff deleted.....

we had great giggles with that Trac. Guess you had to be there to get the idea of how much entertainment from folks tripping over a wayward Trac. Anyway, I wanted to leave the Tracs (all of 'um-didn't sell any) for the management to figure out, but Chuck sez he didn't want to get blamed for the waste, so I took them back home. Figure to use them as cornerstones on my next house.

Then there was the old boat-repeater that I bought just for the cabinet.
Weighed over 200 lbs with the junk technology inside....but that's a longer
story and has no point either.

****
Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
PO Box 460 ARPA: crash!pnet03!mikey@nosc.mil
Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet03!mikey
****

2848. Re: Morse Coding standards (non-ham question)

Newsgroup: rec.ham-radio
Date: 1990-05-15 13:09:21 UTC
From: davet@tsdiag.ccur.com
Message-ID: <958@tsdiag.ccur.com>
Source record: 11700

In article <325@ensub.Wichita.NCR.COM> msjohnso@ensub.Wichita.NCR.COM (Mark Johnson) writes:
-In article <1250157@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:

-My first name, however, has a nice swing to it, since after the initial
-double dah, it alternates:
-
_ _ . _ . _ . _ . __
- ^--------- The Freudian dah
-On top
-of that, I can't think how many times people thought they heard an extra
-dah on my last name and called me "Mary" - instant gender change :-)
-

I didn't hear it - I saw it!! A little Freudian dah? :-) :-)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

2849. Re: Boat Anchor Restoration

Newsgroup: rec.ham-radio
Date: 1990-05-15 13:53:18 UTC
From: jimallen@hpcuha.HP.COM
Message-ID: <22480001@hpcuha.HP.COM>
Source record: 11720

Mark,

I too drag off 100-200 lb. receivers
from flea markets. I am interested
in doing restorations and would also
very much like to know how to save
the letters. Please let me know if
you get a response that doesn't show
up on the BB.

Regards,

Jim Allen

Jimallen@hpcuha

2850. 3rd Party Agreements

Newsgroup: rec.ham-radio
Date: 1990-05-15 14:27:28 UTC
From: anderson@skvax1.csc.ti.com
Message-ID: <9005151506.AA04466@ti.com>
Source record: 11724

I am interested in knowing if there is any Amateur organiation that is working on increasing the number of countries that have 3rd party agreements with the US.

If there isn't, I think US amateurs should start such an endeavor. Why is the list so small?

--
John H. Anderson, N5OPY
anderson@skvax1.csc.ti.com

2851. Packet to New Guinea

Newsgroup: rec.ham-radio
Date: 1990-05-15 14:33:16 UTC
From: anderson@skvax1.csc.ti.com
Message-ID: <9005151507.AA04527@ti.com>
Source record: 11722

I have a friend in Paupau New Guinea with whom I would like to
communicate with using packet radio. We both have HF rigs and
will be getting TNCs eventually.

I was planning to use 10 meter HF, but understand only ASCII
data can be transmitted. Is this correct?

I know that binary data could be converted to ASCII, transmitted,
and then converted back. Would this be considered legal, or not?

Does anyone know any networks that work that part of the world,
that would allow me to go through them rather than attempting
a direct link.

Is there a VHF or UHF network link between here(Dallas) and there?

Thanks

John H. Anderson, N5OPY
anderson@skvax1.csc.ti.com

2852. Re: License Renewal

Newsgroup: rec.ham-radio
Date: 1990-05-15 15:41:24 UTC
From: henryb@hpspdra.HP.COM
Message-ID: <12280006@hpspdra.HP.COM>
Source record: 11707

> 6600dong@ucsbuxa.ucsb.edu (Dong Hwan Kim) / 9:11 pm May 14, 1990 /
>Does the Ham-Radio license have to be renewed every certain years like
> driver's license?

Yup, but rules vary:

U.S.A. Ten years Presently no fee
U.K. One year UK Pounds 12

Anyone care to add entries for other places please?

Henry Black (G4NOC, KK6JR) henryb@hpspd +1 415 857 6655 KK6JR @ WW6L

2853. Re: difference between SONY ICF-20002 and 2003???

Newsgroup: rec.ham-radio
Date: 1990-05-15 16:17:37 UTC
From: kirstein@spot.Colorado.EDU
Message-ID: <21152@boulder.Colorado.EDU>
Source record: 11705
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Here's one similarity; They are ALL discontinued now! The replacement is
now called the SW7600. (Confusing, isn't it.)

Dale Kirstein
Founder; Society To Stamp Out Self Indulgent .sigs And Acronyms (STSOSI.sAA)

2854. Re: Crossed Field Antennas (CFAs)

Newsgroup: rec.ham-radio
Date: 1990-05-15 17:49:13 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <52@thoreau.nsc.com>
Source record: 11706

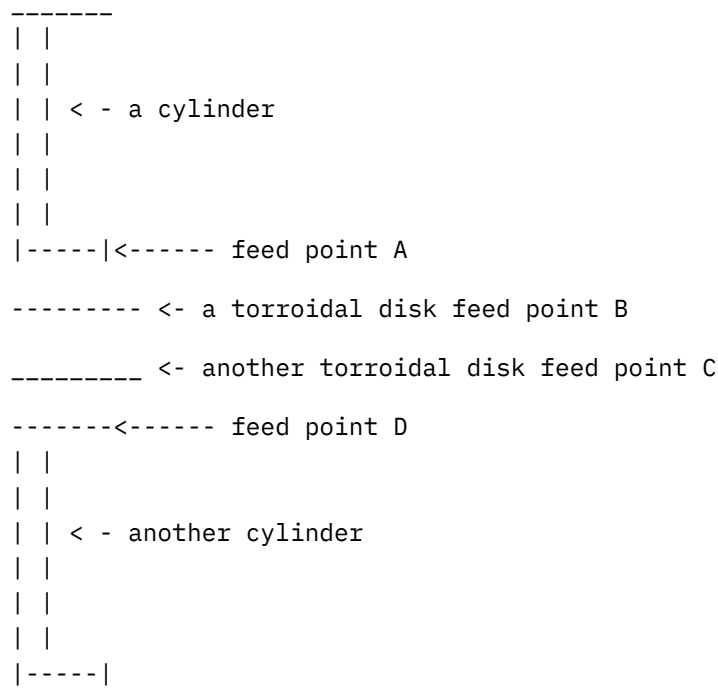
In article <CMM.0.88.642700952.geirha@hornet.uio.no>, geirha@hornet.uio.no (Geir Egil Hauge) writes:
> I have heard something about a new antenna called Crossed Field Antenna.
> This antenna is said to be as good as ordinary antennas, but is very
> small in size, and can be placed in the desk, at a window. Is there
> anybody out there, who has tried this kind of antenna?
>
> -geh

The Cross-Field Field antenna is purported to be capable of directly synthesizing the Poynting Vector. I don't have my copies of the info at hand but the relivant articles may be found in:

"Electronics and Wireless World" March 1989, Nov 1989 and March 1990.
a "flame" letter may also be found in the July 1989 issue of same magazine.

EWW is a British publication and might be found in some of the large public libraries, particularly those with technical emphasis. Some university libraries may also carry it. BTW, if any one can come up with a copy of the March 1989 article I would appreciate a copy, our library here at work lost that issue.

Schematicly the thing looks like:



The overall height is about 0.7m, cyliners are hollow and about 0.1m in diameter. The torroidal disks are about 0.15m outer diameter and 0.08m inner diameter. I don't know the spacing off hand but a good guess would be about 0.025m. The author split the drive with a phasing network and then used 300ohm twin-lead to feed the antenna. Points B and C are fed by one of the twin-lead feeds (on the inner edge of the torruses (torri?) and points A and D are fed from the other twin-lead. The feed lines come up through the lower cylinder.

That's all I have on the thing from my memory. It looks interesting as an object-d'art as well as a neat summer project. The author claims good results on 40 and 20 meters, possibly as good as his dipole. What we need is some one to put the thing through MININEC and then let's play around with it. It may be as good as the AEA loop.

Has anyone tried using surplus CATV hardline for things like the Army Loop or an home-brew version of the AEA loop?? That might be some neat material for things like that.

Ron Todd, K3FR the PATHFINDER guy

2855. Re: RE: 2 meter simple j-pole

Newsgroup: rec.ham-radio
Date: 1990-05-15 19:00:22 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005152040.AA11514@ti.com>
Source record: 11723

Perry Scott writes
> ...and an hour to kill probing for the 50 ohm point. <

Could you describe how I should go about probing for this point, and how do you know when you find it? I'm interested to find out if I can do this with just a simple SWR meter after I've done my trimming, or do I need some other equipment?

Thanks in advance,
Dube Todd

2856. New Wide Band Scanner (hand Held)

Newsgroup: rec.ham-radio
Date: 1990-05-15 19:15:51 UTC
From: ewb@raybed2.msd.ray.com
Message-ID: <1598@raybed2.msd.ray.com>
Source record: 11717

Subject: AOR AR1000

Here's the ad for the newest AOR toy:

NEW AOR SCANNER

1000 Channels, 8-600 and 805-1300 MHz

Continuous coverage (except for 600-805 MHz UHF TV)

AM, FM and WFM modes

10 scan banks, 10 search banks

selectable priority channel

*** Selectable search increments (5 to 955 KHz)

permanant memory backup

no freqs cut out (yes it does get cellular - Gasp!)

Size: 6 7/8" H x 1 3/4" D x 2 1/2" W

12 ozs weight

Price 499.00 incl shipping

Ace Communications

toll free 800 445-7717

2857. Re: Crossed Field Antennas (CFAs)

Newsgroup: rec.ham-radio
Date: 1990-05-15 19:47:01 UTC
From: kchen@Apple.COM
Message-ID: <40971@apple.Apple.COM>
Source record: 11708

Regarding the Cross-field Antenna, rtodd@thoreau.nsc.com (Ron Todd) writes:

>That's all I have on the thing from my memory. It looks interesting
>as an object-d'art as well as a neat summer project. The author claims
>good results on 40 and 20 meters, possibly as good as his dipole. What
>we need is some one to put the thing through MININEC and then let's play
>around with it. It may be as good as the AEA loop.

Can MININEC really analyse aerials of arbitrary geometry? I thought
it was only good for line antennas and arrays of line antennas. I
believe you may have to go to the original NEC to get the capabilities
of analysing the CFA. I have been waiting to get some free time to
analyse the CFA by first principles (using a computer to do the
numerical integration, of course -- I am not *that* masochistic,
just barely masochistic enough to try modelling the CFA; maybe :-).

>"Electronics and Wireless World" March 1989, Nov 1989 and March 1990.
>a "flame" letter may also be found in the July 1989 issue of same magazine.

The author of the November '89 article is also selling a kit of the
CFA in G-land. Anyone on the other side of the pond tried it?

>Schematicly the thing looks like:
>
> _______
> | |
> | |
> | | < - a cylinder
> | |
> | |
> | |
> |-----|<------ feed point A
>
> --------- <- a torroidal disk feed point B
>
> _________ <- another torroidal disk feed point C
>
> -------<------ feed point D
> | |
> | |
> | | < - another cylinder
> | |
> | |
> | |
> |-----|

An interesting variant (pretty obvious, but also written up somewhere,
I forgot where I read it now) of the above is to cut the above diagram
at the halfway point and installing a perfect ground plane there to get
the mirror of the bottom half. Another variant that occured to me is
to replace the "D-plates" by a slotted loop in this ground plane. If
you go through the field equations, you can see that the H-field generated
by the slotted loop is orthogonal to the E-field generated from the stubby
E-cylinder, satisfying the Poynting-vector junkies :-).

I wonder if there is anyone *seriously* experimenting with the CFA
who could report trustworthy real-world results to the net?

(Ron: send me a FAX number or a snail-mail address. I have the CFA
article you are missing.)

73,
Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

2858. Re: coax power handling

Newsgroup: rec.ham-radio
Date: 1990-05-15 20:27:56 UTC
From: kjh@pollux.usc.edu
Message-ID: <24716@usc.edu>
Source record: 11709

In article <102@ctbilbo.UUCP> pete@ctbilbo.UUCP (Pete Ritter) writes:
>Does anyone know the power handling capability of RG-8X?

It depends on what frequency you will be using it at. It can handle a lot more power at 80m than it can at 70cm.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2859. bounced mail to N4HGF

Newsgroup: rec.ham-radio
Date: 1990-05-15 21:34:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500540@ux1.cso.uiuc.edu>
Source record: 11713

I recently received some mail from N4HGF (Warren Tucker) which I tried to reply to. The reply address was wht@n4hgf.gatech.edu. Unfortunately the mail bounced with an error I frequently get from the host gatech.edu. I'd appreciated getting a better contact to N4HGF to thank him for the data he sent to me, and to ask him to see if he can get some pressure put in the gatech.edu mail sysadmin to clean up their act with respect to the mail routing there. It seems that it is routing the mail TO ITSELF!

> From MAILER-DAEMON@gatech.edu Tue May 15 16:19:11 1990
> Received: from gatech.edu by ux1.cso.uiuc.edu with SMTP
> (5.61+/IDA-1.2.8) id AA20422; Tue, 15 May 90 16:19:08 -0500
> Received: by gatech.edu (5.58/GATECH-8.6)
> id AA16536 for phil@ux1.cso.uiuc.edu; Tue, 15 May 90 17:15:49 EDT
> Date: Tue, 15 May 90 17:15:49 EDT
> From: MAILER-DAEMON@gatech.edu (Mail Delivery Subsystem)
> Subject: Returned mail: Service unavailable
> Message-Id: <9005152115.AA16536@gatech.edu>
> To: <phil@ux1.cso.uiuc.edu>
> Status: R
>
> ----- Transcript of session follows -----
> >>> HELO gatech.edu
> <<< 553 gatech.edu I refuse to talk to myself
> 554 <wht@n4hgf.gatech.edu>... Service unavailable: Bad file number
>
> ----- Unsent message follows -----
> Received: from ux1.cso.uiuc.edu by gatech.edu (5.58/GATECH-8.6)
> id AA16502 for ; Tue, 15 May 90 17:14:31 EDT
> Received: by ux1.cso.uiuc.edu
> (5.61+/IDA-1.2.8) id AA20221; Tue, 15 May 90 16:17:08 -0500
> Date: Tue, 15 May 90 16:17:08 -0500
> From: Phil Howard KA9WGN <phil@ux1.cso.uiuc.edu>
> Message-Id: <9005152117.AA20221@ux1.cso.uiuc.edu>
> To: wht@n4hgf.gatech.edu
> Subject: Thanks
>
> Thanks for the frequency data.
>

2860. License Fee?

Newsgroup: rec.ham-radio
Date: 1990-05-15 21:40:57 UTC
From: 6600dong@ucsbuxa.ucsb.edu
Message-ID: <5315@hub.ucsb.edu>
Source record: 11710

How much $ does it cost to get a ham-radio license?
Do I need to pay to take a test?
Where can I take the test?

The above questions sound silly, but I am learning morse code and planning to take the test soon.

2861. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-15 22:01:18 UTC
From: kenw@col.hp.com
Message-ID: <24300001@col.hp.com>
Source record: 11715

Regarding the differences in audio, and frequency ranges between the FT-470 and IC-24:

Audio - The FT-470 has relatively low audio level. Impossible to hear very well in a noisy car. The IC-24 has a louder amplifier and I feel it is acceptable.

Freq Range - Both radios have expanded VHF coverage (138-174). The IC-24 is easily modifiable to expand the UHF range as well. Believe it or not, following the modification, you will also enable the 800 MHz range. Also, it is possible to expand the VHF range to include the aircraft band (118-138 MHz). The radio includes a built-in am demodulator which automatically switches in/out depending upon the appropriate frequency. How 'bout them apples?

Ken Wyatt
(kenw@col.hp.com)

2862. Numbers Stations

Newsgroup: rec.ham-radio
Date: 1990-05-15 22:07:11 UTC
From: sorgatz@ttidcb.tti.com
Message-ID: <13474@ttidca.TTI.COM>
Source record: 11721
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <2795@husc6.harvard.edu> weir@husc8.HARVARD.EDU (Robert Weir) writes:
+I have heard an interesting "numbers station" over the past 4 months or so
+and was wondering if anyone out on the NET might have any leads as to its
+location.
+here in Boston. IT ALMOST OVERLOADS MY RECIEVER WITH THE ANTENNA UNATTACHED!
+This station is not coming from Cuba, but most likely from someplace in the
+New England area.
+Another thing that caught my attention a few days ago, was that the announcer,
+who seemed not to have an accent, does have one. She has a Boston accent, one
+I didn't notice because I am so used to it.
+If anyone has ideas, or has heard this station from other locations, please

In short OM, *NO SHIT*?!!:-) Several of us here in So.Cal traced one like this to a "fenced-off" area in the local foothills. The place was a little brick building, with a sloped roof and a heavy-duty looking generator on a small trailer. There was a trailer-mounted vertical antenna and it seemed to be connected to the building with some LARGE size coax (like about 3" dia!) and a few cables...the door was a metal-with-rivets affair. No insignias on the door, a few olive jeeps and a black Ford 4-door-staff car were parked nearby. Outside the fence, we were greeted by a regular-Army Sargent with a nasty looking M16 and told to "go away, and forget you ever saw this place...the whole area is ours...deadly force, next time, bla-blah, NOW BEAT IT!" Uhuh, right Uncle...take it easy, eh? ;-) They escorted our vehicles out of the canyon!

We traced another one to downtown L.A. on Spring Street, that's where the local FBI/CIA offices are...soooo..try looking in the phonebook and start your DFing wherever the local spys 'n' spooks hangout. When you find it, be circumspect, be polite, they have no sense of humor whatsoever and might just shoot or bag you for kicks.

Officially the government has no-comment on these stations but the fact is the US intelligence community uses number stations (just like all the rest!) to orchestrate their covert operations. Once discovered, they tend to move or disappear. The point being: Don't fuck with these people, they'll make your life miserable if you annoy them! Ordinary citizens disappear every day and no one will blame the government if you suddenly don't show up to work/school/etc....be careful!

2863. Re: Two scanner patents

Newsgroup: rec.ham-radio
Date: 1990-05-15 22:12:32 UTC
From: kenw@col.hp.com
Message-ID: <24300002@col.hp.com>
Source record: 11716

> >I have a Motorola Saber-III HT that scans with _Dual-Priority_ and _Lockout_
> >
> >Also, IMHO, "PRIORTY" is a poor choice of wording for scanners & amateur
> >radios that check a predetermined frequency once every X seconds. I have
> >seen this from 2 to 5 seconds, never faster. Commerical gear, on the other
> >hand, samples the pre-determined frequency several times a second allowing
> >the operator to hear the entire transmission instead of the trailing carrier
> >or "hang-time" of a repeater.
> >--
> >Scott O'Connell - KC6KFX UUCP: {nosc, hplabs!hp-sdd}!crash!ipars!scotto
>
>
> OK, so what's your point? And will this be a long story?
>
> Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com

Mike, I guess I don't understand your point either. I find I must agree
with Scott. Priority scan rates of several seconds is a worthless feature
in a scanner. Any manufacturers listening?

2864. Looking to correspond with VLF/LF enthusiasts

Newsgroup: rec.ham-radio
Date: 1990-05-15 22:20:58 UTC
From: dhp1@GTE.COM
Message-ID: <9111@bunny.GTE.COM>
Source record: 11711
Cross-posted to: sci.electronics,rec.ham-radio

I would like to contact (via e-mail or postal mail) other VLF/LF radio enthusiasts. This includes those interested in any aspect of VLF/LF radio, including wave propagation, homebrew receiver construction, etc.

Please respond via e-mail if possible.

2865. Corrected Version - Voice of America Broadcast Schedules

Newsgroup: rec.ham-radio
Date: 1990-05-16 00:20:50 UTC
From: eab@voa3.UUCP
Message-ID: <34@voa3.UUCP>
Source record: 11712
Cross-posted to: rec.radio.shortwave,rec.ham-radio

This is a corrected posting. My first posting included an incorrect
phone number and Internet address. My apologies.

The response to my query about posting the VOA broadcast schedule
was overwhelming. Dan Ferguson, in VOA Engineering, has agreed
to compile the information and post it in rec.radio.shortwave.
Look for it in the next few days. In addition, I am going to
suggest to Dan that he repost the schedule quarterly.

For those who asked specific questions, I'll try to answer by e-mail
or refer your questions to the proper people.

Thanks again for your input.

73 es good dxing.

--
E. Allen (Al) Brown (VOA/BBC) Voice of America
Wilber J. Cohen Building, Room G-748 Broadcast Operations
Washington, DC 20547 Computer Services Division
...uunet!voa3!eab +1 202-619-2020

2866. Re: MFJ address

Newsgroup: rec.ham-radio
Date: 1990-05-16 01:32:45 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <29934@cup.portal.com>
Source record: 11714

```
MFJ Address: MFJ ENTERPRISES, INC.
Box 494
Miss. State, MS 39762
601-323/5869
73s
"HM"
```

2867. RE: License Fee?

Newsgroup: rec.ham-radio
Date: 1990-05-16 05:37:10 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9005160545.AA22138@ti.com>
Source record: 11726

> From: TILDE::"6600dong@ucsbuxa.ucsb.edu" "Dong Hwan Kim" 15-MAY-1990 23:04:19.93
> To: info-hams-incoming
> Subj: License Fee?

> How much $ does it cost to get a ham-radio license?

The administrative fees for the exams would be as little as $4.95 if you took and passed all the tests you ever planned to take in one sitting.

If you fail a test, you are charged the administrative fee again when you return to retake the test (even if it were the same day at the same place!)

> Do I need to pay to take a test?

Not for the NOVICE. All you need for the NOVICE exam is two GENERAL CLASS or HIGHER volunteers who are at least 18 years of age and not related to you. They are responsible for all the paperwork and scheduling.

TECHNICIAN, GENERAL, ADVANCED, and EXTRA all are administered under the VOLUNTEER EXAMINER (VE) system, and an administrative charge (currently $4.95) per sitting is required. A VE Session is held by accredited Volunteer Examiners (usually associated with a radio club or event). Three VEs must be present and none of them may be related to you.

By the way, you can take the NOVICE at a VE session, too.

> Where can I take the test?
>

VE sessions are held periodically in many cities. If you are not near a town where regular sessions are held, look for a hamfest you can go to. Tests are given at many hamfests under the VE system.

If you know any local clubs or hams, ask them. If there is an electronics store nearby (especially one that carries ham radio equipment!) they will have test schedules posted. A college or universities may have a radio club, and Community Colleges or Vocational Centers sometimes even have classes and host testing sessions.

If you can't find anything obvious, call or write the American Radio Relay League, 225 Main Street, Newington Connecticut 06111, (203) 666-1544.

(We had a guy do that here in Dallas, and they gave him our club's address. Another member and I dropped by his house one evening after work and gave him the NOVICE code and written exams. He passed, and is now KB5MIJ!!)

Or, if all else fails, Email or call me; I can check some other sources for your area.

CHECK WITH YOUR LOCAL VE TEAM REGARDING PREPARATIONS FOR THE EXAM!
YOU MAY BE ASKED TO BRING YOUR OWN PENCILS, SCRATCH PAPER, BLACK
OR BLUE PEN FOR SIGNING FORMS, AND CALCULATOR.

PLAN TO BRING SUFFICIENT IDENTIFICATION (DRIVER'S LICENSE WITH PHOTO
IS GOOD!) SOME VE TEAMS REQUIRE *-TWO-* FORMS OF ID!

IF YOU HAVE ANY LICENSE OR CERTIFICATE THAT PROVES YOU HAVE CREDIT
FOR EXAM ELEMENTS YOU SHOULD BRING *-BOTH-* THE ORIGINAL AND A
PHOTOCOPY SINCE A COPY WILL NEED TO BE FILED WITH YOUR APPLICATION.

YOU ARE NORMALLY GIVEN ALL THE TIME YOU NEED TO FINISH THE EXAM.
PLAN YOUR TIME ACCORDINGLY. ARRIVE ON TIME OR A LITTLE EARLY.

> The above questions sound silly, but I am learning morse code and planning
> to take the test soon.
>

No, they don't sound silly. Everyone has to learn somehow, and this is a
good place to ask.

GOOD LUCK!

Bob West WA8YCD
Texins Amateur Radio Club
Dallas Texas
(214) 917-1908

RLWEST@FLOPN2.CSC.TI.COM

2868. Boat anchors

Newsgroup: rec.ham-radio
Date: 1990-05-16 05:44:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005160750.AA00515@ucbvax.Berkeley.EDU>
Source record: 11725

We have used an old army GRC-10 field transceiver as a coffee table in our apartment for about two years. It is three separate units mounted on a large base that was meant to be bolted to a jeep. It weighs almost 200 pounds, and we are thinking of using it to hold up my car today while I do my own brake drum re-turn with sand paper, using the rear axle as a lathe!

It's a beauty of a boat anchor, but it has its uses!!

Yes, we are college students (and especially Texas Aggies!)

Mark C. "Bro!" Lowe - KB5III

MCL9337@TAMVENUS.BITNET

PS- I just got my VE accreditation from ARRL yesterday. Scary, eh?

2869. Teletype Model 43s for sale

Newsgroup: rec.ham-radio
Date: 1990-05-16 06:00:24 UTC
From: alex@grian.cps.altadena.ca.us
Message-ID: <1990May16.060024.14132@grian.cps.altadena.ca.us>
Source record: 11718
Cross-posted to: rec.ham-radio,comp.misc.forsale

I've got a whole buuuunch of Teletype Model 43 KSR terminals, some with RS-232, some with built-in 300 baud modems. They're all in good shape, service pulls, known working. Great for any low-speed printing application, transaction recording, SMDR printing, what have you.

I'll throw in two ribbons (black, unused) per TTY, too. You can buy 'em for (no lie!) $15 each, or $25 a pair, F.O.B. Pasadena CA, plus UPS COD shipping (at our cost, straight off the UPS chart). If you're interested, please contact:

Workman & Associates
1925 East Mountain Street
Pasadena, CA 91104
818-791-7979
fax:794-2297
bbs:791-1013 8N1 24/12/3

Catch? None! I have quite a few more than I need, and would like to find good homes for them. Heck, at this price you can use them for targets!

If you'd like a quantity, call and we'll wrangle.

Alex
--
Alex Pournelle, freelance thinker
Also: Workman & Associates, Data recovery for PCs, Macs, others
...elroy!grian!alex; BIX: alex; voice: (818) 791-7979
fax: (818) 794-2297 bbs: 791-1013; 8N1 24/12/3

2870. TO MOTOROLA HAM CLUB MEMBER...

Newsgroup: rec.ham-radio
Date: 1990-05-16 06:49:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9005160750.AA00532@ucbvax.Berkeley.EDU>
Source record: 11577

THIS MESSAGE IS FOR THE GENTLEMAN WHO ANSWERED MY QUESTION RE: PROGRAMMING
AN MX-330S. SORRY... DON'T HAVE YOU NAME OR ADDRESS SO HOPE THIS MESSAGE GETS
TO YOU. MY MAIL WASN'T FORWARDABLE DIRECT.

SORRY FOR THE DELAY IS ANSWERING YOUR MESSAGE...
THANKS FOR YOUR RESPONSE CONCERNING THE PROGRAMMING INFORMATION ON THE
MX-330 PROM. I HAVE A NEW PROM WITH 48 EMPTY SLOTS (12 X 4). ALL THE
FREQUENCIES I'D LIKE TO HAVE BURNED IN ARE ON THE 2 METER HAM BAND SO THERE IS
NO COMMERCIAL INTENT HERE. MY CALSIGN IS WB2JBS. I'M NOW PORTABLE 4X AS I'M
WITH A FAB OF INTEL ELECTRONICS HERE. I ACQUIRED THE MX-330S WHEN I WAS AT THE
DAYTON HAMVENTION - I WAS LOOKING FOR ONE FOR QUITE SOME TIME... NOW ALL I HAVE
TO DO IS GET IT ON FREQUENCY !. PLEASE SEND ME THE PERTINENT INFORMATION
IF YOU CAN HELP AND I WILL FOLLOW UP IMMEDIATELY.
E-MAIL SEEMS TO WORK WELL BETWEEN US...

THANKS AND 73
RICHARD HAREL
WB2JBS/4X

2871. RE: Scanning Low end of UHF Spectrum

Newsgroup: rec.ham-radio
Date: 1990-05-16 11:23:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9005170904.AA25804@ucbvax.Berkeley.EDU>
Source record: 11595
Body handling: HTML body converted to readable text

| no matter what the particular issue is all about.

Actually Phil, they're on VHF around 167 Mhz. (You can also know the exact frequency by asking around or by checking out some of the "Secret Government Freq. Listings" directories. Don't get your hope up too high - they're on DVP mode - all you'll hear is white noise when they transmit and a short tone burst at the end of every transmission (this let's the agent know that the DVP feature on the radio is still working - the DVP "Key" is easily erased by dis-connecting the battery when the radio is on). This "key" is a 64 bit algorythm developed by Motorola. It's based on the NIST 72 bit Data Encryption Standard (DES). The NSA rolled it's own form of voice encryption code named "Fascinator" used by the President and "above". Some agencies are now using another high level encryption method called RSA. Unless you have a super-computer and know how to tackle the problem, this stuff will remain encrypted the way it was meant to be... there's always the Japanese who might put "DVP decoding" features in their hand-held scanners one day.

73,
4X1DA
RICHARD HAREL
****
Disclaimer:
My Employer in no way warrents these ideas, opinions, comments etc. I am responsible for my actions...
****

2872. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-16 12:57:20 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <4384@ubbs-nh.MV.COM>
Source record: 11719

In article <18230011@col.hp.com> kenw@col.hp.com (Ken Wyatt) writes:
>I second John's opinions above. Particular brands to stay away from (in
>my opinion) are Yeasu (all of them) and probably some models of Kenwood.
>Also, the Icom IC-24AT might be one to avoid for a while until they start
>selling a better antenna (poor gain compared to other dual band flex types)
>and improving the display readability. Yeasu radios typically have poorly
>designed receivers and are subject to intermod and spurious reception.

Geez! I wish people (like you) would be just a little more conservative
in their remarks concerning other manufacturers equipment, especially
when you admit that you have never owned a Yaesu!

I won't comment on all of the HT's available on the market, however, I
would like to say that I am ESPECIALLY pleased with my Yaesu FT-470 dual
band HT.

This rig has everything! built in no less without ANY additional expense.
It is nearly as small as the ICOM IC-24 (appearances can be decieving),
has built in encode/decode, crossband repeat and extended vhf recieve
without modification. The list of features goes on and on. Yaesu did
have a problem with intermod on early versions of the rig, but that has
been fixed and they are upgrading older units.

The best part is the radio is commonly available for less than $400.

Now if I could only find a mobile rig that does all that the 470 does..
sorry folks... it isn't available, not even from Yaesu (dumbies!).

Two other points, the intermod problem that all manufacturers are
suffering are due in large part to the demand by Amatuers for extended
recieve on their HT's. If you open up the front end to allow extended
recieve your bound to suffer intermod to some degree or another.

Final point.... all of my vhf/uhf gear has historically been ICOM, but
you can't beat the 470 for all around performance AND price. ICOM's
nearest is the IC-24 at $570+, and then you still have to buy extras.

Heck... I liked it so much I bought two!

Noel
KC1RB
>
>I have purchased many Icom models and one Kenwood. Although Icom seems
>a bit stodgy (conservative) regarding features, they seem to make a very
>high quality and reliable product. The one Kenwood I bought (TH-21) has
>had nothing but problems.
>

>The IC-2AT was a good model, but has no memories (thumbwheel switches set
>a single freq at a time). The IC-02AT was a good general purpose radio
>with all the features you are desiring. The IC-2GAT is also good if you
>want to run up to 7 watts of power. However, there is a tradeoff between
>power and battery life. I feel that 2-4 watts is a good range to stick
>with as you will still have adequate operating life, plus most repeaters
>will work fine with those power levels; especially in Colorado where most
>repeaters are 3 to 5 thousand feet above you! Icom also has very good
>service support. They have provided me with small parts for free and are
>always very helpful. Kenwood also seems to have good service support, but
>I recently had to order an electret microphone element for my TH-21. The
>mic element was about the size of an aspirin tablet and weighed maybe all
>of 1/100th of an ounce, but they insisted on charging $4.00 for "shipping
>and handling"! The part itself wasn't so bad (about 5.50).
>
>As an aside, when I owned the IC-2AT, I was riding my motorcycle/sidecar
>rig down the highway at about 45 mph. It came unclipped from my belt,
>fell to the pavement, bounced up and hit the bottom of the sidecar, and
>again hit the pavement, then slid along the ground for a while. After
>all that, it still worked ok! Nice rig. I now have a IC-32AT and have
>come to really love it. At $550, it is not the cheapest radio, but it
>covers both 2m and 440MHz, has 20 memories, and can receive public
>service on VHF-Highband and UHF (with some simple mods).

--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

2873. Coax power rating.

Newsgroup: rec.ham-radio
Date: 1990-05-16 13:23:41 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <16.May.90.14
Source record: 11594

How much power can a piece of coax handle? Well, it depends on what is at the
end! With a perfectly matched load, your coax will actually handle a lot
more power than with a mismatched load. Mismatch generates standing waves
(hence current and voltage nodes) due to the energy reflected from the load.
A perfectly matched load absorbs all the energy fed into it, so no reflection
and no standing waves. This state of nirvana is rarely, if ever, achieved in
the real world, despite what antenna makers wish to tell us.
I have pushed 400 watts down a length of RG58 when it has been properly matched
(that is, feeding a dummy load) yet similarly i have seen flashover
at 200 watts on the same feedline with chronic feeder mismatch (open circuit
at antenna feedpoint;. Oooer!). Of course, feeder losses will also increase
with increased mismatch - the ultimate feeder loss being when it flashes
over or cooks the dielectric... exit one length of feeder :-)

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 86.437.5

2874. Re: License Renewal

Newsgroup: rec.ham-radio
Date: 1990-05-16 14:26:45 UTC
From: rsanders@watserv1.waterloo.edu
Message-ID: <1990May16.142645.18651@watserv1.waterloo.edu>
Source record: 11578

In Canada we have to renew our Station Licence every year (currently $22).
Our Operators Certificate is good for life.

--
Roger Sanderson P.Eng. VE3RKS :
usenet: {clyde|decvax|ihnp4|tektronix|ubc-vision|utzoo}!watmath!watdcsu!rsanders
bitnet: rsanders@watserv1.UWaterloo.ca
internet: rsanders@watserv1.waterloo.edu

2875. Re: Automatic antenna trackers...

Newsgroup: rec.ham-radio
Date: 1990-05-16 14:59:59 UTC
From: brian@ucsd.Edu
Message-ID: <13710@ucsd.Edu>
Source record: 11579

In article <195@nachos.SSESCO.com> elmquist@nachos.SSESCO.com (Chris Elmquist) writes:
>I've seen the Kansas City Tracker package... but am wondering what
>other choices are out there. I thought I once saw a posting on here
>about someone who was building a 'generic tracking box' that hooked
>to the RS232 of the computer. Is this real? Are they still working
>on the project? Does anyone know?

I don't know if it is I that you were referring to, but I was designing such a widget. It turned out to be MUCH easier to build an on-the-PC-bus card for driving a rotor, with a TSR to drive it. What you need is an Analog-to-Digital Converter to read the rotor position, and a couple of bits of parallel port to drive the rotators.

I built mine from a JDR Microdevices PC breadboard card (the one with all the bus interface and address decoding on the board already), an ADC0809 chip, an 8255 chip, and some transistors. Total cost, around $30 or so. Took an evening to build it.

Software to drive it took another two evenings; it's a short program in assembler that just samples the ADC and compares it with a desired value that's fed to it from the InstantTrak tracking program. It's compatable with the Kansas City Tracker calls that IT uses; if you're using some other program it might not be.

I'm planning to add two serial ports to the card (probably an SIO or a dual 8250 or something like that) so that it can talk to the controllers inside my radios and do tuning and such. Haven't done that yet; part of the reason is that several of the tracking program principals aren't yet in agreement over how to pass the value for 'range rate' (change in distance between you and the bird, which determines the doppler shift).
- Brian

2876. Armed Forces Day. What frequencies will be used???

Newsgroup: rec.ham-radio
Date: 1990-05-16 15:35:40 UTC
From: georgez@synopsys.com
Message-ID: <512@synopsys.COM>
Source record: 11581

Does anyone out there in ham radio land know what the schedule is for Armed Forces Day? Do you have a list of the stations, times and frequencies and modes they will be operating? Thanks alot.

73 de George KJ6VU aka: georgez@synopsys.com

2877. Re: RE: Crossed Field Antennas (CFAs)

Newsgroup: rec.ham-radio
Date: 1990-05-16 15:37:57 UTC
From: jsb@hpfinote.HP.COM
Message-ID: <16170015@hpfinote.HP.COM>
Source record: 11586

Ok, what is an 'Army Loop'? As an avid antenna experimenter this CFA discussion is very interesting, and I would like to receive more info on the antenna. I would also like someone to email me a discription of an Army loop.

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J Volunteer Examiner
ARRL/FCC Field Operations Bureau, Official Observer

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

2878. How is Dove?

Newsgroup: rec.ham-radio
Date: 1990-05-16 16:58:51 UTC
From: jsb@hpfinote.HP.COM
Message-ID: <16170016@hpfinote.HP.COM>
Source record: 11587

What is the latest on Dove? It's been some time sence we've heard how
the software upload is progressing.

--... ...-- --... ...-- -.. . .-- --- ----- .---
Jeff Beauprez WO0J

Hewlett-Packard CICD R&D jsb@hpfijsb.HP.COM
3400 E. Harmony Rd (303)229-3964
Ft. Collins, CO 80525
--.- .-. .--. .. -. - .... . .-. --- -.-. -.- .. . ...

2879. Re: Numbers Stations

Newsgroup: rec.ham-radio
Date: 1990-05-16 18:11:43 UTC
From: haynes@ucscc.UCSC.EDU
Message-ID: <3491@darkstar.ucsc.edu>
Source record: 11580
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <13474@ttidca.TTI.COM> sorgatz@ttidcb.tti.com (Erik Sorgatz - Avatar) writes:

>were greeted by a regular-Army Sargent with a nasty looking M16 and told
>to "go away, and forget you ever saw this place...the whole area is
>ours...deadly force, next time, bla-blah, NOW BEAT IT!" Uhuh, right
>Uncle...take it easy, eh? ;-) They escorted our vehicles out of the
>canyon!
---
all of which underscores the existence of a cult-like security
mentality in certain government agencies. Their codes are presumably
secure; their transmissions can be monitored by anybody; their
site can be found by anybody by DF-ing; they are not located in a
war zone where they're likely to be overrun by a raiding party at
any moment. They have nothing to fear from ordinary citizens
knowing the location and purpose of the site. It's safe to assume
that any "enemy secret agents" already know these things, if they
want to. Pardon me for sounding political and cynical...
haynes@ucscc.ucsc.edu
haynes@ucscc.bitnet
..ucbvax!ucscc!haynes

"Any clod can have the facts, but having opinions is an Art."
Charles McCabe, San Francisco Chronicle

2880. 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-16 18:27:26 UTC
From: jc@suprtek
Message-ID: <188@suprtek>
Source record: 11592
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

Hi. I am a member of Group 70 which is building a large amateur astronomical observatory. We eventually intend to have it completely automated (remote controlled ?) and need a very accurate clock for the observatory.

I believe that NIST?(NBS)transmits a very accurate clock on 60khz, Could someone give me information about how I could use this to calibrate a local clock? We need absolute time that is accurate to better that +- 300 microseconsd of course, greater accuracy ie even better for astrometric purposes.

I have looked at a 8 year old copy of the 559 manual but it makes no mention of the 60Khz signals.

Thanks

John Cincotta N6PLR
home phone 415 790-9382
work phone 408 727-5749

2881. Re: License Renewal

Newsgroup: rec.ham-radio
Date: 1990-05-16 19:09:14 UTC
From: tad@ssc.UUCP
Message-ID: <722@ssc.UUCP>
Source record: 11599

In article <5300@hub.ucsb.edu>, 6600dong@ucsbuxa.ucsb.edu (Dong Hwan Kim) writes:
> Does the Ham-Radio license have to be renewed every certain years like driver's license?

Yes, every ten years. A few years back the license term increased from
five to ten years. This is true for all license classes. The same
Form 610 that is used for change of address and modification to the
license is used. There is no re-examination required.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2882. DAK MR-101 receiver summary

Newsgroup: rec.ham-radio
Date: 1990-05-16 19:27:18 UTC
From: jvb7u@astsun.astro.Virginia.EDU
Message-ID: <1990May16.192718.22219@murdoch.acc.Virginia.EDU>
Source record: 11582

OK, OK, enough! I'm tired of seeing requests for info on the DAK receiver, so I decided to pare down my file on it and post what I have along with my own observations (mine arrive on Monday 5/14). First, my observations:

It's noisy and not very sensitive. I guess it works better than my old Heathkit GR-64 five tube set, but definitely not up to the better sets. With a 50 foot long wire, it is not the equal to my Hammarlund HQ-180 with a 3 foot wire dropped on the floor. The Hammarlund was pulled from a dumpster and with the exception of cleaning, straightening the tuning cap plates and replacing the VFO tube, it hasn't been touched. I have no idea how out of alignment it really is.

AM and FM performance is VERY bad. My daughter's $39 Emerson boom box pulls in stations (and sounds better) than the DAK set. Sound quality is harsh and garbled on some stations.

I monitored a pile-up on 40 meters last night with my Hammarlund. It was able to separate stations quite well with the 2kHz selectivity. The DAK was hopeless.. my guess is at least 10 kHz selectivity. I also tuned it WWV at 15 mHz with a good signal and found an image at 14.100 mHz that was almost as strong as the original. Reminds me of the GR-64 ;`) I also get an RTTY signal on the AM band at 1260 kHz, so image rejection there must be poor also.

I also monitored several stations that had severe fading. The ANL on the DAK radio has about a few second time constant, so that it didn't help much. The Hammarlund worked fine!

My recommendation: If you're a casual listener and don't care to listen to anything but strong stations (WWV, VOA, BBC, etc), this is a bargain, otherwise, look elsewhere.

Jon

Jon Brinkmann Astronomy Department
Internet: jvb7u@Virginia.EDU University of Virginia
UUCP: ...!uunet!virginia!jvb7u P.O. Box 3818
SPAN/HEPnet: 6654::jvb7u Charlottesville, VA 22903-0818

Date: Sun, 1 Apr 90 17:13:06 edt
From: Peter J. Dotzauer <pjd@hpuxa.ircc.ohio-state.edu>
To: kavan@amarna.gsfc.nasa.gov
Subject: Re: Request for Info on DAK radio

Newsgroups: rec.radio.shortwave
In-Reply-To: <1498@dftsrv.gsfc.nasa.gov>
Organization: Ohio State Univ IRCC

I've had one for two weeks now. I ordered it because of the digital frequency readout, and that 'PLL' stuff that supposedly is the best for SW (although I don't excatly know what it is).

However, the shortwave is disappointing. I don't know if it is the receiver or the antenna, or something else. I have a 14 year old Telefunken radio casette, and although I have to play patiently with the analog dial (and never know what frequency is exactly tuned), I usually get the Deutsche Welle as clear as a bell, whereas on the DAK I often don't get it at all, or it's with a noisy background.

I'll keep the DAK, though, for other reasons. It's a neat little AM/FM receiver with digital frequency readout and station buttons, and it's also a radio alarm clock (when it's turned off, you see the clock in the digital display). It has adapters for AC, external antenna (for better shortwave reception, I suppose), and headphones). With good headphones, it has a reasonably good sound, and the amplifier has plenty of reserves you'll never use.

Regards
--
Peter Dotzauer, Numerical Cartography Lab, Dept of Geography, OSU, Columbus, OH
VOICE (614) 292-1357 FAX (614) 292-6213 DATA (614) 293-0081
BITNET pjd@ohstvmb UUCP ...!osu-cis!hpuxa.ircc.ohio-state.edu!pjd
FIDO 1:226/330 INTERNET pjd@hpuxa.ircc.ohio-state.edu [128.146.1.5]

Date: Sun, 1 Apr 90 22:41:36 edt
From: Peter J. Dotzauer <pjd@hpuxa.ircc.ohio-state.edu>
To: KAVAN@amarna.gsfc.nasa.gov, pjd@hpuxa.ircc.ohio-state.edu
Subject: Re: Request for Info on DAK radio

Kavan:

No, it has just one timer. Actually, the SW is not quite as bad as I may have described it. Especially if you go outside and play around with the antenna, you get quite a few stations, at least in the 49 m band (my favorite band), with reasonably low-noise reception. So the problem may actually be in the antenna; at this point, I don't know.

On the other hand, my old Telefunken keeps astonishing me. When I bought it in 1976, I didn't even worry about shortwave, I just needed a portable radio recorder. Then I find that it has not only quite good short-wave reception. You'd have to get an expensive stereo to match the sound quality (over good earphones). I really wish I'd find a similar compact unit with all these qualities, PLUS digital frequency readout. ... Well, just got carried away a bit.

Regards,
Peter

Article 1307 of rec.radio.shortwave:
Path: murdoch!uvaarpa!haven!aplcen!uakari.primate.wisc.edu!zaphod.mps.ohio-state.edu!tut.cis.ohio-state.edu!nisca.ircc.ohio-state.edu!hpuxa.ircc.ohio-state.edu!pjd
From: pjd@hpuxa.ircc.ohio-state.edu (Peter J. Dotzauer)
Newsgroups: rec.radio.shortwave
Subject: DAK details & experiences
Message-ID: <956@nisca.ircc.ohio-state.edu>
Date: 6 Apr 90 02:01:39 GMT
References: not bad for a $50 unit?
Sender: news@nisca.ircc.ohio-state.edu
Distribution: usa
Organization: Ohio State Univ IRCC
Lines: 52

Due to popular demand, here are some details about the $50 DAK MR-101. First, I was positively surprised to find that the small unit (7 x 4 1/2 x 1 1/2 ", one pound) not only had an external antenna jack, but also a headphone jack and a connector for a 6V DC power converter, such that you don't have to 'subside' on batteries alone. Normally, the thing is powered by six AA cells.

The amplification is more than adequate, and the sound is reasonably adequate with headphones. When it is off, the time shows in the LCD display, with a 'ticking' mark for the seconds. So far (for about 2 weeks), the clock has been accurate.

Shortwave tuning is in 5 Khz increments. There is nothing to show signal strength. Since I don't have much experience with SW radios and nothing suitable to compare it to, I submit a test of the 49 m band (5,800 to 6,200 Khz). The test was done at 9:30 p.m. EDT in Columbus, OH. I am listing the stations with what I consider 'usable' reception. That includes stations with various levels of background noise, but not that much that you can't make out the actual broadcast anymore. I just categorize them into 'relatively noise-free' (default) and 'noisy' (I did not attempt to identify the stations - just happen to know that at 6040 Khz was Deutsche Welle).

Khz	reception
5850	noisy
5945	noisy
5950	
5960	
5975	
5980	noisy
5985	
5995	
6040	
6050	noisy
6130	
6145	noisy
6165	
6175	noisy

6180 noisy
6119

Some stations came in as clear as a bell. On other days, and later at night, I received Deutsche Welle at 6075, and Swiss Radio Int'l at 6135 (the latter a bit noisy).

I hope this amateurish benchmark test gives the pros among you some idea about the DAK. Given the above, I would also like to know what YOU think.
-=-
Peter Dotzauer, Numerical Cartography Lab, Dept of Geography, OSU, Columbus, OH
VOICE (614) 292-1357 FAX (614) 292-6213 DATA (614) 293-0081
BITNET pjd@ohstvmb UUCP ...!osu-cis!hpuxa.ircc.ohio-state.edu!pjd
FIDO 1:226/330 INTERNET pjd@hpuxa.ircc.ohio-state.edu [128.146.1.5]

Article 1317 of rec.radio.shortwave:
Path: murdoch!uvaarpa!haven!aplcen!uakari.primate.wisc.edu!brutus.cs.uiuc.edu!psuvax1!psuvm!cunyvm!ndsuvm1!plains!KSRAO@POWER
From: ksrao@power.eee.ndsu.nodak.edu (K. Sankara Rao)
Newsgroups: rec.radio.shortwave
Subject: DAK Radio
Message-ID: <00934C3D.3A5C25E0@POWER>
Date: 6 Apr 90 00:39:03 GMT
Sender: Unknown@plains.UUCP
Reply-To: ksrao@power.eee.ndsu.nodak.edu (K. Sankara Rao)
Organization: EEE dept. NDSU
Lines: 33

I received my DAK radio, finally, this afternoon. Here are my first imressions:

The sensitivity seems pretty decent. Something similar to Sony 2001. I was able to receive BBC (15260), RA (21470) and some other station. A notable one was All Idia Radio External Service at 1300 UTC on 15110. The weather and prpagation were good today. I have thirty days to see whether it is worth keeping.

On the negative side:

It has two bands The upper band starts at 9500 and goes to 26000. So some of the 31 meter stations (like 9400) cannot be picked up.

It does not have direct tuning. So it is not very quick to go from one station to the other unless it is one of the six preset frequencies.

The frequency steps are in 5 kHz and not 1 kHz.

All in all it seems to be good radio to take along to office or on atrip so as not to miss your favourite BBC sports roundup or some some such program.

It is made in China and I do not know if it is a licensed clone of the Phillips radio.

I'll give a detailed account of my impressions in a day or two if
nobody does it so by then.

K. Sankara Rao ksrao@power.eee.ndsu.nodak.edu
Department of Electrical Engineering
North Dakota State University, Fargo

Article 1349 of rec.radio.shortwave:
Path: murdoch!uvaarpa!haven!aplcen!uunet!tut.cis.ohio-state.edu!snorkelwacker!husc6!m2c!um
vlsi!dime!forster
From: forster@cs.umass.edu
Newsgroups: rec.radio.shortwave
Subject: DAK radio
Message-ID: <12668@dime.cs.umass.edu>
Date: 8 Apr 90 03:25:14 GMT
Sender: news@dime.cs.umass.edu
Organization: COINS, UMass, Amherst
Lines: 15

I heard a review of the DAK receiver on Radio Canada International this
evening. I don't remember all the details, but there were pluses and minuses.
It's apparently a very good deal for the $49.90, but there are some caveats: 1.
it's made in the PRC (they're having cash flow problems since that little
`incident' with the tanks, not surprisingly), 2. there's no tuning knob
(instead they have a few station select buttons and a couple of buttons to scan
with), 3. it's not very sensitive (apparently only people in coastal areas
will do well with reception), and 4. the 5 kHz jumps between frequencies limit
its useability outside of North America. Caveat number 1 was enough to kill it
for me.

Disclaimer: I am only reporting what I remember of the review. I have never
seen the DAK receiver myself, and have nothing to do with DAK or the PRC.

- David Forster

Article 1390 of rec.radio.shortwave:
Path:
murdoch!uvaarpa!haven!aplcen!uakari.primate.wisc.edu!dali!milton!uw-beaver!cornell!chandra
From: chandra@mimir.cs.cornell.edu (Tushar D Chandra)
Newsgroups: rec.radio.shortwave
Subject: DAK shortwave blues.
Keywords: Lemon.
Message-ID: <39795@cornell.UUCP>
Date: 12 Apr 90 18:28:47 GMT
Sender: nobody@cornell.UUCP
Reply-To: chandra@cs.cornell.edu (Tushar D Chandra)
Distribution: usa
Organization: Cornell Univ. CS Dept, Ithaca NY
Lines: 30

Hello world!

While playing around with the DAK I discovered some strange anomolies:

1. It performs quite well WITHOUT its antenna extended.
2. When I use the antenna, its reception improves marginally (if at all).
3. When I use an external antenna and plug it into the external antenna
socket, its reception DEGRADEs dramatically.
4. When I attach an external antenna to the regular antenna, reception
improves.
5. If I partially insert the external antenna into the headphone socket,
reception improves.

To give you an idea of how it performs: I compared the DAK with a SONY SW1S
and a 2001 and found that the reception on the DAK is much worse than the
SONYs. As noted above, my DAK without its antenna extended receives better
than the SW1 without its antenna but then who cares about that?

Further when I tuned into BBC at 5975 Khz, the DAK added a loud whine to
the BBC transmission. I'm certain this whine is introduced by the SW rather
than some external source because neither SONY picked it up.

All in all I'm pretty disappointed by the DAK. I'd like to know what other
people feel about their DAKs - maybe I got a lemon. I suspect that my
antenna is grounded. Any suggestions, comments?

Going back to TV

-Tushar Chandra
email-chandra@cs.cornell.edu

Article 1394 of rec.radio.shortwave:
Path: murdoch!uvaarpa!haven!aplcen!uakari.primate.wisc.edu!zaphod.mps.ohio-state.edu!usc!v
enera.isi.edu!mittal
From: mittal@venera.isi.edu (Vibhu O. Mittal)
Newsgroups: rec.radio.shortwave
Subject: The DAK Radio
Message-ID: <12881@venera.isi.edu>
Date: 12 Apr 90 23:30:37 GMT
Reply-To: mittal@venera.isi.edu (Vibhu O. Mittal)
Distribution: usa
Organization: USC/Information Sciences Institute
Lines: 11

Well, my $50 DAK radio has conked already. The Power switch stopped working,
so I used the "Sleep" button to turn it on, and even that went today. I
can not turn on the radio now at all. It'll go back to DAK today.

What I'm wondering is -- how is the $200 unit by Sangean that DAK advertises
in its latest catalog ? The one with direct entry tuning and so on? How would
that compare with the SONYs/PANASONICs in that price range?

Thanks in advance,

Vibhu Mittal

Article 1412 of rec.radio.shortwave:
Path: murdoch!uvaarpa!haven!aplcen!uakari.primate.wisc.edu!zaphod.mps.ohio-state.edu!mips!
prls!pyramid!infmx!marc

From: marc@infmx.UUCP (Marc Kenig)
Newsgroups: rec.radio.shortwave
Subject: DAK radio
Keywords: cheap imitation
Message-ID: <3860@infmx.UUCP>
Date: 13 Apr 90 17:10:38 GMT
Organization: Informix Software Inc., Menlo Park, CA.
Lines: 58

In article <2774@hudson.acc.virginia.edu> (Jon Brinkmann) writes:
>...The DAK is not
>the Philips AE-3805 (although my bet is that it's a clone!)...

Right you are. I had hoped to post a review of the receiver by now, since mine finally came last week. Unfortunately, I had a case of infant mortality: somethings blown in the radio's amp, and even turning it up full blast I barely get any sound.

Since it could have been a simple short or loose wire or something, I couldn't resist opening it (if anybody tells DAK, I'll scream since I'm returning it). The answer is:

ACE ELECTRONICS, China. Printed on the circuit board.

Mini review:

The radio *feels* cheap. The volume slide pot is extremely wimpy, and slides all too easily. The keys and case are all hard plastique, no texturing, which combined with the light weight, also adds to this perception. The "dial" light is almost no help, illuminating the edges of the display too much and not enough on the center. It also created an audible pop when I hit the "Light" button, but that may have been an artifact of the other problems my specimen had. The speaker is real wimpy, I wouldn't expect much fidelity of any sort (.5 watt amp 8 ohms, 2 inch speaker); there's no tone control.

Basically the radio has all the advertised features, and they all work. The central computer module, which I bet is OEM'd from Phillips, has all the features of the Phillips radio including standby, clock, timer, alarm, etc. I don't understand why the "Lock/Unlock" key is there. It's in the same place as the on/off, the same kind of switch, and doesn't stop the radio from turning on anyway, just from changing freqs. When the radio is off the display shows the time, and when it's on, you can toggle from time to alarm to freq display. The major controls were all unbelievably wimpy in design (on/off, lock, volume) except the "computer" keys (tuning, alarm, memory) which are a rubber membrane with studs shorting points on the upper computer circuit card).

From the little I could hear, the radio could get the major stations, but was much susceptible to noise (no shielding and a dozen patch wires on the circuit board) and fading. So I'm used to my Sony 2010, and it's wonderful Synchronous circuit, sue me. I heard to BBC (5975 & 9640, Moscow(15425) WWV (5&10) and Australia on 9580. Fine. I could get these with a tin can with an antenna, but it lent credence to the fact that this really was a SW radio.

I couldn't hear CFRB (6070), Tahiti (15171) or anything of moderate DX difficulty, but given the radio was barely putting out any sound, I can't tell whether it's the radio design defficiency or the audio amp problems.

Tuning via the slew keys takes some getting used to. Holding the slew key puts the radio into a scan mode, stopping at loud stations. If you want to stop at a particular frequency, you have to time it right and hit the opposite slew key to stop the radio from scanning. The memories worked, but there is no backup battery - you lose the settings whenever you change batteries :-(.

Now for the real test. I get to return it and see how long it takes to get a replacement or repair from DAK. So whaddya want for $50?

marc

Article 1416 of rec.radio.shortwave:
Path: murdoch!uvaarpa!haven!uflorida!rex!samsung!uunet!decwrl!fernwood!portal!cup.portal.com!HAVANAMOON
From: HAVANAMOON@cup.portal.com (Havana - Moon)
Newsgroups: rec.radio.shortwave
Subject: Re: DAK radio
Message-ID: <28938@cup.portal.com>
Date: 14 Apr 90 21:52:16 GMT
References: <3860@infmx.UUCP>
Organization: The Portal System (TM)
Lines: 10

I suspect the DAK radio performs just about as well as the thirty nine cent cigarette lighter I just purchased at a local drugstore. Made in China and --you guessed it-- no flame no matter how many times you flik! Maybe if I attached a long-wire . . .

At least you stand a chance of getting your money refunded.

As for the lighter . . .

Havana Moon

Article 1455 of rec.radio.shortwave:
Path: murdoch!uvaarpa!haven!aplcen!samsung!hubdub!ellie
From: ellie@merrimack.edu
Newsgroups: rec.radio.shortwave
Subject: A Brief Review of the DAK Shortwave
Message-ID: <18997.262cabf2@merrimack.edu>
Date: 18 Apr 90 18:03:29 GMT
Organization: Merrimack College, No. Andover, MA
Lines: 13

You get what you pay for...

DAK shortwave radio for $49 is not very sensitive, but does lock onto the stations reasonably well. The FM sound is very good, but alas, it really is just a fifty dollar shortwave radio. Its battery consumption is surprisingly high, and the unit is not stable on the table (it tips easily). It serves

well as a second portable, but one of the first things I had to do for it was purchase an AC adapter from Radio Shack (approx. $8).

For serious portable shortwave listening, I recommend Sony Pro-80 ($350-$400).

-This is not the voice of Ellie, this is Max.
--
Jon Brinkmann Astronomy Department
Internet: jvb7u@Virginia.EDU University of Virginia
UUCP: ...!uunet!virginia!jvb7u P.O. Box 3818
SPAN/HEPnet: 6654::jvb7u Charlottesville, VA 22903-0818

2883. Dwaine Hurta

Newsgroup: rec.ham-radio
Date: 1990-05-16 19:30:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9005170847.AA24837@ucbvax.Berkeley.EDU>
Source record: 11593

This is for Dwaine Hurta,

Dwaine,
I couldn't send to you directly, let me know your numeric internet
address.

Bob, N5GNA

2884. Re: New Wide Band Scanner (hand Held)

Newsgroup: rec.ham-radio
Date: 1990-05-16 20:25:09 UTC
From: garvin@ccvr1.ncsu.edu
Message-ID: <1990May16.202509.2429@ncsuvx.ncsu.edu>
Source record: 11583

In article <1598@raybed2.msd.ray.com> ewb@raybed2.msd.ray.com (EUGENE BALINSKI) writes:
>
>NEW AOR SCANNER
>
>1000 Channels, 8-600 and 805-1300 MHz
>Continuous coverage (except for 600-805 MHz UHF TV)
>AM, FM and WFM modes
>10 scan banks, 10 search banks
>selectable priority channel
>*** Selectable search increments (5 to 955 KHz)
>permanant memory backup
>no freqs cut out (yes it does get cellular - Gasp!)
>Size: 6 7/8" H x 1 3/4" D x 2 1/2" W
>12 ozs weight
>Price 499.00 incl shipping
>Ace Communications
>toll free 800 445-7717

FYI, I ordered one today from Grove. They have them for $459, and they
are in stock and shipping. Here's the address & number:

Grove Enterprises
P.O. Box 98
Brasstown, NC 28902
(704) 837-9200
Free Catalog

Michael Garvin
garvin@ccvr1.ncsu.edu
NCSU Computing Center, Raleigh, NC

2885. Re: George Carlin (was Re: Packet/Internet gateways)

Newsgroup: rec.ham-radio
Date: 1990-05-16 20:51:26 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250166@hpnmdla.HP.COM>
Source record: 11597

|
I don't know if amateur radio is subject to different regulations than
other services, but I should point out that HBO is transmitted, via RF
frequencies, by satellite, to home viewers (TVRO). I don't quite catch
the distinction that would allow this and preclude Internet-originated

transmissions.

The difference is the Amateur Radio regulations.
For one thing, business communications are not permitted.
For another thing, the originating station is supposed to have control over
any transmissions from his station. This means he must read each message
before it is transmitted.

I believe internet messages COULD be sent over Amateur packet radio if
the originating station licensee were willing to read 1000% of the messages
before they are transmitted.

Al N1AL

2886. Re: Were US scanner makers pressured to

Newsgroup: rec.ham-radio
Date: 1990-05-16 22:35:29 UTC
From: die@cpoint.UUCP
Message-ID: <5093@cpoint.UUCP>
Source record: 11585

In article <30500539@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>I would like to know what level of technology that is used in the radios
>used by the secret service agents when they are covering the president,
>vice-president or other important white house staff. I would suspect they
>use the low 400 Mhz frequencies. Can someone confirm?

The Secret Service currently uses Motorola radios with DES based
DVP security mostly on a group of frequencies in the 160-170 mhz federal
segment. As far as I can tell, the frequencies are mostly the same old
phonetic alphabet channels (BAKER, CHARLIE, DELTA, GOLF, NOVEMBER,
OSCAR, TANGO, SIERRA) that they have used for the last 40 years for
presidential protection. I do not have a list of the frequencies here
at work, but if someone is interested I can look them up. There has
been some realignment of the 160 mhz federal frequency spectrum by the IRAC as
more and more federal stuff shifts to secure modes such as DVP and more
flexible operation such as trunking. This may have resulted in some
reassignment of traditional 160 mhz secret service channels, but they seem to
have been using the old standard ones pretty regularly too.

Communications on the presidential protection channels are mostly
all encrypted now with DVP, but occasionally someone will transmit
a message or two in the clear. The secret service also has available
some assignments in the 409 and 414 mhz areas - as far as I know these
are not heavily used for presidential security. Much of this 406-420
mhz band has been restructured and the old secret service frequencies here may
and may not still belong to the secret service any more.

DVP is FSK modulation (frequency shift about 8 Khz or so) of DES
encrypted CSVD digitized voice. My recollection is that the bit rate is
16 kbs. The system is pretty secure, since it uses DES in a cipher
feedback mode, and the keys are changed every month or so (or so I have been
told). The radios all have dual secure/clear mode capability and
appropriate squelch circuits so communications can be sent either in the
clear on NBFM voice or secure on a transmission by transmission basis.
I think they either have a secure push to talk and a clear push to talk
or a mode switch since one occasionally hears one half of a conversation
in the clear and the other half secure. To untrained ears the DVP
signal sounds like white noise, but it will unsquelch many scanners.

In addition to the presidential protection channels now rendered
largly useless to scanner freaks there are channels that the secret
service sets up for coordination with local law enforcement. These vary
on a city by city basis, but often have quite a bit of activity on them.
They are often secondary frequencies licensed to local or regional police

agencies and used during special events.

And of course for the hard core, there are the various radio-telephone systems used by the president and vice president as well. I have posted descriptions of these to the net at various time in the past.

--
David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

2887. Re: Crossed Field Antennas (CFAs)

Newsgroup: rec.ham-radio
Date: 1990-05-16 22:51:01 UTC
From: GMoretti@massey.ac.nz
Message-ID: <722@massey.ac.nz>
Source record: 11584

>> Refs to Crossed Field Antenna

There is an article "The Cross-field Antenna in Practise" by C.Bryan
Wells in the English magazine "Electronics World + Wireless World"
November 1989 pp1109 - 1111 in which the author describes his experiment
and comes to the conclusion that it really does work.

He's using an antenna made of tinfoil covered milk powder tins (REAL
ham-radio :-) which gives a size of 700mm (about 2 feet 6").

I quote (he's talking about using the antenna on 40m):

... " At night the results are almost as good as both my double zepp
and an 82m (meter) circumference vertical loop, both at about 10m (32ft).
The full-sized (700mm) CFA is mounted against the peak of the roof space
in the house at about 8m (20ft) above ground"

--- the bits in parentheses are my additions

He then goes on to describe various checks to ensure that the CFA really
is doing the radiating and not just acting as a bit of metal at the end
of a feedline and comes to the conclusion that it really is radiating.

The person in the next office informs me that there's another article in
the latest issue but I haven't seen it yet.

Cheers
Giovanni ZL2BOI

--

GIOVANNI MORETTI, Consultant	EMail: G.Moretti@massey.ac.nz
Computer Centre, Massey University	Ph 64 63 69099 x8398, FAX 64 63 505607
Palmerston North, New Zealand	QUITTERS NEVER WIN, WINNERS NEVER QUIT

2888. E. F. Johnson Viking Ranger [restoration]

Newsgroup: rec.ham-radio
Date: 1990-05-16 23:21:53 UTC
From: guhsd000@crash.cts.com
Message-ID: <2693@crash.cts.com>
Source record: 11588

I've wanted to have a Ranger for some time, mainly because I always liked the way it was set up, and the broad coverage.

to have been plugged in since 1975, judging from the decayed rubber of the power cord and a service tag. Over all, it's on great shape, I doubt I'd look that good after being sealed in a box for 15 years.

Major problem: The band selector was frozen, now it's really high drag, I can fix that, but the knob, and the cam (inside that shifts a pot[core/switch?] as the shaft turns.) have both become loose. Anyone know what position these should be in at 160 meters and 10 meters?

Also, I could use the pinouts for the crystal socket(and other crystal info for it's use), the jumper socket on the back, the phono jack in the back (Best guess s
is for the key.) And the shielded plug, which I belive is the mike jack.

At full drive, what is the rated power out? And a good antenna for such a widebander? A 160m wire is pretty much
out of the question.

Thanks in advance.

2889. Re: Teletype Model 43s for sale

Newsgroup: rec.ham-radio
Date: 1990-05-16 23:29:39 UTC
From: so-luru@stekt.oulu.fi
Message-ID: <SO-LURU.90May17023349@stekt.oulu.fi>
Source record: 11590
Cross-posted to: rec.ham-radio,comp.misc.forsale

In article <1990May16.060024.14132@grian.cps.altadena.ca.us> alex@grian.cps.altadena.ca.us (Alex Pournelle) writes:

> for (no lie!) $15 each, or $25 a pair, F.O.B. Pasadena CA, plus UPS COD

Funny. I don't want to spoil your business, but I just want to share something with you guys over ther in NetLand. Keep your eyes open and you can make some *real* deals.

A couple of weeks ago I found out that a local hospital was dumping their VT-52-compatible terminals (new ones coming in, of course) and had no idea what to do with 'em. Unfortunately, they decided to literally dump them - and when we got there, only few were left.

Well, one dollar (approx.) per terminal wasn't all that bad. And those TT-43's we got three for $2.. kinda quantity discount.

Terrific fot packet, work like a charm. I sure will keep my ears and eyes open and act quicker next time.

Luru

2890. Priority Scan.

Newsgroup: rec.ham-radio
Date: 1990-05-17 08:39:36 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <17.May.90.09
Source record: 11589

I agree a 'priority' sampling rate of several seconds is quite silly.
What is *really* needed to implement this properly is a second, independent
receive channel for the 'priority' frequency. Yhis receiver sits on its
allotted frequency all the time, listening. Then by some simple logic,
you just switch the audio from one receive strip to the other when the
'priority' squelch opens.
This is quite common on marine receivers where they have a 'watch'
receiver on 2182KHz (or the other distress frequency - 500KHz isnt it?)
which is on all the time.
If it can be done with dual-band ham rigs, how long before some smart
manufacturer does it in a scanner?

Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

2891. Info Please on Ohio Repeater Links ??

Newsgroup: rec.ham-radio
Date: 1990-05-17 10:02:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9005180703.AA13133@ucbvax.Berkeley.EDU>
Source record: 11591

While I was in Dayton, I keyed up a repeater on 2 meters (exact freq.- I don't remember) that was linked with something like 20 other repeaters in the Mid-West. It was quite impressive and didn't seem to be abused. Can someone fill me in on some more info ? I think the Southern CA. - South-Western US area may have a similar set-up...
Internet is fine.
73,
Richard Harel
4X1DA

2892. Query on PRO-34 frequency mod

Newsgroup: rec.ham-radio
Date: 1990-05-17 12:06:56 UTC
From: dan@heimat.UUCP
Message-ID: <112@heimat.UUCP>
Source record: 11596
Cross-posted to: rec.radio.shortwave,rec.ham-radio

[-=-]

Well I finally decided to do the 'euro' mod to my PRO-34 (restore the 66 - 88 MHz range). Based on the collection of PRO-34 mods I collected from the net I added a diode to D-9 (the old one removed from D-11 when I restored full 800 Mhz). It appears as though I now have this new range of frequencies -BUT- at the cost of my 30-54 MHz range :-(

Its an easy job to remove the diode and be back where I started but my question is: Has anyone been able to get both? Does anyone actually use or check these mods (in particular this one)?

One other note on the PRO-34, a few nights back while busy with other things I wanted to place the scanner in manual and select channel 21. Not watching what I was doing, I somehow got the scanner on channel 210! At this point I could step with the manual key and the #'s kept going up. When I pressed scan it continued going up unitl the PRIORITY kicked in. Since then I have not been able to reproduce this, has anyone had any luck with extra channels? (Oh yea - these new channels were all set to "0.0" while my original 200 remained programmed)

Sneakers
--
___
Dan "Sneakers" Schein //// Quote:
Sneakers Computing //// Those who worked the hardest
2455 McKinley Ave. ___ //// are the last to surrender.
West Lawn, PA 19609 \\\\//// -= Gary Ward =-
\\\///
dan%heimat@commodore.com (or) uunet!cbmvax!heimat!dan

2893. Re: Two scanner patents

Newsgroup: rec.ham-radio
Date: 1990-05-17 14:14:12 UTC
From: ray@cs.rochester.edu
Message-ID: <1990May17.141412.1194@cs.rochester.edu>
Source record: 11598

In article <24300002@col.hp.com> kenw@col.hp.com (Ken Wyatt) writes:
>> >I have a Motorola Saber-III HT that scans with _Dual-Priority_ and _Lockout_
>> >
>> >Also, IMHO, "PRIORTY" is a poor choice of wording for scanners & amateur
>> >radios that check a predetermined frequency once every X seconds. I have
>> >seen this from 2 to 5 seconds, never faster. Commerical gear, on the other
>> >hand, samples the pre-determined frequency several times a second allowing
>> >the operator to hear the entire transmission instead of the trailing carrier
>> >or "hang-time" of a repeater.
>> >--
>> >Scott O'Connell - KC6KFX UUCP: {nosc, hplabs!hp-sdd}!crash!ipars!scotto
>>
>>
>> OK, so what's your point? And will this be a long story?
>>
>> Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
>
>Mike, I guess I don't understand your point either. I find I must agree
>with Scott. Priority scan rates of several seconds is a worthless feature
>in a scanner. Any manufacturers listening?

I also agree with Scott. My pro-34 interupts normal scanning every 2 seconds
to monitor the priority channel. This is a very annoying interuption to have
to contend with if nothing is happening on the priority channel.
I would rather have a scanner that doesn't interupt normal scanning unless
a carrier is present on the priority channel. As it is now, the pro-34
interupts regardless. It wouldn't be so difficult to have circuitry
monitor the priority channel to see if a carrier is present and if it
is then and only then go to it. I believe some of the later bearcat scanners
are doing this.

ray

2894. Re: Need info on Kenwood Digital Code Squelch (TR3600A)

Newsgroup: rec.ham-radio
Date: 1990-05-17 14:32:25 UTC
From: bobw@col.hp.com
Message-ID: <24300003@col.hp.com>
Source record: 11608

From: miker@porkface2.WV.TEK.COM / 10:44 am May 16, 1990 /
I just picked up a Kenwood TR3600A with DCS. I'd like to program a
paging function into my repeater using this technique. Unfortunately,
the manual sez little about how this works.
[stuff deleted]
I'm also interested in why the scheme never caught on. I don't think
I've ever heard the digital bursts on the air.

Sorry, I can't help you with the technical info on DCS.

I believe that it never caught because it was a single-vendor
solution and one which did not allow easy upgrade/capatability
with existing equipment.

Kenwood has recently put a DTMF squelch system in the TH-26
handitalkie. (ICOM has put this in a few rigs also.) This
makes alot more sense to me. Anyone with a DTMF encoder can
call you if they know the magic sequence.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd
"Ban all activities that I don't participate in...
they are obviously non-essential."

2895. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-17 15:01:42 UTC
From: jdg@hpqtdla.HP.COM
Message-ID: <3430005@hpqtdla.HP.COM>
Source record: 11611

Another vote for a IC02 AT/E as a good buy for a second hand HT

I have been using the European version IC02E for 5 years now. It has had a hard life, and has been a trusty companion. I use it for hill-walking and backpacking, its small enough and light enough to be a 'must' in the rucksack.
I have operated in rain, snow and temperatures from -10 to +30 degrees C. The NiCd's had a bit of difficulty at -10. It is ruggedly constructed with a metal back and anti moisture grommets on all the knobs.

Disadvantages: Only got 10 memories, repeater shift a pain to program, scanning is funeral procession speed.
Advantages: External DC/mic/speaker if you want. Standard ICOM batteries reasonable power (3W), good reports of audio from internal mic. Can extend receiver coverage to 138-163MHz.

73 de James

Opinions expressed are my own, and are not intended to be an official statement by Hewlett-Packard Company
---
Name: James Gentles GM4WZP
Organization: Hewlett-Packard Queensferry Telecomunications Division
Email: jdg@hpqtdla.hpsqf.hp.com hp-sdd
Address: Station Road, South Queensferry, West Lothian, Scotland
---

2896. Hustler on a conversion van

Newsgroup: rec.ham-radio
Date: 1990-05-17 15:15:00 UTC
From: EE469APROF@ROSEVC.Rose-Hulman.EDU
Message-ID: <9318F23B659F200C03@ROSEVC.Rose-Hulman.Edu>
Source record: 11615

I am planning to mount a Hustler h. f. antenna on the ladder that runs
up the back door of my full size GMC conversion van.

Some have said, "Don't do it!". Their reasons vary

I would like to hear from anyone who can give me any information/tips/warnings
about this.

TNX ES 73 DE K9CUN

2897. Re: DAK MR-101 receiver summary

Newsgroup: rec.ham-radio
Date: 1990-05-17 15:33:20 UTC
From: elliott@optilink.UUCP
Message-ID: <3633@optilink.UUCP>
Source record: 11600

Briefly...

We took one of the DAK MR-101 rcvrs outside and compared it's performance to a Sony ICF-2003. Immediately obvious was the DAK's low audio level (this was using the built-in whip antenna on both units). We plugged the Sony long-wire antenna (hardly a long-wire electrically, but you know what I mean), into both radios and noticed that the Sony output changed little, but the DAK's increased dramatically. The AGC on the DAK seemed marginal, either a poor control range/slope or a ridiculously high threshold. The audio quality was not much worse than the Sony.

With the external antennas, both radios seemed to have similar sensitivities. All this testing was done at 3:00PM PST, receiving stations from 5MHz to 21MHz. The comments made in other postings seem to match our experience, especially in regards to the lack of "quality feel" to the radio.

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{uunet, pyramid, pixar, tekbspa}!optilink!elliott
"Less than perfect, that's what I've been aiming for all along."

2898. IC-24AT Receive Mods

Newsgroup: rec.ham-radio
Date: 1990-05-17 15:54:21 UTC
From: kenw@col.hp.com
Message-ID: <24300004@col.hp.com>
Source record: 11612

At the request of several interested hams, I am posting the modification instructions for the Icom IC-24AT. This set of instructions originated from Icom America and was downloaded from the Icom Library of HamNet (Compuserve).

Ken WA6TTY (kenw@col.hp.com)

IC-24AT Undocumented Features - (from ICOM)

The IC-24AT dual band handheld had three additional features that are not described in the owners manual. These have been left out of the owners manual because some countries restrict the use of the radio in these modes.

AM AIRCRAFT RECEIVE PLUS 740 to 960 MHz RECEIVE

Remove D13 from the main logic board (this diode may already be removed by ICOM in some units). This diode may already be removed in some radios. D13 is on the main logic board and is a discreet diode (one of the two in the radio) near the center of the board. It is the left discreet diode of the two on the board when the radio is open and held with the controls away from you.

Simultaneously hold "Light", "B", and "#" keys depressed and turn power on.

It is important to note that the radio will not meet specification on the out of band receive frequencies that are enabled with this modification.

DIRECT KEYBOARD ENTRY of 100 MHz FREQUENCY

Simultaneously hold "Light" and "3" keys depressed and turn power on.

CROSS BAND REPEAT (simplex)

Remove D14 from the main logic board (this diode may already be removed by ICOM in some units). The diode is a discreet diode to the right of D13 (from above) and directly beside it.

Simultaneously hold "Funct" depressed and push "C".

To turn on cross band repeat:
Hold "Funct" depressed then push "5" and then push "D".

To turn off cross band repeat simultaneously hold "Funct" and "D" depressed.

2-14-90

2899. Re: IC-24AT Receive Mods

Newsgroup: rec.ham-radio
Date: 1990-05-17 16:07:15 UTC
From: kenw@col.hp.com
Message-ID: <24300005@col.hp.com>
Source record: 11610

Following the frequency expansion modification (as specified by Icom), a sample IC-24 was recently tested for tuning range and input sensitivity for an S9 signal. While the sensitivity measurements should not be directly compared with the manufacturer's specifications (usually measured reference to a signal-to-noise quieting ratio), this "quick and dirty" data should give you a good idea of the sensitivity to a medium-strength signal.

Tuning Range Mode Band Sensitivity for S9 Signal

74 - 107.995 MHz (fm) VHF range approx 1 mV
108 - 136 MHz (am) VHF range 10 - 30 uV
138 - 240 MHz (fm) VHF range 1 uV - 1 mV (1)
250 - 302 MHz (am) VHF range 50 uV - 1 mV (2)
310 - 354.995 MHz (fm) VHF range 50 uV - 3 uV (2)

355 - 409 MHz (fm) UHF range 3 - 10 uV
417 - 490 MHz (fm) UHF range 1 uV - 100 uV (3)
805 - 955 MHz (fm) UHF range 10 - 100 uV

Notes:

(1) The sensitivity from 138 - 150 MHz was 1 uV. From 150 - 240, the sensitivity decreased almost linearly from 1 uV to 1 mV (with input voltage plotted logarithmically).

(2) The sensitivity increased almost linearly for both these ranges (with input voltage plotted logarithmically).

(3) The sensitivity plot looked like a "U" with the bottom of the "U" corresponding to the range 440 - 450 MHz (1 uV). The sensitivity then got worse below 440 and above 450.

(Tests courtesy of WB6GTM)

2900. Radio in Saudi-Arabia

Newsgroup: rec.ham-radio
Date: 1990-05-17 16:32:13 UTC
From: herbster@b11.ingr.com
Message-ID: <8012@b11.ingr.com>
Source record: 11604

I may be spending a long while in Saudi-Arabia real soon and would
appreciate any information and experiences from anyone regarding
the (slim) possibility of being able to operate while there.
Also, I will be within driving distance of Bahrain, would it
be possible to work from there when visiting on weekends??

Tnx, de km4jn

2901. Modem to Packet

Newsgroup: rec.ham-radio
Date: 1990-05-17 16:36:22 UTC
From: Joel_Glickman@MTS.RPI.EDU
Message-ID: <1820962@MTS.RPI.EDU>
Source record: 11616

While the subject of Internet->Packet gateways is floating around netland, perhaps this is a good opportunity to ask people's views about a Modem->Packet server. I have set one of these up whereby I can call in from a terminal on a phone line and access my station. I have also allowed other ham friends to do the same. I believe it is legitimate remote operation when *I* am operating with my callsign from a remote terminal. Is it within the regs to allow fellow hams to access this system and use their callsigns on my TNC to connect to packet BBS's... etc..??

2902. ** Another Novice Question **

Newsgroup: rec.ham-radio
Date: 1990-05-17 17:24:51 UTC
From: mlau@hpspcoi.HP.COM
Message-ID: <860002@hpspcoi.HP.COM>
Source record: 11609

Hi,

I have a question I am hoping the HamNet can answer.

If you take the NOVICE test and pass can you immediatley take
the TECHNICIAN test, which I believe is just another written test ?

If you pass that can you immediately take the GEN test ?

thanks in advance,
Mel

Curious minds want to know,

2903. Automated observatory, was Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-17 18:39:09 UTC
From: joec@Morgan.COM
Message-ID: <981@ringwood.Morgan.COM>
Source record: 11607
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
>
> Hi. I am a member of Group 70 which is building a large amateur
>astronomical observatory. We eventually intend to have it completely
>automated (remote controlled ?) and need a very accurate clock for the
>observatory.
[stuff deleted]
John,
I cannot help with you your clock question but I wish to mention
that SKY AND TELESCOPE some 3-4 years ago (don't quote me) did an
article on a person in the southwest who built a completely
automated observatory on his property (in UTAH?). I don't
recall anything beyond that but suggest you ask S&T the details.
They may point you to who that individual is.
good luck,
joec@morgan.com

2904. Re: License Renewal

Newsgroup: rec.ham-radio
Date: 1990-05-17 19:51:34 UTC
From: henkp@nikhefk.UUCP
Message-ID: <751@nikhefk.UUCP>
Source record: 11601

In article <12280006@hpspdra.HP.COM> henryb@hpspdra.HP.COM (Henry Black) writes:
->> 6600dong@ucsbuxa.ucsb.edu (Dong Hwan Kim) / 9:11 pm May 14, 1990 /
->>Does the Ham-Radio license have to be renewed every certain years like
->> driver's license?
->
->Yup, but rules vary:
->
-> U.S.A. Ten years Presently no fee
-> U.K. One year UK Pounds 12
->
->Anyone care to add entries for other places please?

Holland One year hfl 65,= (about $35,=)

For each exam the charge is hfl 65,=

Henk, PA0HZP

2905. Dayton linked repeaters

Newsgroup: rec.ham-radio
Date: 1990-05-17 20:48:00 UTC
From: bob%50781.decnet@WPAFB-AMS1.AF.MIL
Message-ID: <9005180704.AA13170@ucbvax.Berkeley.EDU>
Source record: 11617

The repeater set you are probably thinking of is the 145.19. It is linked as far west as Indy, and I think, maybe as far east as Akron? Maybe just Columbus. It does strech down into Kentucky. It is nice on the road. I believe the net is managed by the Fairfield (OH, Near Cincinatti) club.

Bob, N5GNA
In Dayton.

2906. Re: Why they just don't make 'em like t

Newsgroup: rec.ham-radio
Date: 1990-05-17 21:39:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500541@ux1.cso.uiuc.edu>
Source record: 11602

> Lots of people are already using scanners that have these features.
> They are using computer-controlled scanners! The ICOM R7000, R9000
> Yeasu FRG 9600, AOR ???? and probably other radios all have a nice
> computer (RS232 or thereabouts) interface.

But that does not yield a completely self contained portable scanner.

> I use an R7000. I have all the channels I want. In banks organized
> the way I want. I can set up scan-continue and delays to work exactly
> the way I want. I can auto-search over and over without logging the
> freqs I already know about. etc. etc.

Can you have it stay on the frequency as long as there is a signal for
up to 30 seconds, and have it stay after the signal is lost for up to
2 seconds? Does the computer get to control things at this level? Does
it get to know when a signal is present and gone instantly?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2907. Re: 3rd Party Agreements

Newsgroup: rec.ham-radio
Date: 1990-05-17 21:45:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500542@ux1.cso.uiuc.edu>
Source record: 11603

I gather there are some unusual political problems with third party agreements. Last time I looked we had them with countries like Cuba and Nicaragua, but not with Great Britain or Germany. It seems to me that the biggest reason a country does not is the paranoia that it may lead to long distance telephone revenue losses.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2908. Armed Forces Day Communications Test

Newsgroup: rec.ham-radio
Date: 1990-05-17 22:09:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9005180704.AA13218@ucbvax.Berkeley.EDU>
Source record: 11618

Per a previous request, here is the Armed Forces Day Frequency info:

Military Stations:

AAE
Army MARS Radio Station
Fort Sam Houston, TX

NPL
Naval Communication Station
San Diego, CA

AAH
Army MARS Station
Fort Lewis, WA

NMH
Coast Guard Radio Station
Alexandria, VA

AIR
2045 Communications Group (USAF)
Andrews AFB, MD

NMN
Coast Guard Communications Station
Portsmouth, VA

NAM
Naval Communications Area
Master Station LANT
Norfolk, VA

NZJ
Marine Corps Air Station
El Toro, CA

NAV
HQ Navy-Marine Corps
MARS Radio Station
Cheltenham, MD

WAR
HQ, Army MARS Radio Station
Fort Derrick, MD

NPG
Naval Communications Station

NTTC Mare Island
Vallejo, CA

TRANSMITTING TEST: Military stations will transmit on the below listed frequencies and announce the specific amateur band frequency being monitored.

FREQ MODE STATION FREQ MODE STATION
4005.5 USB NAM 13975.5 CW NPG
4015.0 CW NMH 13986.5 RTTY AIR
4018.5 LSB WAR 13994.5 USB AAE
4025.0 LSB AIR 13997.5 CW AIR
4030.5 LSB AAE 14375.0 USB NPG
4033.5 LSB AAH 14385.0 USB NPL
6970.0 CW NPG 14389.5 USB NAV
6988.0 RTTY/CW AAH 14400.0 USB/ NAM
CW/RTTY
6995.5 CW AIR 14403.5 USB WAR
6998.5 CW WAR 14408.0 USB AIR
7301.5 LSB NPG 14440.0 RTTY NMH
7315.0 LSB AIR 14480.0 USB NZJ
7346.5 LSB NMH 14488.5 USB AAH
7358.5 LSB AAE 14511.5 RTTY/CW AAE
7365.0 CW NPG 20937.5 USB NMH
7372.5 RTTY NAV 20975.0 USB AAH
7375.0 RTTY NZJ 20994.5 USB WAR
7382.5 RTTY NPL 20625.0 USB NPG
7393.0 LSB/ NMN 24805.0 CW NPG
RTTY/CW
10180.0 RTTY/CW WAR 27820.0 USB AAH
10259.5 CW NPG 27950.0 USB NPG
13927.5 RTTY NPG 27992.5 USB AAE

RECEIVING TEST:
The CW/Phone/RTTY broadcast will begin with a 10 minute tuning call and will precede each trans mission. The CW test will be transmitted at 25 words per minute beginning at 0300 UTC May 19. The phone/RTTY broadcast will begin at 0345 UTC May 20 and transmit at 20 wpm using 170 Hz shift. Both broadcasts will be transmitted from the stations below:

AAE: 4018.5, 6988.0, 9990.0
AAH: 4021.5, 7309.5, 13994.5
AIR: 6995.5, 13997.5
NAM: 4005.0, 7393.0, 14400.0
NAV: 7372.5, 14389.5
NPG: 7365.0, 13975.5, 24805.0
WAR: 4030.5, 6998.5, 14403.5

SUBMISSION OF TEST ENTRIES:
Transcripts of the CW/Phone/RTTY receiving tests should be submitted "as received". No attempt should be made to correct possible transmission errors. The time, frequency, and call sign of the military station copied as well as the name, callsign and address of the person submitting the entry must be

included on the page containing the test message. Entries must be postmarked no later than May 27, and submitted to therepective military commands as follows:

STATION COPIED ADDRESS
AIR Armed Forces Day Test
2045 CG/DOJM
Andrews AFB, MD
20331-6345

AAE, AAH, WAR Armed Forces Day test
Commander, USAISC
ATTN: ASOP-HF
Fort Huachuca, AZ
85613-5000

NAM, NAV, NPG Armed Forces Day Test
Naval Communication Unit
Washington, DC
20397-5101

The above information was extracted from the May 11, 1990 issue of the AFCC Intercom, the newspaper of the Air Force Communications Command.

My apologies that I didn't get this uploaded sooner.
Good luck in the Armed Forces Day test.

PLEASE REMEMBER: DO NOT TRANSMIT OUTSIDE OF THE AMATEUR BANDS.
THE MILITARY STATIONS WILL BE ANNOUNCING WHAT FREQUENCIES THEY WILL BE LISTENING TO WITHIN THE AMATUER BANDS. THIS WILL NORMALLY BE IN THE LOWER PORTION OF THE GENERAL CLASS BANDS.

73,
Michael, WA7SKG

2909. Re: New Wide Band Scanner (hand Held)

Newsgroup: rec.ham-radio
Date: 1990-05-17 23:36:57 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <3174@ultb.isc.rit.edu>
Source record: 11613

Does anyone know if the 600-805 MHz is recoverable?

What are the specs on the Icom?

Lance

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

2910. Need Schematic for DTMF Decoder

Newsgroup: rec.ham-radio
Date: 1990-05-18 00:14:44 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <3175@ultb.isc.rit.edu>
Source record: 11614
Cross-posted to: rec.ham-radio,misc.wanted

I am interested in building a DTMF decoder with either an Alph-Numeric Display, or single leds for each digit. The device will need to hold each digit for 1 second, although I would prefer a large display that would hold 10 digits.

Lance

I am not adverse to buying one for a REASONABLE price, either new or used.

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

2911. Need help with Apple2 146.76Mhz birdie (please).

Newsgroup: rec.ham-radio
Date: 1990-05-18 02:42:39 UTC
From: bezenek@plains.UUCP
Message-ID: <4714@plains.UUCP>
Source record: 11606
Cross-posted to: comp.sys.apple2,rec.ham-radio,sci.electronics

I have a neighbor with an Apple2. It emmits a strong signal on 146.76Mhz.
I have heard of this being a problem with all Apple2's, and know two
other people who have a problem because of it.

If anyone has information on how to move the frequency of this
signal, PLEASE send me email.

Thank you very much,

Todd M. Bezenek
--
Todd Michael Bezenek, KO0N
bezenek@plains.nodak.edu
UUCP: uunet!plains!bezenek
Bitnet: bezenek@plains
NU040889@ndsuvm1

2912. AEA Loop Antenna

Newsgroup: rec.ham-radio
Date: 1990-05-18 03:16:19 UTC
From: whester@nyx.UUCP
Message-ID: <965@nyx.UUCP>
Source record: 11605

Several months ago I purchased the latest A.R.R.L. Antenna Book (blue cover, 1988 copywrite) and found a fasinating article on small loop antennas tuned remotely by a motorized capacitor at the high impedance point in the loop. This article is "Small High Efficiency Loop Antennas for Transmitting" on page 5-11 of the Antenna Book.

What was so special was the data listed for several sizes and the very high efficiencies claimed. Well, I hummed and hawed and was still "thinking" about possibly building one (if I could figure out a neat cheap way to build my own variable capacitor that could withstand the very high voltages developed across it)...when AEA advertised a small loop with remote tuning, etc.

So far I have not seen any prices...is this a real product...available for shippment?...or is AEA just testing the waters to see if there is any interest before starting production?

Anyway, has anyone actually built the antenna described in the Antenna Book? I
I'm considering it for use in an attic with foil backed fiberglass insulation used as the groundplane as described in the article.

Please post to this newsgroup. Thanks. Bill, N0LAJ, Denver

2913. Looking for a dual band HT + misc

Newsgroup: rec.ham-radio
Date: 1990-05-18 04:28:00 UTC
From: UCSBPM@UWPLATT.EDU
Message-ID: <92AA2D589A9F201E5F@uwplatt.edu>
Source record: 11619

First, a little background:
I recently (hopefully) graduated*, and I was going to buy myself a
TS-440 with antenna tuner, but since I don't have a real job yet (hint hint)
I am probably going to buy a 2m/70cm HT.

* I participated in the ceremony, but I don't have that BSEE until the postman
visits with the diploma in hand [with my luck, it will be delivered to
Madagascar or Pitcairn Island :)]

The point:I already know quite a lot about the "big 3"'s offering for dual band
HT's, but I am curious about Alinco's DJ-500T (I think). Does anyone here have
one? Know where I can find a review? Any opinions? [It's significantly cheaper
and has a 2yr warrantee]. How about any other dual band HT's out there? I am
staying here in rural Wisconsin, nearest repeater 25 miles away {if you don't
count our schools that isn't yet up}. 2m is certainly not crowded, and 70cm (I
believe) is practically non-existent. However, there is enough 70cm stuff on
the trip home to warrant a dual band HT (IMHO). Besides, I'll be living
somewhere else in August.

Please E-mail, unless you think your comments deserve a post. I'll post a
summary if there is significant replies.

To the person who set up the mail-access callbook: A giga-blessing on you and
your kin! Some of us don't have telnet, and you saved our club $$ (since we
don't need a callbook now). Suggestions: Updated list, DX calls, and search by
name (ya, I know, all hard to implement but one can dream)

Oh, as part of my graduation present, I got the CQ antenna manual, and I opened
it up to see an arcticle by "our very own" Patty Winter (N6BIS).It's always neat
to see an arcticle by a name you recognize.

Thanks for any input about the radio

Brian P. McCarty, N9IWP
internet:UCSBPM@UWPLATT.EDU
bitnet:UCSBPM@UWPLATT

"Nearly graduated and have the empty diploma holder to prove it!"

2914. Crossed Field Antennas

Newsgroup: rec.ham-radio
Date: 1990-05-18 14:22:15 UTC
From: mka@cs.odu.edu
Message-ID: <12559@xanth.cs.odu.edu>
Source record: 11620

I just caught the end of this discussion where the is a reference to a 40m antenna that is made of tinfoil covered dry milk cans ...? I would like to see any info on this but none of the earlier messages are still on our system. Could someone please summarize this for the net or send me any references that I could look up. Or if anyone has the other messages that made up this thread could they email them to me? Thanks in advance for any help.

2915. Re: New Wide Band Scanner (hand Held)

Newsgroup: rec.ham-radio
Date: 1990-05-18 15:03:38 UTC
From: edwin@praxis.cs.ruu.nl
Message-ID: <3298@ruuinf.cs.ruu.nl>
Source record: 11621

In article <1598@raybed2.msd.ray.com> ewb@raybed2.msd.ray.com (EUGENE BALINSKI) writes:

| >NEW AOR SCANNER
| >1000 Channels, 8-600 and 805-1300 MHz
| >Continuous coverage (except for 600-805 MHz UHF TV)
Hey, is this the same company that made the wonderful AOR 2001 and AOR 2002 scanners??
I was very charmed by these two scanners, they only lacked a lot of memory channels, but it looks like AOR has learned. Very interesting! If this is the same company, I'd like to know more, maybe Michael (see below) is willing to post some first impressions...

In article <1990May16.202509.2429@ncsuvx.ncsu.edu> garvin@ccvr1.ncsu.edu (Michael A. Garvin) writes:

| FYI, I ordered one today from Grove. They have them for $459, and they
| are in stock and shipping.
Ah, an experienced user by now, I think ;-)
I'd love to hear your opinions on it. I'm pretty much interested in how it performs in the following frequency ranges:

68-88 VHF low, NFM
108-136 Air band, AM
200-400 Military Air Band, AM
440-512 UHF, NFM

Of course, there's a big difference in for what services frequencies are used in the USA and over here in the Netherlands, but maybe you can tell something about it anyway.

thanks for your time,
--[Edwin]--
--
Edwin Kremer (SysAdm), Dept. of Computer Science, Utrecht University
Padualaan 14, P.O. Box 80.089, 3508 TB Utrecht, The Netherlands
Telephone: +31-30-534104 | UUCP: ...!uunet!mcsun!hp4nl!ruuinf!edwin
Telefax : +31-30-513791 | Email: edwin@cs.ruu.nl [131.211.80.5]

2916. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-18 15:25:44 UTC
From: bobw@col.hp.com
Message-ID: <24300006@col.hp.com>
Source record: 11527

As a newcomer to ham radio, I am looking for some advice on purchasing
my first rig, a 2m HT. I want to start with a couple-year-old used one

---
A few more opinions:

* By now you have noted that folks are pretty opiniated on the merits
of various rigs. The ideal feature set/user interface varies a great
deal with the speaker. The technical issues are a bit more concrete.
If someone has actually tested a radio and found it lousy then its
probably lousy and overrides thousands of comments of "I've never had a
problem.")

* I would suggest that EVERY radio mfg has introduced a dog a one time
or other. But generally ICOM, KENWOOD & YAESU have all built some
fine radios.

* Power output: most folks I know leave their HT's on low power due to
battery life considerations. Most repeaters in Colo do just fine
with fairly low power. The exception might be the "HT in the car"
mode. First action there is an external antenna. Along these same
lines I vote for multiple small battery packs rather than one big
one. Keeps the HT size down and allows you to recharge one pack
while using the other.

* Memories: try to get an HT that remembers the offset in memory.
Some of the older ones (Yaesu FT208R, for example) require you
to muck with the offset control every time you switch memories.

* The IC2AT is a fine radio, but doesn't have memories.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd
"Ban all activities that I don't participate in...
they are obviously non-essential."

2917. Modem->Packet

Newsgroup: rec.ham-radio
Date: 1990-05-18 15:54:28 UTC
From: Joel_Glickman@MTS.RPI.EDU
Message-ID: <1821899@MTS.RPI.EDU>
Source record: 11534

In article <1820962@MTS.RPI.EDU> I wrote:
>>While the subject of Internet->Packet gateways is floating around netland,
>>perhaps this is a good opportunity to ask people's views about a Modem->Packet
>>server. I have set one of these up whereby I can call in from a terminal on
>>a phone line and access my station. I have also allowed other ham friends to
>>do the same. I believe it is legitimate remote operation when *I* am operating
>>with my callsign from a remote terminal. Is it within the regs to allow fellow
>>hams to access this system and use their callsigns on my TNC to connect to
>>packet BBS's... etc..??
>>

lrj@cs.cornell.edu replies:

> Also; what happens when some non-ham dials your modem and goes
>through your TNC? What happens to your license if this person starts
>sending out messages of an offensive nature?
>
> This isn't a flame, just want to make sure you have all the
>potential disasters in mind...

Certainly I have taken precautions so that non-hams will *not* have access
to this system. There is a logon procedure which will only allow users which
have been registered to use the system. People without ID's and PW's are not
told anything, they are just hung up on. Basically, it's a closed system. Only
the people who I've given access to manually can get on.

My real concern is whether or not it this considered legal operation of my
station. If my friend dials in, logs on, changes mycall, and uses my station
under his call, is it the same as him coming over to my place, sitting down
at my computer, changing mycall and making a contact? I believe that through
my interpretation of the rules, this is legitimate. What do you think?

==========
Joel Glickman (KA1PRT)
Troy, NY

2918. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-18 15:56:48 UTC
From: grege@gold.GVG.TEK.COM
Message-ID: <998@gold.GVG.TEK.COM>
Source record: 11623
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
>
> Hi. I am a member of Group 70 which is building a large amateur
>astronomical observatory. We eventually intend to have it completely
>automated (remote controlled ?) and need a very accurate clock for the
>observatory.
>
NBS transmits 5, 10, and 15 (or is it 10, 15, 20 ?) Mhz signals which
are reputed to be THE time standard. Broadcasts are from Boulder, CO,
(WWVB), Hawaii (WWVH), and Idunno, (WWVL). They have an amplitude-
modulated tone (1Khz I think) and maybe some other stuff. Heathkit
(I'm not advertising for them) sells a "most accurate clock" kit which
will spit-out the time on a serial port for your computer's enjoyment.

2919. Re: Need Schematic for DTMF Decoder

Newsgroup: rec.ham-radio
Date: 1990-05-18 16:05:23 UTC
From: kirk%enterprise@Sun.COM
Message-ID: <135936@sun.Eng.Sun.COM>
Source record: 11622

From article <3175@ultb.isc.rit.edu>, by wlw2286@ultb.isc.rit.edu (W.L. Ware):
> I am interested in building a DTMF decoder with either an Alph-Numeric
> Display, or single leds for each digit. The device will need to hold
> each digit for 1 second, although I would prefer a large display that
> would hold 10 digits.
>
> Lance
>
> I am not adverse to buying one for a REASONABLE price, either new or
> used.
>
> --
> **
> *W.L.Ware LANCEWARE SYSTEMS*
> *WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller*
> *WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

Why make one? There is a DTMF decoder chip, SSI202, that does it all for you. All this in a 18 pin package. You supply the audio in and it produces a BCD output on 4 pins plus some other control lines.

There is a construction article in one of the old QST mags I have that has most of what you want. I don't have the month/year of the issue but can look for it if you are interested.

The circuit is a simple DTMF actuated controller. You can turn on LEDs, relays and just about anything else you want. It uses flip-flops to store the incoming DTMF digits. Once the proper sequence has been passed it will activate the corresponding device.

'Captain' Kirk DeHaan net - kirk@sun.com
Sun Microsystems Inc. packet - n6sxr.ampr.org
cis - 73427,1657

2920. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-18 16:32:41 UTC
From: billt@hprnd.HP.COM
Message-ID: <1140032@hprnd.HP.COM>
Source record: 11537

```
| / hprnd:rec.ham-radio / jdg@hpqtdla.HP.COM (James Gentles) / 8:01 am May 17, 1990 /
| Another vote for a IC02 AT/E as a good buy for a second hand HT
|
| Advantages: External DC/mic/speaker if you want. Standard ICOM batteries
| reasonable power (3W), good reports of audio from internal mic. Can extend
| receiver coverage to 138-163MHz.
|
| 73 de James
|
Once the diode is removed which restricts the range to the amateur band,
what else do you have to do to be able to receive 138 to 163? My HT does
not keep phase lock above 156MHz.

73 de Bill
billt.hprnd.hp.com
```

2921. Re: Strange Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-18 16:38:32 UTC
From: sawyer@twg.com
Message-ID: <6282@gollum.twg.com>
Source record: 11625

In article <1250157@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) pokes
a little fun at some of the strange CW call signs he has encountered:
>
>I suppose that a morse code fan would have liked being assigned my call:
>WA2ISE all dits in the suffix! .. ... .
>
>My favorite is the (at one time) very active contest station WB5EEE
>(known in some circles as "WB5S"). After the first dash in the "B", it's
>all dits: .__ _... ....
>
>There used to be an operator at W1AW with the call WA9HHH. On CW, this
>sounds like the error signal. ....
>
I can go you one better. I got baffled one night in a pile-up trying to
track the DX station's listening frequency (he was operating split). Finally
I found out why: there was a station hard at it in there with the call AA5NN!
A few weeks later I met the proud owner of this call and discovered it was
a very pleasant and friendly YL, Linda. Well, as we got to chatting, Linda
told me she was a CW-only op, and had moved up to extra largely in the hopes
of getting a decent CW call. You see, her general call had been N5DWN, and
every time she answered somebody they would QSY down 5. I guess this shows
that the FCC, just like lightening, DOES strike twice in the same place.
de AA6KX

2922. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-18 17:25:21 UTC
From: perley@hobbes
Message-ID: <7781@crdgw1.crd.ge.com>
Source record: 11624
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <998@gold.GVG.TEK.COM>, grege@gold (Greg Ebert) writes:
>In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
>>
>> Hi. I am a member of Group 70 which is building a large amateur
>>astronomical observatory. We eventually intend to have it completely
>>automated (remote controlled ?) and need a very accurate clock for the
>>observatory.
>>
> NBS transmits 5, 10, and 15 (or is it 10, 15, 20 ?) Mhz signals which
> are reputed to be THE time standard. Broadcasts are from Boulder, CO,
> (WWVB), Hawaii (WWVH), and Idunno, (WWVL). They have an amplitude-
> modulated tone (1Khz I think) and maybe some other stuff. Heathkit
> (I'm not advertising for them) sells a "most accurate clock" kit which
> will spit-out the time on a serial port for your computer's enjoyment.

I may stick my foot in my mouth here, but John Cincotta said he needed
accuracy better than 300 microseconds. That means (assuming
everything else is ideal) that you need to know the signal path length
to within 90 kilometers. That may be a problem on frequencies where
propagation may be by skip. Here is the part where I guess that a
VLF signal is guaranteed to be arriving by ground wave so you just need
to know the distance to the transmitter.

-don perley

perley@trub.crd.ge.com

2923. Re: Automated observatory, was Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-18 18:03:49 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230020@hpfcdj.HP.COM>
Source record: 11533

The 60 kHz time transmissions are WWVB, which is believe is very similar in format to the transmissions from WWV or WWVH on 2.5, 5, 10, 15, and 25 MHz. All are run by the NIST (formerly NBS); WWV's transmitters are right here in good ol' Ft. Fun, Colorado (if I stand up and look north right now, I can just make out the antenna farm!). WWVH is near Kehaka, Dauai, Hawaii.

These stations supply VERY accurate time and frequency information; not only is the carrier on-frequency to within an inch of its life, but the various beeps, clicks, and other tones used in the transmissions are similarly accurate. (For example, the tone at the top of the minute is EXACTLY(tm) 1kHz.) The time is also encoded in a BCD format on a 100 Hz subcarrier.

My 1981 copy of the ARRL _Radio_Amateur's_Handbook_ has a one-page diagram outlining the format, and I suppose that you could find this information in later editions as well. Or, simply write to:

Radio Station WWV
2000 E. County Rd. 58
Ft. Collins, CO 80524

Another station which provides a similar service is CHU, operated by the Canadian government on 3330 kHz, 7335 kHz, and 14670 kHz. They also provided encoded time information (although theirs is in a different format). Unfortunately, I do not have an address for CHU information.

There used to be a Heathkit clock which used WWV's time codes to keep itself correctly set, and I believe an RS-232 interface (or some such) was available as an option; I don't know if they still make this or not, but it or similar commercially-available products might be just the thing for unattended operation.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

2924. Re: New Wide Band Scanner (hand Held)

Newsgroup: rec.ham-radio
Date: 1990-05-18 18:37:16 UTC
From: john@anasaz.UUCP
Message-ID: <2281@anasaz.UUCP>
Source record: 11528

In article <3174@ultb.isc.rit.edu> wlw2286@ultb.isc.rit.edu (W.L. Ware) writes:
]Does anyone know if the 600-805 MHz is recoverable?
]
]What are the specs on the Icom?
]
]Lance

The wide-band radio shack scanners use a UHF local oscillator (~750-... MHz),
and ~610 MHz first IF. Since this 610 is also the first IF in standard
cable TV converters, this is probably not a coincidence. Thus, if you
try to receive in this frequency range, you run into problems - both LO
frequency stretch, and feedback between front end and IF.
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

2925. Re: New Wide Band Scanner (hand Held)

Newsgroup: rec.ham-radio
Date: 1990-05-18 19:07:32 UTC
From: doug@hokulea.hig.hawaii.edu
Message-ID: <7765@uhccux.uhcc.hawaii.edu>
Source record: 11626

In article <3174@ultb.isc.rit.edu> wlw2286@ultb.isc.rit.edu (W.L. Ware) writes:
>What are the specs on the Icom?

The ICOM IC-R1 handheld receives 0.1 - 1300 MHz in AM, FM, & WFM. It only has 100 memories. I was a little disappointed in this. I've filled up the 400 channels in my pro-2004 and made the modification to make it a 6400 channel scanner [This should do me for a while :-)]. The R1 is 1.9"W x 4.0"H x 1.4"D & has a 24 hour clock & rotary tuning (the first handheld to have this I believe).

==
* Douglas Myhre <doug@loihi.soest.hawaii.edu> *
* Hawaii Institute of Geophysics *
* Research Computing Facility *
* 2525 Correa Rd. *
* Honolulu, HI 96822 (808) 948-8713 *
==

2926. 2m Mobile Purchase Advice Sought

Newsgroup: rec.ham-radio
Date: 1990-05-18 20:50:03 UTC
From: mhall@ducvax.auburn.edu
Message-ID: <5501@emory.mathcs.emory.edu>
Source record: 11530

I want to purchase a 2m mobile rig that will serve as a rig for the car (my home away from home) and a radio to support packet. The rigs that I am considering are the Kenwood TR751A, Yaesu FT290R, and a used Icom 255A. I will appreciate any feedback I can get concerning these rigs, or any others that any of you might think worthy of consideration, but are not on my list. I would prefer the "all mode" feature, but it isn't a necessity. I will gladly summarize my results, and repost in a few days. Thanks in advance for any and all assistance!

Mark Hall Internet==> MHall@Ducvax.Auburn.Edu
MaBell ==> 205/844-9185

2927. (none)

Newsgroup: rec.ham-radio
Date: 1990-05-18 21:38:02 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9005182138.AA29037@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 11535

Subject: SPICE models

Are there any SPICE models for common components (transistors etc.)
available through the internet? I need a few and can't justify the
expense of an entire library.

-- Doug WA6VVV

2928. FT-470 rapid charger?

Newsgroup: rec.ham-radio
Date: 1990-05-18 22:39:47 UTC
From: billt@hprnd.HP.COM
Message-ID: <1140033@hprnd.HP.COM>
Source record: 11529

Is there such a thing as a rapid charger for the FT-470? I know Yaseu makes a fast charger, 6 hours, but what I am looking for is a true rapid charger like what Kenwood has for the HT 25AT.

Thanks in advance for the information.

Bill

2929. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-18 23:16:51 UTC
From: mcmahan@netcom.UUCP
Message-ID: <12320@netcom.UUCP>
Source record: 11531

>In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
>
> Hi. I am a member of Group 70 which is building a large amateur
>astronomical observatory. We eventually intend to have it completely
>automated (remote controlled ?) and need a very accurate clock for the
>observatory.

In the last radio telescope I worked on in Japan (34 Meter dish in Kashima, completed late last year) they used a hydrogen maser to provide a 10 MHz reference for things like downconverters. Unfortunately, they had only one located about 700 Meters away from our dish, and ran it out on some cheapo coax (RG-58, I think) that was quite prone to the 50 Hz power line frequency used locally. REALLY screwed up the maser purity. The local oscillators wouldn't lock because the PLO's weren't getting a stale frequency. They also used the dial up 'phone time' to set all their clocks for pointing the telescopes. Seemed kind of wierd, after dropping $10M on the telescope, but I guess it works for them.

Just thought you might get a chuckle from this info.

-dave

2930. Re: Armed Forces Day. What frequencies will be used???

Newsgroup: rec.ham-radio
Date: 1990-05-19 00:08:04 UTC
From: tad@ssc.UUCP
Message-ID: <728@ssc.UUCP>
Source record: 11539

In article <512@synopsys.COM>, georgez@synopsys.com (George Z) writes:
>
> Does anyone out there in ham radio land know what the schedule is for
> Armed Forces Day? Do you have a list of the stations, times and
> frequencies and modes they will be operating? Thanks alot.
>
> 73 de George KJ6VU aka: georgez@synopsys.com

Here is a copy of a bulletin that I picked up off of packet the other
day:

Armed Forces Day Operations Schedule, May 19, 1990

AAE > LSB 4030.5
AAE > LSB 7358.5
AAE > Ft.Sam, Houston, TX USB 13994.5
AAE > USB 227992.5
AAE > CW/RTTY 14511.5
AAH > LSB 4033.5
AAH > USB 14488.5
AAH > Fort Lewis, WA USB 20975.0
AAH > USB 27820.0
AAH > CW/RTTY 6988.0
AIR > LSB 4025.0
AIR > LSB 7315.0
AIR > Washington, DC USB 14408.0
AIR > RTTY 13986.5
AIR > CW 6995.5
AIR > CW 13997.5
NAM Norfolk, VA USB 14400.0
NAM --- " --- CW/RTTY 14400.0
NAV > Cheltenham, MD USB 14389.5
NAV > RTTY 7372.5
NPG > LSB 7301.5
NPG > USB 14375.0
NPG > USB 20625.0
NPG > USB 27950.0
NPG > Stockton, CA RTTY 13927.5
NPG > CW 6970.0
NPG > CW 7365.0
NPG > CW 10259.5
NPG > CW 13975.5
NPG > CW 20998.5
NPG > CW 24805.0
NPL San Diego, CA USB 14385.0

NPL --- " --- RTTY 7382.5
NMH > LSB 7346.3
NMH > USB 20937.5
NMH > Alexandria, VA RTTY 14440.0
NMH > CW 4015.0
NMN Portsmouth, VA CW/RTTY 7393.0
NZJ El Toro, CA USB 14480.0
NZJ --- " --- RTTY 7375.0
WAR > LSB 4018.5
WAR > USB 14403.5
WAR > Fort Derrick, MD USB 20994.0
WAR > CW/RTTY 10180.0
WAR > CW 6998.5

Compiled by K4ON from May, 1990 QST

Last year I went out to Fort Lewis, Washington (near Tacoma) to operate the Army MARS station there. Quite impressive! For some reason, I pictured a small station with old gear tucked into the back of a Quonset hut somewhere. What I found was a LARGE antenna farm that definately looked like a high-powered HF military station. There was a nice building with a separate room for each operating position. I got to operate some very nice Harris mil-spec high powered HF radios into some huge log-periodics and wire arrays. It was fun working cross-band on all those weird frequencies.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2931. Need diagram for old Henry TEMPO fmh-2 HT

Newsgroup: rec.ham-radio
Date: 1990-05-19 00:14:35 UTC
From: kjustice@xroads.UUCP
Message-ID: <1068@xroads.UUCP>
Source record: 11538

I urgently need a schematic diagram for an old Henry Radio Tempo fmh-2
handie talkie. I had been using this for packet work, but it died.
It doesn't look too tough to work on, but without a diagram ...

I will be glad to pay for copying, or reasonable price for original, and
postage.

Please reply via E-mail or packet:

asuvax!xroads!kjustice
or
KF7TP@W1FJI.AZ.USA.NA

Thanks for anyone who can help!!! Keith
--
\ / C r o s s r o a d s C o m m u n i c a t i o n s
/\ (602) 941-2005 300|1200|2400 Baud 24 hrs/day
/ \ hplabs!hp-sdd!crash!xroads!kjustice

2932. Mod file: Uniden 2510 AGC speed mod for packet

Newsgroup: rec.ham-radio
Date: 1990-05-19 04:02:23 UTC
From: rfc@briar.Philips.Com
Message-ID: <95833@philabs.Philips.Com>
Source record: 11532
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
26389 BF 1878 1 0508/1111 6894_TI3DJT TI3DJT MODS@NYNET ()
Sb: speeding up Uniden 2510 AGC

For those of you who are using a Uniden 2510 for packet, you can speed up AGC speed considerably, just by removing the AGC SSB switch transistor Q-111 This transistor switches the AGC off for CW operation, and on for SSB operation. All I did was remove it and my radio now works with very good speed on 10m. You may put a switch between the pads that were for collector and ground. When you want slow AGC turn the switch ON pulling line to ground. For fast agc turn switch off leaving line floating. That is all there is to it.

The description of the mod for the 2510 may work for the 2600. Those who have the Uniden 2600 may find that the AGC is the same for this radio. Look for NJM2902 IC (this is the AGC amp), you may find a transistor connected thru a RC network, to pin 12 of said ic. Remove also. (this mod not tested!)

Ciao de Chuck ti3djt @ ti0paq.cri.na

Note: I haven't tried or verified this, proceed at your own risk! WA2ISE
==========
A notice found on a piece of test equipment made in Japan:
"IT PUT ON THE VINYL SHEET ON THE SURFACE OF UPPER & LOWER PANEL FOR THE PROTECTION PLEASE USE AFTER TEAR OFF VINYL SHEET WHEN USING.

2933. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-19 06:40:53 UTC
From: ward@utastro.UUCP
Message-ID: <5114@utastro.UUCP>
Source record: 11540

In article <7781@crdgw1.crd.ge.com> perley@hobbes (Donald P Perley) writes:
>In article <998@gold.GVG.TEK.COM>, grege@gold (Greg Ebert) writes:
>>In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
>>>
>>> Hi. I am a member of Group 70 which is building a large amateur
>>>astronomical observatory. We eventually intend to have it completely
>>>automated (remote controlled ?) and need a very accurate clock for the
>>>observatory.
>>>
<< stuff deleted >>
>> (I'm not advertising for them) sells a "most accurate clock" kit which
>> will spit-out the time on a serial port for your computer's enjoyment.
>
>I may stick my foot in my mouth here, but John Cincotta said he needed
>accuracy better than 300 microseconds. That means (assuming
<< stuff deleted >>
>-don perley
>perley@trub.crd.ge.com

Why do you need such an accuracy? With a clock that is only 0.001s accurate, you can achieve a pointing accuracy of 0.015 arcsec.s, which is much less than the errors introduced by telescope flexure and atmospheric conditions. At McDonald Observatory we automated our 36" telescope with a clock that has about the same accuracy as the Heathkit 'most accurate clock'. The system puts the object on the cross-hairs every time. We are currently looking to port this system onto our 107", 82" and 30" scopes also.

A clock with only millisecond time accuracy can also serve as the time standard for your insturments. VERY rarely do you ever need a more accurate time than a millisecond in astronomical data collection.

Mike Ward
Supv. Computer Support
University of Texas
McDonald Observatory
ward@astro.as.utexas.edu

2934. Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-19 06:58:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005190704.AA02413@ucbvax.Berkeley.EDU>
Source record: 11536

There's always mine... KB5III

_._ _... ....

Mark Lowe - KB5III

MCL9337@TAMVENUS.BITNET

2935. Re: 2m Mobile Purchase Advice Sought (IC-228H review)

Newsgroup: rec.ham-radio
Date: 1990-05-19 12:17:55 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990May19.121755.9718@cbnewse.att.com>
Source record: 11542

In article <5501@emory.mathcs.emory.edu>,
mhall@ducvax.auburn.edu (Mark Hall) writes:

> I want to purchase a 2m mobile rig that will serve as a rig for the
> car (my home away from home) and a radio to support packet.

PRODUCT REVIEW: ICOM IC-228H 2M TRANSCEIVER

by Bob Parnass, AJ9S

My Icom IC28A performed very well, and giving it to my wife
afforded me the opportunity to buy another 2 meter radio.

What do I look for in a 2 meter transceiver? Being a
scanner enthusiast, I look for wide frequency coverage on
receive, and reasonable scanning facilities. Reliability
and ease of obtaining schematics and parts are important,
and Icom, Kenwood, and Yaesu score well here.

I prefer 25 watt radios to 45 watt radios for a few reasons:

1. I believe manufacturers overrate their transmitters'
power specifications. Most models use hybrid modules
for the driver/final amplifier stage. As a recent QEX
article points out, the hybrid modules are only 25% -
50% efficient, which means the bulk of the power is
dissipated in the form of heat.1

The heat sinks on today's radios are just not big
enough to dissipate the kind of heat developed during
my typical QSO (conversation). The heat sink on my
old 25 watt Motorola MetrumTM never got nearly as hot
at the heat sinks on late model 25 watt Japanese
radios. My 25 watt Kenwood TR-7800 and IC28A became
very hot during QSOs. Pity those who bought Kenwood's
"45 watt" TM-221A transceiver. It's not until they
read the owner's manual that they learned Kenwood
recommends against transmitting for more than 1 minute
out of 3.

Heat shortens the already finite life of the hybrid
modules, and I've been forced to replace these modules
on various radios, to the tune of over $55 apiece (not
including my labor).

2. It's easier to find power supplies for 25 watt radios,
because they require only 6 - 7 amperes, versus 9 - 10

amperes for their 45 watt counterparts. The smaller power supplies are less expensive and are easier to find surplus.

3. Signals from 25 watt transmitters are almost as strong as those from 45 watt radios.

The IC228A/H series is Icom's replacement for the IC28A/H two meter radios. The tradition of offering two models at different transmitter power levels continues, with the 25 watt IC228A and 45 watt IC228H.

The IC228 contains a single VFO, and 20 memory channels. All the memory channels behave the same, as contrasted with some Kenwood designs which limit the flexibility of certain memory channels, while permitting special operations with others. Each IC228 memory channel can store receive frequency, CTCSS tone, transmit frequency offset, and scan list lockout.

Unlike Yaesu radios, the IC228 comes equipped with a synthesized CTCSS (PLTM) tone encoder, which is almost a necessity for using repeaters in the Chicagoland area. Any one of 32 tone frequencies can be selected from the front panel, and associated with a memory channel or VFO.

Repeater offsets are selectable from 5 KHz through 10 MHz, and can be stored in memory. You could conceivably store 20 different repeater frequencies in the IC228, each with a different offset and tone.

I wanted the 25 watt IC228A, but only IC228H models were available at the time. I'm glad I bought the IC228H high power model, because an internal potentiometer made it easy to reduce power output from 45 watts down to 25 watts. The large heat sink affords extra cooling capacity, and the final amplifier should last longer. Even so, the heat sink becomes too hot to hold during a moderately long QSO! Heat is eventually transferred from the heat sink to the entire radio case, making the entire radio "untouchable."

The major changes in IC228 circuitry from the IC28 design involve the microprocessor. The RF circuits remain similar, using the same transistor lineup in the transmitter stages and the now familiar Motorola MC3357 IF detector/squelch chip popular in scanners.

Icom took cues from the Kenwood TM2530 series to improve the LCD display panel and make the front panel controls visible in the dark. The display on the IC228 makes use of colored backgrounds for various fields, and is easier to read than the display in the IC28.

Unlike the IC28, the IC228 emits a beep tone each time a key is depressed. Although some people find this feature annoying in walkie-talkies, the beeps make it more convenient to operate the IC228 while driving. Icom recognizes freedom of choice, and permits the user to disable the beep.

The volume, squelch, and tuning knobs, as well as several buttons, are now backlit - an improvement over the IC28. The IC28 contained a photocell which automatically varied the LCD backlighting with changing ambient light levels, however the newer IC228 permits the user to select from 4 fixed levels of backlighting.

There is no free lunch, and Icom fans had to give up something in exchange for the new control backlighting: the plastic front panel and tuning knob on IC228 feel chintzier than the metal panel and rubber padded knob on the IC28.

Another new feature is a "lock" pushbutton, which disables the radio's front panel controls. I haven't found this as useful as the lock slide switch on the DTMF up/down microphone. The up/down pushbuttons on the microphone can be bumped accidentally in the mobile environment, and the slide switch prevents unplanned frequency changes.

The IC228's scanning features are on par with, or slightly above those of other 2 meter transceivers, but not as well implemented as in "real" scanners. The IC228 scans at the same speed as the 28 - rather slowly. A reasonable memory scan, with channel lockout, is provided. This is an improvement over the early Kenwood TH-215 walkie-talkie memory scan, which lacked a lockout feature, so one was forced to scan ALL channels.2

The timer operated scanning in the IC228 causes the radio to resume scanning 2 seconds after the carrier drops, or after 15 seconds - whichever occurs first. Too bad the IC228 lacks a carrier operated mode, like the feature in the Kenwood TM2530, so the receiver would "stay put" until the carrier drops.

The IC228 includes the ability to search between 2 frequency limits, and users of the American versions can select tuning steps of 5 KHz or more. The search limits are programmed into a special register pair, so they don't tie up memory channels. The search will pause as soon as the squelch opens, which usually brings the receiver to a halt off the center of the station you want to hear. Unfortunately, Icom didn't adopt the Kenwood "center tuning" or Bearcat ZeromaticTM feature, which forces the searching to stop right on the center frequency. The Bearcat window detector circuit employs operational amplifiers, fed by the discriminator signal, to generate a logic level when the receiver is

tuned within 2.5 KHz of center frequency.

When the IC28 was first introduced, it was offered with either the standard or DTMF microphones, at two different prices. Apparently, most people wanted DTMF mikes, and a DTMF microphone is provided with the IC228.

Except for the high heat sink temperatures, the IC228 performed well during a recent cross country trip. With the radio bolted to the center console of my truck, the receiver audio output was ample, the display easy to read day and night, and stations in Pennsylvania and Ohio praised the transmitted audio quality.

I'm pleased with the IC228, and recommend it.

---

1. See "RF Hybrid Modules: Building with Bricks," by Bill Olson W3HQR, in July 1988 QEX.

2. Late vintage Kenwood TH-215 walkie-talkies now come with upgraded firmware which permits channel lockout. A new CPU chip may be retrofitted into earlier units, but Kenwood charges for this service.

--

Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

2936. Re: Dongles!!

Newsgroup: rec.ham-radio
Date: 1990-05-19 15:37:30 UTC
From: 702WFG@SCRVMSYS.BITNET
Message-ID: <9005200703.AA12340@ucbvax.Berkeley.EDU>
Source record: 11557

Dongle, now there's an interesting term. Banyan uses them on their servers and just called them 'keys'.

I can't speak for the ones need on the Amiga but I would imagine the ones used by Banyan were a little more complex than just jumpers because they hook up to the printer port (paralel) and don't interfere with the normal operation of the printer. I had always assumed they had enough smarts to return an answer when queried about their status. Then all the software has to do is read/write the printer port.

Anybody got more info?? Anybody from Banyan out there??

Inquiring minds want to know!!!

bill KB3YV

bill gunshannon
702WFG@SCRVMSYS.BITNET

2937. FOC

Newsgroup: rec.ham-radio
Date: 1990-05-19 16:09:50 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <674.26558A92@weyr.FIDONET.ORG>
Source record: 11546

I am curious about the origin of the FOC CW operators and how one
goes about securing sponsorship to become a FOC.
What are the criteria for selection of FOC members?

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

2938. Your E-mail Address

Newsgroup: rec.ham-radio
Date: 1990-05-19 16:22:38 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <675.26558A96@weyr.FIDONET.ORG>
Source record: 11547

I have been trying to send mail to John WB2EKK at the E-mail address that he sent me a couple of weeks ago. It was PESCATORE_JT%ncsd@gte.com
But for some reason the mail will not go through. Help Please!

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

2939. GAP FED ANTENNA

Newsgroup: rec.ham-radio
Date: 1990-05-19 18:13:00 UTC
From: LCASHIN@UNCAEDU.BITNET
Message-ID: <9005220703.AA07537@ucbvax.Berkeley.EDU>
Source record: 11541

I am a new subscriber to Info-HAms and I am a recently Licensed
Amateur V O 1 X C. I am interested in learning of any experience

you may have had with the Challenger DX-V and/or DX-VI Antennae from
Gap Antenna Products of Vero Beach Forida,
As I have limited space available for Antennae the concept appeals
to me but As with any new product, I am a little hesitant to be the
first Kid on the block with one .
I would appreciate any info on this product that you may be able to provide.
73's
Laurie Cashin
V O 1 X C
St. John's, Nfld.

2940. Dongle's

Newsgroup: rec.ham-radio
Date: 1990-05-19 18:48:56 UTC
From: TCOMGRD1@OUACCVMB.BITNET
Message-ID: <9005200703.AA12351@ucbvax.Berkeley.EDU>
Source record: 11558

Date: 19 May 1990, 14:46:13 EDT
From: TCOMGRD1 at OUACCVMB
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL at MIL

Ok... now I have a few questions:

1) What the heck IS a dongle?? I'm and Apple person myself, and at first though
t it was a joke... but apparantly not.

2) Why did they give it such a silly name?

pete simpson
Bitnet: tcomgrd1@ouaccvmb.bitnet
aldstf51@ouaccvmb.bitnet
Internet: psimpson@oucsace.cs.ohiou.edu

2941. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-19 18:51:05 UTC
From: dennis@gpu.utcs.utoronto.ca
Message-ID: <1990May19.185105.28390@gpu.utcs.utoronto.ca>
Source record: 11543
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <998@gold.GVG.TEK.COM> grege@gold.GVG.TEK.COM (Greg Ebert) writes:
>In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
>>
>> Hi. I am a member of Group 70 which is building a large amateur
>>astronomical observatory. We eventually intend to have it completely
>>automated (remote controlled ?) and need a very accurate clock for the
>>observatory.
>>
> NBS transmits 5, 10, and 15 (or is it 10, 15, 20 ?) Mhz signals which
> are reputed to be THE time standard. Broadcasts are from Boulder, CO,
> (WWVB), Hawaii (WWVH), and Idunno, (WWVL). They have an amplitude-
> modulated tone (1Khz I think) and maybe some other stuff. Heathkit
> (I'm not advertising for them) sells a "most accurate clock" kit which
> will spit-out the time on a serial port for your computer's enjoyment.

Some of the above reply is not quite correct. The NBS (now NIST)
transmits HF time signals on 2.5, 5, 10, 15 and 20 MHz from Ft. Collins,
CO (WWV) and Kauai, HI (WWVH, omits 20 MHz). They also do indeed transmit
a time signal on 60 kHZ (WWVB, in Ft. Collins, CO). WWVL was a 20 kHz
station at the Ft. Collins site but was shut down 20 years ago. In
addition to this, NIST transmits a time code on the interrogation
channel of the GOES satellites, this at slightly above 468 MHz. All
this is from NBS Special Publication 432.

While the WWV(H) time signals are certainly very accurate as transmitted,
HF signals propagate by F-layer skip which means the transmission path
length will vary somewhat unpredictably from day to night, summer to
winter, and with changes in solar activity. The time you receive will
thus jitter by something on the order of several milliseconds. Also,
since HF propagation is fairly unreliable, you will need a reasonably
stable oscillator backing the receiver for periods when the time signal
is unreceivable.

Heathkit does make a clock to receive the WWV(H) time code (which is
modulated on a 100 Hz subcarrier, you can hear it if you turn up the
bass on your radio), and it is cheap, but it is also incredibly poorly
done. The time code from the serial port only gives you the time to one
decimal place after the seconds (i.e. 100 ms), you have to guess at the
rest. Worse, if the receiver loses the time signal (which it will, this
is HF radio) the time will sail off into never-never land with no
indication that all is not well. A well-done WWV(H) receiver with an
RS-232 interface is sold by

Traconex Inc.
1140 N. Kraemer Blvd, Ste. G
Anaheim, CA 92806

but this is probably not a big volume item and is quite pricey (I think $1200 or so). This will provide time to within a few milliseconds of UTC under most conditions.

Because low frequency radio is less affected by ionospheric variation (it propagates using the earth's surface and the ionospheric D-layer as a wave guide), WWVB will in principle give you accuracy better than 500 us, and perhaps as good as 100 us. There are a number of companies which sell WWVB receivers, including

Spectracom Corp.
101 Despatch Dr.
East Rochester, NY 14445

Kinemetrics/Truetime
3243 Santa Rosa Ave.
Santa Rosa, CA 95407

but if you don't like the price of the Traconex receiver you aren't going to like these at all. Note also that if you really need 300 us time at all times you would probably want to back these radios with a good quality ovenized crystal oscillator to cover periods of signal dropout (though this is less of a problem at 60 kHz than at high frequencies), so add another $800. Kinemetrics (among others) also makes a GOES receiver for even better accuracy and reliability, but at correspondingly higher prices.

If these are outside your budget but you don't mind doing some soldering and you are located close to the east coast you might look at the CHU time signal instead, at 3330, 7335 and 14670 kHz. You can build a quite decent receiver for the timecode with a consumer HF radio and a well-filtered 300 bps modem (the latter you might have to construct). Carefully done, this can give you the precision of the Traconex receiver during periods when the signal is recievable, though to match the reliability of the Traconex you'd need a radio receiver which allows computer control of the frequency (this puts the price up) and this will still only give you several-millisecond precision. Homebrewing a WWVB receiver from scratch would actually be a fair bit easier and cheaper than WWV/CHU if you are into LF radio receiver design, but would still be in the category of major project.

I think the upshot is that there is currently no cheap way to buy a time code receiver which is accurate to 300 us, and no easy way to build one. Milliseconds are cheaper/easier to come by, but still pricey. The Heathkit radio is cheap but I wouldn't trust it for more than setting my watch and even then I'd want a second opinion.

If you've got a few years to wait, however, I'd watch the price of GPS receivers. Even the degraded version of GPS that non-military people get to use should be able to provide microsecond timing (it

has to to provide the positional precision it does), and now that there actually exist some GPS satellites I wouldn't be surprised to see the price of these receivers eventually fall to not much more than that of a good quality scanner as volumes increase. This is definitely a future item, though, as the price of current GPS receivers is absolutely frightening.

Dennis Ferguson

2942. Kenwood RC-20/IF-20 info sought

Newsgroup: rec.ham-radio
Date: 1990-05-19 19:21:42 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <4386@ubbs-nh.MV.COM>
Source record: 11544

I'd like to know if the Kenwood RC-20/IC-20 remote head/interface will
permit crossband repeat when used with the tm-231, 331, 431 ect.

Thanks!
Noel
KC1RB
--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

2943. Extended UHF Recieve Mod(s) For Yaesu FT-470

Newsgroup: rec.ham-radio
Date: 1990-05-19 19:26:07 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <4387@ubbs-nh.MV.COM>
Source record: 11545

I, and a few other fellow 470 owners are interested in determining whether or not the FT-470 can be modified for extended recieve on the UHF band.

Thanks,
Noel
KC1RB
--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

2944. Numbers Stations - New Newsletter

Newsgroup: rec.ham-radio
Date: 1990-05-19 20:38:24 UTC
From: ckp@cup.portal.com
Message-ID: <30051@cup.portal.com>
Source record: 11550
Cross-posted to: rec.ham-radio,rec.radio.shortwave

```
Given the on-going interest in this newsgroup about Numbers stations and
related shortwave mysteries, I am posting the following announcement
of publication.
----
Announcing THE NUMBERS FACTSHEET, a quarterly publication compiled and edited
by the acknowledged authority on Spy Numbers Stations, Havana Moon. Nobody
knows Numbers like HM - and nobody does Numbers like HM.

This hard hitting newsletter covers Numbers like no other publication
out there and includes the following:
. Unusual Intercepts
. Little Known Facts
. Book Reviews
. Articles by Numbers Experts
. An Intercept Database Sorted by Time and Frequency
. Commentary by Havana Moon

THE NUMBERS FACTSHEET is available from MoonBeam Press, PO Box 149,
Briarcliff Manor, NY 10510 at an annual subscription price of $16.00
domestic, $25.00 international air mail.

A sample copy is available for $1.00 to cover the cost of postage and
handling.

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Christine K. Paustian % ckp@cup.portal.com %
% Los Numeros On-Line %%% sun!portal!cup.portal.com!ckp %
% PO Box 149 %%% 1:272/39 (FidoNet) %
% Briarcliff Manor, NY 10510 % C.PAUSTIAN (GEnie) %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

2945. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-19 21:45:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500543@ux1.cso.uiuc.edu>
Source record: 11548

At 60 khz, the WWVB carrier cycles every 16.67 usec. The best resolution you can get would be at least 1/4 of that and possibly even better. The hitch is knowing the propogation path delay between you and the WWVB transmitter site. While the distance can be calculated very accurately, I'm not so sure there are no propogation effects that need to be accounted for. But the WWVB signal does not have the regularly changing effects you would see at HF frequencies. Also, 60 khz is easier to digitize and do some slick stuff with than 5 Mhz.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2946. Re: ICOM R1 Rumors

Newsgroup: rec.ham-radio
Date: 1990-05-19 21:51:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500544@ux1.cso.uiuc.edu>
Source record: 11549

We will need to simply compare features of an R1 purchased in Japan,
Europe, and North America.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2947. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-19 21:52:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500545@ux1.cso.uiuc.edu>
Source record: 11551

Now what is the format of WWVB the 60 khz VLF signal?
Now what is the format of WWVB the 60 khz VLF signal?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2948. Re: Need Schematic for DTMF Decoder

Newsgroup: rec.ham-radio
Date: 1990-05-20 00:03:30 UTC
From: bobw@col.hp.com
Message-ID: <24300007@col.hp.com>
Source record: 11556

```
>
>Why make one? There is a DTMF decoder chip, SSI202, that does it all for
>you. All this in a 18 pin package. You supply the audio in and it produces
>a BCD output on 4 pins plus some other control lines.
>
>There is a construction article in one of the old QST mags I have that
>has most of what you want. I don't have the month/year of the issue but
>can look for it if you are interested.
>----------

The article appeared in QST Feb 1988.

(I just happened to look it up the other day.)
```

2949. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-20 00:30:19 UTC
From: dennis@gpu.utcs.utoronto.ca
Message-ID: <1990May20.003019.8670@gpu.utcs.utoronto.ca>
Source record: 11552

In article <30500545@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>Now what is the format of WWVB the 60 khz VLF signal?

The carrier is dropped in power by 10 db at the beginning of every second, and stays down for 200, 500 or 800 ms depending on whether the bit is a 0, a 1 or a marker, respectively. A marker is sent every tenth second, with a pair of them at seconds 59 and 0 of the minute. The other bits encode the time, date and some other junk, in BCD.

A receiver which does a good job of decoding this can be a fairly simple thing. Phase lock to the 60 kHz carrier and use the output of the PLL as a detector for the amplitude changes. This gives you both the time code and a nice, accurate frequency source.

Dennis Ferguson

2950. Re: Modem to Packet

Newsgroup: rec.ham-radio
Date: 1990-05-20 01:27:41 UTC
From: thomas@mvac23.UUCP
Message-ID: <235.UUL1.3#5131@mvac23.UUCP>
Source record: 11553

Since I started this thread, let me ask another question about packet systems.

As I understand it, the packet network exists because when a packet is broadcast, any other node which receives that packet and finds that it is not addressed to them, rebroadcasts that packet. (Digipeater?)

If this is so, than it seems to me that unless the operator of each repeater is verifying each packet sent out over his transmitter, than he is in essence doing just what some people were commenting on: the ability to resend mail addressed to a packet site which originates on a land-line based network (ie. uucp or internet).

By the way, aren't there restrictions on the types of things which can be posted on some machines in the internet? Like advertisements?
- tom

--
internet : mvac23!thomas@udel.edu or thomas%mvac23@udel.edu
uucp : {ucbvax,mcvax,psuvax1,uunet}!udel!mvac23!thomas
Europe Bitnet: THOMAS1@GRATHUN1 Location: Newark, DE, USA
Quote : The only way to win thermonuclear war is not to play.

--
The UUCP Mailer

2951. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-20 02:40:24 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1861@aurora.cs.athabascau.ca>
Source record: 11554
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <998@gold.GVG.TEK.COM> grege@gold.GVG.TEK.COM (Greg Ebert) writes:

> NBS transmits 5, 10, and 15 (or is it 10, 15, 20 ?) Mhz signals which
> are reputed to be THE time standard. Broadcasts are from Boulder, CO,
> (WWVB), Hawaii (WWVH), and Idunno, (WWVL).

Actually, NIST transmits as follows:

WWV (Fort Collins, CO) 5000, 10000, 15000 (*)
WWVH (Kaui, HI) 5000, 10000, 15000 (*)
WWVB (Fort Collins, CO) 60

Frequencies are in KHz. The entries flagged with a (*) may also transmit on
any or all of 2500 and 20000 KHz - it's been a while since I checked :-)
NIST used to operate a station on 20 KHz (WWVL). It was shut down a number
of years ago. You can also get the time broadcasts over the phone. No, I
don't have the number.

> They have an amplitude-
> modulated tone (1Khz I think) and maybe some other stuff. Heathkit
> (I'm not advertising for them) sells a "most accurate clock" kit which
> will spit-out the time on a serial port for your computer's enjoyment.

There is quite a bit of "other stuff" encoded in the transmissions. A call
to NIST will scare up various bits of documentation on the formats used.

There are quite a few LF time stations in operation. Following is a repeat
of a posting documenting some of them.

>From: rfc@briar.philips.com (Robert Casey;6282;3.57;$0201)
Newsgroups: rec.ham-radio
Subject: VLF time and frequency radio stations list
Date: 27 Nov 89 21:07:09 GMT
Original-From: ka2raf@nn2z.ampr.org (Chris Crosby)

WORLD STANDARD TIME and FREQUENCY STATIONS (sorted by freq)

```
------------------------------------------------------------------------

Station | Power | Std Freq |Accr'cy|DUT1
-------------------------------|---------|-------------|-------|--------
Call Sign|Approximate|Latitude |Carrier |Carrier |Mod |Parts |
|Location |Longitude|Power |(KHz) |(Hz) | 9 |
| | | (kw) | | |in 10 |
--------|-----------|---------|---------|--------|-----|-------|--------
GBR(1) |Rugy, |52 22'N | 750 | 15.95 | 1(9)|+/-0.02|CCIR code by
(31) |UK |01 11'W | 60(2) | 16.00 | (9) | |dble pulse
```

```
---------|-----------|---------|---------|--------|-----|-------|---------
NDT(1) |Yosami,Jap |34 58'N | 40(2) | 17.4 | nil |+/-0.1 |
(32) |137 01'E
---------|-----------|---------|---------|--------|-----|-------|---------
NAA(1) |Cutler,ME |44 38'N | 2000 | 17.8 | nil |+/-0.1 |
(22)(32) |USA |67 17'W | 1000(2)
---------|-----------|---------|---------|--------|-----|-------|---------
NLK(1) |Jim Creek, |48 12'N | 1200 | 18.6 | nil |+/-0.1 |
(32) |Wash.,USA |121 55'W | 130(2)
---------|-----------|---------|---------|--------|-----|-------|---------
UQC3 |Khabarovsk,|48 30'N | 300 | 26.6 |1,10,|
|USSR |134 51'E | | 25.1 |40 | |
| 25.5 | | |
| 23.0 |(42) | |
| 20.5 | | |
---------|-----------|---------|---------|--------|-----|-------|---------
UTR3 |Gorky, |56 11'N | 300 | 25.0 |1,10,| |
|USSR |43 58'E | | 25.1 |40 | |
| 25.5 | | |
| 23.0 |(42) | |
| 20.5 | | |
---------|-----------|---------|---------|--------|-----|-------|---------
NSS(1) |Annapolis, |38 59'N | 1000 | 21.4 | nil |+/-0.1 |
(32) |MD,USA |76 27'W | 400(2) | | | |
---------|-----------|---------|---------|--------|-----|-------|---------
NWC(1) |North West |21 49'S | 1000(2) | 22.3 | nil |+/-0.1 |
(22)(32) |Cape,Astrla|114 10'E | | | | |
---------|-----------|---------|---------|--------|-----|-------|---------
NPM(1) |Lualualei |21 25'N | 1000 | 23.4 | nil |+/-0.1 |
(22)(32) |HI,USA |158 09'W | 630(2) | | | |
---------|-----------|---------|---------|--------|-----|-------|---------
JJF-2(1) |Sanwa, |36 11'N | 10 | 40 | 1 |+/-0.1 |
JG2AS |Sashima, |139 51'E | | | (21)| |
|Ibaraki,Jap| | | | | |
---------|-----------|---------|---------|--------|-----|-------|---------
OMA |Podebrady, |50 08'N | 5 | 50 | 1 |+/-10 |No DUT1
|CZECH.,SR |15 08'E | | | (90 | |trans
---------|-----------|---------|---------|--------|-----|-------|---------
RTZ(1) |Irkutsk |52 18'N | 10 | 50 | 1; |+/-0.1 |CCIR Code by
|USSR |104 18'E | | | 10 | |dble pls(41)
---------|-----------|---------|---------|--------|-----|-------|---------
MSF |Rugby |52 22'N | 25(2) | 60 | 1 |+/-0.02|CCIR Code
|UK |01 11'W | | | (12)| |dble pulse
---------|-----------|---------|---------|--------|-----|-------|---------
WWVB(1) |Ft Collins |40 40'N | 13(2) | 60 | 1 |+/-0.1 |No CCIR
|CO,USA |105 03'W | | | (3) | |code
---------|-----------|---------|---------|--------|-----|-------|---------
RBU(1) |Moskva, |55 19'N | 10 | 66 2/3 | 1; |+/-0.1 |CCIR Code by
|USSR |38 41'E | | | 10 | |pulse(41)
---------|-----------|---------|---------|--------|-----|-------|---------
```

```
HBG(39) |Prangins |46 24'N | 20 | 75 | 1 |+/-0.2 |No DUT1
|Switz |06 15'E | | | (28)| |trans
---------|-----------|---------|---------|--------|-----|-------|---------
DCF77(1) |Mainflingen|50 01'N | 20 | 77.5 | 1 |+/- |No DUT1
|FR Germany |09 00'E | | | |0.005 |trans
---------|-----------|---------|---------|--------|-----|-------|---------
? |Donebach, |49 34'N | 250 | 151 | nil |+/-0.5 |
|FR Germany |09 11'E | | | | |
---------|-----------|---------|---------|--------|-----|-------|---------
? |Allouis, |47 10'N | 1000 to | 163 | nil |+/-0.1 |
|France |02 12'E | 2000 | 84(33) | | |
---------|-----------|---------|---------|--------|-----|-------|---------
? |Droitwich, |52 16'N | 400 | 200 | nil |+/-0.2 |
|UK |02 09'W | | | | |
---------|-----------|---------|---------|--------|-----|-------|---------
RW-166 |Irkutsk, |52 18'N | 40 | 200 | |+/-0.1 |
|USSR |104 18'E | | | | |
-------------------------------------------------------------------------------

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,cbmvax,mips}!atha!lyndon || lyndon@cs.athabascau.ca
```

2952. Re: FOC

Newsgroup: rec.ham-radio
Date: 1990-05-20 03:55:33 UTC
From: brian@ucsd.Edu
Message-ID: <13822@ucsd.Edu>
Source record: 11555

In article <674.26558A92@weyr.FIDONET.ORG> katz@weyr.FIDONET.ORG (SYLVAN KATZ) writes:
>I am curious about the origin of the FOC CW operators and how one

Friends of Carlotta? Fogies on Chariots? Fondlers of Children?
Followers of Christ? Fatsos on Choppers? Fresh outta Cream?

Now you've got ME curious!
- Brian

2953. 100 GHz and up

Newsgroup: rec.ham-radio
Date: 1990-05-20 09:25:00 UTC
From: ARYEH@ILJCT.BITNET
Message-ID: <9005210708.AA17201@ucbvax.Berkeley.EDU>
Source record: 11565

From: ILJCT::ARYEH 17-MAY-1990 16:08:12.92
To: IN%"infohams@taunivm"
CC: ARYEH
Subj: 100 GHz and up

What is currently being done 100 GHz and up? Is there commercial communications
gear in that range, and if so, does any show up on the surplus market?
Does anyone on the net have experience in that area?

I posted this once before, but had some mail trouble and missed info-hams
for a while. Please email, and I will summarize to the net.

--aryeh

Aryeh Weiss 4X/KA1PB aryeh@iljct.BITNET
Department of Electro-Optics
Jerusalem College of Technology

2954. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-20 12:48:11 UTC
From: LANG@UNB.CA
Message-ID: <ID8865.D900520.T094811.LANG@UNB.CA>
Source record: 11567

On Sat, 19 May 90 13:15:24 MDT
cs.utexas.edu!news-server.csri.toronto.edu!utgpu!dennis@tut.cis.
ohio-state.edu (Dennis Ferguson) writes:

> If you've got a few years to wait, however, I'd watch the price of
> GPS receivers. Even the degraded version of GPS that non-military
> people get to use should be able to provide microsecond timing (it
> has to to provide the positional precision it does), and now that
> there actually exist some GPS satellites I wouldn't be surprised to
> see the price of these receivers eventually fall to not much more
> than that of a good quality scanner as volumes increase. This is
> definitely a future item, though, as the price of current GPS
> receivers is absolutely frightening.

1. GPS satellites have been up since 1978. The Block I's were and
are o.k. for time transfer; actually they are better than the Block II's
since Selective Availability is not currently implemented on the
Block I's.

2. You can get a basic GPS receiver now for $3,000 (U.S.) and several
companies have announced receivers for delivery this year with even
lower prices. Perhaps not at hobby prices yet (but well within the
gra$p of a well-healed yachtsman) but the time will come (within 5
years, probably) when you'll be able to get one for about $500.

==========
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Dept. of Surveying Engineering Telex: 014-46202
University of New Brunswick FAX: (506) 453-4943
Fredericton, N.B., Canada E3B 5A3
==========

2955. RTTY firmware help, please?

Newsgroup: rec.ham-radio
Date: 1990-05-20 13:25:23 UTC
From: lkay@ecs.umass.edu
Message-ID: <9870.26569ac4@ecs.umass.edu>
Source record: 11560

At a recent hamfest, I acquired for a *very* reasonable sum a simple RTTY setup consisting of AEA CP-100, an MFJ crosshair tuning aid, monitor, and (here's the laugh(?)) a Model 2 TRS Coco, complete with ROM software cartridge. It serves me just fine, *except* that the ROM cartridge is sorely lacking in features; I'd like to tinker with the system and do better.

My question for the net is: (1) Does anyone have or can tell me where to get an assembly/tech manual for the Coco 2 so I can write my own demod code and chuck the ROM? (2) Does anyone know of a *good* ROM cartridge that existed for the Coco 2 for RTTY? (I don't care if it doesn't have AMTOR) Or even a good piece of software?

Any answer is helpful. I just want to tinker and have maximum fun on RTTY for my small investment.

Tnx,
Len

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

2956. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-05-20 16:00:45 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9005210708.AA17238@ucbvax.Berkeley.EDU>
Source record: 11568

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #699 -
Alouette 1
1 00424U 62B-A 1 90135.92586332 .00000237 00000-0 27437-3 0 3257
2 00424 80.4646 317.8855 0023872 357.9129 2.1911 13.67344214378282
ATS 3
1 03029U 67111 A 90135.70436545 -.00000075 00000-0 99999-4 0 3752
2 03029 13.1509 21.4856 0015120 212.1527 147.7519 1.00273606 82469
Cosmos 398
1 04966U 71 16 A 90137.88752248 .00091991 17152-4 51528-3 0 8705
2 04966 51.5020 314.8808 2295753 90.2006 295.9763 11.00901850588357
Starlette
1 07646U 75010 A 90136.83716742 -.00000099 00000-0 -30654-4 0 750
2 07646 49.8205 282.1899 0206159 87.7183 274.7244 13.82137218771448
LAGEOS
1 08820U 76039 A 90137.10350988 .00000002 00000-0 00000 0 0 775
2 08820 109.8544 344.4895 0044534 244.9764 114.6381 6.38664518 71957
GPS-0001
1 10684U 78020 A 90135.02785213 .00000008 00000-0 99999-4 0 4297
2 10684 63.7072 90.5779 0117004 199.3695 160.1636 2.00556962 75187
GPS-0002
1 10893U 78 47 A 90134.50365453 -.00000025 00000-0 00000 0 0 1848
2 10893 64.3935 331.4120 0171285 25.3619 335.5291 2.00542526 87994
SeaSat 1
1 10967U 78064 A 90135.99209436 .00000984 00000-0 38398-3 0 3335
2 10967 108.0137 253.7162 0002378 258.2124 101.8743 14.35639095621834
GPS-0003
1 11054U 78093 A 90135.79133641 -.00000024 00000-0 00000 0 0 2247
2 11054 63.9355 327.7179 0059547 117.7361 242.9100 2.00567296 85037
Nimbus 7
1 11080U 78098 A 90135.18859138 .00000105 00000-0 12445-3 0 6760
2 11080 99.1976 40.8596 0008718 166.2796 193.8597 13.83428874583473
GPS-0004
1 11141U 78112 A 90134.39377047 .00000008 00000-0 00000 0 0 3782
2 11141 63.6997 90.4808 0060528 316.2916 43.2022 2.00558581 83703
GPS-0005
1 11690U 80 11 A 90137.02792868 .00000009 00000-0 00000 0 0 9784
```

```
2 11690 64.1920 92.4833 0114903 203.9014 155.6432 2.00555600 89610
GPS-0006
1 11783U 80 32 A 90136.83736101 -.00000024 00000-0 00000 0 0 1405
2 11783 63.6897 327.2351 0150326 60.3469 301.1958 2.00557890 73697
GOES 5
1 12472U 81049 A 90136.76428174 -.00000224 00000-0 99999-4 0 9310
2 12472 3.2754 78.5220 0341937 225.3979 132.8109 1.00228605 31931
DE 1
1 12624U 81 70 A 90133.57773882 .00000337 00000-0 14927-2 0 4379
2 12624 89.0492 148.2345 6204235 293.7692 14.7049 3.51022766260900
SME
1 12887U 81100 A 90138.05154559 .00042560 00000-0 79518-3 0 6583
2 12887 97.6423 183.7132 0004141 137.3251 222.8395 15.48629451476605
Salyut 7
1 13138U 82 33 A 90137.74979663 .00047851 00000-0 54618-3 0 2583
2 13138 51.6012 98.1196 0002434 82.2018 277.9628 15.61713777460096
Cosmos 1383
1 13301U 82 66 A 90137.52673056 .00000100 00000-0 10560-3 0 5750
2 13301 82.9288 323.2490 0025906 245.8301 114.0142 13.67824728393483
LandSat 4
1 13367U 82 72 A 90137.77741664 .00000163 00000-0 41202-4 0 3415
2 13367 98.1681 200.9000 0002639 212.7179 147.3855 14.57134965416879
IRAS
1 13777U 83 4 A 90133.94434844 -.00000142 00000-0 -86111-4 0 7758
2 13777 99.0271 331.2727 0013664 120.6148 239.6382 13.98778414 42159
Cosmos 1447
1 13916U 83 21 A 90133.16923176 .00000143 00000-0 14090-3 0 7246
2 13916 82.9431 37.9446 0036415 237.2158 122.5488 13.74037587357863
TDRS 1
1 13969U 83 26 B 90137.00553923 .00000128 00000-0 99999-4 0 9893
2 13969 4.4063 66.0897 0001787 344.4157 15.3562 1.00260669 92805
GOES 6
1 14050U 83 41 A 90131.95923259 .00000121 00000-0 99999-4 0 1786
2 14050 2.1360 78.8231 0002684 254.0882 105.5215 1.00277112 9900
OSCAR 10
1 14129U 83 58 B 90132.33668422 -.00000029 00000-0 00000 0 0 5245
2 14129 25.9780 204.6832 5968372 142.2306 280.2867 2.05881701 23991
GPS-0008
1 14189U 83 72 A 90135.39389241 .00000007 00000-0 99999-4 0 7589
2 14189 63.3379 88.9181 0148259 219.1425 139.7575 2.00706927 50100
LandSat 5
1 14780U 84 21 A 90137.80456603 .00001127 00000-0 26002-3 0 1982
2 14780 98.2066 198.3248 0001423 40.4048 319.7263 14.57117566330299
UoSat 2
1 14781U 84 21 B 90136.67692711 .00001582 00000-0 30151-3 0 7351
2 14781 97.9532 190.2574 0012604 352.8905 7.2122 14.65315314331353
GPS-0009
1 15039U 84 59 A 90136.98144697 .00000006 00000-0 00000 0 0 9378
2 15039 63.1197 88.0180 0022760 243.5413 116.1915 2.00611834 43412
Cosmos 1574
```

```
1 15055U 84 62 A 90135.78481649 .00000115 00000-0 11219-3 0 8758
2 15055 82.9550 86.1953 0029276 53.8482 306.5387 13.73351537295629
GPS-0010
1 15271U 84 97 A 90134.39189235 -.00000025 00000-0 00000 0 0 8302
2 15271 63.2330 326.9092 0105329 326.7682 32.6014 2.00575074 40471
Cosmos 1602
1 15331U 84105 A 90135.71997154 .00003222 00000-0 44121-3 0 2911
2 15331 82.5385 31.0043 0025301 78.9727 281.4323 14.77998791303290
NOAA 9
1 15427U 84123 A 90138.09117387 .00000560 00000-0 32337-3 0 5813
2 15427 99.1671 137.2237 0016305 93.3333 266.9702 14.12563867279731
Cosmos 1686
1 16095U 85 86 A 90137.87781063 .00006691 00000-0 78919-4 0 6388
2 16095 51.6015 97.4761 0001150 89.8761 270.4818 15.61691273261214
GPS-0011
1 16129U 85 93 A 90135.07235926 .00000007 00000-0 00000 0 0 5325
2 16129 63.8640 89.0565 0121923 149.4056 211.2895 2.00510822 33697
Mir
1 16609U 86 17 A 90137.73860412 .00026855 00000-0 33576-3 0 6636
2 16609 51.6131 124.1568 0011085 301.4240 58.5646 15.59553661243343
SPOT 1
1 16613U 86 19 A 90137.63389859 .00000498 00000-0 25147-3 0 9502
2 16613 98.7339 212.4670 0000132 23.1211 336.9988 14.20015483 59598
Cosmos 1766
1 16881U 86 55 A 90137.93856156 .00002965 00000-0 41103-3 0 9951
2 16881 82.5201 88.0285 0024331 88.6306 271.7704 14.77491308204681
EGP
1 16908U 86 61 A 90136.83742943 .00000012 00000-0 39252-3 0 2231
2 16908 50.0103 352.3714 0011605 113.8362 246.3777 12.44387250170951
NOAA 10
1 16969U 86 73 A 90134.25861603 .00000589 00000-0 27532-3 0 4295
2 16969 98.6039 162.9598 0014170 13.4663 346.6884 14.23593234189782
MOS-1
1 17527U 87 18 A 90137.65732224 -.00000026 00000-0 -61159-5 0 5462
2 17527 99.1098 210.5987 0000989 118.9672 241.1526 13.94874967165003
GOES 7
1 17561U 87 22 A 90136.64283460 -.00000066 00000-0 99999-4 0 5371
2 17561 0.0185 289.7270 0013510 55.2428 15.2452 1.00301306 5106
Kvant-1
1 17845U 87 30 A 90137.93079443 .00053425 00000-0 65860-3 0 1418
2 17845 51.6086 123.1862 0011118 308.8056 50.9492 15.59588910179421
DMSP B5D2-3
1 18123U 87 53 A 90137.84027474 .00000561 00000-0 31470-3 0 5877
2 18123 98.8207 328.8502 0015429 107.7237 252.5622 14.14020124150118
RS-10/11
1 18129U 87 54 A 90137.90441671 .00000369 00000-0 39482-3 0 1930
2 18129 82.9276 350.9038 0011345 196.2205 163.8574 13.72088384145293
Meteor 2-16
1 18312U 87 68 A 90137.01522077 .00000219 00000-0 18868-3 0 4258
2 18312 82.5532 315.0025 0013035 348.2335 11.8518 13.83643717138670
```

```
Meteor 2-17
1 18820U 88 5 A 90136.25018662 .00000198 00000-0 16801-3 0 2764
2 18820 82.5461 15.8491 0018104 56.6058 303.6829 13.84337533115760
DMSP B5D2-4
1 18822U 88 6 A 90137.86354860 .00000545 00000-0 26633-3 0 4872
2 18822 98.6535 17.5191 0007108 7.7795 352.3493 14.21424818118514
AO-13
1 19216U 88 51 B 90135.35859508 .00000197 00000-0 99999-4 0 1271
2 19216 57.0525 155.0769 6950293 227.1818 48.5912 2.09695352 14714
OKEAN 1
1 19274U 88 56 A 90137.91511268 .00002601 00000-0 36537-3 0 7920
2 19274 82.5175 186.6834 0021113 217.8262 142.1553 14.76919549100451
Meteor 3-2
1 19336U 88 64 A 90135.90042628 .00000391 00000-0 99999-3 0 4858
2 19336 82.5386 300.2730 0018059 36.5334 323.6920 13.16891154 86703
NOAA 11
1 19531U 88 89 A 90137.75947853 .00000840 00000-0 48291-3 0 2789
2 19531 98.9808 86.0377 0012418 15.2834 344.8722 14.11592059 84675
TDRS 2
1 19548U 88 91 B 90136.00000000 .00000115 00000-0 99999-4 0 1260
2 19548 0.0140 60.1175 0003167 13.4823 345.7660 1.00267085 103
Cosmos 2001
1 19796U 89 11 A 90137.28821799 -.00001066 00000-0 99999-4 0 4782
2 19796 63.1920 96.7877 7101441 319.9316 5.0787 2.00567306 9183
GPS BII-01
1 19802U 89 13 A 90137.05503174 .00000016 00000-0 99999-4 0 1286
2 19802 55.0609 198.6467 0055947 164.5925 195.8384 2.00643822 9127
Akebono
1 19822U 89 16 A 90137.68135689 .00031859 00000-0 22955-2 0 6024
2 19822 75.1215 253.7006 4185310 241.2468 70.7401 7.08961520 31266
Meteor 2-18
1 19851U 89 18 A 90136.28567566 .00000243 00000-0 20864-3 0 2269
2 19851 82.5210 253.8688 0016075 93.2554 267.0444 13.83967826 61154
TDRS 3
1 19883U 89 21 B 90128.48589593 -.00000235 00000-0 99999-4 0 1273
2 19883 0.0099 76.3162 0000597 173.2228 110.4748 1.00269319 3492
GPS BII-02
1 20061U 89 44 A 90135.24962722 -.00000032 00000-0 00000 0 0 1331
2 20061 54.8022 17.1844 0084016 173.3576 186.7998 2.00487261 6833
Nadezhda 1
1 20103U 89 50 A 90135.90284800 .00000109 00000-0 10465-3 0 1257
2 20103 82.9563 308.7985 0038418 126.1756 234.2959 13.73587854 43285
GPS BII-03
1 20185U 89 64 A 90135.20864478 .00000016 00000-0 99999-4 0 1268
2 20185 54.9279 199.5760 0024523 156.3286 203.8620 2.00627610 5402
Activnyi
1 20261U 89 80 A 90137.70795509 .00001521 00000-0 47623-3 0 5022
2 20261 82.5942 247.9099 1258362 47.3516 322.6968 12.43689834 28808
Activnyi RB
1 20262U 89 80 C 90136.29305964 .00000701 00000-0 21568-3 0 2350
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2 20262 82.5964 248.8460 1261795 50.6795 319.9482 12.43173530 28626
Magion 2
1 20281U 89 80 B 90137.68312931 .00001822 00000-0 56806-3 0 5022
2 20281 82.5931 247.8641 1258072 47.2947 322.7391 12.43929444 28800
GPS BII-04
1 20302U 89 85 A 90135.47393960 -.00000028 00000-0 99999-4 0 1280
2 20302 54.6500 318.4011 0032265 318.1583 41.5954 2.00376060 4213
Meteor 3-3
1 20305U 89 86 A 90135.37076290 .00000021 00000-0 42912-4 0 1260
2 20305 82.5491 241.1298 0017445 52.2776 307.9923 13.15856355 26630
COBE
1 20322U 89 89 A 90136.08860498 .00004252 00000-0 28046-2 0 1295
2 20322 99.0184 146.6303 0009812 98.1534 262.0741 14.02078677 24993
Kvant-2
1 20335U 89 93 A 90136.58519317 .00003317 00000-0 44104-4 0 2387
2 20335 51.6159 129.9548 0011779 301.3049 58.7736 15.59486459 26814
GPS BII-05
1 20361U 89 97 A 90134.23449072 .00000015 00000-0 99999-4 0 797
2 20361 54.9699 141.6148 0062040 50.1010 310.4793 2.00579149 3041
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1 20436U 90 5 A 90137.66925102 .00000438 00000-0 22338-3 0 2012
2 20436 98.7339 212.5551 0001326 91.6960 268.4333 14.20019778 16410
UO-14
1 20437U 90 5 B 90137.70993177 .00000459 00000-0 19875-3 0 1446
2 20437 98.6952 213.9045 0010321 244.6817 115.3306 14.28601795 16515
UO-15
1 20438U 90 5 C 90136.25732382 .00001051 00000-0 43678-3 0 823
2 20438 98.6986 212.4449 0009256 243.1265 116.8985 14.28357248 16308
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1 20439U 90 5 D 90136.16125611 .00000929 00000-0 38513-3 0 785
2 20439 98.7034 212.4355 0010532 246.5541 113.4540 14.28707615 16298
DO-17
1 20440U 90 5 E 90136.29839382 .00000479 00000-0 20627-3 0 808
2 20440 98.7031 212.5803 0010641 246.7308 113.2754 14.28749133 16319
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1 20441U 90 5 F 90138.11039346 .00000433 00000-0 18766-3 0 805
2 20441 98.7036 214.4021 0011372 240.2626 119.7427 14.28851339 16570
LO-19
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2 20442 98.7049 212.3813 0011375 250.8254 109.1702 14.28917047 16284
GPS BII-06
1 20452U 90 8 A 90133.39933581 .00000001 00000-0 99999-4 0 741
2 20452 54.5888 257.3903 0030965 44.6887 315.5533 2.00876723 2149
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1 20478U 90 13 A 90137.68397268 .00000236 00000-0 20136-3 0 2565
2 20478 99.1892 208.0283 0001519 118.1407 242.0053 13.94829509 13888
FO-20
1 20480U 90 13 C 90136.04441588 .00000027 00000-0 10967-3 0 772
2 20480 99.0411 188.6183 0541794 121.3290 244.1992 12.83133338 12620
1990 013D
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1 20491U 90126.58440591 0.00000094 22256-3 0 757
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Soyuz TM-9
1 20494U 90 14 A 90136.71341649 -.00001760 00000-0 -18475-4 0 1376
2 20494 51.6117 129.3170 0011469 298.6013 61.8322 15.59485302 14756
LACE
1 20496U 90 15 A 90138.04759175 .00007028 00000-0 43438-3 0 1450
2 20496 43.0929 128.2771 0013788 170.0624 190.0585 15.10244426 13961
RME
1 20497U 90 15 B 90137.34647431 .00013516 00000-0 39044-3 0 1462
2 20497 43.1061 113.5118 0015235 149.8840 210.2896 15.35430983 14092
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1 20508U 90 17 A 90135.36817123 .00000116 00000-0 11329-3 0 764
2 20508 82.9553 84.1048 0046401 77.6229 283.0115 13.73206338 10504
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1 20510U 90 18 A 90137.96977545 .00001963 00000-0 30122-3 0 1428
2 20510 82.5246 125.5511 0020524 18.0590 342.1317 14.73051055 11625
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1 20523U 90 21 A 90137.95510681 .00005289 00000-0 36658-3 0 1446
2 20523 28.3473 101.8875 0015458 215.1631 144.7858 15.03324764 9891
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1 20525U 90 22 A 90116.74325817 .00006881 00000-0 11809-3 0 1224
2 20525 65.0254 293.0192 0009915 265.8547 94.0928 15.51981409 6691
Cosmos 2061
1 20527U 90110.23391170 0.00000127 12989-3 0 209
2 20527 82.9406 188.7193 0030435 184.8026 175.2840 13.71244824 4285
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1 20528U 90 23 B 90116.25209824 .00000318 00000-0 33441-3 0 711
2 20528 82.9402 184.2292 0025359 154.1527 206.0898 13.72643528 5101
GPS BII-07
1 20533U 90 25 A 90134.00812371 -.00000032 00000-0 00000 0 0 466
2 20533 55.0667 17.3062 0033714 99.3306 261.0974 2.00595451 911
1990 025C
1 20535U 90 25 C 90119.93776890 .00236304 16509-4 17720-2 0 779
2 20535 37.5934 350.2506 5957213 233.0842 56.2815 4.22207149 1462
1990 026A
1 20536U 90 26 A 90122.10370766 -.00001185 00000-0 99999-4 0 780
2 20536 62.9350 19.4659 7361653 318.4665 4.7275 2.00601511 721
1990 026D
1 20539U 90 26 D 90123.19890815 -.00000836 00000-0 35903-4 0 467
2 20539 63.1476 18.9963 7337411 318.6473 4.7855 2.03011371 773
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1 20540U 90 27 A 90137.39434968 .00798310 -15169-4 20148-2 0 1089
2 20540 143.2051 336.3225 0736146 29.4148 334.8651 14.50942438 6262
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1 20541U 90 27 B 90123.04805883 .00708832 -16106-4 16657-2 0 794
2 20541 143.1984 260.2975 0736069 284.9261 66.9139 14.51751386 4221
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1 20546U 90 28 A 90137.54360920 .00012494 00000-0 78585-3 0 914
2 20546 94.1219 198.8303 0153885 82.5020 279.3750 14.99836901 6249
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1 20549U 90116.01026782 0.00000057 43968-3 0 404
2 20549 73.9807 224.1524 0017296 242.0227 117.9069 12.47018719 2487
Cosmos 2065
1 20550U 90 29 B 90123.10692118 -.00000007 00000-0 00000 0 0 410
2 20550 73.9831 214.6497 0008708 267.9873 92.0182 12.48998567 3377
Cosmos 2066
1 20551U 90115.81425470 -.00000007 0 403
2 20551 73.9816 223.8136 0049303 55.5001 305.0697 12.59478807 2484
Cosmos 2067
1 20552U 90116.00096998 -.00000007 0 405
2 20552 73.9808 223.6499 0039668 63.6918 296.8202 12.57707620 2504
Cosmos 2068
1 20553U 90116.10683679 -.00000007 0 405
2 20553 73.9825 223.5724 0030768 57.5033 302.8992 12.56043351 2514
Cosmos 2069
1 20554U 90116.05451226 -.00000006 0 400
2 20554 73.9822 223.7680 0021679 55.3317 304.9776 12.54315162 2509
Cosmos 2070
1 20555U 90 29 G 90120.39446764 -.00000024 00000-0 -11083-3 0 414
2 20555 73.9810 218.0025 0013351 33.6226 326.5671 12.52583315 3042
Cosmos 2071
1 20556U 90 29 H 90124.02949648 -.00000007 00000-0 00000 0 0 411
2 20556 73.9817 213.3030 0002572 55.7863 304.3394 12.50727585 3491
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1 20557U 90 29 J 90122.70329070 .00001049 00000-0 95280-2 0 453
2 20557 73.9852 216.8636 0148428 234.1468 124.5703 12.22657531 3258
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1 20558U 90 30 A 90118.10702338 -.00000306 00000-0 99999-4 0 434
2 20558 0.1484 304.1688 0000300 214.8139 201.0181 1.00269829 235
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1 20559U 90 30 B 90133.67279168 .00011178 00000-0 37832-2 0 528
2 20559 31.2905 11.0753 7319241 198.5461 105.1812 2.22962208 811
Cosmos 2072
1 20568U 90 33 A 90133.90710463 .00331011 56513-4 42018-3 0 1052
2 20568 64.7618 49.0650 0033867 86.1627 274.2603 16.05900007 4844
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1 20570U 90 34 A 90131.03760613 -.00000335 00000-0 99999-4 0 509
2 20570 0.0750 0.0447 0025782 135.2934 224.8777 1.00266113 236
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1 20571U 90 34 B 90135.25637826 .00001978 00000-0 32479-3 0 554
2 20571 22.7504 176.4934 0628149 118.0040 248.5409 13.82067297 4332
1990 034C
1 20572U 90 34 C 90135.84989660 .00032231 00000-0 39037-2 0 491
2 20572 18.9297 347.9472 7375661 200.8035 96.7659 2.18270624 692
Cosmos 2074
1 20577U 90 36 A 90136.03907435 .00000094 00000-0 93615-4 0 474
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2 20577 82.9451 138.3064 0025496 217.6457 142.2914 13.73710956 3463
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1 20578U 90 36 B 90134.26871840 .00000108 00000-0 10241-3 0 512
2 20578 82.9430 139.5779 0018565 205.8241 154.1993 13.75018280 3222
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1 20580U 90 37 B 90137.90995889 .00004687 00000-0 53109-3 0 628
2 20580 28.4686 82.1705 0006642 177.4737 182.5868 14.84245000 3478
Cosmos 2075
1 20581U 90 38 A 90135.37823762 .00016139 00000-0 68871-3 0 738
2 20581 74.0250 14.7113 0022500 298.0063 61.8804 15.22661423 3024
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1 20582U 90 38 B 90136.14661759 .00021971 00000-0 88807-3 0 675
2 20582 74.0299 13.0059 0030821 307.0111 52.8328 15.24226078 3148
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1 20583U 90135.18523788 0.00000141 10000-3 0 695
2 20583 62.8075 185.3029 7358186 288.1991 9.5731 2.00619918 395
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1 20584U 90 39 B 90135.58686035 .00866541 12393-4 10982-2 0 826
2 20584 62.7708 114.6381 0164621 124.8439 236.8433 15.85913382 3069
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1 20585U 90 39 C 90135.33237153 .01300703 38200-4 10019-2 0 823
2 20585 62.8183 116.0511 0189691 118.0798 244.0847 15.86831687 3020
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1 20586U 90 39 D 90135.46430597 -.00000271 00000-0 48387-3 0 173
2 20586 62.8268 185.2010 7399393 288.1595 9.3524 1.96439329 372
Cosmos 2076
1 20596U 90134.45435492 -.00001190 67011-3 0 276
2 20596 63.0381 337.3806 7379727 318.3610 4.4851 2.00623342 328
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1 20597U 90 40 B 90135.39506393 .00990580 12579-4 13101-2 0 507
2 20597 62.8152 277.0227 0193123 119.6037 242.6341 15.79650548 2646
1990 40D
1 20599U 90 40 D 90134.75374249 .00000271 00000-0 96743-3 0 214
2 20599 63.1718 337.0577 7353985 318.4654 4.4827 2.03469176 335
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1 20602U 90 41 A 90137.93081927 .00035066 00000-0 43630-3 0 207
2 20602 51.6177 123.1895 0008876 297.4683 62.4149 15.59563384 1899
Cosmos 2077
1 20604U 90 42 A 90135.80369205 .00917814 40006-4 27463-3 0 235
2 20604 62.8375 63.3983 0123179 67.2500 294.2549 16.10187674 1298
1990 043A
1 20607U 90 43 A 90136.15763689 .00001054 00000-0 19518-3 0 117
2 20607 89.8924 195.1556 0110779 257.8904 100.9888 14.60750656 946
1990 043B
1 20608U 90 43 B 90136.29420226 .00002807 00000-0 52363-3 0 112
2 20608 89.8877 195.1502 0111215 257.5688 101.3060 14.60859704 960
1990 043C
1 20609U 90 43 C 90135.91544641 .00007415 00000-0 12112-2 0 59
2 20609 89.6543 194.9517 0060998 304.3215 55.2224 14.69558448 914
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2957. Antena question

Newsgroup: rec.ham-radio
Date: 1990-05-20 16:34:57 UTC
From: gaddam@topaz.rutgers.edu
Message-ID: <May.20.12.34.51.1990.6067@topaz.rutgers.edu>
Source record: 11559

I would like to know is there any harm in connecting an external wire
antena (to be used with a SW radio) to a TV antena which is on the top
of our apartment complex. By doing so it improved the signal strength
to some extent but it sounds like either the circuitary is generating
static or the antena is overloading. However if I connect the same antena
to an adjacent(to TV antena) chimney, the overloading/static disappears.

* I am using SONY ICF 2010

G.N.Reddy

2958. Re: Radio in Saudi-Arabia

Newsgroup: rec.ham-radio
Date: 1990-05-20 17:19:26 UTC
From: tad@ssc.UUCP
Message-ID: <730@ssc.UUCP>
Source record: 11571

In article <8012@b11.ingr.com>, herbster@b11.ingr.com (Joe Herbster) writes:
>
> I may be spending a long while in Saudi-Arabia real soon and would
> appreciate any information and experiences from anyone regarding
> the (slim) possibility of being able to operate while there.

As I understand it, you can't just apply for a reciprocal license while there. The only people I have heard of who were able to operate there buddied up with a member of the royal family and operated his station.

I would check with the ARRL at 203-666-1541.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2959. TNC's / Packet Pirates

Newsgroup: rec.ham-radio
Date: 1990-05-20 17:55:17 UTC
From: TCOMGRD1@OUACCVMB.BITNET
Message-ID: <9005210708.AA17246@ucbvax.Berkeley.EDU>
Source record: 11566

Date: 20 May 1990, 13:44:41 EDT
From: TCOMGRD1 at OUACCVMB
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL at MIL

Well now, if packet radio does actually just "repeat" messages whithout
checking authorization (if it is not destined for me send it on) would
it not be possible for some non-licensed pirate to upload files and
have them sent with no authorization??

Also.. I'm preparing to purchase a TNC myself, the computer I will
be using is an Apple][c. Are there any programs to interpret WEFAX and
such on the Apple? I know some exist for the Macintosh, and MANY more for
IBM's, but I'm looking for Apple][series.
Also (again), What baud rate (Whats the diff between baud and bps [bits per
second]?) should I get? I see ads that say "2400 baud with up to 1200bps".
I'm confused. I use a 2400baud modem on my Apple already, so dont want to
run packet slower than that unless it will cost an arm and a leg.
And last, but not least, Could my current modem be used for packet at all? I
know packet is a "burst" transmission with temporary carriers, and modems are
constant carriers.... but is it possible?? (trying to save $$)

Pete Simpson Bitnet: TCOMGRD1@OUACCVMB.BITNET
226 Tiffin Hall ALDSTF51@OUACCVMB.BITNET
Ohio Univ. Internet: psimpson@oucsace.cs.ohiou.edu
Athens OH 45701

2960. 9600 Baud modems.

Newsgroup: rec.ham-radio
Date: 1990-05-20 20:15:51 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9005202015.AA04789@tecnet1.jcte.jcs.mil>
Source record: 11569

Has anyone gotten a G3RUH 9600 baud modem working on any radio on 220 MHz?
If so, could you please specify what radio, and any other personal experience
that you may have had with these modems. I am especially interested in any
reports of problems using them with PLL radios.

I am aware that they are a "plug and play" with the new Kantronics DVR units,
but Kantronics doesn't make one for 220. In addition, the TAPR packet-RADIO
seems to be pretty well bogged down, and their beta test models are now
going to be strictly on 2 meters vice both 144, and 220 MHz.

Any "hints or kinks" would be MOST appreciated!

Thanks for your time.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

2961. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-20 21:04:36 UTC
From: karn@ka9q.bellcore.com
Message-ID: <23442@bellcore.bellcore.com>
Source record: 11561

A factor that must be considered when using accurate time sources for telescope pointing is the slightly irregular rotation rate of the earth due to seasonal movements of water and the atmosphere. (These movements cause small changes in the earth's moment of intertia. Since angular momentum must be conserved, the earth's rotation rate must change to compensate.)

UTC is based on atomic clocks that are much more stable than the earth's rotation, so much more so that UTC has to be adjusted occasionally to keep it within a second of "earth time". This is the reason for the "leap seconds" that you hear so much about at the end of most years. The difference between UTC and UT1 (or "earth time") is encoded in a series of double ticks at the beginning of each minute on both WWV and CHU. These codes only have a resolution of 100 ms, so even if you knew UTC precisely you could point your telescope to a given point on the celestial sphere to a peak-to-peak error of 1.5 arc-seconds along the right ascension axis. Given that this is about the resolution of the best ground-based telescopes, I wouldn't worry about this level of error.

Phil

2962. Re: Dongle's

Newsgroup: rec.ham-radio
Date: 1990-05-21 03:08:27 UTC
From: julian@bongo.UUCP
Message-ID: <146@bongo.UUCP>
Source record: 11563

In article <9005200703.AA12351@ucbvax.Berkeley.EDU>, TCOMGRD1@OUACCVMB.BITNET writes:
>
> Ok... now I have a few questions:
>
> 1) What the heck IS a dongle?? I'm and Apple person myself, and at first though
> t it was a joke... but apparantly not.
>
> 2) Why did they give it such a silly name?
>

I went to a few dictionaries to check for a kosher definition and
found nothing. It may be in the latest and greatest OED, but I don't
have that one.

The first official reference I recall for the term dongle was used in
reference to the Sinclair QL computer (What dat?).

By the time Sir Clive and chums had got all the circuitry together,
it no longer fit in the spiffy case. So they had a little box hanging
off the back with the extra parts in it. This was referred to in the
press as the "dongle board".

The QL and its dongle board have disappeared into computer history,
but apparently the term dongle lives on

I looked at the word "dong" to see if it was derived from that.
I assume not, dong means to hit or strike in Aussie slang, a small
aluminium coin in Vietnam and of course a penis as John Steinbeck
noted in the Grapes of Wrath. I would say that dongle is just an
amusing variation of dangle.

Maybe now the Apple people can work on a copywrited dongle icon (-:

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

2963. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-21 03:11:14 UTC
From: louie@sayshell.umd.edu
Message-ID: <1990May21.031114.1068@haven.umd.edu>
Source record: 11564
Cross-posted to: rec.ham-radio,sci.electronics

In article <23442@bellcore.bellcore.com> karn@ka9q.bellcore.com (Phil Karn) writes:

These codes only have a resolution of 100 ms, so even if you knew UTC
precisely you could point your telescope to a given point on the
celestial sphere to a peak-to-peak error of 1.5 arc-seconds along the
right ascension axis.

If you want to synchronize your clocks to within 100ms or even 50ms, you
can dispense with a WWV(B) radio clock, and just get an internet connection.
You can easily synchronize your clocks to these accuracies using NTP (the
Network Time Protocol) across the Internet. Have the network connection
has other, obvious benefits as well...

See RFC-1129 for all of the gory details.

louie

2964. Re: AEA Loop Antenna

Newsgroup: rec.ham-radio
Date: 1990-05-21 05:45:55 UTC
From: tad@ssc.UUCP
Message-ID: <734@ssc.UUCP>
Source record: 11575

In article <965@nyx.UUCP>, whester@nyx.UUCP (William R. Hester) writes:
. Well, I hummed and hawed and was still
> "thinking" about possibly building one (if I could figure out a neat
> cheap way to build my own variable capacitor that could withstand the
> very high voltages developed across it)...when AEA advertised a small
> loop with remote tuning, etc.
>
> So far I have not seen any prices...is this a real product...available
> for shippment?...or is AEA just testing the waters to see if there is
> any interest before starting production?
>

Yes, the AEA Isoloop is a real product. I saw one up close at Dayton,
and several hams in the Seattle area have been beta-testing them and
reporting great results. Personally, I prefer a larger antenna, but
it sure seems small and versatile, and the remote tuning makes it
flexible and fairly efficient. My friend KA7MCX bought one, and has
been working a lot of DX on 12 and 17 meters with it. I wish I could
get him to replace the radials on his Butternut vertical and do some
A/B testing just out of curiosity.

On the plane back from Dayton I ran into Mike Lamb, N7ML, AEA president.
He showed me a log sheet of all the DX he has been working on his.
Quite impressive. Of course you could work the same stuff with a
dipole, but I think they have a hot product here. It does seem a little
expensive to me though.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2965. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-21 05:50:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500546@ux1.cso.uiuc.edu>
Source record: 11570

> In article <30500545@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
> >Now what is the format of WWVB the 60 khz VLF signal?
>
> The carrier is dropped in power by 10 db at the beginning of every
> second, and stays down for 200, 500 or 800 ms depending on whether
> the bit is a 0, a 1 or a marker, respectively. A marker is sent every
> tenth second, with a pair of them at seconds 59 and 0 of the minute.
> The other bits encode the time, date and some other junk, in BCD.

And what how are these bits encoded? I means thinks like which seconds
of the minute cooerspond to which data item, etc? And what is this
"other junk"? Anything useful?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2966. Re: ** Another Novice Question **

Newsgroup: rec.ham-radio
Date: 1990-05-21 05:55:39 UTC
From: tad@ssc.UUCP
Message-ID: <735@ssc.UUCP>
Source record: 11576

In article <860002@hpspcoi.HP.COM>, mlau@hpspcoi.HP.COM (Mel Lau) writes:
> If you take the NOVICE test and pass can you immediatley take
> the TECHNICIAN test, which I believe is just another written test ?
>
> If you pass that can you immediately take the GEN test ?
>

Yes, you can keep taking tests until you have passed them all. It has even been done in one sitting. My friend JA5GLY came to visit me in 1981, when they were still testing hams at the FCC. He went to the FCC office in Seattle and in one sitting passed all of the exams, Novice through Extra.

If you pass the Novice test, it makes sense to sit for the Tech exam too, even if you have not studied for it. You never know...you might get lucky!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2967. Re: Strange Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-21 06:43:53 UTC
From: tad@ssc.UUCP
Message-ID: <736@ssc.UUCP>
Source record: 11477

In article <6282@gollum.twg.com>, sawyer@twg.com (Bruce B. Sawyer) writes:
> In article <1250157@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) pokes
> a little fun at some of the strange CW call signs he has encountered:
> >
> >I suppose that a morse code fan would have liked being assigned my call:
> >WA2ISE all dits in the suffix! .. ... .
> >
> >My favorite is the (at one time) very active contest station WB5EEE
> >(known in some circles as "WB5S"). After the first dash in the "B", it's
> >all dits: .__ _... ....
> >
> told me she was a CW-only op, and had moved up to extra largely in the hopes
> of getting a decent CW call. You see, her general call had been N5DWN, and
> every time she answered somebody they would QSY down 5. I guess this shows
> that the FCC, just like lightening, DOES strike twice in the same place.
> de AA6KX

My pal John and I have been hamming together for years. Back when he
was N7COV and I was WA7CSK, we used to enter contests together at
each other's stations.

This all changed, at least on CW, when we got new calls.

Now he is NT7S, and I am KT7H. Imagine being either one of us, and
going to the other guy's station to operate a CW contest.

My call:

-.- - --... ....

His call:

-. - --... ...

Mine has one more dah on the front and one more dit on the end. We have
real problems getting used to sending the other guy's call on CW!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

2968. Re: 100 GHz and up

Newsgroup: rec.ham-radio
Date: 1990-05-21 09:40:04 UTC
From: kjh@pollux.usc.edu
Message-ID: <24804@usc.edu>
Source record: 11573

In article <9005210708.AA17201@ucbvax.Berkeley.EDU> ARYEH@ILJCT.BITNET writes:
>What is currently being done 100 GHz and up?

Only laser work, that I'm aware of.

>Is there commercial communications
>gear in that range, and if so, does any show up on the surplus market?

I doubt it. It's still largely undeveloped, and (totally)
under-utilized.

Since 24, 47, and 76 GHz have all been done already, the next band to tackle (in the USA) would be 120 GHz. (At least I think that's where it is; I don't have any reference materials handy.) I was working on 76 GHz before I quit my job and came back to school, but I don't have any time for it anymore.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

2969. "Automatic" observatories and time standards (was 60 Khz time standard)

Newsgroup: rec.ham-radio
Date: 1990-05-21 09:52:40 UTC
From: kjm100@csc.anu.oz
Message-ID: <2104.2657ba68@csc.anu.oz>
Source record: 11562
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <1990May19.185105.28390@gpu.utcs.utoronto.ca>, dennis@gpu.utcs.utoronto.ca (Dennis Ferguson) writes:
> In article <998@gold.GVG.TEK.COM> grege@gold.GVG.TEK.COM (Greg Ebert) writes:
>>In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
>>>
>>> Hi. I am a member of Group 70 which is building a large amateur
>>>astronomical observatory. We eventually intend to have it completely
>>>automated (remote controlled ?) and need a very accurate clock for the
>>>observatory.
>>>
>> NBS transmits 5, 10, and 15 (or is it 10, 15, 20 ?) Mhz signals which
>> are reputed to be THE time standard. Broadcasts are from Boulder, CO,
>> (WWVB), Hawaii (WWVH), and Idunno, (WWVL). They have an amplitude-
>> modulated tone (1Khz I think) and maybe some other stuff. Heathkit
>> (I'm not advertising for them) sells a "most accurate clock" kit which
>> will spit-out the time on a serial port for your computer's enjoyment.
>
> [deleted]
>
> While the WWV(H) time signals are certainly very accurate as transmitted,
> HF signals propagate by F-layer skip which means the transmission path
> length will vary somewhat unpredictably from day to night, summer to
> winter, and with changes in solar activity. The time you receive will
> thus jitter by something on the order of several milliseconds. Also,
> since HF propagation is fairly unreliable, you will need a reasonably
> stable oscillator backing the receiver for periods when the time signal
> is unreceivable.
>

A time standard for an automatic observatory must deal with radio propagation delays AND changes in the official definition of time itself (i.e. leap seconds). This unfortunately is not a joke...

I winter-overed at the Amundsen-Scott South Pole station during the 1982-83 season as a support scientist for various U.S. National Science Foudation research projects. My partner and I had to keep all the clocks of the instruments in the Skylab building accurate to within 10 ms. We would manually set the time standard by monitoring the time signal with an oscilloscope on the back end of our radio receiver.

The South Pole station was effectively cut off from the rest of humanity for about six weeks during the depths of the austral winter (June-July) when we could not receive any radio signals at all. After we rejoined the world and could once again receive radio signals, my partner and I decided

to check the clock... We were shocked to find that all our clocks were precisely off by 1.000 +- 5 ms from UT! A leap second had occured and we had not been warned. Sigh...

So the upshot is that the definition of time itself can change and a truely automatic observatory must take this into account. A SEMI-automatic observatory would, of course, not have to worry about leap seconds.

Yours in the pursuit of accuracy and precision,

Ken Mighell

Kenneth John Mighell |
Mount Stromlo Observatory | INTERNET: MIGHELL@MSO.ANU.OZ.AU
Private Bag |
Post Office Weston Creek, ACT 2611 | Telephone: +61-6-2490230 or 2490234
Canberra, AUSTRALIA | Telefax: +61-6-2490233

Heisenberg might have been here...

2970. Re: Why they just don't make 'em like t

Newsgroup: rec.ham-radio
Date: 1990-05-21 12:05:31 UTC
From: bert@neptune.iex.com
Message-ID: <1990May21.120531.471@iex.uucp>
Source record: 11572

In article <30500541@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>But that does not yield a completely self contained portable scanner.
]
True, but I don't do much mobile work. I can re-program all of the
R7000's 99 memories from the computer, so when I want to run
computer-less, at least I can set it up easier. I think that
"relational" databases and the like on a mobile unit is a bit
much, I don't want all that stuff while I'm trying to drive :-)
However, the nice scan-delay features would be useful anywhere.

If you're talking portable, it's no problem to run from a laptop.
He** many laptops are no bigger than an R7000!

>Can you have it stay on the frequency as long as there is a signal for
>up to 30 seconds, and have it stay after the signal is lost for up to
>2 seconds? Does the computer get to control things at this level? Does
>it get to know when a signal is present and gone instantly?

Yes on all counts. Set either timer to anything with about 10th
second resolution. The R7000 makes signal-detection easy, the
recorder-control relay is lightning fast, you do lose that function
for recorder-control though. This is no problem for me, I use a VOX
recorder for that.

Again, the computer has some drawbacks, but I still claim it will
be a long time before manufacturers obviate the need. My program uses tons
of memory, just the channels data takes 64K. Because when you start
having hundreds of channels, you really need a text description to
keep track of it all. Also, you'd like to be able to deal with
your frequency lists with a text editor, import them from BBS files,
print them, etc. That's going to take quite a bit of hardware and
software to build into a scanner.

I've noticed lately a couple of products that will let you "download"
your PRO 2004 from a computer, i.e. set the channels up. It's slow
so this type of control isn't good enough for scanning, but its
a start.

Bert. N5KGT ...uunet!iex!bert

2971. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-21 13:38:54 UTC
From: koning@koning.enet.dec.com
Message-ID: <11775@shlump.nac.dec.com>
Source record: 11574

Re format of WWVB transmission: you can find it in a lot of detail in "Reference data for radio engineers" which a good library would have. I would assume that a letter to WWVB asking for information would also work.

As for phase locking to the carrier, be aware of the WWVB ident! The way it identifies (if memory serves) is that the carrier phase shifts by 45 degrees at n:05 and back at n:10 every hour. If you weren't expecting that, you might see some strange effects...

paul, ni1d

2972. TS140 Mod

Newsgroup: rec.ham-radio
Date: 1990-05-21 13:54:33 UTC
From: FRANK@TOPS20.RADC.AF.MIL
Message-ID: <12591452532.11.FRANK@TOPS20.RADC.AF.MIL>
Source record: 11505

Could someone please supply me with the mod for all band transmit for the Kenwood TS140S? Your help would be greatly appreciated. Thanks.

Joe -- WD2F

2973. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-21 15:45:38 UTC
From: emmonsl@athena.csus.edu
Message-ID: <1990May21.154538.24612@csusac.csus.edu>
Source record: 11479

In article <1990May20.003019.8670@gpu.utcs.utoronto.ca> dennis@gpu.utcs.utoronto.ca (Dennis Ferguson) writes:
>A receiver which does a good job of decoding this can be a fairly
>simple thing.

Does anyone happen to have schematics to do such a thing? The only one I've ever seen was a pre-fab and too expensive. I think it was a Heathkit. It had a built-in clock for when it lost RF, so it would still be able to keep time.

Thanks,
L. Scott Emmons

...[ucbvax]!ucdavis!csusac!athena!emmonsl
"Droppen sie dead!" -Col. Hogan

2974. Re: 60 kHz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-21 15:51:59 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <45374@iuvax.cs.indiana.edu>
Source record: 11478
Cross-posted to: sci.electronics,rec.ham-radio

WWVB references
---

1. "A WWVB 60 kHz Frequency Comparator Receiver" by Ernest P. Manly, _73_ Magazine, Sept. 1972. The now-obsolete RTL integrated circuits in this design can probably be replaced with CMOS. It's similar in function to the Hewlett-Packard 117A VLF Comparator but has no phase-locked oscillator output.

2. Don Lancaster published plans for a 60-kHz WWVB receiver with time-code output, in _Radio-Electronics_, August 1973, p. 48. Methods of phase-locking are discussed. Article includes time-code format.

3. "Low-Frequency Receiving Techniques," a series of articles by R. W. Burhans in _Radio-Electronics_, March-July 1983, describes state-of-the-art LF/VLF active antennas, and a method for using LORAN-C (100 kHz) for time and frequency calibration. A set of reprints, with errata/addenda, is available from the author for $4.00:

Burhans Electronics
161 Grosvenor St.
Athens, Ohio 45701

Send SASE for catalog. See also Prof. Burhans' three-part article about Omega navigation receivers (10-14 kHz) in _Byte_ magazine, February, March, April, 1977.

--

Frank Reid W9MKV reid@ucs.indiana.edu

2975. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-21 16:02:52 UTC
From: kenw@col.hp.com
Message-ID: <24300008@col.hp.com>
Source record: 11491

> From: billt@hprnd.HP.COM (Bill Thomas)
>
> | / hprnd:rec.ham-radio / jdg@hpqtdla.HP.COM (James Gentles) / 8:01 am May 17, 1990 /
> | Another vote for a IC02 AT/E as a good buy for a second hand HT
> |
> | Advantages: External DC/mic/speaker if you want. Standard ICOM batteries
> | reasonable power (3W), good reports of audio from internal mic. Can extend
> | receiver coverage to 138-163MHz.
> |
> | 73 de James
> |
> Once the diode is removed which restricts the range to the amateur band,
> what else do you have to do to be able to receive 138 to 163? My HT does
> not keep phase lock above 156MHz.
>
> 73 de Bill
> billt.hprnd.hp.com

Many of the older synthesizers required a little readjustment of the PLL voltage control once the frequency was "opened up". This control is most likely a inductor or capacitor located in the (typically) shielded PLL module. The adjustment hole may be covered with a small sticker. I'll try to Email the details to you if I have them. Also, I remember an article (actually several) in 73 Magazine on the mods to this radio. In particular, there was one written about early 80s by Robert Morrow in 73.

Basically, you slowly tweak this control until the radio unlocks just below the lower desired frequency limit. Then you end up with the upper edge as high as it will go; for the IC-02A, typically 163 MHz.

73, Ken WA6TTY (kenw@col.hp.com)

2976. Re: FOC

Newsgroup: rec.ham-radio
Date: 1990-05-21 16:24:18 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250167@hpnmdla.HP.COM>
Source record: 11495

FOC = "First-class Operators' Club". Emphasis is on the "Club" not the "First-class". You have to be nominated somehow to get in. It's kind of a long-distance social club for CW DX'ers.

Al N1AL

2977. Re: Strange Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-21 16:35:38 UTC
From: lkay@ecs.umass.edu
Message-ID: <9885.265818da@ecs.umass.edu>
Source record: 11486

In article <736@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
> In article <6282@gollum.twg.com>, sawyer@twg.com (Bruce B. Sawyer) writes:
>> In article <1250157@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) pokes
>> >My favorite is the (at one time) very active contest station WB5EEE
>> >(known in some circles as "WB5S"). After the first dash in the "B", it's
>> >all dits: .__ _... ....
>> >
> Now he is NT7S, and I am KT7H. Imagine being either one of us, and
> going to the other guy's station to operate a CW contest.
>
One of my favorites is the shortest CW call in the US, N5EE, whom I've
worked in contests (no, he doesn't send RST 555), although since the call
sign restructuring, this call is of course matched by NE5E.

I once operated Nov. SS from a club station using another member's call,
KR2B. THAT was tough....
--

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

2978. radar detector front end overload?

Newsgroup: rec.ham-radio
Date: 1990-05-21 17:21:12 UTC
From: lrj@ishtar.cs.cornell.edu
Message-ID: <41226@cornell.UUCP>
Source record: 11480

Okay, here's one that I've started noticing recently. In my
car I have a radar detector (Whistler 425) on the visor, and
I usually also have my 2m HT (IC-2GAT). When I key up the HT,
the radar detector will frequently start falsing. This happens
occasionally when the HT is using the rubber ducky & 1 watt output.
It's more regular when running high power (7W) with either the
ducky or the 1/4 wave mag-mount on the roof.

Yesterday I installed a RF Concepts 2-23 power amp, and the
>30W output to the magmount will regularly set off the detector,
reading about a half-scale alert.

Has anyone else run into this problem? If this is front-end
overload on the part of the radar detector, is there anything
that could be done? Obviously, putting the detector into a
Faraday cage is not an acceptable solution... :) Another note
is that this *does* happen when the HT is running off of
battery and is not connected to the amp.

Any and all ideas regarding this problem would be
appreciated.

-- Lewis R. Jansen, N2KNV
LASSP/LNS Systems Manager
lrj@helios.tn.cornell.edu

2979. Re: ** Another Novice Question **

Newsgroup: rec.ham-radio
Date: 1990-05-21 17:44:02 UTC
From: davet@tsdiag.ccur.com
Message-ID: <965@tsdiag.ccur.com>
Source record: 11513

In article <860002@hpspcoi.HP.COM> mlau@hpspcoi.HP.COM (Mel Lau) writes:
>
>If you take the NOVICE test and pass can you immediatley take
>the TECHNICIAN test, which I believe is just another written test ?
>
>If you pass that can you immediately take the GEN test ?
>

Yep, you sure can. In fact, I did just that. Since I didn't have _any_
license at all when I walked into the test, I had to wait for the FCC to
be able to transmit. (There is no "temporary KN for novices!) If you
already have a license, you'll get a temporary authorization to use your
new privs.

--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

2980. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-21 17:51:05 UTC
From: dennis@gpu.utcs.utoronto.ca
Message-ID: <1990May21.175105.567@gpu.utcs.utoronto.ca>
Source record: 11481

In article <30500546@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>And what how are these bits encoded? I means thinks like which seconds
>of the minute cooresponds to which data item, etc? And what is this
>"other junk"? Anything useful?

I'll bite, since I once typed this in for another reason and still
have a copy. For your edification the WWV(H) time code is included
as well. You can actually decode the latter by ear if your
short wave receiver's audio section will give you enough
bass to hear the 100 Hz.

WWVB drops carrier power 10 db at the beginning of every second,
and stays down for 200 ms for a 0 bit, 500 ms for a 1 bit and
800 ms for a marker. WWV(H) transmits a 100 Hz subcarrier which
begins 30 ms after the on-time second (except for second 0, where
the pulse is omitted) and remains on for 170 ms for a 0 bit, 470 ms
for a 1 bit and 770 ms for a marker. (m)'s in the table indicate
markers, while unused bits are transmitted as 0.

Note that this all comes from my copy of NBS special publication
432, which is old. WWVB has recently been upgraded to include, in
addition to this, the year-of-century and a leap second warning bit in
the unused bits at the end of the minute, but I've misplaced the note
concerning where the new bits are actually located (I think the
year is sent during seconds 45-48 and 50-53). WWV and WWVH were
also to be modified to include this information but the company building
the new time code generators went out of business. They are still tendering
for bidders to do this, if anyone is interested.

The WWVB format is essentially IRIG-H, which is a standard time code
format for laboratory use. The WWV format is unique.

```
WWVB WWV(H)
m 0 hole (no 100 Hz subcarrier)
| 40 1
| 20 2
| 10 3
minute| 4
| 8 5
| 4 6
| 2 7
| 1 8
m 9 m
10 1 |
11 2 |
| 20 12 4 |
```

| 10 13 8 |minute
| 14 |
hour| 8 15 10 |
| 4 16 20 |
| 2 17 40 |
| 1 18
m 19 m
20 1 |
21 2 |
|200 22 4 |
|100 23 8 |hour
| 24 |
| 80 25 10 |
| 40 26 20 |
| 20 27
day-of-year| 10 28
| m 29 m
| 8 30 1 |
| 4 31 2 |
| 2 32 4 |
| 1 33 8 |
34 |
35 10 |day-of-year
1 if DUT1 +ve 36 20 |
1 if DUT1 -ve 37 40 |
1 if DUT1 +ve 38 80 |
m 39 m |
|0.8 40 100|
DUT1|0.4 41 200|
|0.2 42
|0.1 43
44
45
46
47
48
m 49 m
50 1 if DUT1 +ve
51
52
53
54
leap year ind 55 DST indicator
56 0.1|
DST indicator 57 0.2|DUT1
58 0.4|
m 59 m

2981. Motorola Radius VHF HTs

Newsgroup: rec.ham-radio
Date: 1990-05-21 18:11:28 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <3195@ultb.isc.rit.edu>
Source record: 11483

Two questions on Motorola HTs.

What is list price for the VHF HTs with Antenna, Belt Clip, AC Adapter,
NICAD, & Charger.

What is a good selling price for these?

And (woops) a third question, what is the Green-Dot Freq?

Thanks,
Lance Ware

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

2982. Re: Dongles!!

Newsgroup: rec.ham-radio
Date: 1990-05-21 18:47:11 UTC
From: jpd@pc.usl.edu
Message-ID: <8765@rouge.usl.edu>
Source record: 11482

The Rode-PC data entry package requires these gadgets. It's one step
better than copy protection, but I did have one fail and had to return it
for replacement (it was free, but the package was dead until I got the new one.

I suspect that there is a state machine in the dongle, that looks at sequences
of bytes sent, until it is satisfied, then returns a pattern on the parallel
port status input lines. Since the printer still works, the Rode package
must be sending bytes out WITHOUT the data strobe (I assume this is possible,
but haven't a programming reference nearby). Perhaps one data bit is
used as a strobe. Someone with a data analyzer could probably figure out
the sequence.

--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

2983. Help finding parts!!!

Newsgroup: rec.ham-radio
Date: 1990-05-21 19:17:23 UTC
From: rbono@necis.UUCP
Message-ID: <1331@necis.UUCP>
Source record: 11503
Cross-posted to: rec.ham-radio,sci.electronics

.
.
.
HELP.... We have a two meter (146 MHz) Amateur Radio repeater to repair. The manufacturer wants full commercial prices, and will only sell us the "whole module" at full commercial prices instead of selling us just the parts we need to repair the Power Amplifier.

We need to repair our Aerotron 60BT100R transmitter. The finals in this 100 Watt unit have destroyed themselves, and in the process destroyed the printed circuit board.

Since the commercial world is expensive (almost $500.00 to replace the whole module), and they will NOT consider selling us the parts to repair our Power Amplifier module, I am looking to the NET to help our repeater group out (Yes, this is to support an OPEN repeater).

The final transistors are made by CTC and are part number BM70-12, we need TWO (2) of these. I am told that these are no longer in production, and are very hard to locate.

If you have, or know anyone who has connections that might be able to help us, please contact me!!

We are looking for any or all of the following:

(quantity 2) CTC BM70-12 power transistors.

Circuit board for the Aerotron 60BT100 Power Amplifier strip.

Used (or new) 60BT100 Power Amp strip (we will consider a lower power strip also), this is the 146MHz unit (VHF range A??).

Telephone
home: (603) 432-9002
work: (508) 635-6300

Address:
Rich Bono (NM1D)
7 Redfield Circle
Derry, New Hampshire 03038

Thanks in advance!

--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *

```
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
\*********************************************************************/
```

2984. Question About Military RTTY Practices

Newsgroup: rec.ham-radio
Date: 1990-05-21 19:45:00 UTC
From: nix%muppet.decnet@CONSRT.ROK.COM
Message-ID: <9005220703.AA07559@ucbvax.Berkeley.EDU>
Source record: 11508

I was trying to work NPG, Saturday afternoon on 20 Meter RTTY, during Armed Forces Day. Although he heard me once, we didn't manage to have a proper `exchange'.

A question came to mind. With NPG transmitting (just below the bottom end of 20 Meters) `upside down' (ie. his mark-space frequencies were inverted, as compared to amateur radio practice), was he listening `inverted' also?

My second question is, when a military station announces "listening on 14.080 MHz", does he expect to find our mark (or space) carrier on that frequency or, should we `straddle' it? I believe that its been an accepted practice, among hams, to refer to the `mark' frequency, when it's necessary to specify frequency. What are the accepted military/commercial standards? Is this sort of thing specified in some CCIR publication?

Any thoughts on this subject would be appreciated.

Please reply to (InterNet) "nix%muppet.decnet@consrt.rok.com".

Thanks,

Paul Nix WB5AGF

2985. The GAP Antennas

Newsgroup: rec.ham-radio
Date: 1990-05-21 19:51:17 UTC
From: BUSH@S51.PRIME.COM
Message-ID: <9005220704.AA07614@ucbvax.Berkeley.EDU>
Source record: 11509

I was unable to respond directly to the person interested in this antenna.

Therefore: Check out the March 1990 issue of CQ magazine, pp. 32-33 for
and article by Lew McCoy W1ICP.

Lew seems impressed by the antenna, and comments that the DX-VI works out
very nicely from 80 through 2 meters! Yes, it works well on 6 and 2 meters
as a bonus.

Check it out.

David Bush BUSH@S51.PRIME.COM
KC1PR@WA1PHY.MA
500 Old Connecticut Path
Framingham, MA 01701

2986. Re: FT-470 rapid charger?

Newsgroup: rec.ham-radio
Date: 1990-05-21 20:01:26 UTC
From: jimv@hienergy.East.Sun.COM
Message-ID: <1932@east.East.Sun.COM>
Source record: 11484

>Is there such a thing as a rapid charger for the FT-470? I know Yaseu makes a
>fast charger, 6 hours, but what I am looking for is a true rapid charger like

I have a drop-in charger for my 470 (and the XYL's 411) that charges the
battery in 3 hours, then reverts to a trickle charge. I think I paid about
$60.00 for it a few months ago.

Jim Vienneau, Sun Microsystems Inc - Billerica, MA
Email: jvienneau@east.sun.com Amateur Radio: WB1B
Good old Ma Bell (well old anyway): (508)671-0372

2987. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-21 20:35:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500547@ux1.cso.uiuc.edu>
Source record: 11493

Sorry for continuing questions, but the advantaging of usenet and internet for finding out things quickly does not work well for stuff that refers to other stuff I don't have.

First questions, is: does the minute/hour/day specified refer to the exact minute just past or the one coming up? The remaining questions refer to some bits below:

```
> m 0
> | 40 1
> | 20 2
> | 10 3
> minute| 4
> | 8 5
> | 4 6
> | 2 7
> | 1 8
> m 9
> 10
> 11
> | 20 12
> | 10 13
> | 14
> hour| 8 15
> | 4 16
> | 2 17
> | 1 18
> m 19
> 20
> 21
> |200 22
> |100 23
> | 24
> | 80 25
> | 40 26
> | 20 27
> day-of-year| 10 28
> | m 29
> | 8 30
> | 4 31
> | 2 32
> | 1 33
> 34
> 35
> 1 if DUT1 +ve 36 <----- What is DUT1 ?
```

> 1 if DUT1 -ve 37 <----- What is -ve ?
> 1 if DUT1 +ve 38 <----- What is +ve ?
> m 39
> |0.8 40 <--
> DUT1|0.4 41 <--
> |0.2 42 <--
> |0.1 43 <--
> 44
> 45
> 46
> 47
> 48
> m 49
> 50
> 51
> 52
> 53
> 54
> leap year ind 55 <-- I assume ON in 1988, 1992, etc.
> 56
> DST indicator 57 <-- I assume does not affect time since it is UTC
> 58
> m 59

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

2988. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-21 21:14:28 UTC
From: mbn@fpssun.fps.com
Message-ID: <7527@mbn.fps.com>
Source record: 11494
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <1990May19.185105.28390@gpu.utcs.utoronto.ca> dennis@gpu.utcs.utoronto.ca (Dennis Ferguson) writes:
| In article <998@gold.GVG.TEK.COM> grege@gold.GVG.TEK.COM (Greg Ebert) writes:
| >In article <188@suprtek> jc@suprtek (John Cincotta 415 790 9382) writes:
| >>
| >> Hi. I am a member of Group 70 which is building a large amateur
| >>astronomical observatory. We eventually intend to have it completely
| >>automated (remote controlled ?) and need a very accurate clock for the
| >>observatory.
| >>
| > NBS transmits 5, 10, and 15 (or is it 10, 15, 20 ?) Mhz signals which
| > are reputed to be THE time standard. Broadcasts are from Boulder, CO,
| > (WWVB), Hawaii (WWVH), and Idunno, (WWVL). They have an amplitude-
| > modulated tone (1Khz I think) and maybe some other stuff. Heathkit
| > (I'm not advertising for them) sells a "most accurate clock" kit which
| > will spit-out the time on a serial port for your computer's enjoyment.
|
| Some of the above reply is not quite correct. The NBS (now NIST)
| transmits HF time signals on 2.5, 5, 10, 15 and 20 MHz from Ft. Collins,
| CO (WWV) and Kauai, HI (WWVH, omits 20 MHz). They also do indeed transmit
| a time signal on 60 kHZ (WWVB, in Ft. Collins, CO). WWVL was a 20 kHz
| station at the Ft. Collins site but was shut down 20 years ago. In
| addition to this, NIST transmits a time code on the interrogation
| channel of the GOES satellites, this at slightly above 468 MHz. All
| this is from NBS Special Publication 432.
|
| While the WWV(H) time signals are certainly very accurate as transmitted,
| HF signals propagate by F-layer skip which means the transmission path
| length will vary somewhat unpredictably from day to night, summer to
| winter, and with changes in solar activity. The time you receive will
| thus jitter by something on the order of several milliseconds. Also,
| since HF propagation is fairly unreliable, you will need a reasonably
| stable oscillator backing the receiver for periods when the time signal
| is unreceivable.
|
Isn't time information available via C band satellite (TVRO)? I know
that CHU is available on Anik D1 (when the Canadian parliament is not
in session), and I seem to recall details of other time standard broadcasts
available via satellite. Unfortunately, I don't have any specific
information.

--
Mike Northam mbn@fpssun.fps.com Home:123 11' 40"W 45 37' 14"N

(503) 641-3151 x2651 {tektronix}!fpssun!mbn
FPS Computing has a company spokesperson, and it's certainly not me
"Every now and then things become clear." Jane Siberry, "The Walking"

2989. Re: TNC's / Packet Pirates

Newsgroup: rec.ham-radio
Date: 1990-05-21 21:16:49 UTC
From: mcmahan@netcom.UUCP
Message-ID: <12387@netcom.UUCP>
Source record: 11485

In a previous article, TCOMGRD1@OUACCVMB.BITNET writes:
>Whats the diff between baud and bps [bits per second]?

Bits/second is just what it sounds like, the total number of bits transmitted each second. Baud is a term that can be also read as 'symbols per second'. Since a symbol can be either 1 bit, 2 bits, 3 bits, 4 bits, or more, you can vary the bits/second and still have the same baud rate. If there is only 1 symbol/second, then the bit rate and baud rate are the same number. Usually, the number of bits/symbol is an integer, but it doesn't have to be. A symbol time is the rate at which data is truely transferred on the carrier. The It is up to the equipment at each end to encode the proper number of bits in each symbol and to recover them on the receiving end. For QPSK (Quadrature Phase Shift Keying), there are 2 bits/symbol. For BPSK (Binary Phase Shift Keying), there is 1 bit/symbol.

>Pete Simpson Bitnet: TCOMGRD1@OUACCVMB.BITNET

-dave

2990. Re: ATV frequencies of upcoming SAREX mission

Newsgroup: rec.ham-radio
Date: 1990-05-21 21:29:17 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <107@ultrix.uhasun.hartford.edu>
Source record: 11488

In article <40884@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
>
> Is there any real evidence that there even will *be* any ATV (FS or SS)
> on STS-35?
>

I hope not, since there *won't* be ATV on STS-35. Only packet and voice
will be available; the TV (SSTV and FSTV) equipment is too bulky to fit
in the (severely limited) space available for this mission.

Assuming all goes as planned, STS-37 (scheduled for November, if memory
serves) will include two-way SSTV and *uplink only* FSTV capability, along
with the usual voice and packet.

Jon, KE3Z

2991. Longwire antennas for a novice with DX-440

Newsgroup: rec.ham-radio
Date: 1990-05-21 21:46:51 UTC
From: mcmahan@netcom.UUCP
Message-ID: <12391@netcom.UUCP>
Source record: 11487
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I have recently purchased a DX-440 radio from Radio Shack. I would like to receive the station at 10863 KHz. I seem to have antenna problems (not enough gain) for this signal. What is the best way to go? Right now, I have a 35 ft piece of wire soldered to the center conductor of a coax cable (not sure if it is 50 ohm or 75 ohm. Does it matter?) and have the shield of the coax soldered to a piece of copper braid 1/2 wide (I use solder-wick) and have the braid attached to a cleaned water pipe just before it goes into the ground next to my house. Is this kosher? The antenna I have made doesn't seem to work as well as the built-in antenna. How can I improve this? My questions are:

1) Should the longwire antenna be mounted horizontally or vertically for best performance?

2) Is there some method to better match impedances for the long wire? (What is the impedance of a long wire?)

3) Radio Shack sells an antenna kit for this radio. Is this worth purchasing?

4) What other tips and techniques could you suggest?

-dave

2992. Re: Packet/Internet gateways

Newsgroup: rec.ham-radio
Date: 1990-05-21 21:48:45 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <108@ultrix.uhasun.hartford.edu>
Source record: 11489

In article <1990May14.165043.20321@smcnet.smc.edu>, neal@smcnet.smc.edu (Neal Pollack) writes:
> In article <223.UUL1.3#5131@mvac23.UUCP> thomas@mvac23.UUCP (Thomas Lapp) writes:
> >I've often seen messages on this net which have been reproduced from packet
> >sources. I'm wondering if there is either 1. a gateway packet machine which
> >allows someone like me to send e-mail to a packet site or 2. someone on the
> >east coast of the USA who is interested in performing that function.
> >internet : mvac23!thomas@udel.edu or thomas%mvac23@udel.edu
> >uucp : {ucbvax,mcvax,psuvax1,uunet}!udel!mvac23!thomas
>
> Unfortunately, this is not currently permissible. Internet permits the
> seven bad words, commercial messages, and any other form of free
> expression.
>

Actually, the content of the traffic is probably the lesser concern. The greater concern is that no third party can initiate amateur transmissions without the participation (monitoring) of a licensed ham. Effectively, this means that *all* traffic in the Internet-to-packet direction has to be read by a ham before it is allowed to be transmitted. This isn't a gray area, by the way, in spite of the flaming you may hear to the contrary. It is perfectly clear in Part 97, as I have confirmed by discussing it with Perry Williams, the ARRL lobbyist. Much as I would *love* to see gateways of this sort, it just isn't legal to have an automatic relay from Internet to packet.

Of course, if hams could develop a track record of operating attended (monitored) gateways and show that the traffic flowing through them is benign, who knows? Maybe eventually we could have legal automatic gateways, Internet willing. The trick is to convince the FCC that there is very little opportunity for misuse of the network, particularly by criminals and the like. (You may think I'm kidding about the criminals; I'm not. A few weeks ago W4RI and I gave a packet briefing to several of the FCC staff in Washington, and it was quite obvious that the question of how to identify the originating station of a message was one of their top concerns. Perry later explained to me that they are worried that the ability to send data that isn't monitored by anyone could be used by druggies to establish communications for their illegal activities. Personally, I would think that there are better options for the illegals to use.)

Jon, KE3Z

2993. Re: Modem to Packet

Newsgroup: rec.ham-radio
Date: 1990-05-21 21:55:25 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <110@ultrix.uhasun.hartford.edu>
Source record: 11490

In article <1820962@MTS.RPI.EDU>, Joel_Glickman@MTS.RPI.EDU writes:
> perhaps this is a good opportunity to ask people's views about a Modem->Packet
> server. I have set one of these up whereby I can call in from a terminal on
> a phone line and access my station. I have also allowed other ham friends to
> do the same. I believe it is legitimate remote operation when *I* am operating
> with my callsign from a remote terminal. Is it within the regs to allow fellow
> hams to access this system and use their callsigns on my TNC to connect to
> packet BBS's... etc..??
>

Sure it's legal. They are simply operating a station under remote control.
Nothing wrong with that at all! The fact that the equipment is at your QTH
is irrelevent; this was dealt with a couple of years ago when the FCC ruled
that it was OK to use your own call sign regardless of the fact that you may
be at the location of another licensed station. (As I recall, the question
originally came up at about the time handhelds became popular :-)

Jon, KE3Z

2994. Re: Need help with Apple2 146.76Mhz birdie (please).

Newsgroup: rec.ham-radio
Date: 1990-05-21 22:36:20 UTC
From: charlie@oakhill.UUCP
Message-ID: <3332@radio.oakhill.UUCP>
Source record: 11492
Cross-posted to: comp.sys.apple2,rec.ham-radio,sci.electronics

In article <4714@plains.UUCP> bezenek@plains.UUCP (Todd M. Bezenek KO0N) writes:
>
>I have a neighbor with an Apple2. It emmits a strong signal on 146.76Mhz.
>I have heard of this being a problem with all Apple2's, and know two
>other people who have a problem because of it.
>
> If anyone has information on how to move the frequency of this
>signal, PLEASE send me email.
>
>

Well let's see...the 41st harmonic of 3.579545 MHz (Apple II clock
divided by 4 and also the NTSC chroma burst frequency) just happens
to be 146.761 MHz. IF your neighbor doesn't use an NTSC color
monitor (i.e. doesn't use composite color video output) then you
might be able to change the AII's 14.31818 MHz crystal to 14.320 MHz with
hopefully no bad effects. The new frequency of 14.320 MHz will give
a birdie at 146.780 MHz which should be out of your receiver passband.

An even BETTER thing to do is to STOP the Apple][from radiating!
Try ferrite cores an all wires leaving the unit. IF the Apple II is
really old it will NOT be class B certified.... however the newer
Class B FCC certified Apple II should not be radiating
all the way from your neighbor's house if it is properly configured.
Also on the Class B FCC certified Apple II's there is a flame-spray
zinc coating on the enclosure underneath the paint. There are
unpainted spots where the lid is supposed to contact the rest of the
case to form an RF tight seal. This, along with various ferrite
beads on the mother board, were some of the steps taken to get the
original Apple II to pass FCC Class B standards.

If your neighbor has a very old Apple good luck!

-C.T. WB4HVD

p.s. if your neighbor uses an RF modulator and a color TV
you will not be able to change the crystal freq without
blitzing his colors :-(.

2995. RE: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-22 00:19:55 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9005220028.AA01349@ti.com>
Source record: 11506

This is not so much STRANGE as interesting.

We gave a NOVICE exam a while back and the guy got his call:

KB5MIJ

As he was pondering phunny phonetics, the best he had discovered
to date had been "Made In Japan". I pointed out that the last
three letters were quite significant-- if run backwards!

His name is JIM.

There is a lady in North Carolina (she and her OM are formerly from 8-land,
West Virginia) whose call is wD8EBI and her name is DEBBI.

Her 610 went in with a stack from a Novice/Tech class at the local club.

What's the probablility that hers fell right without help?

==========

Almost makes yah think the FCC is human after all...

--Bob West WA8YCD (Willy Adams ATE Your Chicken Dinner)
Dallas Texas

RLWEST@FLOPN2.CSC.TI.COM

2996. Re: Modem->Packet

Newsgroup: rec.ham-radio
Date: 1990-05-22 00:41:41 UTC
From: tad@ssc.UUCP
Message-ID: <741@ssc.UUCP>
Source record: 11502

In article <1821899@MTS.RPI.EDU>, Joel_Glickman@MTS.RPI.EDU writes:
>
> In article <1820962@MTS.RPI.EDU> I wrote:
> >>server. I have set one of these up whereby I can call in from a terminal on
> >>a phone line and access my station. I have also allowed other ham friends to
> >>do the same.
>
> lrj@cs.cornell.edu replies:
>
> > Also; what happens when some non-ham dials your modem and goes
> >through your TNC? What happens to your license if this person starts
> >sending out messages of an offensive nature?
> >

Shouldn't be any more of a problem legally than if someone breaks into
your home and dinks around with your station on the air....as long as
you have taken some precautions to provide a reasonable amount of
security, you shouldn't be held liable.
>
>
> Certainly I have taken precautions so that non-hams will *not* have access
> to this system. There is a logon procedure which will only allow users which
> have been registered to use the system. People without ID's and PW's are not
> told anything, they are just hung up on. Basically, it's a closed system.
>
> My real concern is whether or not it this considered legal operation of my
> station. If my friend dials in, logs on, changes mycall, and uses my station
> under his call, is it the same as him coming over to my place, sitting down
> at my computer, changing mycall and making a contact?

This should be the same as you giving your house key to your licensed ham
friend, who then comes over and operates your station when you are not
around. No problem, as long as you take reasonable precautions.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

****

2997. ANS: Request for Repeat of WEFAX/GEOS Info

Newsgroup: rec.ham-radio
Date: 1990-05-22 01:31:42 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9005220131.AA27529@tecnet1.jcte.jcs.mil>
Source record: 11507

John Moore HAM:NJ7E/CAP:T-Bird 381
{asuvax,mcdphx}!anasaz!john john@anasaz.UU writes:

>Recently there was a posting that mentioned C-band satellite (TVRO)
>subcarriers that carried the GOES-E, GOES-W and charts images.
>Could someone please send me that data again. I lost it, and it
>has already been purged from our news directories.
> THanx

Twas I John. Hook the unclamped baseband video on your IRD up to your HF rig and I would suggest about a 30 DB pad in the middle. The bird is Spacenet-3 (S-3) transponder 17. The emission is FM and I suspect it is around 20 KHz deviation because I am clipping a little bit using the standard 10 KHz bandwidth found in most amateur rigs in FM mode. The images are sent in APT mode usually using HF modes of 120 lpm and a IOC that matches HF also. I have heard them shift to 240 lines per minute on occasion. The freqs. are around 1.5720 Mhz for the charts and 1.8840 and 1.9315 Mhz for the GOES WEST and GOES EAST images respectfully. They use the standard start and stop tones also.

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

2998. Re: Modem to Packet

Newsgroup: rec.ham-radio
Date: 1990-05-22 02:20:07 UTC
From: brian@ucsd.Edu
Message-ID: <13853@ucsd.Edu>
Source record: 11496

In article <110@ultrix.uhasun.hartford.edu> jbloom@uhasun.hartford.edu (Jon Bloom) writes:
>(As I recall, the question
>originally came up at about the time handhelds became popular :-)
>Jon, KE3Z

Actually, it was simply recognition of the fact that hams have always considered their callsigns to be personal identifiers, rather than station identifiers, and have always used them as such. Even the people who bothered with using the club call always added "W6xyz at the mike".

As for coming up about the time handhelds became popular, well... Let's just say it was about the time handhelds became popular in Newington. The rest of us had already been using walkies for about 10 years or so.
- Brian

2999. Motorola P 10s

Newsgroup: rec.ham-radio
Date: 1990-05-22 03:14:33 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <3199@ultb.isc.rit.edu>
Source record: 11512
Cross-posted to: rec.ham-radio.swap,misc.forsale,rec.ham-radio

A friend of mine has about 20 Motorola P-10 Handhelds, all crystalled the same and all with Chargers, Antennas, etc... He is considering selling them however he would like to get a feel for how much people would pay for them. These are all brand-new units with 2 year warranties.

If you are interested in them please send you mail to my address and I will forward it to him. Please no UNREASONABLE offers, he does not need to sell these units.

Lance Ware

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

3000. Re: Automated observatory, was Re: 60Kh

Newsgroup: rec.ham-radio
Date: 1990-05-22 03:30:31 UTC
From: dennis@gpu.utcs.utoronto.ca
Message-ID: <1990May22.033031.23648@gpu.utcs.utoronto.ca>
Source record: 11497

Phil,

No trouble. WWVB's time code refers to the time at second 0 of the minute, i.e. the on-time minute just past. UT1 is the astronomical time scale, defined by the position of things in the sky, while UTC is the time scale defined by the cesium frequency standard. DUT1 is UT1 - UTC. Leap seconds are inserted into UTC to keep it within 0.6 or 0.7 seconds of UT1 Since the earth is currently running slow compared to the atom, DUT1 starts off positive after a leap second and drifts negative. When DUT1 reaches -0.4 or -0.6 or so, they add a leap second to UTC to make it positive again.

The leap year bit is indeed set during leap years. This is to help radio clocks do day-of-year to month/day conversions (note that the year was included in the time code only recently, so a radio clock couldn't determine what year it was and hence couldn't convert to month/day without knowing the state of this bit). WWVB returns UTC, so the DST bit doesn't affect this, but it does help radio clocks which display the time in a local timezone.

Dennis Ferguson

3001. Re: Modem to Packet

Newsgroup: rec.ham-radio
Date: 1990-05-22 03:36:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500548@ux1.cso.uiuc.edu>
Source record: 11498

> By the way, aren't there restrictions on the types of things which can be
> posted on some machines in the internet? Like advertisements?

Yes. However the specifics vary from network to network, and do not happen to be exactly the same as amateur radio. To start with, the amateur radio service restrictions originate in federal regulations whereas the restrictions on networks originate in many other places and in different forms. There can be specific policy (e.g. Dod for Arpanet) and implied or specific policies from funding sources. You may even be able to find things that are legal and accepted over ham radio and are technically against the policy of a network.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3002. Re: Strange Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-22 03:37:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500549@ux1.cso.uiuc.edu>
Source record: 11499

> One of my favorites is the shortest CW call in the US, N5EE, whom I've
> worked in contests (no, he doesn't send RST 555), although since the call
> sign restructuring, this call is of course matched by NE5E.

And AE5E.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3003. Re:Dongles!!

Newsgroup: rec.ham-radio
Date: 1990-05-22 04:45:43 UTC
From: hbg6@citek.phx.mcd.mot.com
Message-ID: <12940@mcdphx.phx.mcd.mot.com>
Source record: 11517

In article <9005200703.AA12340@ucbvax.Berkeley.EDU> 702WFG@SCRVMSYS.BITNET (bill gunshannon) writes:
>...hook up to the printer port (paralel) and don't interfere with the normal
>operation of the printer. I had always assumed they had enough smarts to
>
>Anybody got more info?? Anybody from Banyan out there??
> Inquiring minds want to know!

This 'enquiring' mind Xray'd the damn thing. It appears to have a voltage regulator, a four bit CMOS counter, and some misc analog voltage/drive looking components. The counter is of the presetable variety and you can see traces on the board where cuts have programmed the devide by ratio of the counter. Our guess is one data line sets the clock, another line strobes it, and the program reads the devided clock on yet another line. We think all of the analog stuff kills this clock circuit when the data strobe is asserted. We haven't tried to defeat it. Since we're a large corporation, we just buy more keys. Luckily, inquiring minds run the Xray equipment.

John

3004. Re: Strange Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-22 05:13:11 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990May22.051311.17209@elroy.jpl.nasa.gov>
Source record: 11500

In article <30500549@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>> One of my favorites is the shortest CW call in the US, N5EE, whom I've
>...
>And AE5E.
>
And back in '83, when I first began working at JPL, one of my co-workers
was AE6S. My call at the time was WA6IRH, but I was quite inactive;
however, when I discovered his call and learned that there were more
weird ones like that to be issued, I got to work on my code and on 18 Nov
1983 I received my new call. However, I had really hoped to avoid the two
letters of my old callsign that I least liked: W and H. Of course, the FCC
knew this and cursed me with them again... It can be a very confusing call
on voice: the N is nearly the equivalent of an "uhh" and so the call is copied
as W6H? . Of course, then there was XE2CCC who never was able to figure out my
call one evening on 40m. I turned off the radio and went to bed. Yeeesh.

- H

--
Jon Trent Adams, NW6H | "Per Aspera Ad Astra" A Dead Roman
JTA@hydra.jpl.nasa.gov | Way-Rad : Opinionated : Single : Prevaricator :
"jpl don't know me from squat"| Raconteur : Engineer : President, Local Chapter
Ghenghis Khan Fan Club : Honorable Mention, "Calvin" Lookalike Contest

3005. Re: 60Khz time standard.

Newsgroup: rec.ham-radio
Date: 1990-05-22 06:10:59 UTC
From: jerry@walt.cc.utexas.edu
Message-ID: <30284@ut-emx.UUCP>
Source record: 11501

There are a number of considerations to be made when using Radio for timing signals. First you have the source. This can be WWV broadcasts, Loran C navigation signals, or whatever happens to be handy. Next you need to consider path length and path route. Radio waves travel faster over water. For high enough accuracy, the path length needs to be determined within 5 meters. This is about the best you can do as far as timing precision. I do have anything detail on this handy, but these type of systems cost in the 10K range. I can get more information if anyone is interested, but I don't know who's question this was.

Jerry Porter AKA Bass Wastelan | Disclaimer, we don't need no stinkn'
Star's End 512-255-1030 2400baud | disclaimers.
jerry@ccwf.cc.utexas.edu |
-------------------------------------| |--------------------------|
I LIKE it. | | All roads lead to Trantor.|

3006. Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-22 07:55:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005230703.AA26136@ucbvax.Berkeley.EDU>
Source record: 11428

Some of you OTs out there... please explain this! I've been licensed for over a year now, and I have heard about "the way it used to be" a few times, but was never told exactly how it used to be! And it was recently mentioned again (by a WB6...) about the callsign "change".

I understand that you used to be able to pick your own. Is this true? One of our more notable hams in town, Tom Comstock, has N5TC.

Please explain, OT's... How did it USED to be?

Mark C. Lowe - KB5III

MCL9337@TAMVENUS.BITNET

3007. Need address Butternut Electronics (please)

Newsgroup: rec.ham-radio
Date: 1990-05-22 10:39:21 UTC
From: perschau@mdcbbs.com
Message-ID: <1990May22.103921.869@mdcbbs.com>
Source record: 11525

Help ! After serving me faithfully for 8 years, my Butternut HF6V antenna has given up a few key parts to midwest winters. The owners manual lists a phone number that now belongs to a Texaco gas station. If anyone can send me the correct phone and/or address, I would sure appreciate it. Directory assistance does not have any listings for them. tnx in advance.

Bob Perschau KA9ART (A Real Turkey)
uunet uucp%uunet!mdcbbs.com!perschau
internet perschau@mdcbbs.com

3008. Re: Query on PRO-34 frequency mod

Newsgroup: rec.ham-radio
Date: 1990-05-22 11:53:52 UTC
From: paul@urbana.mcd.mot.com
Message-ID: <1264@urbana.mcd.mot.com>
Source record: 11526
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <112@heimat.UUCP> dan@heimat.UUCP (Dan 'Sneakers' Schein) writes:

> Well I finally decided to do the 'euro' mod to my PRO-34 (restore the
> 66 - 88 MHz range). Based on the collection of PRO-34 mods I collected
> from the net I added a diode to D-9 (the old one removed from D-11 when
> I restored full 800 Mhz). It appears as though I now have this new range
> of frequencies -BUT- at the cost of my 30-54 MHz range :-(

> Its an easy job to remove the diode and be back where I started but my
> question is: Has anyone been able to get both? Does anyone actually use
> or check these mods (in particular this one)?

Yes, indeed. 30-54 disappears when you install D-9. I just pulled
mine out last night. None of the instructions I saw mentioned this.
--

Paul Jones, Motorola MCD-UDC paul@urbana.mcd.mot.com
1101 E. University Ave. ...!uiucuxc!udc!paul
Urbana, IL 61801, USA (217) 384-8529

3009. Re: Need help with Apple2 146.76Mhz birdie (please).

Newsgroup: rec.ham-radio
Date: 1990-05-22 12:45:32 UTC
From: perley@hobbes
Message-ID: <7839@crdgw1.crd.ge.com>
Source record: 11511
Cross-posted to: comp.sys.apple2,rec.ham-radio,sci.electronics

In article <3332@radio.oakhill.UUCP>, charlie@oakhill (Charlie Thompson) writes:
>In article <4714@plains.UUCP> bezenek@plains.UUCP (Todd M. Bezenek KO0N) writes:
>>
>>I have a neighbor with an Apple2. It emmits a strong signal on 146.76Mhz.
>>I have heard of this being a problem with all Apple2's, and know two
>>other people who have a problem because of it.
>>
>> If anyone has information on how to move the frequency of this
>>signal, PLEASE send me email.

>Well let's see...the 41st harmonic of 3.579545 MHz (Apple II clock
>divided by 4 and also the NTSC chroma burst frequency) just happens
>to be 146.761 MHz.

If you can find out which node on the computer has this harmonic, you
could soften up the signal edges with a small capacitor. Either find
it with a signal strength meter with high pass filter, or look on the
schematic for a clock line that may be overdriven.

-don perley ke2tp

perley@trub.crd.ge.com

3010. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-22 13:01:14 UTC
From: dls@ccird1.uucp
Message-ID: <DLS.90May22090114@ccird1.uucp>
Source record: 11504

>>>>> On 17 May 90 15:01:42 GMT, jdg@hpqtdla.HP.COM (James Gentles) said:

James> Another vote for a IC02 AT/E as a good buy for a second hand HT

James> Can extend
James> receiver coverage to 138-163MHz.

James> 73 de James

I too love my 02AT that I bought 2nd hand as my first 2m HT.

Could someone please pass along the mod for the above mentioned receiver
coverage?

Thanks.

--

Darren Swartzendruber CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII
KB2JJO/KT CC CC CC CC II II COMPUTER
CC CCC CC CC CCC CC IIII IIII CONSOLES,
cci632!dls@cs.rochester.edu CC CCCCCCC CC CCCCCCC IIII IIII INCORPORATED
rochester!rit!cci632!dls CC CCC CC CC CCC CC IIII IIII
uunet!ccicpg!cci632!dls CC CC CC CC II II An STC Company
uunet!rlgvax!cci632!dls CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII

3011. callsign as personal id (Re: Modem to Packet)

Newsgroup: rec.ham-radio
Date: 1990-05-22 13:02:38 UTC
From: perley@hobbes
Message-ID: <7840@crdgw1.crd.ge.com>
Source record: 11510

In article <13853@ucsd.Edu>, brian@ucsd (Brian Kantor) writes:

>Actually, it was simply recognition of the fact that hams have always
>considered their callsigns to be personal identifiers, rather than
>station identifiers, and have always used them as such. Even the people
>who bothered with using the club call always added "W6xyz at the mike".

Not always... There is a guy who works here who didn't even get a
call sign when he became a ham. His brother was already a ham, and at
the time (late 30's?) the FCC would not issue a second station license
for the same address. So he just got the operators ticket and no
station until his brother moved out.

-don perley
perley@trub.crd.ge.com

3012. Re: GAP FED ANTENNA

Newsgroup: rec.ham-radio
Date: 1990-05-22 13:49:13 UTC
From: jdn@casux4.uucp
Message-ID: <23483@bellcore.bellcore.com>
Source record: 11514

In article <9005220703.AA07537@ucbvax.Berkeley.EDU> LCASHIN@UNCAEDU.BITNET (Laurence M. Cashin) writes:
>
>I am a new subscriber to Info-HAms and I am a recently Licensed
>Amateur V O 1 X C. I am interested in learning of any experience
>
Congratulations!

>you may have had with the Challenger DX-V and/or DX-VI Antennae from
>Gap Antenna Products of Vero Beach Forida,

The antenna is basically a half-wave vertical on 20 meters with additional stubs to provide matching on other bands. I gave it a look at Dayton a few weeks ago, and my friend N2EA bought one and erected it as described in the instructions sheet. The antenna works very well on 20 meters, but is a complete wash out on the other bands. 40 and 80 are particularly dissapointing.

I would find the room for radials and put up a Butternut if you want to go with a vertical.

73, NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3013. Drake R-4B or similar sought

Newsgroup: rec.ham-radio
Date: 1990-05-22 14:02:06 UTC
From: halvorse@parc.xerox.com
Message-ID: <HALVORSE.90May22070206@fanaraaken.parc.xerox.com>
Source record: 11515
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I am interested in purchasing a used Drake-4B or similar receiver suitable
for occasional DX use (not interested in a portable). Any leads or suggestions
would be appreciated.

Thanks,
Per-Kristian

3014. TEC-200 film

Newsgroup: rec.ham-radio
Date: 1990-05-22 14:03:12 UTC
From: mleech@bcarh342.bnr.ca
Message-ID: <1990May22.140312.29766@bnrgate.bnr.ca>
Source record: 11516

I'm looking for a Canadian supplier of a film known as
TEC-200. This is a thermal-transfer film that can be used
to produce "iron-on" PCB artwork. Anybody know who manufactures
this stuff?

Marcus Leech, 4Y11 Bell-Northern Research |opinions expressed
mleech@bnr.ca P.O. Box 3511, Stn. C |are my own, and not
VE3MDL@VE3JF.ON.CAN.NA Ottawa, ON, CANADA |necessarily BNRs

3015. 4 Year Old Hams

Newsgroup: rec.ham-radio
Date: 1990-05-22 15:37:18 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9005221537.AA16983@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 11429

I was poking around through the ARRL Handbook the other day and came
across this info:

86 Handbook, page 36-3,
Guy Mitchell, WD0DVX passed the code test at age 4 and passed
the written novice test at age 5 with the above resulting call.
There is a picture of him also, but I think the picture was taken
when he was a couple of years older. No date was given when
all this took place.

I am not sure this is the situation that was referred to earlier, but
it is mighty close. Granted, the novice test is trivial, but I still
don't see how a 5 year old could have understood the concepts behind
the questions. It must have been memorized without meaning.

-- Doug WA6VVV

3016. Re: HT use in Guadalupe Mountains, Texas

Newsgroup: rec.ham-radio
Date: 1990-05-22 15:52:24 UTC
From: kenw@col.hp.com
Message-ID: <24300009@col.hp.com>
Source record: 11524

I was just there this last Easter vacation. The only two repeaters
I could bring up (I believe) were 19-79 and 34-94, both in Carlsbad.
Both have the capability to link into the Zia Network, which covers much
of New Mexico, part of Texas, and Arizona. However, nothing (as far
as I could tell) would reach to Guadelupe NP. I even double-checked
with some locals in the area. The exception might be if you climb up
to the mountain tops.

3017. Re: Looking for 2m HT purchase advice.

Newsgroup: rec.ham-radio
Date: 1990-05-22 15:58:32 UTC
From: jdg@hpqtdla.HP.COM
Message-ID: <3430006@hpqtdla.HP.COM>
Source record: 11427

$> | receiver coverage to 138-163MHz.
$> what else do you have to do to be able to receive 138 to 163? My HT does
$>Many of the older synthesizers required a little readjustment of the PLL

Ken's right. Full details in July 1986 Ham Radio

73de James

Opinions expressed are my own, and are not intended to be an official
statement by Hewlett-Packard Company

Name: James Gentles GM4WZP
Organization: Hewlett-Packard Queensferry Telecomunications Division
Email: jdg@hpqtdla.hpsqf.hp.com hp-sdd
Address: Station Road, South Queensferry, West Lothian, Scotland
---

3018. 20m Bandits

Newsgroup: rec.ham-radio
Date: 1990-05-22 16:00:08 UTC
From: kchen@Apple.COM
Message-ID: <41255@apple.Apple.COM>
Source record: 11519

It's bad enough to be invaded on 10m by taxi drivers, but while slumming on 20m last evening (a little after 0600Z), I came across a sideband signal at 14.084 MHz. Sideband at 14.084? Moreover, it is *lower* side-band. Now, what self-respecting Ham would do that? I got curious and listened. Sounded like a bunch of stations (at least 3) conversing in what seemed to me to be the Hakka dialect of Chinese. They were yakking away as if they were on cellular telephone or something. The strongest was coming in with a good S9. Quite likely to be fishermen in the Pacific. Certainly not Hams.

It gets more interesting. When I tuned across again about half an hour later, there is this "fake" CW station trying to jam them. Well, I say "trying" because this lid was at absolute zero beat with them. HI. Didn't do squat to QRM them. He/she was also sending gibberish CW (hey, my morse ain't *that* bad to not be able to read proper CW :-). But, now and then, a couple of CQs and VVVs got through. Smoking gun. A fellow Ham almost for sure. For a while, I though I heard an RTTY signal on top of them, too. But, at that frequency, it could be a legitimate one who wasn't aware that he was sharing the spectrum in an intimate fashion. Anyway, the CW jammer finally wised up and started to sweep slowly back and forth across the LSB signals -- that finally drove the non-hams away.

So. We are not supposed to cause malicious interference. But, has the FCC interpreted whether this applies to interference to a service that is not supposed to be there in the first place? If so, how does one get rid of these strangers?

Would be interesting for 3D2AM to say "listening 14,084, plus minus 5." :-) :-) :-).

Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

3019. question about TEC-200 film

Newsgroup: rec.ham-radio
Date: 1990-05-22 16:08:18 UTC
From: elkind@nodename.dec.com
Message-ID: <11830@shlump.nac.dec.com>
Source record: 11520

Is TEC-200 film any different from the normal overhead transparency film that one feeds into the hopper of a copier, like Folatran X-100? (not the stuff you combine with a paper copy and put through a thermal transfer machine).

Has anyone tried to use this film to make iron-on PWB resist?

de KB1RB

3020. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-22 16:27:13 UTC
From: jay@splut.conmicro.com
Message-ID: <H1#-XQH@splut.conmicro.com>
Source record: 11522

In article <9005220028.AA01349@ti.com> rlwest@flopn2.csc.ti.com (Bob West, WA8YCD) writes:
>We gave a NOVICE exam a while back and the guy got his call:
> KB5MIJ
>As he was pondering phunny phonetics, the best he had discovered
>to date had been "Made In Japan". I pointed out that the last
>three letters were quite significant-- if run backwards!
>His name is JIM.

Do you know Jim McClellan, N5MIJ? He lives up there, too.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
"Flying is a lot more fun than being in the Senate." -- Senator Jake Garn

3021. 2M antenna ideas for Dodge caravan wanted

Newsgroup: rec.ham-radio
Date: 1990-05-22 16:33:49 UTC
From: jak@mtune.ATT.COM
Message-ID: <577@mtune.ATT.COM>
Source record: 11518

I have a Dodge caravan and a garage with a fairly low door.
I want to install a permanent 2M antenna on the Caravan.
The mag mount gets knocked over and scratches the roof.
Does anyone have any success stories or recommendations?

Thanks in advance.
73, jim ky2d

3022. Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-22 18:07:34 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9005230705.AA26320@ucbvax.Berkeley.EDU>
Source record: 11430

Waaay back in the ooollldddd days (pass me the Geritol, wouldja?), say around 1972-1973, the FCC experienced a momentary, fleeting spasm of good-natured-ness and let Extras request a 1X2 callsign. You had to pay a modest fee, but it was well worth it. If they didn't have the callsign you asked for, you could request "next available," as I did. This system was the way that most of today's 1Xmy initials came from. Needless to say, it's too bad that the spasm didn't last.

M.R.O.

3023. Re: Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-22 19:32:59 UTC
From: jackz@h2opolo.ee.lbl.gov
Message-ID: <5673@helios.ee.lbl.gov>
Source record: 11521

In article <9005190704.AA02413@ucbvax.Berkeley.EDU> MCL9337@TAMVENUS.BITNET writes:
>
>There's always mine... KB5III
>
>_.._ _... ....
>
>Mark Lowe - KB5III

Gee, Mark, that's a really great CW call! You should consider
yourself a very fortunate ham! Enjoy it!

73, Jack Zelver - W6RST

3024. Help!

Newsgroup: rec.ham-radio
Date: 1990-05-22 20:03:24 UTC
From: DXANDY@WIDENER.BITNET
Message-ID: <5A05160E22300291-MTABWIDENER*DXANDY@widener>
Source record: 11431

Hi All!
Well, I thought I had cleared the biggest obstacle to becoming a ham when I passed the code and theory and got credit for my Technician class license (I passed the theory for General and plan to take the 13wpm next month). However, I now find out that I cannot mount an antenna on the tallest point on the house. My Dad thinks that if a strong wind blows, the whole house will fall down (or something like that!). Anyway, I can put up an antenna on the side of the garage. The only problem is, we live at the bottom of a small valley. If the antenna was mounted on the side of the house, a signal that radiated 20 degrees from the horizontal would just about clear the surrounding terrain.
My question is this, is it worth it to mount the antenna on the garage, some ten to fifteen feet lower? Or should I just forget trying to work the HF bands for the time being and buy a 2m HT instead and drive to a higher place?

Thanks in advance,
Andy Greenshields [dxandy@widener.BITNET]
3* <----- Waiting for call sign!

3025. Re: TEC-200 film

Newsgroup: rec.ham-radio
Date: 1990-05-22 20:53:15 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <1990May22.205315.4323@dg-rtp.dg.com>
Source record: 11523

In article <1990May22.140312.29766@bnrgate.bnr.ca>,
mleech@bcarh342.bnr.ca (Marcus Leech) writes:
> I'm looking for a Canadian supplier of a film known as
> TEC-200. This is a thermal-transfer film that can be used

I heard *somewhere* that TEC-200 is just a special type of
transparency film for copiers. Not a special one designed
just for PCB work; just one of the ones that happens to work
well. Can't remember where I saw this, but you might want
to try it. Post results if you do.

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

3026. MARS Affiliation

Newsgroup: rec.ham-radio
Date: 1990-05-22 21:56:37 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005222159.AA22730@ti.com>
Source record: 11432

Has anyone had an affiliation with the MARS net? What is required to be a member? May non-military hams participate? If so, what is the procedure/paperwork routine?

Thanks,
Dube Todd N5PDK

3027. Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-23 07:06:54 UTC
From: nfunamura%mis2.decnet@NUWES-LLL.NAVY.MIL
Message-ID: <9005230706.AA26432@ucbvax.Berkeley.EDU>
Source record: 11433

Mike Owen W9IP writes:

>Waaay back in the ooollldddd days (pass me the Geritol, wouldja?),
>say around 1972-1973, the FCC experienced a momentary, fleeting
>spasm of good-natured-ness and let Extras request a 1X2 callsign.
>You had to pay a modest fee, but it was well worth it. If they didn't
>have the callsign you asked for, you could request "next available,"
>as I did. This system was the way that most of today's 1Xmy initials
>came from. Needless to say, it's too bad that the spasm didn't
>last.

As a result of the above, there's a couple here with his and hers call signs. KH6OM and KH6YL are Husband and wife.

73, Norman
KH6R

3028. WEFAX test tape recordings

Newsgroup: rec.ham-radio
Date: 1990-05-23 09:13:19 UTC
From: mcmahan@netcom.UUCP
Message-ID: <12429@netcom.UUCP>
Source record: 11435
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Is there a place where I can purchase or get an audio tape containing valid WEFAX signals? I have written a program, but need to test it on a known good signal and am having severe trouble making sure I have a valid station tuned in and all is ok. I can live with some distortion in the playback, but would like to at least make sure I am doing a reasonable job of decoding the signal. If there is a kind soul out there that could record a couple of WEFAX signals while simultaneously making a WEFAX picture to send me, I would be forever in their debt. With a tape and a picture, I can figure out how to reproduce the picture from the tape and will KNOW what I should get. If there is a shortwaver or Ham in the Santa Clara Valley of Ca that wouldn't mind just doing the recording, I'd like to try that as well. I can live without the picture, but it would be nice to have both the tape and the picture.

I did manage to get one decent copy of a WEFAX signal that is very recognizable, but have changed the software since then and am not able to get a decent picture. I don't know if it is the software or if I just don't have a good signal.

-dave

3029. RE: INFO-HAMS Digest V90 #532

Newsgroup: rec.ham-radio
Date: 1990-05-23 13:27:00 UTC
From: MABELSON@WILLIAMS.BITNET
Message-ID: <9005240756.AA21531@ucbvax.Berkeley.EDU>
Source record: 11434

I, too am interested in becoming a ham and using a computer for code practice.
I would appreciate any information on Public Domain (commercial is O.K. too)
software written for the IBM for purposes of code practice. Suggestions
are welcome. Thanks :-)

| MABELSON@WILLIAMS.BITNET
| Michael L. Abelson
| Department of Psychology
/\ Bronfman Science Center
/ \ Williams College
/ \ Williamstown, Massachusetts 01267
/| |\ (413) 597-3229
''| |''
| |
| |
/\ oo /\ The RatMaster
'' __/ ''
--\/--

mla

3030. Re: Help!

Newsgroup: rec.ham-radio
Date: 1990-05-23 14:12:28 UTC
From: jdn@casux4.uucp
Message-ID: <23527@bellcore.bellcore.com>
Source record: 11436

In article <5A05160E22300291-MTABWIDENER*DXANDY@widener> DXANDY@WIDENER.BITNET writes:
>Hi All!
> My question is this, is it worth it to mount the antenna on the garage, some
>ten to fifteen feet lower? Or should I just forget trying to work the HF bands
>
Sure it is worthwhile! Don't forsake the low bands just because of a less
than ideal location. You will; be surprised at all the DX you work
with a modest setup.

Set up whatever you can manage and have fun!

73, NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3031. Re: question about TEC-200 film

Newsgroup: rec.ham-radio
Date: 1990-05-23 15:19:10 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250168@hpnmdla.HP.COM>
Source record: 11440

> I'm looking for a Canadian supplier of a film known as
> TEC-200. This is a thermal-transfer film that can be used
> to produce "iron-on" PCB artwork. Anybody know who manufactures
> this stuff?

From the price list 9/87:

"TEC-200" is a trademark of the Meadowlake Corp.

25 Blanchard Drive,
Northport, NY 11768
USA
(516) 757-3385

I've used it but I have no other connection with 'em.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

3032. Re: question about TEC-200 film

Newsgroup: rec.ham-radio
Date: 1990-05-23 15:39:24 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250169@hpnmdla.HP.COM>
Source record: 11441

>
> Is TEC-200 film any different from the normal overhead transparency film
> that one feeds into the hopper of a copier, like Folatran X-100? (not the
> stuff you combine with a paper copy and put through a thermal transfer
> machine).
>
> Has anyone tried to use this film to make iron-on PWB resist?
>
> de KB1RB

I've used Tec-200 but I'm not certain that it is different from copier
transparancies since I haven't ever tried the same trick with them. It
definitely handles high temperatures better than some materials. As far as
I can tell, the magic is that it doesn't distort too badly when you heat it
to 275 degrees or so to get the toner on it to come off and stick to the
PC board. Even Meadowlake, the manufacturer, recommends that you trim the
material back to just slightly larger than the actual board you are trying
to make.
I've made a number of boards with varying degrees of success.
Success seems to have a lot to do with how much toner your particular
photocopier can deliver to the film. I've usually ended up going over the
transferred toner with an indellible marker to "fill in" the pin holes.
My next attempt at prototype boards is going to be generate photowork
directly using transparancy film and a laser printer. I think I will
bypass the idea of plotting directly to a board with an X-Y plotter due
to experiences with using hpgl output and difficulty of getting good area
fills.
If anyone else has found successful tricks for moderate complexity
two-layer no-plated via boards I would like to hear about them.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

3033. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-23 16:13:47 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <11886@shlump.nac.dec.com>
Source record: 11437

In article <9005230703.AA26136@ucbvax.Berkeley.EDU>, MCL9337@TAMVENUS.BITNET writes...
>
>I understand that you used to be able to pick your own. Is this true? One of
>our more notable hams in town, Tom Comstock, has N5TC.
>
>Please explain, OT's... How did it USED to be?

At the risk of redundancy...

In the Very Early years (up to the early 20s?), calls took the form 1AW, 2YZ, etc. National prefices came into being in the 20s. (The US was NU for a year and then W and K when they redid the scheme.) The FCC gave domestic hams W#xxx calls after the 2-letter suffixes ran out. The K series was used for territories (K6 for Hawaii, etc.).

After the war, the FCC gave Kx# to territories and when Novices were introduced, they got WN#xxx, with the N dropped on upgrade. The W's ran out so K#xxx followed. Then around 1958 WA's began, with WV for novices (in 2, 4 and 6 only, I think); WB's had corresonding WNs. I had a WN2 call in 1965 that would have become WB2 had I stapled the novice to my tech application. (Instead I got a different WB2). The WB2Z series ran out by 1967 so they started reissuing vacant WA and WBs. For a short time in the 1970s WDs were issued in a few districts. (WC was the novice variant of KC, which was the Caroline Islands/TTPI.)

In the late '60s, Extras could request (for $20) a random 2-letter call. In the early '70s, fees were abolished. (Long story omitted.) In the mid '70s, Extras could request a pick of calls (send list of choices); if you were an Extra prior to such-and-such date, you went before those in a later class. I got my Extra in '76 in order to get in the line; fortunately, my first choice (K1IO) was still vacant by 1977 when my turn came up.

Then in '78 or so they adopted the current horrorshow and stopped allowing any choice. They more recently turned down a proposal to allow the ARRL (or another outsider) to administer a u-pick-em program.

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

3034. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-23 16:39:00 UTC
From: <>
Message-ID: <386400009@.Prime.COM>
Source record: 11445

[are there really any line eaters out there?...]

In a recent posting, Jim K6ZH <price@marlin.UUCP> says...

>Next there were WA6xxx calls, again issued until they ran
>out which in Calif. was 1962.
>And then there were WB6xxx calls, most of which were
>issued by the early 70s.

While it may be true that the WA and WB calls were all used up in 6-land, they were not in many (most?) other call sign districts (like 1-land). I remember reading ham rags in the 70's where the FCC realized they were running out of WA and WB calls, didn't want to keep going on with WE, WF, WG, etc., and had decided to reissue old WA and WB calls. My impression is that the class-specific call sign scheme we have today did *not* result from running out of a particular call sign format, but rather from the desire to have the license class recognizable from the call sign format (makes policing much easier!).

>And for a brief time the FCC issued WD6xxx calls, but only
>get about 1/3 into the alphabet. No WC calls were issued.

WC calls were issued exclusively to CAP (and maybe MARS, too?) stations.

>Meanwhile, incentive licensing was being implemented
>which brought with it distinctive calls for each class of license,

Incentive licensing was entrenched well before the recent class-specific call sign mania. I've heard that at one time there were only two classes of licenses, "A" and "B", I think. The Novice license seems to be the real beginnings of incentive licensing: make entry into amateur radio quite easy but provide very limited privileges and use the privileges of the "full" licenses as incentive to learn more technically. The full incentive licensing program, established in the late 50's or early 60's, established the present five license classes that tied more privileges to demonstration of more knowledge and skills.

To the comments already posted, I will add...

Prior to the distinctive call signs scheme used now, there were some other noteworthy call sign schemes:

- Novices were issued calls like KN1ABC which were changed to K1ABC when they upgraded. Later they were issued WN1ABC calls which were changed to WA1ABC, WB1ABC, etc. when they upgraded. The point here is that they got to keep their three-letter suffix.

- I think at one time Technicians were issued K1xxx calls at the same time Generals and Advanceds were issued WA1xxx. This would have been in the early to mid 70's. Can someone confirm or deny this?

73 de Scott KC1ST (ex WN1TEW)

=========
Scott Sminkey, TCP/IP Development
Prime Computer, Inc. ss@s47.prime.com
500 Old Conn Path 10-20 {sun,decvax}!cvbnet!s47.prime.com!ss
Framingham, MA 01701 (508) 879-2960 x4097
Disclaimer: If captured, my employer will disavow all knowledge of my opinions.

3035. Re: Standardized testing

Newsgroup: rec.ham-radio
Date: 1990-05-23 16:57:16 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120121@hpcupt1.HP.COM>
Source record: 11462

Yes, the "standardized" test can provide a barrier and perhaps does not test the individual for the proficiency/ability on the subject. But... on a open ended question, essay type of exam you are now subject to the subjective interpetation of the exam grader. This is the sort of thing that makes lawyers hyperventilate and start to look at the latest of hot sports cars. The standardized multiple choice exam on the other hand is very hard to attack because all candidates take the exam. The only thing open for attack is the cutural type bias that may exist in the question. IQ tests are famous for this type of problem.

In the college area, and especially in the lower level everyone-takes-this course that has a 200 student class, the multiple choice, electronically graded exam is the only way you could expect to get a result back in a reasonable period of time.
Jim, WA6SDM
jholly@hpcupt1.hp.com

3036. RE: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-23 17:08:22 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9005231712.AA13526@ti.com>
Source record: 11455

> From: TILDE::"MCL9337@TAMVENUS.BITNET" 23-MAY-1990 10:29:00.12
> To: info-hams-incoming
> CC:
> Subj: Callsign re-structure
>
>
> Some of you OTs out there... please explain this! I've been licensed for over
> a year now, and I have heard about "the way it used to be" a few times, but
> was never told exactly how it used to be! And it was recently mentioned again
> (by a WB6...) about the callsign "change".
>
> I understand that you used to be able to pick your own. Is this true? One of
> our more notable hams in town, Tom Comstock, has N5TC.
>
> Please explain, OT's... How did it USED to be?
>
> Mark C. Lowe - KB5III
>
> MCL9337@TAMVENUS.BITNET

There was a window for a while in which EXTRA CLASS license holders could turn
in a one-time preferred call list.

FCC would take your list and assign you the highest one on your list that was
not previously assigned.

This was a limited time offer back in the 70's and has not (very likely will
not ever) been repeated.

It ONLY applied to Extras.

73
Bob WA8YCD
Texins Amateur Radio Club
Dallas Texas

RLWEST@FLOPN2.CSC.TI.COM

3037. QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-23 17:12:42 UTC
From: pete@ctbilbo.UUCP
Message-ID: <105@ctbilbo.UUCP>
Source record: 11438

Is it necessary to send QSL cards to QSL managers in order to get a card from the station worked? Is a simple note to the manager with the usual band, mode, date & time (and SASE or SAE and IRC) good enough?

Do the stations worked ever get these cards? Do they even want them? If not, then we can save money by not sending cards. If we work a station on several modes and or bands, do we have to send a card for each? Again we can save money by sending a list with the info and not the cards.

If the operator worked really does want my card, then I have no problem sending mine, of course, but if the manager tips them, then it's a waste. With even simple cards costing 15 - 20 cents each, quite a cost saving can be had by using a list.

Any QSL managers out there want to comment?

73 - pete WB5KLY
--
****
* Pete Ritter uunet!ctbilbo!pete | Yu no can kaikai buai na *
* Communications Technology Corp. Dallas, Tx | spet long makit. *
****

3038. Re: 4 Year Old Hams

Newsgroup: rec.ham-radio
Date: 1990-05-23 17:13:45 UTC
From: wht@n4hgf.uucp
Message-ID: <701@n4hgf.uucp>
Source record: 11439

In article <9005221537.AA16983@KRONOS.NISD.CAM.UNISYS.COM> doug@NISD.CAM.UNISYS.COM (Doug Hardie) writes:
>I was poking around through the ARRL Handbook the other day and came
>across this info:
>
>86 Handbook, page 36-3,
> Guy Mitchell, WD0DVX passed the code test at age 4 and passed
>I ...
>don't see how a 5 year old could have understood the concepts behind
>the questions. It must have been memorized without meaning.

I know of a four-year old who can read a great deal of the newspaper. Granted, he has trouble with words like Vladivostok, but he groks gross national product and Hawaiian volcanoes. A regular chip off the old block too -- his dad and he were in front of the TV one day when one of the local yokels was making his pitch for Georgia governor. Daddy said [after Mr. Roger's style] "Can you say 'sound bite'?". From then on, the kid sees a political ad, he says "sound bite." Funny thing, the wisdom of children often surprises us all: now, when he sees a TV lawyer who want to help us with "debt relief and settlement protection" and he says "sound bite." :-) :-)

I know very well one individual who could read (granted, with little comprehension) at 1 1/2, pronouncing all the "regular" words very well. He __doesn't remember__ learning to read and, for all he knew, kids were born with things like the Star Spangled Banner and the 23rd Psalm already memorized. His theory is that his grandfather unwittingly taught him to read sitting on pappy's knee while the old man read out loud to himself, pointing at the words and spelling out the letters of words over six characters in length [some times an 8th grade education can accomplish more than that of a Ph. D.].

A three-year old is learning at a rate an order of magnitude or better above a 10-year old. Some don't wait 'til later to get into the meatier stuff.

Warren Tucker, TuckerWare gatech!n4hgf!wht or wht%n4hgf@gatech.edu
Sforzando (It., sfohr-tsahn'-doh). A direction to perform the tone or chord with special stress, or marked and sudden emphasis.

3039. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-23 17:26:00 UTC
From: hays@apollo.HP.COM
Message-ID: <4a913ecf.20b6d@apollo.HP.COM>
Source record: 11443

I am waiting for the poor soul who gets NH5HHH :)

73, John -.- -.. --... ..- .--

3040. Call Sign Re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-23 18:33:54 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005231849.AA16138@ti.com>
Source record: 11456

Let me add to Mike Owens' comment. Back in the ancient days, even before 1972 (perhaps even before Geritol), there were W's and there were K's. If you were one of the Hams from the "brown-shoe" days you had a W prefix. The newcomers all got K prefixes. Novices got a (by that time) KN call (KNnXXX). You didn't get to select. You got what came up, a la today. As a novice you had one year to upgrade to General or else. On upgrade, you simply lost your "N" and your call became KnXXX. If, after a year, you didn't upgrade, you lost your privileges (your non-renewable license expired) and your call went into the dead file.

73,
Dube Todd N5PDK

3041. Re: Help!

Newsgroup: rec.ham-radio
Date: 1990-05-23 18:34:47 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120122@hpcupt1.HP.COM>
Source record: 11460

Andy,
I would put up the antenna on the side of the garage and have fun! You don't say what kind of antenna you have in mind, but it should work. There is a lady out here in net-land that lives in a mobile home park, (read NO ANTENNAS) and she loads up the aluminum carport cover. She has a DXCC so carport covers can't be all that bad! There are plenty of hams living in apartments that can only string up inside dipoles or other less than optimal antenna and get out fine. Just about any antenna you put up will work and give you plenty of fun.
73's and hope to work you some time
Jim, WA6SDM
jholly.hpcupt1.hp.com

3042. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-23 19:06:58 UTC
From: jdn@casux4.uucp
Message-ID: <23539@bellcore.bellcore.com>
Source record: 11442

In article <105@ctbilbo.UUCP> pete@ctbilbo.UUCP (Pete Ritter) writes:
>Is it necessary to send QSL cards to QSL managers in order to get a card
>from the station worked? Is a simple note to the manager with the usual
>band, mode, date & time (and SASE or SAE and IRC) good enough?
>
Yes, this should be good enough

>Do the stations worked ever get these cards? Do they even want them? If
Yes. Yes.

>not, then we can save money by not sending cards. If we work a station
>on several modes and or bands, do we have to send a card for each? Again
>we can save money by sending a list with the info and not the cards.
>
Yes, you can just send a list on a piece of paper (or a single card
with multiple qso information on it) but there are certain risks
involved. For one thing, this complicates life for the qsl manager
so there is a good chance that your request will relegated to the
bottom of the processing stack. Furthermore, suppose that you work
a station on 5 bands/modes and send one letter. Suppose the manager
finds 4 of the qsos in the log, but can't find the 5th immdiately.
Then (since you presumably sent 1 sase) he will hold up the 4 good
cards until he gets a chance to investigate the 5th. For a busy
DXpedition, this could mean a 6 month to 1 year delay in getting
your cards.

>If the operator worked really does want my card, then I have no problem
>sending mine, of course, but if the manager tips them, then it's a waste.
>With even simple cards costing 15 - 20 cents each, quite a cost saving
>can be had by using a list.

Since when do cards cost 20 cents? You can buy 1000 cards for under
$50. Remember that the qsl manager is a volunteer; you should do
everything possible to ease his burden and speed his processing.
Also remember that YOU are the one who wants the DX stations card.
The DX station is really under no obligation whatsoever to QSL.

I think in general most qsl managers do a fantastic job for no
rewards. We should do what we can to lighten their load.

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3043. FM detection question

Newsgroup: rec.ham-radio
Date: 1990-05-23 19:25:37 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <22480002@hpcuha.HP.COM>
Source record: 11461

First, I just got my Technician class license and call sign in the mail from the FCC. It took exactly 5 weeks and 2 days from test day.

I've been shopping around for a 2M HT. I just realized that almost all the HT's are FM and that all the repeaters are FM. But I've been listening to the 2M band on my Sony Air-8 AM scanner. Am I very confused? Or is slope detection or some other form of parasitic detection that good?

Thanks,

Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>
brand new >>> N6YWU <<< private pilot ASEL 151 hours

3044. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-23 19:34:22 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250170@hpnmdla.HP.COM>
Source record: 11449

Please explain, OT's... How did it USED to be?

Mark C. Lowe - KB5III

MCL9337@TAMVENUS.BITNET

It used to be that Extra class hams could choose their own call. This only lasted a few years (like 3 or 4) and was phased in gradually, with the old-timers getting first choice. I was fortunate enough to have the Extra during the time this was in effect.

Also it used to be that ANYBODY could request a previously-held callsign to be reassigned to them. I remember when they started issuing non-WN callsigns to Novices, one fellow requested his old WN call back (since it was now not officially a Novice callsign.) He got a lot of flack when he used it on the 2M repeaters.

AL N1AL

3045. Re: TNC's / Packet Pirates

Newsgroup: rec.ham-radio
Date: 1990-05-23 19:38:17 UTC
From: tad@ssc.UUCP
Message-ID: <747@ssc.UUCP>
Source record: 11458

In article <9005210708.AA17246@ucbvax.Berkeley.EDU>, TCOMGRD1@OUACCVMB.BITNET writes:
>
> Well now, if packet radio does actually just "repeat" messages whithout
> checking authorization (if it is not destined for me send it on) would
> it not be possible for some non-licensed pirate to upload files and
> have them sent with no authorization??

If you are worried about this, just set the DIGI parameter OFF in your
TNC.
>
> Also (again), What baud rate (Whats the diff between baud and bps [bits per
> second]?) should I get? I see ads that say "2400 baud with up to 1200bps".
> I'm confused. I use a 2400baud modem on my Apple already, so dont want to
> run packet slower than that unless it will cost an arm and a leg.

Will you be on VHF? Probably 1200 baud, unless someone is doing something
unusual in your area. At HF you would run 300 baud.

> And last, but not least, Could my current modem be used for packet at all? I

No.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3046. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-23 19:57:45 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <53@thoreau.nsc.com>
Source record: 11444

My dad's call was W2UM, when I used it for cw contests it
usually came out as :
W22 .-- ..--- ..- --

and mine at the time was WA2JAM which often was heard as
WA2JJ .-- .- ..--- .--- .- --

then I had VE2AXW in Canada for a while, that one was a
bugger on phone as well as cw. I gave up the fight and
and requested my current call

K3FR -.- ...-- ..-. .-.
"KING THREE FRIED RICE"

That one got a lot of chuckles and tickled K7FR enough
that he picked up the phonetics for his own call.

Ron Todd, K3FR

3047. Re: TNC's / Packet Pirates

Newsgroup: rec.ham-radio
Date: 1990-05-23 20:00:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500550@ux1.cso.uiuc.edu>
Source record: 11447

> >vary the bits/second and still have the same baud rate. If there is only
> >1 symbol/second, then the bit rate and baud rate are the same number.
>
> I hate to pick nits, but shouldn't the above read "If there is 1 bit/symbol,
> then the bit rate and the baud rate are the same number."

One of the problems I have often had in grasping new concepts is the poor choice of terminology. This is one of those cases. When I was originally learning this about bit rate and baud rate, the term "symbols" resulted in a lot of confusion because I had a different understanding of the term. In actuality, both this usage, and the understanding I had were correct; the term has a very broad usage. The problem is that even if I did know the full meaning of "symbols" then I would not have known what was meant anyway.

Symbols are a member of a set of values. Characters are symbols. However in the usage as it relates to baud rate, it really is referring to the modulation symbols, or more specifically, the values the modulation can have. If the modulation can emit 20 different values in one second then the baud rate is 20. At each of those 20 positions in time (or space) the number number of different values that could appears might be very large or very small, but this does not affect the baud rate.

Bit rate refers to the number of data bits that can be encoded in some sequence of these value symbols. Usually the "encoding" is very simple as in FSK where there are only 2 values (space and mark or 0 and 1) to choose from. Only 1 bit can be encoded for each value, so this is the case where the number of data bits equals the number of values in a given time period and the baud rate equals the bit rate.

If there were 16 different data values to choose from at some point in time, then you could encode 4 data bits in that one value. In this case, the bit rate will be 4 times the baud rate. If you transmitted 1200 of these data values each second, you would be able to transmit 4 bit for each one, or a total of 4800 bits per second.

When a single value can be chosen from a set of 2 possibilities, we can easily think of this in terms of understanding the 0/1 or off/on state of digital circuits. If there are more than 2 values, then it becomes more difficult. One possibility is to have 16 different voltage levels with a circuit that can detect which is it. Noise immunity would be less because it would only take much less voltage as before to fool the circuit. Yet another, and more common, way to encode multiple values is to deal with a sinusoidal carrier in the complex plane. Imagine an array of 4x4 dots. Assign a number from 0 to 15 to each one. Now put a 17th dot in the center. The center dot refers to the carrier being turned off. A line from the

center to any dot is the vector value. The length of the line is the amplitude of the carrier at that time and the angle of the line is the phase angle of the carrier.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3048. Laser Power Supply

Newsgroup: rec.ham-radio
Date: 1990-05-23 21:59:48 UTC
From: wlw2286@ultb.isc.rit.edu
Message-ID: <3205@ultb.isc.rit.edu>
Source record: 11459
Cross-posted to: rec.ham-radio,misc.wanted

I need plans for a simple He-Ne Laser power supply.
It must be 1700 V at a min of 6 mA. I have a 0-50 VDC 0-30 A bench power supply which I wouldn't mind incorporating, I would like it to allow me to vary the 1700 V. I have seen laser power supplies that ran off of 12 V car batteries but I have not seen the schematics for these.

Any Info is appreciated.

Lance

--
****
W.L.Ware LANCEWARE SYSTEMS
WLW2286%ritvax.cunyvm.cuny.edu Value Added reseller
*WLW2286%ultb.isc.rit.edu Mac and IBM Access. *

3049. Re: request for information on Motorola "Pageboy II"

Newsgroup: rec.ham-radio
Date: 1990-05-23 23:56:03 UTC
From: mikey@pnet01.cts.com
Message-ID: <2792@crash.cts.com>
Source record: 11452

rcm@andante.UUCP (Bob Melville) writes:
>
>:
>
>
>
>R
>
>d
>
>I am interested in any documentation on the Motorola
>"Pageboy II" paging receiver. A schematic would
>be particularly nice. I want to try to make the thing
>into a monitor receiver for two meters.
>
>The problem seems to be in defeating the tone-activated
>squelch.
>
>Bob Melville
>room 3D483
>AT&T Bell Labs
>600 Mountain Ave.
>Murray Hill, N.J. 07974
>
>thanks!

The PB II has no carrier squelch in it. It's 2 tone/voice only. Go find a
Minitor for tone/carrier squelch.

****
Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
PO Box 460 ARPA: crash!pnet03!mikey@nosc.mil
Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet03!mikey
****

3050. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-24 00:04:25 UTC
From: brent@network.ucsd.edu
Message-ID: <2476@network.ucsd.edu>
Source record: 11448

In article <105@ctbilbo.UUCP> pete@ctbilbo.UUCP (Pete Ritter) writes:
>Is it necessary to send QSL cards to QSL managers in order to get a card
>from the station worked? Is a simple note to the manager with the usual
>band, mode, date & time (and SASE or SAE and IRC) good enough?
>
>Do the stations worked ever get these cards? Do they even want them? If
>not, then we can save money by not sending cards. If we work a station
>on several modes and or bands, do we have to send a card for each? Again
>we can save money by sending a list with the info and not the cards.
>

Yes! The stations usually end up getting the cards, even though there
may be a couple years of delay in the process. I was operating KC4AAA
at South Pole last year 13 months and had a QSL manager back in the
states handling everything for me. When I returned from my trip in
December, there was a box of 2,000+ cards that had been answered
awaiting whatever plans I have for them.

Will these cards ever be used? Yes, I'm SLOWLY going through them for
my DXCC and whatever other awards that would match the decor or my room.
Now, however, I'm just trying to separate them into three piles, USA,
JAPAN, and real DX; and the cards keep coming! The U.S. ones will
probably get used for a WAS award. But realistically I'll have many
more U.S. cards than I'll know what to do with.

So, if you're a U.S. ham working a D.X. station, chances are he won't
NEED your card, and a note with the contact info will suffice. BTW,the
note will even count as a "QSL" should the D.X. station wish to submit
it for an award. But he can also look you up later should he want a
real card. All cards are appreciated, USA included(!). And in my case,
all cards are being read.

Brent KB1UK, (former KC4AAA)

3051. Shortwave/Teletype Reception

Newsgroup: rec.ham-radio
Date: 1990-05-24 00:48:35 UTC
From: gaddam@topaz.rutgers.edu
Message-ID: <May.23.20.48.28.1990.2496@topaz.rutgers.edu>
Source record: 11450

Posting on behalf of Mr.Cadet Rick Yoder

Subject: Shortwave/Teletype Reception

I recently bought the Teletype conversion program for shortwave bands
(up to 26100 kHz) from Software Systems Consulting. My reception problem
stems from the fact I can't have my radio (a Siemens RK651) more than 3 feet
from my computer. I've grounded both and it doesn't seem to help much. I have
an antenna that runs out my window and up to the roof.

It's a typical shortwave listeners setup, and I'd really like some
advice on some how shielding the radio from the computer's emissions, or
inducing them down another path than my radio. Also, does anyone from the
NorthEast have any verified teletype freqs? I live about 52 miles north of
New York City. If something doesn't improve, I just waisted money on this
software.
Please mail replies to x13689e2@usma3.usma3.edu

Thanks in Advance,

Cadet Rick Yoder
United States Military Academy

3052. Bearcat scanner

Newsgroup: rec.ham-radio
Date: 1990-05-24 01:00:46 UTC
From: stephenm@hpindwa.HP.COM
Message-ID: <38120001@hpindwa.HP.COM>
Source record: 11474

Does anybody have a bearcat 70 XLS? (I think it was XLS... I know it
was XL something, or something XL.) It $100 a good buy on one of these?

3053. Re: Need address Butternut Electronics (please)

Newsgroup: rec.ham-radio
Date: 1990-05-24 01:32:45 UTC
From: HAVANAMOON@cup.portal.com
Message-ID: <30164@cup.portal.com>
Source record: 11446

The Butternut Electronics address:
BUTTERNUT ELECTRONICS CO.
405 East Market
Lockhart
Texas 78644

73s
"HM"

3054. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-24 02:11:17 UTC
From: kchen@Apple.COM
Message-ID: <41305@apple.Apple.COM>
Source record: 11451

hays@apollo.HP.COM (John Hays) writes:

>I am waiting for the poor soul who gets NH5HHH :)

>73, John -.- -.. --... ..- .--

What about the poor soul who gets KO0OO? :-) (For computer displays that
don't distinguish betweens Zeros and Ohs, thats Kilo Oscar Zero Oscar Oscar.)
Should be a legit Advanced call, no? Will probably take ages for the
Novice calls to get to KO0OOO, though. Hopefully, by that time, a no-code
licensee will get that call :-) :-).

I missed KK6CQ by 25 calls, KK6CW by 19 calls, KK6DX by 8 calls, and
AA6TX by one bloody call. Time to move to another state and enter the
lottery again :-).

Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

3055. Thanks fer all the... callsigns!

Newsgroup: rec.ham-radio
Date: 1990-05-24 07:22:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005250701.AA12274@ucbvax.Berkeley.EDU>
Source record: 11453

Many thanks to all the hams that responded to my "useta be" request on the callsigns! It's made for some lively reading here, lately.

I really enjoy hearing about the way ham radio was in the past. There really have been so many changes, and we should never forget where we came from!

It is a pity that there is less homebrew nowadays, what with the complexity of the radio world. But there are still challenges in ham radio, and all you guys (and ladies) make it all so worth it!

I had my first CW QSO since about a year ago on 40m tonight with Dube Todd. It was great to get back on HF again after so long.

This is one of the greatest hobbies there is. I try to get ALL my friends involved, at the risk of making them tired of hearing it, but what the hey!? We won't get any new hams by not talking about it, will we?

We should have an INFO-HAMS net sometime. Nothing political now!!

Mark C. "Bro!" Lowe - KB5III

College Station, TX

MCL9337@TAMVENUS.BITNET

3056. One less DXCC country?

Newsgroup: rec.ham-radio
Date: 1990-05-24 07:43:24 UTC
From: winter@apple.com
Message-ID: <41307@apple.Apple.COM>
Source record: 11465

I found this in comp.dcom.telecom:

From: moscom!de@cs.rochester.edu (Dave Esan)
Newsgroups: comp.dcom.telecom
Subject: Joined Countries
Message-ID: <8172@accuvax.nwu.edu>
Date: 23 May 90 15:06:56 GMT
Organization: Moscom Corp., E. Rochester, NY

The Yemen Arab Republic (country code 967) and the People's Democratic Republic of Yemen (country code 969) announced recently that they will merge and form a new country called (surprise) Yemen.

Has anyone heard or thought of what will happen to the country codes? Will they merge into one, or will the North still be 967 and the south be 969?

When Tanganika (255) merged with Zanzibar (259) to form Tanzania they kept both country codes. Of course, Zanzibar, an island, is physically removed from what was Tanganika.

Does anyone know the intentions of the soon to be united Germanys in regard to dialling patterns to what is presently East Germany (DDR), and which will soon be part of a single Germany?

Thanks.

--> David Esan {rutgers, ames, harvard}!rochester!moscom!de

Does this mean that 4W or 7O is going away? Gee, and we're probably going to lose one German prefix, too. We've got to put a stop to all this global gemutlichkeit before we wind up with only two or three countries on the DXCC list. :-) :-)

But seriously, anyone know what the scoop is on this one?

Patty

3057. MARS Affiliation

Newsgroup: rec.ham-radio
Date: 1990-05-24 07:57:06 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9005240756.AA21577@ucbvax.Berkeley.EDU>
Source record: 11457

I N T E R O F F I C E M E M O R A N D U M

Date: 23-May-1990 10:24am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL)

Subject: MARS Affiliation

Dube Todd asked, so I thought I'd post this for everybody's benefit:

The Military Affiliate Radio System (MARS) is a Department of
Defense sponsored program, and each military department (Army,
Air Force, and Navy/Marine Corps) runs its own MARS program. You
can only join one at a time.

The MARS mission is to provide Department of Defense sponsored
emergency communications on a local, regional, national, and
international basis as an adjunct to normal military communications.
It also provides auxiliary communications for military, civil, and
disaster officials during periods of emergency. The MARS program
also provides morale and quasi-official record and voice communications
traffic for Armed Forces and US Government personnel stationed
around the world.

The requirements to become a MARS affiliate are as follows:

1. Be 14 years old or older (parental consent required under age 17).
2. Be a US citizen or resident alien.
3. Possess a valid amateur radio license (Note: Novices must upgrade
within 12 months of entry into the program).
4. Possess a station capable of operating on MARS HF frequencies.
5. Be able to operate the minimum amount of time for each quarter (12
hours/quarter for Army and Air Force; 18 hours/quarter for Navy).

The benefits of MARS membership are:

1. Being part of a worldwide communications network supporting vital
US interests, and contributing to the welfare and preparedness of the
nation.
2. Increasing your radio skills by specialized training and participation
in structured traffic nets.
3. Operating on specially-assigned military frequencies using SSB, RTTY,
CW, and packet.

4. Participating in the MARS Excess/Surplus Equipment Program after six months of membership.

OK, that's the official line, now here's my pitch:

I've been in the USAF MARS program since September 1985, and have had a blast passing traffic, participating in military open houses, and other activities. Some MARS affiliates get together and operate Field Day and other contests, so your activity isn't necessarily limited to military activities. The 12 hours/quarter requirement may sound like a lot, but it works out to just 1 hour a week. With today's solid state rigs, getting on the oddball frequencies isn't a problem at all -- that's why you see "MARS capable" or similar wording in many equipment ads. The Excess Equipment program can yield some real gems and, quite frankly, some real junk; however, hunting the stuff down is half the fun! Before Novice Enhancement, MARS was a good way for Novices and Techs to get on HF SSB; it still serves the same purpose, although you'll never be able to work DX on a MARS net like you can on 10 meters.

The May and June 1990 issues of "CQ" also have information about MARS.

So you think MARS may be right for you -- here's how to get more information and membership application forms (USAF MARS only -- I don't have the addresses for the other services):

1. Contact the Chief of Operations of the Communications Squadron or Group at the Air Force base nearest you, or
2. Write to: Chief, Air Force MARS
HQ AFCC/DOOCM
Scott AFB, IL 62225-6001, or
3. E-mail me at 1843EIE "AT" HICKAM-EMH.AF.MIL.

73,

Jeff Miller, WD6CQV/KH6 | "Just because I'm a Californian,
USAF MARS: AFA8JM | it doesn't mean I'm not an
Chief, Engineering Workload Control | American!"
1843 EIG/EIP | -- Agnes DiPesto,
Wheeler AFB, HI 96854-6348 | "Moonlighting"
Commercial: (808) 656-1226 |
AUTOVON: (315) 456-1226 |

Opinions? Me? On government time? Ya gotta be kidding!

USAF MARS: Providing the Reins of Command -- In an Emergency

3058. Dongles?

Newsgroup: rec.ham-radio
Date: 1990-05-24 09:07:49 UTC
From: PJML@ibma.nerc-wallingford.ac.UK
Message-ID: <24.May.90.10
Source record: 11454

Whats in a dongle? well most of the dongles i have come across make use of the
SERIAL port (COM1/2/3/4) on an IBM-PC. There appears to be a single large
IC inside the dongle i have for AutoCAD(tm).
I have a protocol analyser, so someday, i may try to see what the dongle does.
Some of the early dongles were a simple AND-gate driving an oscillator.
The software raised control-lines on the interface in a particular sequence
and the oscillator started. Output from the oscillator was routed to one of the
input pins of the RS232. A software counter/timer in the PC software looked
at the input pin for a known time, and clocked the number of transitions on the
relevant pin; looking for the 'right' oscillator frequency. If it got
the right number of counts, all was OK and the software executed.
Otherwise, the software gagged, saying 'no lock device installed'.
If you had a frequency-counter and a signal generator, you could find out the
necessary frequency, and fake the presence of the dongle. However some software
tested for the dongle at times during EXECUTION (not just at load time!) so
sometimes this approach failed.

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

3059. The Future of Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-24 11:13:36 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9005241113.AA03455@bunny.gte.com>
Source record: 11384

Way back when you could request call signs if you had an extra, I went to the NY City FCC Office to take the extra test. It was only open from 0900 - 1100on Wednesdays, and it was quite an adventure for a 9th grader to get into the City from Long Island (I was licensed at 12, went for the extra when I was 14 OR 15), especially during the week when you were supposed to be in school. After walking to the Long Island Rail Road station instead of high school, taking the LIRR into the City, figuring out which subway line to get close to the FCC office, finding the FCC office, etc. I got there at 0915 and was told" "Go away, kid, we give the code test only at 0905 SHARP. AND WE MEAN SHARP. Thoroughly traumatized, I did get my advanced but it wasn't until I moved to Maryland 7 or 8 years later that I went back for my extra.

Which explains why, surrounded by great contest calls like N2FB, K3SA, N3RR, K3ZO, etc., I still have a humongous call like WB2EKK. I've had it now for 20 years (wow, I'm an old fart! QCWA here I come! I will soon remember stuff in the "25 Years Ago" column in QST) and it has sorta become like a middle name. I just can't convince myself to trade it in for NZ3Z. Maryland has just about run out of those calls and is starting in on WA3x type calls. If I could be assured of becoming W A 3 DAWG I might go for it, but until you can choose your own, I guess I'm stuck. I guess it will be many, many years until they actually run out.

By the way, local guys here who work at the FCC say the reason the buy you r callsign proposal was ruled out was because of the increase in manpower required to make sure that monitoring and field offices had the latest callsign info. sounds kinda hokie to me, with about 500,000 hams at 100 500 bytes per entry, that is still only a 250 MB data base. I think most high school hackers could handle that on their dad's 386 machines.

Oh, well, meantime my advice to you rare DX stations is to work all the long calls in the pileups first to get them out of the way. Then call the KM3T and K6ZHs of the world! 73 John Pescatore W B 2 E K K

3060. Callsign restructuring

Newsgroup: rec.ham-radio
Date: 1990-05-24 12:03:35 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9005250813.AA16300@ucbvax.Berkeley.EDU>
Source record: 11390

To Patty Winter @ Apple.Com (I don't know how to capture previous text yet)

I got W9IP because they didn't have any of my requested callsigns left; I indicated "whatever is next" and they gave it to me. I didn't ask for my initials because I wanted to get on EME. "W9MO" would have wreaked havoc on EME because M and O are used for signal reports. As it turned out, W9IP wasn't too bad because I lived in Illinois where the electric company is Illinois Power. However, here in New York people only toggle to the obvious implication of my callsign.

Mike Owen, W9IP/2

3061. HT Features Advice

Newsgroup: rec.ham-radio
Date: 1990-05-24 12:49:00 UTC
From: GOODWIN@SMCVAX.BITNET
Message-ID: <9005250809.AA15993@ucbvax.Berkeley.EDU>
Source record: 11385

As a new ham of 2 months (disregard the General Callsign; I got lucky), I could use some advice on desireable features on a new 2m HT. I have around $300 to spend, and intend to use the radio for ragchewing on the local repeaters and to try some packet activity. Of course, all the manufacturer's ads just list features and acronyms and I have no idea what it all means!

Please feel free to offer an opinion on what I might want to look for in a radio. Any specific suggestions on units in my price range would also be helpful. As an aside, comments on a reliable TNC would also be useful. I don't think I need a multimode, but is there any disadvantage to not getting one?

Thanx to all, in advance, for any info...

==
Dave Goodwin |
Coordinator, PC Support/User Services | To err is human.
VAX System Manager | To really foul things up,
---| You need a computer.
BitNet/CREN : Goodwin@Smcvax |
Ma Bell : (802)655-2000 X2220 |
Pony Express: Saint Michael's College | -Who Knows?
Department of Computer Services |
Winooski Park |
Colchester, VT 05439 |
Ham Radio : KA1VLJ/AG |
==

3062. Strange Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-24 13:08:45 UTC
From: rtaggart@DDN-WMS.DDN.MIL
Message-ID: <XX.180.20673.643554522@XX.QMAIL>
Source record: 11386

While stationed in West Germany, I held three DA prefixed calls two of which were based on my last name (i.e. Taggart). They were DA1TA and DA1TG. The best one however was the last one I held because of the phonetics I derived for it. The call was DA1AV. I was in the Army and had (still have) a very deep voice so the phonetics became Department of the Army's number 1 Amateur Voice. All these calls were issued by the DBP and not selected by me.

Of course I also liked HL9AA while I was the Korea Area MARS director but that's another war story.

I think though that I probably have the worst stateside call for voice at least since no one but me seems to be able to say it without either biting their tongue or ending up calling me Ray. It's K8RYA. Doesn't look that hard but try it on the air!

Bob Taggart - K8RYA

rtaggart@ddn-wms.ddn.mil

~

3063. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-24 13:27:57 UTC
From: jdn@casux4.uucp
Message-ID: <23564@bellcore.bellcore.com>
Source record: 11463

In article <41305@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>
>I missed KK6CQ by 25 calls, KK6CW by 19 calls, KK6DX by 8 calls, and
>AA6TX by one bloody call. Time to move to another state and enter the
>lottery again :-).
>
>
>Kok Chen, AA6TY kchen@apple.com
Its interesting, Ken. Of all the calls listed above, I think that
the call you actually got is the best! At least, from the
point of view of cw contesting, your call is clearly best.

73, NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3064. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-24 14:15:04 UTC
From: rfc@briar.Philips.Com
Message-ID: <96473@philabs.Philips.Com>
Source record: 11476

In article <386400009@.Prime.COM> SS@.Prime.COM writes:
>- I think at one time Technicians were issued K1xxx calls at the
> same time Generals and Advanceds were issued WA1xxx. This would
> have been in the early to mid 70's. Can someone confirm or deny
> this?

Though not a precise answer to the above, here in 2land, I went down to the NYC FCC office and passed my Tech test (had no license before), in the summer of '76. Got issued WA2ISE, which had been used before. Once looked for and found the previous user in an old callbook. Someone in upstate NY.

If I should ever get around to learning 13wpm and get a general or advanced (I'd take the advanced test anyway), I'll still keep my current call. I like W's. and also, when I tell ordinary people about amateur radio, and mention my callsign, people can relate it to the local broadcast radio stations, as both begin with W. Though the two services are much different, the similarity of the calls helps establish that amateurs are a radio service, and not some sort of phone modem computer thing, etc. More obvious than if I had an N, K, or A call. (I would like to see a broadcast station "NERD" :-))
(anyone get assigned N3RD :-))

73 de WA2ISE

3065. Re: request for information on Motorola "Pageboy II"

Newsgroup: rec.ham-radio
Date: 1990-05-24 14:43:41 UTC
From: skaggs@nsslsun.gcn.uoknor.edu
Message-ID: <1990May24.144341.3856@uokmax.uucp>
Source record: 11466

In article <2792@crash.cts.com> mikey@pnet01.cts.com (Mike Shirley) writes:
>rcm@andante.UUCP (Bob Melville) writes:
>>
>>I am interested in any documentation on the Motorola
>>"Pageboy II" paging receiver. A schematic would
>>be particularly nice. I want to try to make the thing
>>into a monitor receiver for two meters.
>>
>>The problem seems to be in defeating the tone-activated
>>squelch.
>>
>>Bob Melville
>>room 3D483
>>AT&T Bell Labs
>>600 Mountain Ave.
>>Murray Hill, N.J. 07974
>>
>>thanks!
>
>
>The PB II has no carrier squelch in it. It's 2 tone/voice only. Go find a
>Minitor for tone/carrier squelch.
>
>**
>Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com

Hold on, Bob. Don't give up yet! I have a pageboy II tone and voice that
has been *squelched*. Give me a few days to round up the mods (not real
convenient, but workable) and I'll blast them off to you by USnail.

Gary Skaggs Internet: skaggs@nsslsun.gcn.uoknor.edu
The National Severe Storms Laboratory (The Tornado People)
"Shall we repair to my tent?" "I didn't know it was broken!"

3066. Re: INFO-HAMS Digest V90 #539

Newsgroup: rec.ham-radio
Date: 1990-05-24 14:54:50 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9005241454.AA27272@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 11387

Subject: Call Signs
I got my original Novice call: WV6VVV through the lottery
What a bummer on CW. A string of Vs was the universal test signal then
so no one ever came back to me. Nowdays people use "test" strung together
as one letter so my call is no longer mistaken. My only regret is that I
no longer have a copy of my novice QSL card. I was so relieved to get
the General that I must have tossed them out. Doc, W6ZRJ, was one of
my high school teachers and it was obvious that my grade would be affected
by not making General that semester. I've been in situations where my life
was in danger, but it just wasn't the same as taking the General test in
the S.F. FCC office at age 15.

-- Doug WA6VVV

3067. Re: Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-24 15:13:46 UTC
From: donm@hpnmdla.HP.COM
Message-ID: <1250171@hpnmdla.HP.COM>
Source record: 11470

My "Elmer", W6ATJ, had a great call. didah Dah! DIDAADAAADAAAAAHHH!!!

Then there's a big gun DXer in San Francisco whose call is W6AWT- I don't know if he's still around or not- anyway he liked to stretch out the "T" to make sure everyone got it right- didah didadah DAAAAAAAAAAAAAAAAAHHHHHHHHHH!! The guy had such a hairy signal that I could I can still envision the white-hot PP 2000TH plates and the neighborhood streetlights dimming in synchronism with his keying.

I worked a guy in the '50's whose call was K6ESE. dit dididit dit. I wonder how many people wanted to add a "didit" to the end of that call.

Only dyed-in-the-wool CW freaks like myself can appreciate this type of humor...

73
Don Montgomery, K6LTS

3068. Re: Laser Power Supply

Newsgroup: rec.ham-radio
Date: 1990-05-24 15:21:42 UTC
From: tomb@hplsla.HP.COM
Message-ID: <5720068@hplsla.HP.COM>
Source record: 11467

wlw2286@ultb.isc.rit.edu (W.L. Ware) writes:
>I need plans for a simple He-Ne Laser power supply.
>It must be 1700 V at a min of 6 mA. I have a 0-50 VDC 0-30 A bench power
>supply which I wouldn't mind incorporating, I would like it to allow me
>to vary the 1700 V. I have seen laser power supplies that ran off of 12
>V car batteries but I have not seen the schematics for these.

Radio-Electronics had an article on building a laser PS -- about a
year ago, I think. They gave pretty complete specs, including the
core for the transformer, as I recall, and also gave (as usual) a
place you could buy the parts. Usual disclaimer: I haven't actually
built it...

3069. Book on solar phenomena

Newsgroup: rec.ham-radio
Date: 1990-05-24 15:31:27 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9005250811.AA16130@ucbvax.Berkeley.EDU>
Source record: 11388

Since the sun has such a major effect on radio propagation, I thought I'd mention that I've been reading a book on solar phenomena that might be of interest to people on this list -- THE RESTLESS SUN, by Donat G. Wentzel (1989, Smithsonian Institution Press, ISBN 0-87474-982-4, 279 pgs, no price indicated on dust jacket). I found this at the St. Louis Public Library; it should be available at many public and school libraries.

This looks to be a pretty good overview of the current thought about solar mechanics, behavior, and cycles. There is some degree of coverage of the terrestrial effects of solar activities, but the emphasis is on the the reasons behind the sun's actions. Reading this might make the solar forecasts and reports on the various DX programs and ham bulletins more understandable.

Regards, Will Martin

3070. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-24 15:42:48 UTC
From: kb2glo@cbnewsj.att.com
Message-ID: <1990May24.154248.7343@cbnewsj.att.com>
Source record: 11464

When I got my novice ticket in the mail I was very surprised and happy
to get not only my license but what I thought was a pretty neat call,
KB2GLO. I am now General licensed and plan on getting Advanced soon.
I really like my suffix but often think I'd like to get a shorter call
for contesting... I even like the rythm of it in code. I don't know maybe
I like it because it's mine and I've heard it so often that to me it just
seems to bounce along, and no body ever got it wrong on CW. On voice though
it seems alot of people think it's KB2GLL. This even happens on the 2 meter
repeaters. I just find that I try to say LO more distinctly but for some
reason new contacts sometimes thinks it's LL this has happen sometimes even
when I gave the standard phonetics. Some people just don't get it until
I tell them the suffix is like GLOW. I guess it works both ways. I mean
there are some calls that are fine on CW but are harder to copy via voice!

--
+---+
| Tom Kenny |
| US mail: AT&T, 307 Middletown-Lincroft Rd, Lincroft NJ 07738 |
| voice: 201-576-3888 |

3071. 440 Repeater Wanted/Info

Newsgroup: rec.ham-radio
Date: 1990-05-24 16:45:00 UTC
From: SKAGOO@MEMSTVX1.BITNET
Message-ID: <9005250812.AA16169@ucbvax.Berkeley.EDU>
Source record: 11389

I am the Vice-President of the Delta Amateur Radio Club here in
Memphis, Tennessee. We have a membership of about 250 members. We operate
a 2m/220 linked repeater with a coverage of about 50-75 miles. We are hoping
to put a standalone 440 repeater on the air soon.

I would like to hear from anybody who has either a 440 repeater for
sale or has any comments on the various commercialy manufactured repeaters
available on the market.

73 de N9GSA

Suresh

****

Suresh Kagoo Internet: Skagoo@memstvx1.bitnet
Academic Computer Services Bitnet : SKAGOO@MEMSTVX1
Memphis State University Amateur Radio : N9GSA
Memphis, Tennessee Others available on request
****

3072. Re: 4 Year Old Hams

Newsgroup: rec.ham-radio
Date: 1990-05-24 17:02:15 UTC
From: mrb1@cbnewsh.att.com
Message-ID: <1990May24.170215.3292@cbnewsh.att.com>
Source record: 11475

In article <9005221537.AA16983@KRONOS.NISD.CAM.UNISYS.COM> doug@NISD.CAM.UNISYS.COM (Doug Hardie) writes:
>I was poking around through the ARRL Handbook the other day and came
>across this info:
>
>86 Handbook, page 36-3,
> Guy Mitchell, WD0DVX passed the code test at age 4 and passed
>I ...
>don't see how a 5 year old could have understood the concepts behind
>the questions. It must have been memorized without meaning.

I had a Novice license at age 6 in 1963......had my picture in QST and
everything (KN3ZIM). Doug is right --- it was basically rote memorization
without understanding the concepts. Thinking back, I remember it took
a lot of cajoling from my (well-meaning) parents to even sit down at my
little station (Hallicrafters SX-140 and HT-40....no VFOs then). Only
made a few contacts, and once the license expired (1 year term, nonrenewable)
I let the stuff gather dust. Outside of a brief nerdish
encounter with the hobby as a 2 Meter lid [my term, not an indictment of
everybody on VHF, so no flames please] during the mid '70s CB craze
I haven't been on the air (or wanted to be) for a long time.

Don't push kids....it's just not worth it.

M. Baker
homxc!jj1028

3073. Re: Help!

Newsgroup: rec.ham-radio
Date: 1990-05-24 17:13:00 UTC
From: hays@apollo.HP.COM
Message-ID: <4a963a30.20b6d@apollo.HP.COM>
Source record: 11468

When I was a teenager living at home, I was not even permitted an antenna outside of my basement bedroom. So I built an 80 meter helical whip on 3 feet of 3/4" dowel with 14" of copper out the top. It's useful bandwidth was about 10khz. but it loaded and I got 579 from a couple hundred miles with 75 watts (DX-60) from the basement .... part of the fun of Ham Radio is experimentation, try various antennas where and when you can build them. One of these days I will get something like a beam and tower. But in 15 years of activity in Ham Radio ... I have had lottsa fun!!!

John KD7UW

3074. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-24 17:16:03 UTC
From: stevew@wyse.wyse.com
Message-ID: <2728@wyse.wyse.com>
Source record: 11469

In article <41305@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>What about the poor soul who gets KO0OO? :-) (For computer displays that
>don't distinguish betweens Zeros and Ohs, thats Kilo Oscar Zero Oscar Oscar.)
>Should be a legit Advanced call, no?

This reminded me of a cute story told to me by a friend who happens
to own WA6OOO. Darrel was driving up along highway 101 between Santa
Barbara and San Luis Obispo some number of years ago in his old
beat-up orange VW station wagon. Darrel has had call plates on
this car for quite awhile...Anyway, he's minding his own business
and obeying the speed limit(probably no choice on that count ;-)
and a CHP officer decides to pull him over.

The officer walks up to him a says in an alarming fashion "Mr., I
hope you have a registration to match that license plate of yours!"
Now at this point it would help if you all knew Darrel just
a little bit...he's got just a bit of the Devil in him...he knew
this and had been waiting for the setup for YEARS. He just
smiled at the officer and said "Of course I do officer" and proceeded
to reach into the glove compartment and fetches the registration
then hands it to the CHP officer. The cop walked away from the
car scratching his head to go run the registration...Darrel was
thoroughly enjoying the cop's consternation...The cop's confusion
stems from the fact that in California at the time trailers were
issued a 2 letter, 4 number series....like wa6000.............
I gather it took the officer a while to call in the license plate
correctly and Darrel didn't offer the officer any help either.
Finally the officer came back up to him and asked "Why didn't you
tell me it was a ham license plate?!?" Darrel just smiled again
and said "Youd didn't ask."

Steve KA6S

3075. Re: TNC's / Packet Pirates

Newsgroup: rec.ham-radio
Date: 1990-05-24 17:31:00 UTC
From: kenny@m.cs.uiuc.edu
Message-ID: <13900018@m.cs.uiuc.edu>
Source record: 11382

KA9WGN writes:

>Yet another, and more common, way to encode multiple values is to deal
>with a sinusoidal carrier in the complex plane. Imagine an array of
>4x4 dots. Assign a number from 0 to 15 to each one. Now put a 17th
>dot in the center. The center dot refers to the carrier being turned
>off. A line from the center to any dot is the vector value. The
>length of the line is the amplitude of the carrier at that time and
>the angle of the line is the phase angle of the carrier.

Just for pedantry, the angle is not normally the phase angle of the
carrier relative to some absolute phase reference, but the phase shift
between the previous symbol and the current one. That way the
modulation scheme is self-clocking.

Also, the 4x4 grid isn't quite square; it's more of a pincushion.

Kevin, KE9TV
kenny@cs.uiuc.edu

3076. Re: Any mods for Yaesu FT736R?

Newsgroup: rec.ham-radio
Date: 1990-05-24 18:06:24 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <14055@ttidca.TTI.COM>
Source record: 11383

In article <948@soleil.UUCP> gopstein@soleil.UUCP (Rich Gopstein) writes:
+
+Are there any mods for the Yaesu FT736R? I checked the mods
+database, but didn't see any. I'm most interested in extended
+receive, but if you know of any mods, I'd appreciate hearing about
+them. Thanks.

I modified mine. There's a catch tho - the mod involves adding a pair of switches to the module-address lines into each of the rf modules..it's kinda funky but it does work. Look at your schematic, then wire up the switches such that your 2m and 6m modules *think* that they're 440MHz modules! The trick then is to look at the display, which reads 443.000, and mentally adding 6.0 such that you know the real frequency is 49.000MHz.

Similarly, the display will read 445.000 when the 2m module is really at 145.000. When you finish adding the switches, you'll have to powerup the '736 with the switches in the 'extended range' position. Then use one of your existing memory frequencies, transferred to either the A or B vfo, to then bandswitch up or down to the 440 band. Bingo! If you goof, the display will read "error". Start over by powering down, and then repeat the procedure. Sometimes the frontpanel logic will simply lock, just start over and it will eventually work. Mine never takes more than 2 tries. With the switches in the 'normal range' position the '736 will function as a stocker.

The range for the 6m unit is therefore 46-56 MHz, and the 2m unit will give you 140-150 MHz. Yes, the transmitter will also work this span, but keep in mind a 10 watt signal on the 49 MHz band sticks out like a sore thumb! ;-) ("Wow! Listen to *that*! He must have a better walkie-talkie than these RadioShack junkers!") ;-)

My attempts to modify the range on the 430 MHz rf module have not meet with much success, and a careful look at the schematics/numbers tell the story quite well; The module covers 430-440, a 10MHz range. Therefore, the address-line trick will yield no more coverage. The base reference crystal might be changed, but then you'll have to tweek the coils to put it into resonance. I've considered adding a submini-step relay, a pair of crystals and a pair of extra coils. This would give the module 420-430, 430-440, and 440-450 as it's total range...I'll let you know if it works..or maybe you could try it and tell me!

You will discover (if you play with the address lines) that the front panel processor has code in it's ROM to display the numbers for 1.6-2.0 MHz, 3.3-4.0 MHz, 7.0-7.2 MHz, 10.0-10.5 MHz, 18.0-18.5 MHz, 21.0-21.9 MHz, 24-25 MHz, 27-27.5 MHz, 28.0-29.7 Mhz, 50-54 MHz, 70-71 MHz (really!), 143-149 MHz, 220-225 MHz, and the 2 ranges for the

430-440/440-450 Mhz bands. I know that Yeasu made an HF module that was able to do 20,15 & 10 meters, and that there was a module thta was available only-in-Japan to do the 70-71 MHz band. The 220-225 MHz range never wound up as an available unit. Too Bad! I'd guess that one could be constructed from a spare 2m module, given some extensive changes.

There is also the possibility of adding more modules to the '736! Yup. I've seen a couple that have a 4th module added 'outboard'. Look at the schematic, you'll notice that the module-select is capable of it, but watch the line lengths! It's also possible to add some more switches to put more than 4 modules on! Think of it as a shift-key...;-) My only lament in doing these sorts of things is the lack of a proper cabinet and/or overloading the poor power supply.

Have Fun, 73! C U on OSCAR!

--
-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **

3077. Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-24 18:50:57 UTC
From: charlie@oakhill.UUCP
Message-ID: <3342@radio.oakhill.UUCP>
Source record: 11472
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I'd guess Bob Parnass might know the answer to this ....

When President Bush was here in Austin last week I cranked
up my BC-210, R-7000, and MX4000 to listen for possible secret
service/Air Force-1 activity.

Question:
Much to my surprise I found a local AM radio station (KLBJ-AM) using
407.750 MHz as studio-to-remote director's link. 407.750 MHz is
also one of the White House's secret service freuquencies...WHAT GIVES?

Incedently, I found the Ex-presidential detail frequency of 165.212 MHz was
the only activity in town. Probably covering Lady Bird Johnson.

The AF-1 phone patch frequencies were silent but later I found out
that Bush had taken a helicopter to Austin from Houston so AF-1
never landed in Austin hence no AF-1 activity.

Funny what you can learn when the President comes to town!

C.T.
WB4HVD

3078. Re: Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-24 19:44:05 UTC
From: barkeyp@silver.ucs.indiana.edu
Message-ID: <45712@iuvax.cs.indiana.edu>
Source record: 11471

Gee, why limit the discussion to US calls? There have been some great ones out of Central and South America over the years. The best one I can remember was 6E5EBE. 5H3TW in the last ARRL DX contest was a fun one too, at 40 WPM. A friend of mine (who shall go nameless) thought he had worked Haiti on 5 bands instead of Tanzania ...

Speaking of sending CW, how many of you in net-land had a chance to work W4KFC when he was alive? Now there was a guy who knew how to send code ... and knew how to operate, too.

-- Pat
WA8YVR

3079. MININEC3 Primer (LONG)

Newsgroup: rec.ham-radio
Date: 1990-05-24 21:34:39 UTC
From: harrism@rtpsql0.rtp.dg.com
Message-ID: <1990May24.213439.16068@dg-rtp.dg.com>
Source record: 11473

Here is some help for new mininec3 users who don't have the manual...

Segments - you need to tell it, for each wire, how many pieces to
break it up into for the computations. In general, the more segments,
the better the accuracy, the slower the computations. You should
typically use an even number of segments.

Pulses - pulses are assigned to portions of the wire based upon the
number of segments. Chose the pulse (for source or load) based upon
the endpoint coordinates for each pulse. (Look at the geometry
output). The pulse will be applied to the middle.

Source pulses are how you feed your antenna. the assigned pulse
number located where you want to feed it is the source pulse number.
Normally chose a voltage of 1 volt and a phase of zero degrees

Load pulses - these would correspond to loads such as traps, resistors
(as in a rhombic), etc. You normally don't have theses.

As an example, take the following wire: (remember - dimensions are
in meters....)

0 -5.277 10 5.277 0 10

This would be (roughly) a 20 meter dipole at 10 meters high. The
program will compute the connections based upon the coordinates.

chose the frequency (say 14.2 Mhz).
enter the wire and specify 10 segments
use a diameter of, say, .002 meters

Note that pulse number 5 cooresponds to the middle of the antenna.
(obained from the mininec3 geometry report)

specify pulse 5, 1 volt, 0 degrees for the source
specify zero load pulses

Tell it to compute currents.

I got an impedence of (77+J40) for this run.

Tell it to compute far field patterns,.....

The key is to run it once, with output to disk or printer to get
the antenna geometry and pulses, and then to run it again once you
know this info (scrolls by much too quickly)...

A handy aid it to use mnpre to pre format input for mininec3 based upon
file input. Remember that mnpre takes a xxx.NEC file and generates a

mininec.INP file (you lose the xxx part), and mininec3 will *not* ask
you for geometry input if it finds the MININEC.INP file laying
around.

The format of the mnpre file is:

GW,,pulses,x1,y1,z1,z2,y2,z2,diameter

with a line for each wire.

thus, the TEST.NEC input file for our sample run would contain the
following line:

GW,,10,0,-5.277,10,5.277,0,10,.002

Now, part two of the series answers some common questions and hopefully
fills in all the gaps.

------Real questions and answers follow-----------------------------------

> Fantastic, all is approaching elightenment.

I always get worried when that happens.....
>
> Only minor problem is that if I have a "bent" wire, such as an
> inverted-Vee, do I put that in as TWO wires which have a common end - does

yes. Anything that isn't straight has to be broken into discreet straight wires.

> MININEC assume wires with coincident (X,Y,Z) are in fact connected?
> And if they are in fact insulated, do I just specify slightly different
> (X,Y,Z)s ??

yes, and yes.

> Doesn't feel right cos it seems too easy! Will try it in a second! ...

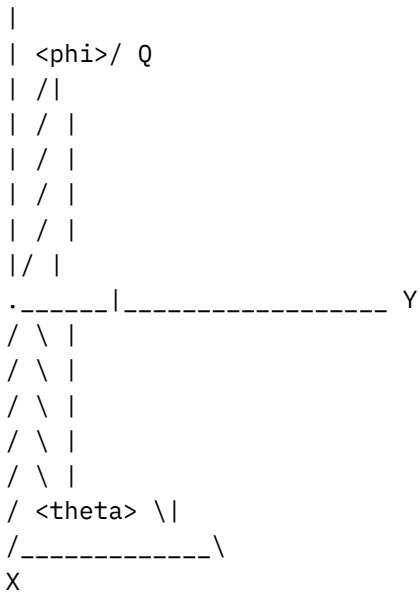
> I think I am getting my orientation in free space confused ... which only
> matters when there is ground --- and when I visualise
> ZENITH AZIMUTH VERTICAL HORIZONTAL

For the coordinate system, imagine you were looking at the antenna.
X would be a distance along the ground pointing at you; Y would be a distance
along the ground pointing 90 degrees from X, and to your right; Z is the
altitude above ground.

For Zenith, imagine your hand pointing straight up at the sky. Then rotate
your hand towards the horizon, say 10 degrees. This is a zenith angle of
10 degrees. Thus, the horizon is at 90 degrees. (I looked at alot of strange
pattern plots until I figured this out).

For Azimuth, the angle is the angle between the X axis and a ray rotating
towards the Y axis (looking down from the (0,0,Z) axis, it rotate counter
clockwise).

Z



where theta is the azimuth angle ane phi is the zenith angle.
Rotating away from Z towards the point Q is positive zenith angle.
Rotating away from X counter clockwise is a positive azimuth angle.

Part three concerns connections. While mininec3 will automatically
compute connections for you, you should check it's geometry output
to ensure that YOU didn't make any mistakes. You can do this by
checking the connection data of the geometry output.

A connection value of

zero indicates that the end of the wire isn't connected to
anything (*yet*).

a negative integer with a magnitude equal to the wire number
indicates a connection to ground

a negative integer with a magnitude less then the wire number
indicates a wire junction. Specifically, it indicates
that this end (end1 for example) is connected to the
same end (end1 again) of another wire. For mininec3
this number should be the wire number of the previously
defined wire that this wire connects to.

a positive integer with a magnitude less then the wire number
indicates a wire junction. Specifically, it indicates
that this end (end1 for example) is connected to the
other end (end2 for example) of another wire. For mininec3
this number should be the wire number of the previously
defined wire that this wire connects to.

I complemented this by writing a script that takes .NEC files and
display's them with xgraph. Most errors show up right away!

The demand for help hasn't been swamping me, so I'd be glad to
help people get started (I'm not an expert - I just have the
manual!) I've been having luck with X-beams and V beams, but
a friend has been having trouble with "parallel" dipoles.
Play with it!

Hope this gets you started - good luck!

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

3080. Damped waves, B waves

Newsgroup: rec.ham-radio
Date: 1990-05-24 22:24:36 UTC
From: davet@tsdiag.ccur.com
Message-ID: <981@tsdiag.ccur.com>
Source record: 11410

Does anyone out there hapen to know what a 'damped wave' or 'B wave' is?
They're mentioned in the FCC rules, Title 47, part 97 (that's us, boys!)
and are _strictly_prohibited_. Is this some old spark-gap stuff, or is
it a vague reference to 'Berthold Rays' from Star Trek? Inquiring minds
gots'ta know....See ya on DaveTV (427.25, 439.25)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

3081. Re: One less DXCC country?

Newsgroup: rec.ham-radio
Date: 1990-05-24 22:49:54 UTC
From: reisert@tallis.enet.dec.com
Message-ID: <11940@shlump.nac.dec.com>
Source record: 11377

In article <41307@apple.Apple.COM>, winter@apple.com (Patty Winter) writes...

> [news article about the merging of the two Yemens]

>Does this mean that 4W or 7O is going away? Gee, and we're probably
>going to lose one German prefix, too. We've got to put a stop to
>all this global gemutlichkeit before we wind up with only two or
>three countries on the DXCC list. :-) :-)
>
>But seriously, anyone know what the scoop is on this one?

I can speculate. It would seem that the proper thing to do would be to delete *both* PDR Yemen and (the other - is it Arab People's Republic?) Yemen and add a new country for the merged Yemen. Remember that Germany was deleted to make way for E. and W. Germany. I also suspect that when the two Germanys merge, we'll get *back* the deleted Germany, but E. and W. Germany will become deleted. Sounds like a net loss of 2 current countries (Yemen+Germany-DL-DM-4W-7O) and a net gain of 3 deleted countries (DL+DM+4W+7O-Germany) to me. But it'll only put me one country closer to the honor roll, since I've never worked either Yemen.

jim, AD1C

p.s. Even though my Dad's on the DXAC, I don't speak for him or anyone else.

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

3082. Advice needed (requesting permission to monitor)

Newsgroup: rec.ham-radio
Date: 1990-05-25 00:30:45 UTC
From: judice@sulaco.enet.dec.com
Message-ID: <9005250030.AA00582@decpa.pa.dec.com>
Source record: 11391

Help! Advice needed!

Without going into details, in NJ any radio that operates on police frequencies is illegal in vechicles, unless you obtain a permit from your local police chief. The general belief is that such permits are impossible to get, unless you are on a local rescue squad.

Since my prime interest in radio is monitoring railroad frequencies, specifically Conrail, on a whim I wrote to my local chief, politely asking for such a permit. To my shock, he returned a letter saying YES, provided I gave him:

1. my reason for asking to listen to these frequencies.
(no problem).

2. "provided you present me with proof that Conrail has no objection to you monitoring them".

This brings many questions to mind:

1. Will Conrail provide me with such proof?

2. How should such a request be worded/phrased to eliminate a negative reply?

3. Is "proof" the fact that under the ECPA and Communications Act of 1934, Conrail hasn't any business objecting ANYWAY?

Any ideas??? Thanks very much,

Lou Judice

judice@sulaco.dec.com
judice@sulaco.enet.dec.com

3083. Re: Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-25 03:50:56 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <35685@shemp.CS.UCLA.EDU>
Source record: 11378

In article <45712@iuvax.cs.indiana.edu> barkeyp@silver.ucs.indiana.edu (patrick barkey) writes:

.
.
. (stuff about non-US calls deleted....)
.
.

>Speaking of sending CW, how many of you in net-land had a chance to
>work W4KFC when he was alive? Now there was a guy who knew how to
>send code ... and knew how to operate, too.
>

W4 *K* *F* *C*????

This isn't who I think it is.....nawww, it couldn't be.....

> -- Pat
> WA8YVR

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

3084. Re: Query on PRO-34 frequency mod

Newsgroup: rec.ham-radio
Date: 1990-05-25 04:13:09 UTC
From: dan@heimat.UUCP
Message-ID: <116@heimat.UUCP>
Source record: 11395
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <1264@urbana.mcd.mot.com> paul@urbana.mcd.mot.com (Paul Jones) writes:
>In article <112@heimat.UUCP> dan@heimat.UUCP (Dan 'Sneakers' Schein) writes:
>
>> Well I finally decided to do the 'euro' mod to my PRO-34 (restore the
>> 66 - 88 MHz range). Based on the collection of PRO-34 mods I collected
>> from the net I added a diode to D-9 (the old one removed from D-11 when
>> I restored full 800 Mhz). It appears as though I now have this new range
>> of frequencies -BUT- at the cost of my 30-54 MHz range :-(
>
>Yes, indeed. 30-54 disappears when you install D-9. I just pulled
>mine out last night. None of the instructions I saw mentioned this.

I spoke with the original poster of the mod to the net (you know the
one that includes step-by-step doxs). He said the mod does kill data
entry in the 30-54 range BUT freqs already entered will still scan
and receive. So it looks like a small momentary contact switch will do
the trick. I havent gotten chance to try it yet as ive been busy with
other things.

--
Dan 'Sneakers' Schein |\/\/\/| Quote:
Sneakers Computing | | Those who worked the hardest
2455 McKinley Ave. | (o)(o) are the last to surrender.
West Lawn, PA 19609 C _) -= Gary Ward =-
| ,___|
| /
uunet!cbmvax!heimat!dan /____\ (or) dan%heimat@commodore.com

3085. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-25 04:55:58 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990May25.045558.1077@cbnewsk.att.com>
Source record: 11379

In article <105@ctbilbo.UUCP>, pete@ctbilbo.UUCP (Pete Ritter) writes:
> Is it necessary to send QSL cards to QSL managers in order to get a card
> from the station worked? Is a simple note to the manager with the usual
> band, mode, date & time (and SASE or SAE and IRC) good enough?

I do qsl cards for some 20 active stations. For me, as long as the
note contains the 'information on a qsl card' (i.e., I should be
able to use the note for an award if needed) then I am happy. Just
don't put the information buried throughout a 3 page letter telling
me about your life. I do 100 qsl cards every few days, so needless
to say, I probably won't get to that one!

>
> Do the stations worked ever get these cards? Do they even want them? If
> not, then we can save money by not sending cards. If we work a station
> on several modes and or bands, do we have to send a card for each? Again
> we can save money by sending a list with the info and not the cards.

Cards are not necessary, just convenient. Just got a was award by
sending in a post card where someone carefully wrote out the qso
details longhand. Stations sometimes get the cards, sometimes
not...it depends. Usually, the dx station is casually, at least,
chasing some award or another. If money is the issue, take your
card, or design a card, and go to a print shop. size isn't too big
an issue...you can probably get 10 pseudo-qsl cards on a 8.5x11
piece of paper....and this will do for most purposes.

>
> If the operator worked really does want my card, then I have no problem
> sending mine, of course, but if the manager tips them, then it's a waste.
> With even simple cards costing 15 - 20 cents each, quite a cost saving
> can be had by using a list.

not sure where you buy your cards....but W4MPY sells something like
1000 'basic' qsl cards for $31.45 (see march/april 1990 National
Contest Journal, page 32 or write him callbook address). These
cards are quite nice, and I see a lot of 'basic qsl' cards in the
managing business. Thus, you can get away a lot cheaper than noted
above if you are willing to live with heavy card stock and one color
ink.

> Any QSL managers out there want to comment?

Being a QSL manager is a lot of fun, but also a lot of pain. If
anyone has any other questions, fire away. Probably the most
important rule is remember that QSL managing is a volunteer effort.

I suspect that one might make a 'little' at it, depending on the DX station...but I doubt it pays for the coffee/beer/soft drinks consumed, let alone the time. I take any money gained and roll it into the dx station in terms of new equipment, etc. As an example, I have furnished a good part of a satellite station in Macau over the last year, buying amplifiers, etc in the used market.

steve wheatley KU9C
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

3086. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-25 05:02:04 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990May25.050204.1241@cbnewsk.att.com>
Source record: 11380

> Yes, you can just send a list on a piece of paper (or a single card
> with multiple qso information on it) but there are certain risks
> involved. For one thing, this complicates life for the qsl manager
> so there is a good chance that your request will relegated to the
> bottom of the processing stack. Furthermore, suppose that you work

Good points, Joe. Even more aggravating, not so much to me, but to the ham sending a qsl to a manager, is multiple requests in one SASE for MORE than one station. Then, the dilemna is, do I just send one, or wait until the logs clear for all the qsl cards involved. I usually do the latter, but this sometimes holds a qsl card for a few months. Remember, I wait to receive verification before I send you a card. SOmetimes this is over the air (1 day after receipt of qsl), sometimes via packet, sometimes via mail. Even though I 'keep on hounding' the guys i do cards for, some of them are somewhat slow. Thus, if you have two cards to send to me, and one (or both) are needed for an award and you are hot to get them, invest in two SASES. If I can verify both at the same time, you will get one SASE back unused.

Now that I am done, I will note that some managers REQUIRE a SASE or equivalent per QSL. I don't and I find this practice (of dictating) somewhat offensive, but the realities of life indicate that, if you are in a hurry, send a SASE for each card.

cheers
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

3087. Mods for DX-160 wanted

Newsgroup: rec.ham-radio
Date: 1990-05-25 05:15:27 UTC
From: dan@heimat.UUCP
Message-ID: <117@heimat.UUCP>
Source record: 11396
Cross-posted to: rec.ham-radio,rec.radio.shortwave

[-=-]

Well ive finally replaced my old DX-160 with a Sangean 803A. Im very
happy with the Sangean but im still not ready to retire my 160. So if
you know of any mods for this old timer please mail them to me.

Thanx in advance.
--
Dan 'Sneakers' Schein |\/\/\/| Quote:
Sneakers Computing | | Those who worked the hardest
2455 McKinley Ave. | (o)(o) are the last to surrender.
West Lawn, PA 19609 C _) -= Gary Ward =-
| ,___|
| /
uunet!cbmvax!heimat!dan /____\ (or) dan%heimat@commodore.com

3088. Re: Need address Butternut Electronics (please)

Newsgroup: rec.ham-radio
Date: 1990-05-25 06:19:14 UTC
From: richard@hpfcdc.HP.COM
Message-ID: <7880148@hpfcdc.HP.COM>
Source record: 11381

>/ hpfcdc:rec.ham-radio / perschau@mdcbbs.com / 4:39 am May 22, 1990 /
>Help ! After serving me faithfully for 8 years, my Butternut HF6V antenna has
>given up a few key parts to midwest winters. The owners manual lists a phone
>number that now belongs to a Texaco gas station. If anyone can send me the
>correct phone and/or address, I would sure appreciate it. Directory assistance
>does not have any listings for them. tnx in advance.

> Bob Perschau KA9ART (A Real Turkey)
> uunet uucp%uunet!mdcbbs.com!perschau
> internet perschau@mdcbbs.com

I got my HF6V-X last month. Nice antenna, lousy documentation.
Their sheet says:
Butternut Electronics Company
405 East Market Street
Lockhart, TX 78644
(512) 398-7117

Richard Artz KB0GMO/KT richard@hpfcww.fc.hp.com

3089. Re: WWV

Newsgroup: rec.ham-radio
Date: 1990-05-25 06:49:51 UTC
From: richard@hpfcdc.HP.COM
Message-ID: <7880149@hpfcdc.HP.COM>
Source record: 11420

John WB9VGJ writes:

>As a last resort you can listen to WWV at Ft. Collins by caling
>(303) 499-7111 and the U.S. Naval Observatory at 900-410-8463. WWV
>gives other useful information besides the time, including solar flux/
>sunspot numbers. The Naval Observatory, I believe, just gives the time.

The atomic clocks are in Boulder, 499 prefix, the antenna farm is on the north end of Fort Collins. I grew up in northern Indiana and would listen to WWV on my dad's shortwave radio. At that time I never dreamed I would some day live out here in Fort Collins. Or maybe I did dream it...

Out here WWV comes in great on shortwave, pretty well on cheap AM radios, and not to badly on a toaster. :-)

Richard Artz KB0GMO/KT

3090. Re: One less DXCC country?

Newsgroup: rec.ham-radio
Date: 1990-05-25 07:27:33 UTC
From: karn@ka9q.bellcore.com
Message-ID: <23615@bellcore.bellcore.com>
Source record: 11392

In article <41307@apple.Apple.COM> winter@apple.com (Patty Winter) writes:
>Does this mean that 4W or 7O is going away? Gee, and we're probably
>going to lose one German prefix, too. We've got to put a stop to
>all this global gemutlichkeit before we wind up with only two or
>three countries on the DXCC list. :-) :-)

As far as telephone "country" codes go, there is not necessarily a one-to-one correspondence between country codes and actual political "countries". You quoted one example of a country with more than one code. The reverse situation also exists, right here in North America -- the US, Canada, Mexico City, and several Caribbean islands all share telephone country code "1".

Radio prefixes may also change as a result of all the unifications going on. But what *I* really want to know is what will happen to representation in the UN after 1992. As far as I'm concerned, after 1992 the entire European Community ought to get only ONE vote in the UN. Or, if they don't like that, we'll give them the alternative of allowing the US *50* votes. After all, Western Europe shouldn't be allowed to have its cake and eat it too.

Can you imagine how different the UN sponsored bodies like the ITU and CCITT would be if this were to happen? We might actually get some reasonable spectrum allocations and telecommunications standards for once. :-)

Phil

3091. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-25 07:52:02 UTC
From: karn@ka9q.bellcore.com
Message-ID: <23616@bellcore.bellcore.com>
Source record: 11393

My favorite ham/license plate/policeman story of all time comes from a high school ham buddy of mine. Some years ago he worked for the Baltimore FCC field office. He had a "company car" sitting in his driveway when I dropped by his place, and I asked to poke around inside. It was a nondescript sedan from which the right front seat had been removed and replaced by a rack of equipment. It contained general coverage HF/VHF/UHF receivers, direction finding equipment, TV demodulators, you name it. Obviously they used it for undercover field enforcement. This was before I bought my R-7000, so the chance to play with a station (mobile, no less) that tuned from DC to daylight was still a novelty to me.

Anyway, as I was twiddling the knobs on the gear I casually asked my friend if the car had US Government plates or ordinary state plates (I hadn't noticed). He replied "Um, I'm not sure. I think state plates." Me: "What do you mean, you're not sure?" "Well, there's a story here I think you'll enjoy."

My friend went on to explain that the car came equipped with a stack of license plates from about 20 states. They would swap them occasionally during an investigation to keep people from getting suspicious (as though a car with a large rack of electronics where the right front seat should be wouldn't be suspicious enough.) Well, it seems that my friend often commuted to work in this car. One day, the state trooper who lived in the next block pulled him over:

"Sir, have you been in Maryland longer than 30 days?"
"Yessir." (My friend has lived in Maryland all his life.)
"Well, sir, if you're going to be in Maryland longer than 30 days, you can't have West Virginia plates on your vehicle."
"OK, no problem. I'll fix it right now"

My friend then gets out of the car, opens the trunk, pulls out a large stack of license plates, pulls out the Pennsylvania plate, and grabs a screwdriver. As he begins to swap the plates, the cop interrupts him.

"Uh, sir, if you're going to be in Maryland, then you need MARYLAND plates!!"
"Oh, why didn't you say so!"

My friend returns to the trunk, pulls out the Maryland set, and returns to work.

"Uh, sir, do you have REGISTRATIONS for all these plates?"
"Sure." My friend pulls out a thick wallet containing 20 fanfolded vehicle registrations, one for each plate. Each is registered to "US GOVERNMENT".
"Uh, sir, JUST WHO ARE YOU ANYWAY?"

My friend finally had to play his hand. He pulled out his FCC identification.

"Sir, if you had only shown that to me at the beginning we could have saved us both a lot of time..."

--Phil

3092. Any Mods for FT736R?

Newsgroup: rec.ham-radio
Date: 1990-05-25 12:05:06 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9005260703.AA04833@ucbvax.Berkeley.EDU>
Source record: 11394

Thanks a million to Erik Sorgatz for his out-of-band RX
mod for the FT736. This is the first mod I have ever heard
of for this rig. I guess its complexity is not conducive to
tinkering...

One small correction, though: there is indeed a 220 MHz module for
the '736. I have one, and it works fine. Got it from
the dealer when I bought the rig.

Now, if someone could just find a way to get the '736 to
scan with the squelch open, then we'd be making some progress.

Other suggested mods, if anyone feels up to the challenge:
1. A=B VFO jumping
2. Set-and-forget RIT (RIT stays on while you tune around, for EME)
3. 25 watts out on 6 meters (to adequately drive a 3CX800)
4. Tunable memories

Thanks again to Mr. Sorgatz!

M.R.O.

3093. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-25 12:46:40 UTC
From: waco@cbnewse.att.com
Message-ID: <1990May25.124640.7792@cbnewse.att.com>
Source record: 11419

In article <1990May25.045558.1077@cbnewsk.att.com> Steven M. Wheatly writes:
>> Any QSL managers out there want to comment?

>Being a QSL manager is a lot of fun, but also a lot of pain. If
>anyone has any other questions, fire away. Probably the most
>important rule is remember that QSL managing is a volunteer effort.
>I suspect that one might make a 'little' at it, depending on the DX
>station...but I doubt it pays for the coffee/beer/soft drinks
>consumed, let alone the time. I take any money gained and roll it
>into the dx station in terms of new equipment, etc. As an example,
>I have furnished a good part of a satellite station in Macau over
>the last year, buying amplifiers, etc in the used market.

>steve wheatley KU9C
>--
>Steven Wheatley AT&T Consumer Products (317) 845-3927

>....!att!inuxz!wheatley

This is NOT meant to flame Steve. I greatly appreciate the efforts of QSL managers. However, some would appear to make more than a 'little' at it. These people tend to tick me off a bit. I recently had the ocassion to work some stations who have OH2BN for a QSL manager (he seems to be a popular manager). As usual, I sent my card with a green stamp for each contact as they were worked at different times. I have received one card back. Guess what? It was mailed from California with a 25-cent stamp. Say he handles QSLs for a dxpedition and gets 1,000 cards from U.S. hams with a green stamp. He spends $250.00 for stamps and keeps $750.00. This is more than a making a little money. I have had this happen a very few times over the past 13 years. Most QSL managers do not do this.

If QSLs are to be mailed back from the U.S., the QSL information should include the fact that an sase should be sent with the card. I have no problem with honesty, but do have a problem with deception! It is good that this type of QSL managing is the exception to the rule.

Most QSL managers deserve a large pat on the back for their efforts. Without them DXing would not be very worthwhile.

John L. Broughton WB9VGJ
AT&T Bell Laboratories
1200 E. Warrenville Rd.
Naperville, IL 60566-7045
(708) 713-4319

john.l.broughton@att.com

3094. Re: strange call signs (now Ham plates)

Newsgroup: rec.ham-radio
Date: 1990-05-25 13:28:01 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005251337.AA01193@ti.com>
Source record: 11397

Maybe California should emulate Texas and identify the license plates as "radio operator" right on the plates themselves. This eliminates the problem of the cop cadets who sleep through license plate identification class.

Dube N5PDK

3095. Listening to freq. > 30.000Khz

Newsgroup: rec.ham-radio
Date: 1990-05-25 14:00:40 UTC
From: news@thorin.cs.unc.edu
Message-ID: <14290@thorin.cs.unc.edu>
Source record: 11399
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I bought a Sony receiver (7600DS) I like it a lot, except for the fact
that you need a converter to be able to use stereo headphones with it.
I have a question which may be dumb. Is there a way to get above the
limit of 29.999MHZ. I'd really like to listen to all those exciting
stations a lot of people are describing here. Thanks.
From: hardarso@unc.cs.unc.edu (Kari Hardarson)
Path: unc!hardarso

Kari Hardarson
217 Jackson Circle
27514 Chapel Hill, NC

3096. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-25 14:02:09 UTC
From: beams@norvax.UUCP
Message-ID: <492@norvax.UUCP>
Source record: 11327

> of the "full" licenses as incentive to learn more technically. The
> full incentive licensing program, established in the late 50's or
> early 60's, established the present five license classes that tied
> more privileges to demonstration of more knowledge and skills.
>
>
> 73 de Scott KC1ST (ex WN1TEW)
>

Actually, incentive licensing became reality in November, 1967. Prior to that, full privileges were conveyed by the General/Conditional Classes. (Does anyone recall the Conditional Class? It was equivalent to a General-Class license, but it was taken by mail. It was available to those who were physically unable by virtue of disability or distance to present themselves at a place where the FCC held amateur exams at least quarterly). The Amateur Extra Class conveyed no special privileges, only a warm, fuzzy feeling and a blue-and-white diploma-like sheepskin (suitable for framing) that resembled the diplomas the FCC gave for Commercial Radiotelephone/Radiotelegraph licenses. At the time the FCC adopted incentive licensing (late summer of 1967), there were about 5,000 Extra Class licensees out of an amateur population of some 250,000. Please don't hold me to that statistic, though; memories THAT old rely on residual magnetization of the old cores :-) :-)

The old Class A was rejuvenated and re-named "Advanced Class" in November, 1967; I recall going to Chicago just after Christmas of 1967 to take the Advanced exam, just a month after the class was re-opened. The first restriction of privileges to persons other than Extra Class licensees took place in November, 1968; the second restriction, which established the subbands in largely the form in which they exist today, took place in November, 1969.

My privileges were restricted for a while, because I could not take the Extra Class exam until August, 1969. At that time, an applicant (or was the correct term "supplicant?") for the Extra Class had to have accumulated two years as a licensee of the General Class or higher.

Anyone else recall those old Extra Class diplomas?

--73, Dave KK9Y

--
UUCP: ...seismo!uwvax!astroatc!norvax!beams
US Mail: David Beams / Norland Corporation / Fort Atkinson, WI 53538-8999
Registered Professional Thaumaturgist -- Hours by Appointment Only

3097. Getting the back off a Sony 2002/7600D

Newsgroup: rec.ham-radio
Date: 1990-05-25 14:11:46 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9005262014.AA09282@ucbvax.Berkeley.EDU>
Source record: 11398

Over on the SWL group, a person posted a request for the trick of getting the back off a Sony ICF-2002/7600D radio.

I distinctly recall reading a network posting many moons ago (maybe 2 years? maybe mere?) on the ham group/list (before the SWL list existed) where the trick of dissassembling the 2002/7600D was described. I also remember carefully saving the info because I have a 7600D and might need the data sometime. Now I cannot locate it!

AAAAARRGHH!

One of those days... :-)

If the person who posted that info is still around, could you mail me the instructions, or post them? Or if anyone else out there saved the info and is better organized than I and can find it, please send me a copy. Thanks much!

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

3098. Retransmission of SAREX communications

Newsgroup: rec.ham-radio
Date: 1990-05-25 14:59:11 UTC
From: jrm@sage0.gsfc.nasa.gov
Message-ID: <2161@dftsrv.gsfc.nasa.gov>
Source record: 11426

During the STS-35 SAREX mission, AMSAT will provide a network to link
US classrooms through local repeaters to a amateur ground station
in contact with ham astronaut Ron Parise.

WA3NAN at Goddard Space Flight Center hopes to retransmit the SAREX
communications - interrupting the NASCOM shuttle communications
retransmission for the duration of the SAREX communications.
However this will require that a phone patch operate at our station with a
kilowatt of power on four different HF bands. Installation and testing
are in progress.
--
John R. Mattox
NASA/ Goddard Space Flight Center Internet: jrm@sage0.gsfc.nasa.gov

3099. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-25 15:22:46 UTC
From: trey@ut-emx.UUCP
Message-ID: <30470@ut-emx.UUCP>
Source record: 11401

In article <4a913ecf.20b6d@apollo.HP.COM>, hays@apollo.HP.COM (John Hays) writes:
> I am waiting for the poor soul who gets NH5HHH :)

A few years ago when I was in the Rio Grande Valley I heard the "CW call from hell" on one of the two meter repeaters: WS5H. Getting a call like this is one of the reasons I never opted to enter the FCC Random 2x1 Callsign Sweepstakes.

In retrospect, the likelyhood of getting a *really* bad call was quite small. I just didn't understand how to play the game. Not too many calls are ever issued in a given day (or week) for a particular call area. If you pick a prefix you like (such as KM5, or whatever), you could get it with proper timing. Personally, I would avoid the letters in the beginning of the alphabet (dit-intensive letters like H and I and B don't tickle me). Given such, I could pretty much accept anything in the M-Z range, although I'm not crazy about S and V. So be it.

Call the FCC and ask what the "next" callsign is in your block. Once they get up to the right spot (say KM5M), then Fed-Ex your 610 to Gettysburg. Unfortunately, the were in the AA5xx calls by the time I got comfortable with this idea and I am having trouble getting excited by the thought of becoming a yay-yay-five. Sigh.

Maybe another PRB-3 or whatever will come along someday.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

3100. Re: Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-25 15:34:45 UTC
From: trey@ut-emx.UUCP
Message-ID: <30471@ut-emx.UUCP>
Source record: 11403

In article <1250171@hpnmdla.HP.COM>, donm@hpnmdla.HP.COM (Don Montgomery) writes:
> My "Elmer", W6ATJ, had a great call. didah Dah! DIDAADAAADAAAAAHHH!!!
>
> Then there's a big gun DXer in San Francisco whose call is W6AWT- I don't know
> if he's still around or not- anyway he liked to stretch out the "T" to make
> sure everyone got it right- didah didadah DAAAAAAAAAAAAAAAAAHHHHHHHHHH!! The
> guy had such a hairy signal that I could I can still envision the white-hot
> PP 2000TH plates and the neighborhood streetlights dimming in synchronism
> with his keying.

This reminds me of a conversation I had with K1MM and K1MEM at Dayton
one year. Since they are both avid DXers, I asked if this didn't cause
some confusion in the pileups. Jim (MEM) joked that it was actually
a windfall for him, because he never had to send his whole call, just
a properly timed dit.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

3101. Re: Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-25 15:37:34 UTC
From: trey@ut-emx.UUCP
Message-ID: <30472@ut-emx.UUCP>
Source record: 11404

In article <45712@iuvax.cs.indiana.edu>, barkeyp@silver.ucs.indiana.edu (patrick barkey) writes:
> 5H3TW in the last ARRL DX contest was a fun one too, at 40 WPM.
> A friend of mine (who shall go nameless) thought he had worked
> Haiti on 5 bands instead of Tanzania ...

Rumor has it that 5H3TW was trying for a special call for the WPX Contest this weekend: 5H5H. Beware!

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

3102. Re: Any mods for Yaesu FT736R?

Newsgroup: rec.ham-radio
Date: 1990-05-25 15:48:55 UTC
From: jpd@pc.usl.edu
Message-ID: <9009@rouge.usl.edu>
Source record: 11402

In article <14055@ttidca.TTI.COM> sorgatz@ttidca.TTI.COM (Avatar) writes:
> My attempts to modify the range on the 430 MHz rf module have not meet
>with much success, and a careful look at the schematics/numbers tell the
>story quite well; The module covers 430-440, a 10MHz range. Therefore,
...
>available only-in-Japan to do the 70-71 MHz band. The 220-225 MHz range
>never wound up as an available unit. Too Bad! I'd guess that one could

An interesting report, Erik. But are you describing the ft736 or the ft726
or what? My ft736 covers 430-450 with one module, and I am sure the 220
module is available. The ft736 comes with 2m & 70cm; you can add 2 more
band units, choosing from 6m, 220Mhz, and 1.2GHz.

-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.
--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

3103. Choosing calls.

Newsgroup: rec.ham-radio
Date: 1990-05-25 16:05:42 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <25.May.90.17
Source record: 11400

I always liked the idea of going to countries and trying to get 'nice'
calls. 5Z4GT and 6V6GT would have been my favourites to try for.....

(for the neophytes amongst you, a 5Z4GT is a rectifier tube, and a 6V6GT
is a power beam-tetrode......)

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

3104. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-25 16:26:43 UTC
From: kenw@col.hp.com
Message-ID: <24300011@col.hp.com>
Source record: 11412

I suspect that what you heard was an image frequency. Most news media (on the UHF band) is situated from 450 to 451 MHz. Try looking up the IF (intermediate frequency) of the UHF receiver portion of your scanner, multiply by 2 and add it to 407.750. See if the real channel is not 450.xxx. In order to obtain the wide tuning ranges, most scanners do not have tuned "front ends", thus are susceptible to images; a frustrating, but common, problem.

Ken Wyatt (kenw@col.hp.com)

3105. Re: Talking to someone in Korea

Newsgroup: rec.ham-radio
Date: 1990-05-25 16:51:24 UTC
From: sawyer@twg.com
Message-ID: <6789@gollum.twg.com>
Source record: 11413

In article <5274@hub.ucsb.edu> 6600dong@ucsbuxa.ucsb.edu (Dong Hwan Kim) writes:
>I do now know much about Ham-Radio and I just want to know how I can communicate with my friend in korea thru ham-radio.
>Is the novice license enough for me to talk to me friend in Korea?
>Do I need to buy a very good radio since Korea is so far from USA?

Dong Hwan Kim:

It is absolutely possible to communicate with your friends in Korea using ham radio. It will not be completely reliable, and you will have to choose your time of day carefully, but you can probably have good communications with Korea several times a week. You raise several points, which I'll answer in turn:
a. A novice license is absolutely adequate, but you will have to do your communications using the international morse code. A novice license will allow you to communicate in the band 7.100 MHz - 7.150 MHz (among others), and it is on the 7 MHz band that I hear the Koreans most frequently. It is almost always possible to hear Korea from California just about sunrise each morning. You have to search hard to find them, because there are many Japanese stations active on 7 MHz at that time of day, and some of them are quite strong. But the Koreans are in there! A novice license will also allow you to transmit using voice in the range of 28.300 MHz - 28.5 MHz, but long-distance communications in that frequency range is highly unpredictable. It is only good during the daytime, and there needs to be a high level of ionization in the upper atmosphere in order for the signals to refract back to earth rather than escape into space.
b. You will not need a particularly expensive radio to reach Korea. You should expect to pay maybe $1000, somewhat less used. What will be more important than the radio will be the antenna you use. It will probably be a wire stretched horizontally (roughly 66' long, and it needs to be up as high as you can get it, and in no case less than about 45' from the ground), or a vertical aluminum tube about 33' long. Either can be made from inexpensive materials from a local hardware store.
Good luck!

3106. Uniden HR-2600 Mods wanted

Newsgroup: rec.ham-radio
Date: 1990-05-25 16:56:49 UTC
From: ka1gt@cbnewsm.att.com
Message-ID: <1990May25.165649.13428@cbnewsm.att.com>
Source record: 11406

I would like to make a few mods to a Uniden Hr-2600 10m all mode radio mainly in connection with is use as an IF for transverters to 144 MHz and the higher bands. I would like to reduce the output power to a sub 100mW level to save having to use a high power attenuator and to conserve battery power (/P operation). It would also be nice to change the 5kHz scanning step size to 1kHz and to extend the frequency coverage to 28-30 MHz. Before I go digging into the radio with a soldering iron, has anyone done these mods or can anyone direct me to a source of such information?

Tnx in advance, 73 Bob Atkins KA1GT
att!mhuxo!rma

3107. Re: Using an ICOM speaker mic on a Yaseu FT-470

Newsgroup: rec.ham-radio
Date: 1990-05-25 16:59:41 UTC
From: mcross@hpcvck.CV.HP.COM
Message-ID: <5440013@hpcvck.CV.HP.COM>
Source record: 11422

I found that my ICOM headset (HS-10) and the VOX unit work on the
FT-470! No mods needed, just plug it in and talk.
73
Insert Standard Disclaimer notice here:

___
/ / Minor Cross KD7YJ
/ / Hewlett-Packard Northwest IC Division [NID]
/ /_____ _________ 1020 NE Circle Blvd.
/ ___ / ____ / ___ / Corvallis, OR 97330
/ / / / /___/ / /__/ / -------------------------
/__/ /__/ / ______/ AT&T: (503) 750-2044
/ / HP telnet 750-2044
/__/ }inhp4!hplabs!hp-pcd!hpcvca!hpcvck!mcross

3108. The PRO 2006!!!! In GROVES Catalogue ++ CONSPIRACY THEORY

Newsgroup: rec.ham-radio
Date: 1990-05-25 18:00:56 UTC
From: flash@lopez.UUCP
Message-ID: <1990May25.180056.1974@lopez.UUCP>
Source record: 11405
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I have not seen any one else post this, but I am sure by the time you see this, someone else might, but JUST IN CASE:

Page 23 of the latest BOB GROVE mailing says:

The Realistic Pro-2006

The most popular high performance scanner ever is even better

COMING SOON!

Well leave it to old Bob G to know more than the boys at the local RS (Radio Slouch) store!

What does it LOOK LIKE? Gosh, I said to myself. Looks exactly like my 2005. Well sure enough, Bob (Master of Hype, creator of the soon to be delivered SR-1000 with the FAKE mock up picture in every catalogue [I have DONE fake MOCKUPS I know what to look for, can you say VAPORWARE, I KNEW YOU COULD]) the picture in the 2006 ad is really a 2005. The photo is underexposed to make the scanner at first glance seem new because it is not the light grey, but a much darker hue.

RAPID 26 channels per second search. He does not mention the metal case.

Correct me if I am wrong, but can't you just clip a diode to get this feature?

NOW HERE is where I have the WB8EOH Theory of the RS SCANNER DIODES CONSPIRACY. Read closely folks, I think I am on to something.

Let us suppose that you were a marketing genius. Let us say, you wanted to OWN the scanner market for the next 5 years. What would YOU do. Now if I were in that position, here would be my plan (Let us assume that I am also greedy, and slightly devious)

I would have my people in Japan design a scanner so advanced it would blow everything else on the market out of the water ten times over.

Then I would order a billion circuit boards, but in the design I would do this.

I would set it up so that instead of selling this remarkable scanner outright, I would add DIODES to it that would CUT BACK on the performance.

One diode to CUT BACK the number of channels from the 400 that was designed into it, back to 300. One diode to SLOW DOWN the scanning

rate. One diode to DELETE a band of frequencies, and so on.

So I would release the FIRST version of the scanner, and everyone would say: WOW a 300 channel scanner, wow!

I would sell that scanner for a couple years, then I would retool the case, but keep the same circuit. ONLY I would instruct the people doing the wiring to omit the diode that keeps it a 300 channel scanner, so I could sell my NEW 400 CHANNEL SCANNER!!!!

I would sell that one for a year, and then I would blow it out at a cut price, and introduce my NEXT version of the circuit board, and instruct my guys to LEAVE OUT the diode that cuts the scan rate down, so I could say "NOW A REMARKABLE 26 channels a SECOND"

Now if the WB8EOH theory holds, here is what happens next:

I would sell this new scanner for a year or two, waiting for a test case of ECPA, which will certainly get that silly law repealed, and then instruct my boys to build them without that last diode. Then I would blow out the 2006 at a rediculous low price and tell Bob Grove he could be the first to print:

THE BEST IS EVEN BETTER!!!!! NEW PRO 2007 NOW INCLUDES CELULAR!!!!!

The only fly in the ointment would be if some scanner underground had the original 300 channel pro 2003's and found out that by clipping the diodes themselves they could upgrade their OLD scanner to the one I would be selling in FIVE years, and they would not spend the $419 on the SAME scanner every one or two years.

That's what I would do if I were a savvy marketing expert wanting to corner the entire scanner market for myself.....

Sounds like science fiction huh. I shoulda cross posted to alt.conspiracy.

Comments??????

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

3109. Re: Funky CW calls...

Newsgroup: rec.ham-radio
Date: 1990-05-25 18:21:34 UTC
From: price@marlin.NOSC.MIL
Message-ID: <1414@marlin.NOSC.MIL>
Source record: 11409

In article <30471@ut-emx.UUCP> trey@ut-emx.UUCP (Trey Garlough) writes:
>This reminds me of a conversation I had with K1MM and K1MEM at Dayton
>one year. Since they are both avid DXers, I asked if this didn't cause
>some confusion in the pileups. Jim (MEM) joked that it was actually
>a windfall for him, because he never had to send his whole call, just
>a properly timed dit.
>
>Trey Garlough

I've had an interesting ambiguity problem of late, too. W6ZH is
also an active DXer (Pete Hoover) and he and I have been in the
pileups together a few times.

And now KI6ZH has burst on the DX scene, and he's also in San
Diego. The three of us get a few of each other's QSLs, especially
thru the buro. But we've all had a problem with trying to
convince some DX stations that it was the OTHER 6ZH who was in the
log a few minutes ago!

--Jim, K6ZH

3110. EBS tones

Newsgroup: rec.ham-radio
Date: 1990-05-25 18:25:19 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9005262017.AA09500@ucbvax.Berkeley.EDU>
Source record: 11407

Can someone out there tell what the composition of an EBS alert tone is?
I am considering building an AM receiver with an EBS tone decoder on it
for use during severe weather emergencies. Our local EBS primary station
transmits the tone with severe weather alerts.

Thanks in advance. By the way, if you know of a cheap (under $50) unit
that does this, let me know as well.

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

3111. Can I hear SATELLITES on my PRO-2005?

Newsgroup: rec.ham-radio
Date: 1990-05-25 18:40:50 UTC
From: flash@lopez.UUCP
Message-ID: <1990May25.184050.2315@lopez.UUCP>
Source record: 11408
Cross-posted to: rec.radio.shortwave,rec.ham-radio

One thing that has always eluded my old monitoring ears has been REAL communications satellites. The good stuff like FLTSATCOM, etc. I have talked to people who have heard such things on their REAL communications receivers (R-7000, etc), but nothing here has ever showed up.

Yeah, I know, Sow's Ear != Silk Purse The 2005 is a nifty highly advanced scanner, but does not have fine tuning capabilities, etc. And it is not overly sensitive compared to an ICOM R-7000. It does what it does very well.

I have heard some of the WHEEDLE WHEEDLE sats, but I want to hear voice coms. One guy I was talking to on 20m once told me about hearing satellite relays of riverboat traffic.

Now I do have a fairly good antenna (CHANNELMASTER 5094) BUT it does not have any gain in the region (200mhz-300mhz) where I have heard some of these birds live.

I am wondering if someone out there in netland has bagged a real voice com sat on the 2005, and if so using what antenna, and what freq, and what quality signal.

This sounds like a nifty hobby, satlistening, but before I go drop a bundle of bucks on an R-7000, I would like to know what is there, and if I can at least get a hint with the 2005.

I will understand if the answer is: GET A REAL RADIO, KID...
~~~~

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ===============
~~~~

3112. Re: NUmbers Stations & Belated Rantings

Newsgroup: rec.ham-radio
Date: 1990-05-25 19:07:09 UTC
From: ums@desire.wright.edu
Message-ID: <419.265d3c0d@desire.wright.edu>
Source record: 11417

Ah, dem numbers how I loves 'em. In fact, I have only
heard a few. But then, I haven't been on the air long enough in the
past years -- my wife yupped out on me and I had to take the station
out of the living room -- so if them number stations is still around,
I'm not surprised.
But, judging from what I've heard and read, I firmly believe that
they are conspiracy con to try and dupe the true believers in the
One Trualesman into thinkng that there really is a con from somehwere
else! Gawlee, do I love that.
Those sullen sobs out there with their AR17 and AK47 -- most of 'em in
the oil soaked hills of Montana (Hi, Liz. How's the Crutch United and
Flatulent?) are dead serios. They want you to be dead serious too. Most
of all they want you dead. So, do, indeed, be careful around 'em.
Which makes me wonder if they might not have something to do with Olie
the Colonel and his gang of badgers. How many hostages have the numbers
stations caused? Will we ever know? Given the climate of the media, will
we ever want to know?
Only "Bob" Dobbs knows for sure, and he ain't talking.

WB8IJN

3113. Re: request for information on Motorola "Pageboy II"

Newsgroup: rec.ham-radio
Date: 1990-05-25 19:25:16 UTC
From: davet@tsdiag.ccur.com
Message-ID: <983@tsdiag.ccur.com>
Source record: 11328

In article <1990May24.144341.3856@uokmax.uucp> skaggs@nsslsun.gcn.uoknor.edu (Gary Skaggs) writes:
->rcm@andante.UUCP (Bob Melville) writes:
->>
->>I am interested in any documentation on the Motorola
->>"Pageboy II" paging receiver. A schematic would
->>be particularly nice. I want to try to make the thing
->>into a monitor receiver for two meters.
->>
-
-Hold on, Bob. Don't give up yet! I have a pageboy II tone and voice that
-has been *squelched*. Give me a few days to round up the mods (not real
-convenient, but workable) and I'll blast them off to you by USnail.

Please send these to me also! I've been hankerin' for these mods ever since I moved to New Jersey and cancelled my old voice pager service in Va. I'll be glad to cover postage, handling, and copying fees in return. Thank you greatly in advance,

Dave Tiller n2kau
35 Sternberger Ave #H
West End, NJ 07740
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

3114. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-25 19:31:29 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990May25.193129.27297@cbnewse.att.com>
Source record: 11425
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <3342@radio.oakhill.UUCP>, charlie@oakhill.UUCP (Charlie Thompson) writes:

> I'd guess Bob Parnass might know the answer to this ....
> Much to my surprise I found a local AM radio station (KLBJ-AM) using
> 407.750 MHz as studio-to-remote director's link.

I've never visited Texas, but in northern Illinois, this is what folks hear on that frequency:

407.7500 call?_____US: Postal Svc, DVP scrambling, f3, input to 415.050 [Chicago] (others)

Two years ago, I found a similar signal on my R-7000 and BC-300.

A remote broadcast link transmitter was wandering several megahertz up through the 462 MHz GMRS range and beyond. I traced it to a spur in the WSPY remote transmitter being used to broadcast the local high school football game. I called the station and argued with the non-technical guy at the studio for 30 minutes.

[The only way I convinced him it was his equipment problem and get him off the phone was to tell him
1) I work at Bell Labs (big deal, eh?)
2) My pizza was getting cold.]

He finally admitted that the remote transmitter had a history of these problems and they never used a spectrum analyzer to check the spectral purity of the signal. The remote's signal sounded fine on its assigned fundamental frequency, but the phantom spur had muddy modulation and wandered around the UHF spectrum like it had a mind of its own.

--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

3115. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-25 19:36:42 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005251954.AA06231@ti.com>
Source record: 11411

Robert Casey (rfc@briar.Philips.com (Robert Casey)) mentions commercial radio call sign "NERD" and wondered if there were a "N3RD". How about a new "B" prefix? It would be great for one of our private pilots... it could be "B1RD".

:)

Dube

3116. strange claims

Newsgroup: rec.ham-radio
Date: 1990-05-25 19:43:00 UTC
From: rfc@briar.Philips.Com
Message-ID: <96594@philabs.Philips.Com>
Source record: 11423
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Found the following description of the operation of an amplified FM broadcast antenna: "It hunts the airwaves for hidden and weak signals and pulls them in like a radio magnet."
"Once it locks on to a signal, a Gallium Arsenide Field Effect Transistor (GaAsFET) inside the antenna traps noise and static-hiss and literally obliterates it."

Kind of a strange way to describe a pre-amp. Wouldn't think that a pre-amp would "trap" noise!

73 de WA2ISE

3117. Tanzanian Call Signs

Newsgroup: rec.ham-radio
Date: 1990-05-25 20:55:59 UTC
From: pescatore_jt%ncsd.dnet@gte.com
Message-ID: <9005252056.AA28681@bunny.gte.com>
Source record: 11331

> Rumor has it that 5H3TW was trying for a special call for the WPX
> Contest this weekend: 5H5H. Beware!

For last year's WPX contests, Tom Warren K3TW/5H3TW was trying to get
5H1T. Think of the QSL card possibilities.

3118. Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-25 22:00:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005262018.AA09589@ucbvax.Berkeley.EDU>
Source record: 11330

One night last summer, a friend of mine and I were out performing car acrobatics. I ended up with a tailpipe stuffed with a few inches of hard-packed dirt (DON'T ASK!!)

Digging it out with a key was a long, slow process and it was getting nowhere fast. We decided to make our way to a wild party we could see from the street. A few girls were yelling at us from there. So, we drove over to the apartment and knocked on the door several times to ask for a butter knife. (Pretty unusual request, eh?)

The door was answered by a few drunk types who weren't very happy to be disturbed. Of course, they were not to be reasoned with. They began to get somewhat unruly and started speaking about violence (not realizing that my friend was a student of the martial arts). I very casually walked over to my car and keyed up on 147.14 and listened to good ol' WB5KFJ the talking repeater with the volume up loud.

The drunks practically came unglued! There were several minors at this party and they thought we were cops!! Things settled down VERY quickly, and we left without further incident. Ham radio saved the day!

So... let's hear your stories about how you were rescued from various real and not-so-real emergencies thanks to the radio. I carrry my HT with me EVERYWHERE I go, and people give me a hard time about it. But I know that it will come in very handy someday when there is some form of accident or other incident that precludes my getting to a telephone.

I KNOW this will make for some interesting reading!

Mark Lowe - KB5III

Looking for a job in Telecommunications

MCL9337@TAMVENUS.BITNET

3119. funky callsigns

Newsgroup: rec.ham-radio
Date: 1990-05-25 22:06:07 UTC
From: rfc@briar.Philips.Com
Message-ID: <96603@philabs.Philips.Com>
Source record: 11424

Was thinking back when (summer of 76) I took my Tech test at the FCC office in NYC. If I remember correctly, the code test was easy, and I probably got most all of it correct. I did worse on the theory and rules part. Almost failed it, the FCC person said I got the minimun +1 correct. Maybe the person who assigned the calls saw the test results, and figured I'd be a CW fan, and gave me WA2ISE .. ... . from what they had on the list that week?
Turns out that I don't like code much!

73 de WA2ISE

3120. Re: FT-470 rapid charger?

Newsgroup: rec.ham-radio
Date: 1990-05-25 22:35:20 UTC
From: hburford@enprt.Wichita.NCR.COM
Message-ID: <654@enprt.Wichita.NCR.COM>
Source record: 11414

billt@hprnd.HP.COM (Bill Thomas) writes:

>Is there such a thing as a rapid charger for the FT-470? I know Yaseu makes a
>fast charger, 6 hours, but what I am looking for is a true rapid charger like
>what Kenwood has for the HT 25AT.
>Thanks in advance for the information.
>Bill

I've been using the GMS-403 Nicad battery charger from Control Products
Unlimited 215-383-6395 to charge ALL of my nicad batteries. I have
program modules to charge my lap-top computer battery, electric
screwdriver, radio batteries, ... ect... I have been able
to recover several packs that had developed 'memory' and I thought
were lost by using the chargers memory erase feature. The 470
pack is charged in about an hour, typically. Give CPU a call and
request a brochure.
hb

--
Harry Burford - NCR Peripheral Products Division, Printer Products
PHONE: 316-636-8016 TELEX: 417-465 FAX: 316-636-8889
SLOWNET: 3718 N. Rock Road, Wichita KS CALL: KA0TTY
C-$erve: 76367,151 SS: 9.5 Harry.Burford@Wichita.NCR.COM

3121. Re: FT-470 rapid charger?

Newsgroup: rec.ham-radio
Date: 1990-05-25 22:38:20 UTC
From: hburford@enprt.Wichita.NCR.COM
Message-ID: <655@enprt.Wichita.NCR.COM>
Source record: 11415

jimv@hienergy.East.Sun.COM (Jim Vienneau - CSS Program Manager) writes:

>>Is there such a thing as a rapid charger for the FT-470? I know Yaseu makes a
>>fast charger, 6 hours, but what I am looking for is a true rapid charger like
>I have a drop-in charger for my 470 (and the XYL's 411) that charges the
>battery in 3 hours, then reverts to a trickle charge. I think I paid about
>$60.00 for it a few months ago.
>Jim Vienneau, Sun Microsystems Inc - Billerica, MA

I have an NC-29 that takes 5 to 6 hours to 'fast' charge the pack.
What charger are you using?
hb
--
Harry Burford - NCR Peripheral Products Division, Printer Products
PHONE: 316-636-8016 TELEX: 417-465 FAX: 316-636-8889
SLOWNET: 3718 N. Rock Road, Wichita KS CALL: KA0TTY
C-$erve: 76367,151 SS: 9.5 Harry.Burford@Wichita.NCR.COM

3122. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-25 23:27:55 UTC
From: wizm@mbf.UUCP
Message-ID: <18500@mbf.UUCP>
Source record: 11416

Back in the 60's a man by the name of Issac Roach got a ham ticket. He thought the FCC had it out for him when they assigned him WA3DDT as his callsign.

--
: Marc Wiz :
: Yes, that really is my last name. MAI Basic Four, Inc. :
: Tustin, CA 92680 :
: UUCP:sun!sequent!mbf!wizm Ma Bell:1-714-730-2602 :
: uunet!ccicpg!mbf!wizm :

3123. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-26 03:00:44 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <113@ultrix.uhasun.hartford.edu>
Source record: 11421

I heard a similar story recently at a talk given by an FCC employee who used to do location work. In his case, he was waved over by a NY state (I think it was) inspection unit that checks the validity of safety inspection stickers. The trouble was that the "company car" was wearing NY plates but they had forgotten to put the inspection sticker on the windshield. (Apparently they are stocked with the appropriate stickers as well as license plates.) The fellow looked in the glove box--no stickers left. So, while he was waiting in the line of cars at the inspection point, he casually got out of the car, went to the back, opened the trunk and changed to another state's plate. When he got to the front of the line, the cop looked at his plate, shook his head in disgust and waved him on!

--

Jon Bloom

3124. ETO 86 amp free upgrade

Newsgroup: rec.ham-radio
Date: 1990-05-26 03:40:28 UTC
From: rfc@briar.Philips.Com
Message-ID: <96833@philabs.Philips.Com>
Source record: 11418

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
26975 BF 1226 0 0517/0030 20402_K2ZM N0HAY INFO@NYNET ()
Sb: ETO 86 Amps - Free Upgrade

HI, ETO HAS A NEW CONTROLL BOARD FOR THE PA 86 AMP. EVERY AMP SENt
IN FOR REPair WILL BE UPGRADEd WITH NO COST PER RAY H. ALL AMPS NOT
UPCRADEd ON 08.01.90 WILL BE RECALLD TO THE FACT. SO yoU ALL SEND
yoUR AMPS IN FOR MINOR REPAIRS BEFORe THE RUSH STARTS
73`S AND GooD DX MARK >>>

3125. Sony 7600 & stereo (was: Listening to freq. > 30.000Khz)

Newsgroup: rec.ham-radio
Date: 1990-05-26 15:59:20 UTC
From: rshapiro@arris.com
Message-ID: <1990May26.155920.300@arris.com>
Source record: 11332
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <14290@thorin.cs.unc.edu> hardarso@unc.cs.unc.edu (Kari Hardarson) writes:
>I bought a Sony receiver (7600DS) I like it a lot, except for the fact
>that you need a converter to be able to use stereo headphones with it.

Lest anyone get confused by the similar numbers: the 7600DS is a
different radio from the new 7600 (no suffix). The 7600, which
replaces the 2002/3, is compatible with stereo phones -- no adaptor
needed.

3126. UK reciprocal license

Newsgroup: rec.ham-radio
Date: 1990-05-26 16:59:00 UTC
From: davew@cpe.UUCP
Message-ID: <37400012@cpe>
Source record: 11333

I am planning a trip to the UK in September and would like to get a '
reciprocal license. Does anyone know where to apply for one?

I assume that there is an appropriate form and fee required. Any help
and information is appreciated.

David Williams
"Passed the tests, just waitn' for the FCC to digest my 610"
(...microsoft!trsvax!cpe!davew)
Daytime (817) 390-2626

3127. Re: WWV

Newsgroup: rec.ham-radio
Date: 1990-05-26 18:34:12 UTC
From: wb8foz@mthvax.cs.miami.edu
Message-ID: <1990May26.183412.12152@mthvax.cs.miami.edu>
Source record: 11329

In <7880149@hpfcdc.HP.COM> richard@hpfcdc.HP.COM (Richard Artz) writes:

>The atomic clocks are in Boulder, 499 prefix, the antenna farm is on the
>north end of Fort Collins.

Last time I got the tour, there were clocks at both places.
I remember the number in Ft. Collins as 3.

They compared the two sets by looking at a TV station
equaldistant from both places, and relating time to the sync
signal or such. THAT struck me as a bit of lash-up, but they
were happy with it.

--
A host is a host from coast to coast.....wb8foz@mthvax.cs.miami.edu
& no one will talk to a host that's close.....(305) 255-RTFM
Unless the host (that isn't close).....pob 570-335
is busy, hung or dead.....33257-0335

3128. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-05-26 20:11:59 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9005270703.AA10727@ucbvax.Berkeley.EDU>
Source record: 11336

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #701 -
Alouette 1
1 00424U 62B-A 1 90143.97482870 .00000248 00000-0 28755-3 0 3260
2 00424 80.4630 309.9464 0023488 337.6047 22.4082 13.67348077379387
ATS 3
1 03029U 67111 A 90142.68492804 -.00000074 00000-0 99999-4 0 3789
2 03029 13.1768 21.4399 0015629 212.3151 147.5102 1.00272520 82535
Cosmos 398
1 04966U 71 16 A 90144.78341152 .00089186 17344-4 49750-3 0 8878
2 04966 51.5025 297.6666 2289506 103.1750 283.2674 11.02262262589116
Starlette
1 07646U 75010 A 90142.69374957 .00000095 00000-0 16908-3 0 769
2 07646 49.8190 259.0813 0206493 106.9745 255.3890 13.82140148772257
LAGEOS
1 08820U 76039 A 90140.54852092 .00000002 00000-0 00000 0 0 826
2 08820 109.8518 345.6617 0044634 244.1467 115.4691 6.38664018 72179
GPS-0001
1 10684U 78020 A 90135.02785213 .00000008 00000-0 99999-4 0 4297
2 10684 63.7072 90.5779 0117004 199.3695 160.1636 2.00556962 75187
GPS-0002
1 10893U 78 47 A 90141.98331441 -.00000025 00000-0 00000 0 0 1893
2 10893 64.3834 331.2073 0165040 25.9786 335.0424 2.00545445 88144
SeaSat 1
1 10967U 78064 A 90144.28379506 .00001750 00000-0 64809-3 0 3364
2 10967 108.0132 270.8255 0002415 254.7085 105.3794 14.35670372623022
GPS-0003
1 11054U 78093 A 90142.77153556 -.00000024 00000-0 00000 0 0 2273
2 11054 63.9271 327.4966 0059623 117.6617 242.9655 2.00567167 85170
Nimbus 7
1 11080U 78098 A 90135.18859138 .00000105 00000-0 12445-3 0 6760
2 11080 99.1976 40.8596 0008718 166.2796 193.8597 13.83428874583473
GPS-0004
1 11141U 78112 A 90139.37985724 .00000008 00000-0 00000 0 0 3793
2 11141 63.7037 90.3248 0060489 316.3486 43.1534 2.00558433 83809
GPS-0005
1 11690U 80 11 A 90141.51530849 .00000009 00000-0 00000 0 0 9805
```

```
2 11690 64.1955 92.3363 0114675 203.8799 155.5733 2.00556264 89700
GPS-0006
1 11783U 80 32 A 90143.81786223 -.00000024 00000-0 00000 0 0 1489
2 11783 63.7679 327.0523 0150081 60.9630 300.4896 2.00556700 73837
GOES 5
1 12472U 81049 A 90142.00000000 -.00000205 00000-0 99999-4 0 9339
2 12472 3.3543 76.0268 0001280 348.4696 97.4541 1.00223925 31969
DE 1
1 12624U 81 70 A 90142.97965549 .00000028 00000-0 -13758-3 0 4444
2 12624 89.0128 148.1432 6203794 290.6605 15.6910 3.51019898261237
SME
1 12887U 81100 A 90144.64058167 .00056819 00000-0 10309-2 0 6723
2 12887 97.6396 190.6793 0002917 108.8975 251.2521 15.49404875477621
Salyut 7
1 13138U 82 33 A 90144.14729790 .00043996 00000-0 48953-3 0 2715
2 13138 51.6029 65.8230 0002183 114.0252 246.0579 15.62409190461094
Cosmos 1383
1 13301U 82 66 A 90141.98886682 .00000115 00000-0 12394-3 0 5760
2 13301 82.9289 319.9776 0025924 232.7471 127.1336 13.67825967394090
LandSat 4
1 13367U 82 72 A 90143.20221691 .00000594 00000-0 14168-3 0 3444
2 13367 98.1676 206.2206 0003106 190.9069 169.2062 14.57142983417665
IRAS
1 13777U 83 4 A 90143.31478788 .00000065 00000-0 57575-4 0 7771
2 13777 99.0248 340.4960 0013754 97.4772 262.7962 13.98779880 43462
Cosmos 1447
1 13916U 83 21 A 90142.12601580 .00000143 00000-0 14035-3 0 7265
2 13916 82.9434 31.3243 0036480 211.4354 148.4624 13.74039821359092
TDRS 1
1 13969U 83 26 B 90141.99206601 .00000127 00000-0 99999-4 0 9961
2 13969 4.4155 65.9541 0001246 356.2620 3.5170 1.00261056 92857
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1 14050U 83 41 A 90143.53194444 .00000175 00000-0 99999-4 0 1812
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2 14129 25.9838 203.2065 5966345 144.7263 275.5441 2.05881342 24183
GPS-0008
1 14189U 83 72 A 90141.87097250 .00000006 00000-0 99999-4 0 7607
2 14189 63.3477 88.7062 0148381 219.3184 139.5685 2.00706694 50230
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1 14780U 84 21 A 90144.74012127 .00001441 00000-0 32970-3 0 2017
2 14780 98.2064 205.1559 0001472 17.9887 342.1368 14.57137497331307
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1 14781U 84 21 B 90144.18821664 .00002736 00000-0 51446-3 0 7382
2 14781 97.9491 197.5257 0012145 329.2889 30.7646 14.65360581332454
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1 15039U 84 59 A 90143.46166368 .00000006 00000-0 00000 0 0 9402
2 15039 63.1097 87.8436 0021292 241.3245 118.4455 2.00612799 43549
Cosmos 1574
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2 15055 82.9557 81.6843 0029202 37.6802 322.6392 13.73353524296465
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2 15331 82.5387 23.2256 0025372 51.0228 309.3320 14.78073592304536
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2 15427 99.1671 143.6008 0016245 76.7906 283.5075 14.12576075280614
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2 16095 51.6013 62.2657 0001899 109.6630 250.5118 15.62449565262301
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2 16881 82.5189 82.0594 0024432 69.6711 290.7123 14.77555994205638
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2 16908 50.0103 352.3714 0011605 113.8362 246.3777 12.44387250170951
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2 16969 98.6040 172.7910 0013777 344.3742 15.7011 14.23609747191211
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1 17527U 87 18 A 90143.61090469 .00000248 00000-0 20967-3 0 5524
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1 17561U 87 22 A 90143.53194444 -.00000024 00000-0 99999-4 0 5442
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1 18123U 87 53 A 90144.27938778 .00000795 00000-0 43749-3 0 5927
2 18123 98.8204 335.2042 0015623 90.2952 270.0013 14.14033620151027
RS-10/11
1 18129U 87 54 A 90144.02991973 .00000208 00000-0 21763-3 0 1997
2 18129 82.9269 346.3798 0011655 179.3822 180.7365 13.72089768146135
Meteor 2-16
1 18312U 87 68 A 90141.93254173 .00000219 00000-0 18868-3 0 4275
2 18312 82.5518 311.1038 0012666 334.5397 25.5136 13.83645271139351
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Meteor 2-17
1 18820U 88 5 A 90142.10464462 .00000257 00000-0 22012-3 0 2787
2 18820 82.5462 11.1979 0018023 40.6628 319.5877 13.84340544116572
DMSP B5D2-4
1 18822U 88 6 A 90144.26914728 .00000832 00000-0 39759-3 0 4916
2 18822 98.6528 23.7964 0006740 350.3359 9.7688 14.21439878119429
AO-13
1 19216U 88 51 B 90135.35859508 .00000197 00000-0 99999-4 0 1271
2 19216 57.0525 155.0769 6950293 227.1818 48.5912 2.09695352 14714
OKEAN 1
1 19274U 88 56 A 90144.01255727 .00003050 00000-0 42878-3 0 7984
2 19274 82.5172 181.0303 0021524 197.2747 162.7823 14.76956537101359
Meteor 3-2
1 19336U 88 64 A 90143.95390851 .00000391 00000-0 99999-3 0 4889
2 19336 82.5384 294.5715 0018254 17.2463 342.9214 13.16896060 87763
NOAA 11
1 19531U 88 89 A 90144.77668677 .00000952 00000-0 54436-3 0 2853
2 19531 98.9809 93.0606 0011961 355.4554 4.6528 14.11604827 85661
TDRS 2
1 19548U 88 91 B 90140.00000000 .00000152 00000-0 99999-4 0 1288
2 19548 0.0221 74.6829 0002606 4.7527 353.3595 1.00269968 148
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1 19796U 89 11 A 90143.27136713 -.00001084 00000-0 99999-4 0 4840
2 19796 63.1807 96.0344 7098898 319.9212 5.0699 2.00553655 9303
GPS BII-01
1 19802U 89 13 A 90142.03861096 .00000016 00000-0 99999-4 0 1303
2 19802 55.0581 198.4458 0055803 164.4555 195.7971 2.00642300 9225
Akebono
1 19822U 89 16 A 90144.59217864 .00042335 00000-0 30712-2 0 6164
2 19822 75.1449 250.3378 4181689 236.8635 76.0645 7.09537296 31754
Meteor 2-18
1 19851U 89 18 A 90142.06940292 .00000243 00000-0 20864-3 0 2285
2 19851 82.5219 249.2604 0016333 80.2466 280.0547 13.83971007 61958
TDRS 3
1 19883U 89 21 B 90140.00000000 -.00000237 00000-0 99999-4 0 1324
2 19883 0.0464 73.4636 0001318 87.7460 35.0624 1.00258788 74650
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1 20061U 89 44 A 90135.24962722 -.00000032 00000-0 00000 0 0 1331
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Nadezhda 1
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2 20103 82.9565 304.3395 0039101 109.8653 250.6737 13.73589707 44116
GPS BII-03
1 20185U 89 64 A 90135.20864478 .00000016 00000-0 99999-4 0 1268
2 20185 54.9279 199.5760 0024523 156.3286 203.8620 2.00627610 5402
Activnyi
1 20261U 89 80 A 90144.22343259 .00013078 00000-0 41251-2 0 5141
2 20261 82.5964 243.7752 1258198 32.6269 334.6529 12.43724848 29612
Activnyi RB
1 20262U 89 80 C 90142.32847841 .00000995 00000-0 30920-3 0 2364
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2 20262 82.5958 245.0186 1261417 37.0543 331.1227 12.43184894 29375
Magion 2
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2 20281 82.5962 243.6781 1257752 32.3783 334.8525 12.43962096 29624
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1 20302U 89 85 A 90136.47204060 -.00000028 00000-0 99999-4 0 1294
2 20302 54.6464 318.3597 0032189 318.2521 41.5102 2.00376078 4234
Meteor 3-3
1 20305U 89 86 A 90141.68174839 .00000094 00000-0 22910-3 0 1297
2 20305 82.5562 236.6844 0016813 40.2042 320.0340 13.15858763 27462
COBE
1 20322U 89 89 A 90142.08285841 .00005161 00000-0 33951-2 0 1320
2 20322 99.0171 152.5573 0010017 82.2728 277.9645 14.02144055 25838
Kvant-2
1 20335U 89 93 A 90144.84988993 .00083080 00000-0 99231-3 0 2458
2 20335 51.6157 88.3857 0010541 329.4303 30.4322 15.60238613 16022
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2 20361 54.9699 141.6148 0062040 50.1010 310.4793 2.00579149 3041
SPOT 2
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UO-14
1 20437U 90 5 B 90142.89274141 .00000637 00000-0 26982-3 0 1507
2 20437 98.7039 219.0787 0010223 228.5651 131.4469 14.28611994 17253
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1 20438U 90 5 C 90144.24304599 .00000489 00000-0 21191-3 0 860
2 20438 98.7025 220.4095 0009296 223.6163 136.4325 14.28364422 17447
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2 20439 98.7039 218.5151 0010628 229.1515 130.8783 14.28715882 17162
DO-17
1 20440U 90 5 E 90142.18098675 .00000741 00000-0 31046-3 0 826
2 20440 98.7035 218.4490 0010757 229.7609 130.2650 14.28759321 17150
WO-18
1 20441U 90 5 F 90142.24192189 .00000573 00000-0 24299-3 0 824
2 20441 98.7036 218.5247 0011438 228.2713 131.7531 14.28858223 17166
LO-19
1 20442U 90 5 G 90145.10710640 .00000732 00000-0 30525-3 0 827
2 20442 98.7046 221.3983 0011576 221.9768 138.0539 14.28933348 17575
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2 20478 99.1908 214.5302 0001818 109.7259 250.4091 13.94832491 14793
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1 20479U 90 13 B 90144.15135168 .00000003 00000-0 34803-4 0 753
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FO-20
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2 20480 99.0411 188.6183 0541794 121.3290 244.1992 12.83133338 12620
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1 20491U 90 13 D 90136.10780581 -.00000427 00000-0 -77931-3 0 792
2 20491 99.0427 191.4403 0471504 106.3773 258.9702 13.02729566 12220
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1 20494U 90 14 A 90144.84988993 .00083052 00000-0 99231-3 0 1435
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2 20496 43.0927 95.2274 0013510 206.1986 153.8218 15.10377360 14870
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2 20497 43.1061 74.5555 0013875 190.8459 169.2232 15.35683438 15142
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2 20510 82.5244 119.9839 0020133 358.8480 1.2907 14.73089954 12518
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1 20523U 90 21 A 90143.99690577 -.00001540 00000-0 -11741-3 0 1501
2 20523 28.3466 62.2638 0014406 282.0434 77.7494 15.03213826 10806
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1 20525U 90 22 A 90116.74325817 .00006881 00000-0 11809-3 0 1224
2 20525 65.0254 293.0192 0009915 265.8547 94.0928 15.51981409 6691
1990 023B
1 20528U 90 23 B 90116.25209824 .00000318 00000-0 33441-3 0 711
2 20528 82.9402 184.2292 0025359 154.1527 206.0898 13.72643528 5101
GPS BII-07
1 20533U 90 25 A 90140.98718512 -.00000032 00000-0 00000 0 0 473
2 20533 55.0719 17.0265 0033840 99.7665 260.6670 2.00594792 1054
1990 025C
1 20535U 90 25 C 90119.93776890 .00236304 16509-4 17720-2 0 779
2 20535 37.5934 350.2506 5957213 233.0842 56.2815 4.22207149 1462
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1 20536U 90 26 A 90122.10370766 -.00001185 00000-0 99999-4 0 780
2 20536 62.9350 19.4659 7361653 318.4665 4.7275 2.00601511 721
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2 20540 143.2078 10.4627 0690512 76.5175 291.1847 14.62162587 7159
1990 027B
1 20541U 90 27 B 90123.04805883 .00708832 -16106-4 16657-2 0 794
2 20541 143.1984 260.2975 0736069 284.9261 66.9139 14.51751386 4221
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1 20546U 90 28 A 90144.74864608 .00015951 00000-0 99999-3 0 975
2 20546 94.1205 202.6551 0152821 56.6484 305.0361 15.00047512 7328
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1 20547U 90 28 B 90122.74447785 .00003392 00000-0 26009-3 0 760
2 20547 94.1448 191.0320 0130894 131.0001 230.2685 14.95392931 4025
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1 20549U 90116.01026782 0.00000057 43968-3 0 404
2 20549 73.9807 224.1524 0017296 242.0227 117.9069 12.47018719 2487
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Cosmos 2068
1 20553U 90116.10683679 -.00000007 0 405
2 20553 73.9825 223.5724 0030768 57.5033 302.8992 12.56043351 2514
Cosmos 2069
1 20554U 90116.05451226 -.00000006 0 400
2 20554 73.9822 223.7680 0021679 55.3317 304.9776 12.54315162 2509
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1 20555U 90 29 G 90120.39446764 -.00000024 00000-0 -11083-3 0 414
2 20555 73.9810 218.0025 0013351 33.6226 326.5671 12.52583315 3042
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1 20556U 90 29 H 90124.02949648 -.00000007 00000-0 00000 0 0 411
2 20556 73.9817 213.3030 0002572 55.7863 304.3394 12.50727585 3491
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1 20557U 90 29 J 90122.70329070 .00001049 00000-0 95280-2 0 453
2 20557 73.9852 216.8636 0148428 234.1468 124.5703 12.22657531 3258
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1 20558U 90 30 A 90118.10702338 -.00000306 00000-0 99999-4 0 434
2 20558 0.1484 304.1688 0000300 214.8139 201.0181 1.00269829 235
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1 20559U 90 30 B 90133.67279168 .00011178 00000-0 37832-2 0 528
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1 20570U 90 34 A 90137.02166144 -.00000317 00000-0 99999-4 0 514
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1 20571U 90 34 B 90135.25637826 .00001978 00000-0 32479-3 0 554
2 20571 22.7504 176.4934 0628149 118.0040 248.5409 13.82067297 4332
1990 034C
1 20572U 90 34 C 90135.84989660 .00032231 00000-0 39037-2 0 491
2 20572 18.9297 347.9472 7375661 200.8035 96.7659 2.18270624 692
Cosmos 2074
1 20577U 90 36 A 90136.03907435 .00000094 00000-0 93615-4 0 474
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2 20577 82.9451 138.3064 0025496 217.6457 142.2914 13.73710956 3463
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1 20578U 90 36 B 90136.23343766 .00000116 00000-0 10984-3 0 526
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2 20580 28.4702 43.2557 0006169 241.1778 118.8166 14.84320861 4381
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1 20581U 90 38 A 90144.24709396 -.00004275 00000-0 -17923-3 0 877
2 20581 74.0254 356.0235 0023185 277.7210 82.1092 15.23022306 4379
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2 20582 74.0294 359.4297 0031040 293.1471 66.6509 15.24541833 4124
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1 20583U 90 39 A 90144.15730607 .00000070 00000-0 -16867-2 0 793
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1990 039B
1 20584U 90 39 B 90144.83967752 .03903616 41472-4 10039-2 0 1048
2 20584 62.7619 78.2685 0067648 125.7776 235.2487 16.21902308 4540
1990 039C
1 20585U 90 39 C 90143.00299260 .20468736 43342-4 40268-3 0 1065
2 20585 62.8104 85.7676 0038637 119.0946 241.4648 16.42373635 4259
1990 39D
1 20586U 90 39 D 90143.60954820 .00000419 00000-0 68663-3 0 226
2 20586 62.8248 184.0281 7395335 288.1806 9.3720 1.96420289 535
Cosmos 2076
1 20596U 90 40 A 90140.43592262 -.00001123 00000-0 18585-2 0 338
2 20596 63.0470 336.4823 7378466 318.4128 4.4963 2.00612122 441
1990 40B
1 20597U 90 40 B 90144.75265162 .02278390 40065-4 10912-2 0 714
2 20597 62.8093 240.6705 0105258 118.7545 242.5981 16.08880787 4131
1990 40D
1 20599U 90 40 D 90144.58281151 -.00000772 00000-0 45121-3 0 272
2 20599 63.1799 335.5428 7351883 318.5347 4.4816 2.03490017 535
Progress 42
1 20602U 90 41 A 90144.91397539 .00054728 00000-0 65860-3 0 274
2 20602 51.6166 88.0591 0010255 327.1455 32.9027 15.60220336180514
Cosmos 2077
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2 20604 62.8360 29.6479 0112523 15.8681 344.6911 16.07320776 2659
1990 043A
1 20607U 90 43 A 90138.62376053 .00001191 00000-0 22151-3 0 137
2 20607 89.8927 195.1221 0110687 249.3349 109.5974 14.60755225 1304
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1990 044A
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1 20615U 90 44 A 90144.22287104 .00274709 58231-5 21222-3 0 283
2 20615 69.9912 37.8532 0046850 14.8302 345.3427 16.12118530 1424
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2 20616 69.9895 52.6361 0010629 56.4710 303.9306 16.48103991 621
1990 045D
1 20622U 90 45 D 90139.71514960 .22460648 37705-4 13934-3 0 21
2 20622 64.8674 38.8465 0010650 258.4808 102.3977 16.53666045 67
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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3129. QSL Info

Newsgroup: rec.ham-radio
Date: 1990-05-27 02:48:53 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <682.265F43DC@weyr.FIDONET.ORG>
Source record: 11334

I need help locating QSL information for the follwoing:
V85TT
5A8CZ
5A7JAD
HZ1HZ
TT8CW
Please e-mail any information that you might have directly to me at
the fidonet address listed below.
TNX, 73's - Syl VE5ZX

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

3130. Re: Callsign restructuring

Newsgroup: rec.ham-radio
Date: 1990-05-27 05:50:54 UTC
From: kjh@pollux.usc.edu
Message-ID: <24932@usc.edu>
Source record: 11335

In article <9005250813.AA16300@ucbvax.Berkeley.EDU> MROWEN@STLAWU.BITNET (Mike Owen W9IP) writes:
>here in New York
>people only toggle to the obvious implication of my callsign.
>Mike Owen, W9IP/2

That's funny. I wouldn't expect that most hams would know that IP stands for "Internet Protocol", in NY or anywhere else!

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

3131. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-27 13:29:13 UTC
From: jay@splut.conmicro.com
Message-ID: <7&A-G2&@splut.conmicro.com>
Source record: 11337

In article <9005251954.AA06231@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>Robert Casey (rfc@briar.Philips.com (Robert Casey)) mentions commercial
>radio call sign "NERD" and wondered if there were a "N3RD". How about
>a new "B" prefix? It would be great for one of our private pilots...
>it could be "B1RD".

There was an article in one of the aviation magazines a few months ago
that featured a family named Bird; all of their aircraft were registered
as Nx81RD. One of their helicopters even had the 8 modified to look more
like a B.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
Teaching a Yankee to be polite is a lot like teaching a Texan to be humble.

3132. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-27 15:12:37 UTC
From: tad@ssc.UUCP
Message-ID: <758@ssc.UUCP>
Source record: 11340

In article <9005230703.AA26136@ucbvax.Berkeley.EDU>, MCL9337@TAMVENUS.BITNET writes:
>
>
> I understand that you used to be able to pick your own. Is this true? One of
> our more notable hams in town, Tom Comstock, has N5TC.
>

Years ago you could request a "custom" call for $20.00. I think you
had to be General class or higher to do this.

For a period in the 1970s if you upgraded to Extra, you could choose
a 2 letter suffix of a 1x2 call to your liking. My pal K7JCA chose
K7SS, because it was snappy in contests (especially ARRL Sweepstakes).

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3133. Stealth Paint Needed

Newsgroup: rec.ham-radio
Date: 1990-05-27 15:53:49 UTC
From: john@anasaz.UUCP
Message-ID: <2341@anasaz.UUCP>
Source record: 11338
Cross-posted to: rec.ham-radio,sci.electronics

I would like to paint my HF beam with some camo-colors so as to reduce its visual impact. I tried this once before with a 2-meter beam, and the effect was stunning - the antenna just disappeared. I should mention that the only angles at which it was visible in the first place were from a long distance, horizontal, with mountain/ folliage backdrop.

The problem is that the paint apparently had a significant dielectric effect, screwing up the antenna. I certainly don't want to mess up my HF beam!

Does anyone KNOW where to get paint with minimal effect, that can be applied directly to aluminum radiating surfaces? Does anyone know what this stuff is called, or specific brands?

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3134. Re: HST transmissions

Newsgroup: rec.ham-radio
Date: 1990-05-27 22:13:14 UTC
From: schaper@pnet51.orb.mn.org
Message-ID: <2631@orbit.cts.com>
Source record: 11339
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

Does this mean that some people with the proper equiptment could intercept
digital image downloads from the HST, (in the future of course)?

UUCP: {amdahl!bungia, uunet!rosevax, chinet, killer}!orbit!pnet51!schaper
ARPA: crash!orbit!pnet51!schaper@nosc.mil
INET: schaper@pnet51.cts.com

3135. Request for mods for Pro-38 handheld scanner

Newsgroup: rec.ham-radio
Date: 1990-05-28 00:19:47 UTC
From: whorfin@pixar.uucp
Message-ID: <11034@pixar.UUCP>
Source record: 11341

If anyone knows of mods to the Radio Shack Pro-38, would you please mail them to me? This might even be of general interest, since I could not find them on the hamster archive. I'm particularly interested in adding 800 Mhz coverage, adding 66-88 Mhz, and expanding the channel memory. Responses which say ``you can't do that'' are also welcome.

Thanks.

Rick Sayre "Use more honey;
ucbvax!pixar!whorfin find out what she knows"
ucbvax!pixar.com!whorfin (after 6/15)

3136. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-28 02:14:17 UTC
From: thomas@mvac23.UUCP
Message-ID: <252.UUL1.3#5131@mvac23.UUCP>
Source record: 11342

> So... let's hear your stories about how you were rescued from various real
> and not-so-real emergencies thanks to the radio. I carrry my HT with me
> EVERYWHERE I go, and people give me a hard time about it. But I know that
> it will come in very handy someday when there is some form of accident or
> other incident that precludes my getting to a telephone.

I met a fellow recently who carries his HT with him on his belt loop like
an official looking person. Both he and his wife have tickets, so when
he is out and about town he can contact her via a local repeater. So
his HT is basically a cellular phone! (Actually more truth to that since
the repeater he hits has an autopatch).
- tom

--
internet : mvac23!thomas@udel.edu or thomas%mvac23@udel.edu
uucp : {ucbvax,mcvax,psuvax1,uunet}!udel!mvac23!thomas
Europe Bitnet: THOMAS1@GRATHUN1 Location: Newark, DE, USA
Quote : The only way to win thermonuclear war is not to play.

--
The UUCP Mailer

3137. Uniden 2600 mod warning

Newsgroup: rec.ham-radio
Date: 1990-05-28 03:42:40 UTC
From: rfc@briar.Philips.Com
Message-ID: <97054@philabs.Philips.Com>
Source record: 11343

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
27353 BF 1022 0 0527/1129 449_N3DFD WA2RCB ALL@ALLBBS ()
Sb: UNIDEN 2600 UPDATE

AS YOU ARE PROBABLY AWARE, THE UNIDEN 2510 WAS CAPABLE OF EXPANDED
FREQUENCY COVERAGE WITH A SIMPLE MODIFICATION. THE NEW UNIDEN 2600
HAS A DIFFERENT TYPE CONTROLLER, A UC1202. THE DESIGN OF THE CIRCUT
BOARD AROUND THIS CHIP HAS ALSO BEEN CHANGED. DO NOT ATTEMPT ANY
MODIFICATION OF A 2600 WITH THIS CHIP INSTALLED. ANYONE HAVING ANY
MODIFICATIONS FOR THIS GENERATION RADIO WOULD BE APPRECIATED.

Signed: WA2RCB @ N3DFD.Phila. Pa.. Z:19124. F:144.99/145.01. (GEORGE).

==========
A notice found on a piece of test equipment made in Japan:
"IT PUT ON THE VINYL SHEET ON THE SURFACE OF UPPER & LOWER PANEL FOR THE
PROTECTION PLEASE USE AFTER TEAR OFF VINYL SHEET WHEN USING.

3138. Hamster??

Newsgroup: rec.ham-radio
Date: 1990-05-28 13:48:00 UTC
From: perry%mbian.decnet@BEACH.GAL.UTEXAS.EDU
Message-ID: <9005290700.AA02859@ucbvax.Berkeley.EDU>
Source record: 11344

I have seen several references to the Hamster-Archives. What
is that? Where is it? Is it ann FTP site? I guess you can tell I
am new to all of this.

John Perry - KG5RG
University of Texas Medical Branch
The Marine Biomedical Institute
200 University Blvd. H-43
Galveston, Texas 77550-2772
Voice : (409) 761-2124
FAX : (409) 762-9382

You can send mail to me at any of the following addresses:

DECnet : MBIAN::PERRY
THEnet : MBIAN::PERRY
Internet : perry%mbian.decnet@beach.gal.utexas.edu
BITNET : PERRYJ@UTMBEACH
SPAN : UTSPAN::UTADNX::MBIAN::PERRY
CSNET : perry%mbian.decnet%beach.gal.utexas.edu@RELAY.CS.NET

3139. FUNKY CW CALLS

Newsgroup: rec.ham-radio
Date: 1990-05-28 17:17:00 UTC
From: greg.trice@canremote.uucp
Message-ID: <b00693cafdc12661792c@canremote.uucp>
Source record: 11345

Is I5E the shortest possible ham call on CW? And 0Q0QJY the longest?

3140. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-28 18:46:24 UTC
From: davidn@tekigm2.MEN.TEK.COM
Message-ID: <9296@tekigm2.MEN.TEK.COM>
Source record: 11346

In article <1990May25.124640.7792@cbnewse.att.com>, waco@cbnewse.att.com (john.l.broughton) writes:

> QSL managers. However, some would appear to make more than a 'little'
> at it. These people tend to tick me off a bit. I recently had the
> ocassion to work some stations who have OH2BN for a QSL manager (he
> seems to be a popular manager). As usual, I sent my card with a green
> stamp for each contact as they were worked at different times. I have
> received one card back. Guess what? It was mailed from California with

Boy, you must really have trouble with the managers who accept direct cards, but only reply via bureau.

> a 25-cent stamp. Say he handles QSLs for a dxpedition and gets 1,000
> cards from U.S. hams with a green stamp. He spends $250.00 for stamps
> and keeps $750.00. This is more than a making a little money. I have

Are you ignoring the postage from Finland to California? In case the cards were hand carried to California, the round trip air fare?

What is this really costing you? You sound as if you would be happy if the manager had spent all your money on postage. Why not just be happy you got the card?

> If QSLs are to be mailed back from the U.S., the QSL information should
> include the fact that an sase should be sent with the card. I have no
> problem with honesty, but do have a problem with deception! It is good

This information is not always known before or during an operation.

> John L. Broughton WB9VGJ
> AT&T Bell Laboratories
> 1200 E. Warrenville Rd.
> Naperville, IL 60566-7045
> (708) 713-4319
> john.l.broughton@att.com

Let us all stop complaining and have some fun!

David, AB9O

3141. Re: Need help with Apple2 146.76Mhz birdie (please).

Newsgroup: rec.ham-radio
Date: 1990-05-28 19:07:43 UTC
From: mattila@hemuli.tik.vtt.fi
Message-ID: <4940@hemuli.tik.vtt.fi>
Source record: 11361
Cross-posted to: comp.sys.apple2,rec.ham-radio,sci.electronics

If you can not detune Apple II's clock oscillator (because of NTSC monitor), try putting FR chokes to all leads coming out of the Apple II main unit. There are quite good two part put together chokes made by Amidon Associates, Inc in the USA. Using these there is no need to remove any connectors or cut cables. Put whole cables thru chokes as near as possible to the Apple II main unit. Ask help from a radio amateur or look up some book on RFI.

--
Sakari M. Mattila 71307.1525@CompuServe.COM
mattila@tik.vtt.fi Sakari Mattila@3:663*371.0.FNET

3142. Log software

Newsgroup: rec.ham-radio
Date: 1990-05-29 00:46:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005290701.AA02908@ucbvax.Berkeley.EDU>
Source record: 11347

I'm thinking about writing the ultimate contact log program in Turbo C.

I would like to take ideas about what the program should be able to do. Send me your ideas by direct email, please. This should be fun.

Mark Lowe - KB5III

MCL9337@TAMVENUS.BITNET

3143. Re: FUNKY CW CALLS

Newsgroup: rec.ham-radio
Date: 1990-05-29 01:20:28 UTC
From: jay@splut.conmicro.com
Message-ID: <XNB-4A#@splut.conmicro.com>
Source record: 11348

In article <b00693cafdc12661792c@canremote.uucp> greg.trice@canremote.uucp (GREG TRICE) writes:
>Is I5E the shortest possible ham call on CW?

Given current ITU/ICAO callsign block assignments, yes. The only shorter ham call would be E5E, and there's no current assignment for the E5A-E5Z block.
I don't know if the Italians would assign it, though.

> And 0Q0QJY the longest?

Again, assuming current callsign block assignments, this one's not valid. I don't believe 1AA-1ZZ is assigned, either, so that makes the longest calls [JY]00[JQY][JQY][JQY]. I think Y0A-Y0Z is assigned to the DDR (for now), but can't guess about J0A-J0Z.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
Teaching a Yankee to be polite is a lot like teaching a Texan to be humble.

3144. WPX CW TEST

Newsgroup: rec.ham-radio
Date: 1990-05-29 01:28:09 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <683.2661E6C2@weyr.FIDONET.ORG>
Source record: 11349

How was your WPX CW Contest? At this location things were lousy. It seemed as though I was in a BLACK HOLE. About 2050Z on saturday there
was a complete blackout of everything from DC to light. For about 45 mins WWV on all frequencies was completely wiped out. There was not
a single amateur station to be heard on 14/21/28. During the whole
time of the contest I worked every european station I heard - six
stations - 2 DJ's, 1 G, 2 YU's and 1 Y41. Not a single OK/LA/ON/OH,
etc was heard. Even more dissappointing not a single JA was heard.
The contest at this location (which is about 300 miles north of the
North Dakota - Sask border) was very, very bad. Just for the fun of
it I tried to work as many state side and SA stations as I could.
My approx 20 hours of effort yielded 245 QSO's - I can normally do that
on a good sunday afternoon. Did any of the rest of you experience
a similar WPX contest?

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

3145. Packet radio advice

Newsgroup: rec.ham-radio
Date: 1990-05-29 02:42:04 UTC
From: lehmann@g.gp.cs.cmu.edu
Message-ID: <9446@pt.cs.cmu.edu>
Source record: 11350

I am interested in setting up a packet radio station. I plan to operate both HF and VHF. I may also want to operate RTTY. The transceiver end will be a kenwood 440s or a kenwood 2m HT. The computer is a mac plus. I am looking for hardware/software recommendations and advice.

Interesting TNC/Data controllers include:
MFJ 1278 (Data Controller), 1270, 1274 (TNCs)

AEA PK-232 (Data Controller), PK-88 (TNC)

Kantronics KAM (Data Controller), KPC-4, KPC-2, KPC-2400

I will attempt to buy the equipment used so please note any problems of early models.

If you have any recommendations or advice please send me mail. I will summerize for the net.

-Eric, n3hut

3146. Hallicrafters SX-122

Newsgroup: rec.ham-radio
Date: 1990-05-29 02:58:25 UTC
From: turner@ICS.UCI.EDU
Message-ID: <9005281952.aa04811@ICS.UCI.EDU>
Source record: 11351

Greetings:

I just found a Hallicrafters SX-122 sitting in the trash. I want to revive it for old times sake (been a ham since these things were state of the art....)

Anyone have a manual or schematic for this radio? I would be thrilled to find one.

Clark S. Turner "When the going gets weird,
WA3JPG the weird turn pro."
turner@ics.uci.edu -Hunter Thompson

-and via US Mail:
Dept. of ICS,
University of California, Irvine
Irvine, CA. 92717.

3147. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-29 04:42:01 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990May29.044201.16152@cbnewsk.att.com>
Source record: 11352

> This is NOT meant to flame Steve. I greatly appreciate the efforts of
(WHEW!)

Thanks for the pat on the back John! You bring up a good point.
However, this happens quite often. For example, some guys do this,
who manage their own qsl cards, to 'fund their dx-peditions. While
I don't know this for sure, i believe ZL1AMO does this, as each card
I have sent him comes back with a us stamp. Worse than this, is the
F6 manager who requires 2 bucks for airmail reply. send one buck,
and it comes back via the buro, send a sase, and it gets trashed. I
believe this is what is happening, and has been written up in many
dx magazines. Some awards will no longer accept his qsls any more!

I guess it would be interesting to find out what happens to
the 'difference' between the money you send and the us stamp that is
used. If it goes for a 'good purpose', i.e, other than lining ones
wallet, then I suspect that, if the delay incurred in making this
happen is insignificant, maybe it is ok. I know that, for a dx
station to get a card from me, two ircs are worth 80 cents at the
post office, and 1.00 in the ham market. the stamp is 45 cents for
return air mail, and the card ranges from 2-4 cents. If
a 'donation' is included (i.e., more than 2 ircs, etc..) i usually
include a note and a picture of the ham, or some such thing. I keep
pretty accurate records, which is easy once you organized to do it
(which is a must for QSL managing!).....and as I mention before, use
it to help the dx ham out. For the garden variety dx i manage,
i.e., 8p6 and ti, i run in the red.....as some stations do not even
include sases. For the xx9 stations i manage, they generate money
in the 100's of dollars when active. thus....purchases of
significant equipment are possible. You can argue whether this is
the 'best, or appropriate' use of the money, but it seems that any
other use would come under more fire!

cheers, and thanks for the kind words for QSL managers in
general..for the most part, they are a GREAT group of people.
Consider the XX9 station i manage for, before me, hadn't answered a
QSL in 3 years! I carried over 7000 qsl cards back from my first
trip there...
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

3148. Re: 100 GHz and up

Newsgroup: rec.ham-radio
Date: 1990-05-29 06:21:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500551@ux1.cso.uiuc.edu>
Source record: 11353

KE9TV writes...
> Just for pedantry, the angle is not normally the phase angle of the
> carrier relative to some absolute phase reference, but the phase shift
> between the previous symbol and the current one. That way the
> modulation scheme is self-clocking.

If the data is scrambled properly, it is virtually assured of self clocking. It really does not matter if you rotate your relative angle each time you transmit a symbol; there is still a chance that some data will lose clocking on you. In the unscrambled case, consider 0000 in both absolute and relative angle systems. If not 0000, then whichever symbol will result in no angle change. With scrambling, though, it probably does not matter.

> Also, the 4x4 grid isn't quite square; it's more of a pincushion.

I would guess an array of points in a hexagonal arrangement would be ideal, but the circuitry would be more complex. Think of the problem as packing a number (in this case specifically 16) small circles in a larger one. Add to that the mathematical formula for deriving the circle id from a coordinate in the larger circle needs to be as simple as possible.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3149. Re: Any mods for Yaesu FT736R?

Newsgroup: rec.ham-radio
Date: 1990-05-29 06:33:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500553@ux1.cso.uiuc.edu>
Source record: 11354

> >available only-in-Japan to do the 70-71 MHz band. The 220-225 MHz range
> >never wound up as an available unit. Too Bad! I'd guess that one could
>
> An interesting report, Erik. But are you describing the ft736 or the ft726
> or what? My ft736 covers 430-450 with one module, and I am sure the 220
> module is available. The ft736 comes with 2m & 70cm; you can add 2 more
> band units, choosing from 6m, 220Mhz, and 1.2GHz.

When I played with the FT-736 at Dayton 1.1 years ago, it tuned through the 220-225 Mhz band just fine. Kenwood and Icom didn't see fit to consider the non-Oscar VHF DX-er.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3150. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-29 06:37:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500554@ux1.cso.uiuc.edu>
Source record: 11355

> I suspect that what you heard was an image frequency. Most news media
> (on the UHF band) is situated from 450 to 451 MHz. Try looking up the
> IF (intermediate frequency) of the UHF receiver portion of your scanner,
> multiply by 2 and add it to 407.750. See if the real channel is not
> 450.xxx. In order to obtain the wide tuning ranges, most scanners do
> not have tuned "front ends", thus are susceptible to images; a frus-
> trating, but common, problem.
>
> Ken Wyatt (kenw@col.hp.com)

407.750 + (2 * 21.4 [a common IF]) = 450.550 [a common radio remote link]

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3151. Re: Advice needed (requesting permissio

Newsgroup: rec.ham-radio
Date: 1990-05-29 06:42:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500555@ux1.cso.uiuc.edu>
Source record: 11356

> Since my prime interest in radio is monitoring railroad frequencies,
> specifically Conrail, on a whim I wrote to my local chief, politely
> asking for such a permit. To my shock, he returned a letter saying
> YES, provided I gave him:

What about the NOAA weather frequencies ??????????????????????????????

> 1. my reason for asking to listen to these frequencies.
> (no problem).
>
> 2. "provided you present me with proof that Conrail has no
> objection to you monitoring them".

IN the case of NOAA, there are good reasons, and they surely do not mind.

> This brings many questions to mind:
>
> 1. Will Conrail provide me with such proof?

Conrail and NOAA might both laugh an the "need" for such proof.

> 2. How should such a request be worded/phrased to eliminate
> a negative reply?
>
> 3. Is "proof" the fact that under the ECPA and Communications
> Act of 1934, Conrail hasn't any business objecting ANYWAY?
>
> Any ideas??? Thanks very much,

Try the NOAA approach.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3152. Re: Damped waves, B waves

Newsgroup: rec.ham-radio
Date: 1990-05-29 06:48:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500556@ux1.cso.uiuc.edu>
Source record: 11357

> Does anyone out there hapen to know what a 'damped wave' or 'B wave' is?
> They're mentioned in the FCC rules, Title 47, part 97 (that's us, boys!)
> and are _strictly_prohibited_. Is this some old spark-gap stuff, or is
> it a vague reference to 'Berthold Rays' from Star Trek? Inquiring minds
> gots'ta know....See ya on DaveTV (427.25, 439.25)

They are also mentioned all over the place in (as far as I can tell) every radio service. So far I have not found the actual definition of damped waves, but I'm guessing it is spark-gap. The "damping" is the filtering used to select a frequency of a broad nature. I supposed if this is the case, one could argue that the non-coherent radiation from an incandescent light bulb through a narrowband Wratten* or dichroic filter would be prohibited by this.

[*Wratten is a trade-mark of Eastman Kodak]

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3153. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-29 12:12:39 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990May29.121239.28784@cbnewse.att.com>
Source record: 11358

charlie@oakhill.UUCP (Charlie Thompson):

> .... I cranked up my BC-210, R-7000, and MX4000 to listen ...
> Much to my surprise I found a local AM radio station (KLBJ-AM) using
> 407.750 MHz as studio-to-remote director's link.

In article <30500554@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:

> > I suspect that what you heard was an image frequency...
> 407.750 + (2 * 21.4 [a common IF]) = 450.550 [a common radio remote link]

In an earlier posting, I suggested Charlie heard a spur rather than an
image. An image seemed unlikely given that the BC-210, R-7000, and
MX4000 have different IF frequencies.

Perhaps Charlie could reiterate whether he heard the signal on
all three receivers.
--
==
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

3154. Looking for a Butternut Butterfly antenna

Newsgroup: rec.ham-radio
Date: 1990-05-29 13:40:32 UTC
From: henderson@hamavnet.com
Message-ID: <1672.26621960@hamavnet.com>
Source record: 11359
Cross-posted to: rec.ham-radio.swap,rec.ham-radio

Hello, good people,

I am looing for a used Butternut Butterfly antenna. Does anyone have one that's willing to part with?

Thanks,

Javier Henderson | crash!simpact!hamavnet!henderson | These opinions
Engineering Services | Ham Packet: N6VBG @ KD7XG-1 | are all mine.
Hamilton Avnet | WWIVNet: 1@2397 |

3155. Re: WPX CW TEST

Newsgroup: rec.ham-radio
Date: 1990-05-29 13:42:06 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990May29.134206.17845@elroy.jpl.nasa.gov>
Source record: 11360

In article <683.2661E6C2@weyr.FIDONET.ORG> katz@weyr.FIDONET.ORG (SYLVAN KATZ) writes:
>How was your WPX CW Contest? At this location things were lousy. It seemed as though I was in a BLACK HOLE. About 2050Z on saturday there
>was a complete blackout of everything from DC to light. For about 45 mins WWV on all frequencies was completely wiped out. There was not
>a single amateur station to be heard on 14/21/28. During the whole

Ahhh-HAH! More of those mysterious high-latitude, iron-ore and fresh water signal-eating antics! Gotta have something to do with sitting smack-dab in the middle of the Laurentian Shield!

@:^)

- jon NW6H

--
Jon Trent Adams, NW6H | "Per Aspera Ad Astra" A Dead Roman
JTA@hydra.jpl.nasa.gov | Way-Rad : Opinionated : Single : Prevaricator :
"jpl don't know me from squat"| Raconteur : Engineer : President, Local Chapter
Ghenghis Khan Fan Club : Honorable Mention, "Calvin" Lookalike Contest

3156. Re: 2M antenna ideas for Dodge caravan wanted

Newsgroup: rec.ham-radio
Date: 1990-05-29 15:08:19 UTC
From: bobc@hplsla.HP.COM
Message-ID: <5720069@hplsla.HP.COM>
Source record: 11362

I have a Ford Aerostar that had exactly the same problem. What I did
was use a 1/2 wave glass mount antenna. The Aerostar has small triangular
windows between the doors and the windshield. These are windows are low
(and thin). I mounted the antenna on the drivers side window. Now, this
installation isn't optimal. The antenna runs very close to the door pillar
and protrudes only a few inches above the roof line. Also, I can't run more
than 15W without affecting the electronic instruments (which aren't far
away). All things considered, it works pretty well.
--

Bob Cutler
KE7ZJ
Hewlett-Packard
Lake Stevens Instrument Division
hplsla!bobc

3157. E-skip city!!

Newsgroup: rec.ham-radio
Date: 1990-05-29 15:34:02 UTC
From: price@MARLIN.NOSC.MIL
Message-ID: <9005291534.AA12629@marlin.nosc.mil>
Source record: 11363

```
-------
Well, two unusual occurances in San Diego yesterday--it rained
almost an inch (probably hasn't rained in Southern Calif. on
Memorial Day for 50 years) AND the TV was hopping with E-skip all
day long! The 6-meter guys were going nutz with working rare grid
squares, too.

Over the course of the day I logged:

KUSD 2 Vermillion, S.D.
KXMA 2 Dickinson, N.D.
KMID 2 Midland, TX
KTWO 2 Casper, WY
KBTX 3 Bryan, TX
KSNW 3 Wichita, KS
KENM 3 Portales, NM
"Prairie Public TV" on channel 3--don't know where.

And there was lots of other stuff, too, incl. channels 4 and 5.
But I couldn't stay glued to the TV all day!

Anyone else have some VHF fun yesterday?

--Jim, K6ZH
-------
```

3158. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-29 16:15:40 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <46012@iuvax.cs.indiana.edu>
Source record: 11364

>...The drunks practically came unglued! There were several minors at
>this party and they thought we were cops!! Things settled down VERY
>quickly, and we left without further incident. Ham radio saved the day!
>
>So... let's hear your stories about how you were rescued from various
>real and not-so-real emergencies thanks to the radio...
>
>Mark Lowe - KB5III

Our local 2m repeater used to be housed in the elevator-machinery room
of a building on the local university campus. The door to the room
was at the top of a stairway that went nowhere else except a locked
roof door.

One early Sunday morning, a ham went to the repeater site to make
minor repairs. He carried his h-t on his belt. When he arrived at
the machine-room door, he surprised two students smoking dope.

"You're a plainclothesman, aren't you?" one of them asked.

"Well, yeah, I've got my plain clothes on."

"Will this be alright?" asked the doper, handing him a $20 bill.

"Sure. You boys be careful, now," he said as they departed.

--

Frank W9MKV reid@ucs.indiana.edu

3159. Re: 100 GHz and up

Newsgroup: rec.ham-radio
Date: 1990-05-29 16:17:13 UTC
From: koning@koning.enet.dec.com
Message-ID: <12012@shlump.nac.dec.com>
Source record: 11365

> If the data is scrambled properly, it is virtually assured of self clocking.
> It really does not matter if you rotate your relative angle each time you
> transmit a symbol; there is still a chance that some data will lose clocking
> on you. In the unscrambled case, consider 0000 in both absolute and relative
> angle systems. If not 0000, then whichever symbol will result in no angle
> change. With scrambling, though, it probably does not matter.

That's a common misconception. Scrambling has no effect on whether
a code is self-clocking. All it does is change WHICH user data pattern
causes absence of clocking.

Unfortunately this mistake is common in certain parts of the communication
industry. The reality is that the ONLY way to have guaranteed clocking is
to use a code that has minimum transition density guarantees. For example,
FDDI is self-clocking; SONET is not.

paul

3160. Heath/Zenith Canada has committed Suppuku

Newsgroup: rec.ham-radio
Date: 1990-05-29 16:54:25 UTC
From: tech@cs.AthabascaU.CA
Message-ID: <1912@aurora.cs.athabascau.ca>
Source record: 11366

I ordered a Heathkit TNC in early April and today the order was returned with the announcement that all Heath Canada stores except Mississauga are closed and Mississauga is gone by July. I was referred to Benton Harbour.

Apparantly Heath Canada was not unsuccessful but is more a victem of the new Corporate masters. Something like Studabaker.

Is this the beginning of a trend? Is Heathkit marked for execution? I know that Heath is no longer the major force that they were in the fifties through early seventies but I would still miss them.

The homogenization of planet earth.

--
Richard Loken VE6BSV : "If it doesn't copy Campy
Athabasca University : then its just a marketing
Athabasca, Alberta Canada : gimmick." - M. S. Lueke
tech@cs.AthabascaU.CA {alberta|decwrl}!atha!tech :

3161. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-29 17:09:25 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990May29.170925.26184@portia.Stanford.EDU>
Source record: 11367

Last summer, I drove from California to eastern North Dakota. While passing through Bozeman, Montana, I decided to fire up my 2m handheld, and see if I could get into the Bozeman 2m machine. So, with a QSO in progress, I look in my rear - view mirror, to see a Montana HP car with his lights on. Having been through the routine before (owning a performance car has its problems), I pulled over, and reached for the registration stuff. I noticed that the officer wasn't carrying anything, so maybe I was going to get off with a warning. Down goes the window...

"Hi Officer. What can I do for you?"

"Could I borrow your radio?"

(Shock, relief, puzzlement...)

"Are you a ham?"

"Yep"

"What's your call?"

"N7..."

So, I hand him the HT. He brings up the patch on the repeater, calls his wife, tells her he's going to be a few hours late because someone didn't show for his shift, hands me back the radio, and says thanks, and starts walking away. He then turns around, and says:

"Oh, by the way, you really should get ham license plates. We generally don't pull over hams unless they do something really stupid."

Yep, needless to say, I now have ham plates.

-=Paul Flaherty, N9FZX/VK2WYX | "Unix could use a more user-friendly front
->paulf@shasta.Stanford.EDU | end. Does anyone have a card punch handy?"

3162. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-29 17:16:30 UTC
From: jdn@casux4.uucp
Message-ID: <23686@bellcore.bellcore.com>
Source record: 11368

In article <9005251954.AA06231@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>Robert Casey (rfc@briar.Philips.com (Robert Casey)) mentions commercial
>radio call sign "NERD" and wondered if there were a "N3RD". How about

N3RD is Dave, a very active contester, member of the Frankford Radio
Club, and first class operator.

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3163. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-29 17:26:57 UTC
From: jenkins@jpl-devvax.JPL.NASA.GOV
Message-ID: <8223@jpl-devvax.JPL.NASA.GOV>
Source record: 11369

I was walking along a busy street one afternoon when two cars hit nearly head-on. I whipped my 2m HT from my belt and walked out into the street to get a better look at one driver, who was dazed and bleeding, but apparently not seriously hurt. I autodialed 911 and had the report in within 20 seconds or so.

While I was in the street my wife overheard a bystander say "He must be a cop or something."

The funny part was that a paramedic ambulance, probably just leaving Cedars-Sinai emergency (half a block away), happened upon the scene almost immediately. The whole thing took less than a minute. By then, I was no longer a cop, but somebody *really* important, because when *I* called, they got there in a hurry!

--
Steve Jenkins N6UNI jenkins@jpl-devvax.jpl.nasa.gov
Caltech/Jet Propulsion Laboratory (818) 354-0162

3164. TH215A Speaker woes

Newsgroup: rec.ham-radio
Date: 1990-05-29 18:06:34 UTC
From: Joel_Glickman@MTS.RPI.EDU
Message-ID: <1831292@MTS.RPI.EDU>
Source record: 11370

David A Rasmussen writes:

>I turned on my kenwood Th215 the other day and got no audio from the speaker.
>The earphone jack still works but I hadn't used that before the speaker died.
>Is this anything for someone whose electronics experience has been limited to
>soldering heathkit terminals together to look at, or is this a job for the
>folks at amateur electronic supply?

David, I had the *exact* same problem with my brand new TH215A. I think I bought the thing about 2 years ago and when I received the radio, it was in perfect working order. About 5 days later, the speaker just cut out on me. There was still audio coming out of the speaker jack however. The remedy to this problem was to order a new speaker from Kenwood. The speakers have these hair-thin wires that tend to break very easily and I suspect that this is what happened to you. It is fairly simple to replace the speaker. Simply take the cover off of the 215, desolder and pry the speaker out of the front panel. Resolder and replace with a new speaker from Kenwood. You will want to apply some kind of adhesive to the edge of the speaker to firmly secure it back in place. It should only take you less then 10 minutes... The phone number for the Kenwood parts dept. is (213) 639-9000.

Joel Glickman
Rensselaer Polytechnic Institute
Home of W2SZ and W2SZ/1 - Getting ready for June!

3165. network analyzers

Newsgroup: rec.ham-radio
Date: 1990-05-29 18:11:00 UTC
From: UCSBPM@UWPLATT.EDU
Message-ID: <899259EA97FF203FB1@uwplatt.edu>
Source record: 11371

A while ago someone posted plans for a 2-meter J-pole. Then some
one said "use a network analyzer to find the 50 ohm point"
to which someone else replied "Ya, like we have one, dream on, dude"

Well, it just so happens I have one, well, ahave acess to one. Here
at UW-Platteville, we have TWO HP 3577A (5Hz-200MHz) network analyzers
(while I'm bragging, let me empisize that UWP is only one of 4 or 5
universities that has these for undergrad use, and i think the only
one that has 2 and lets sophmores at them, also, UWP graduated
approx 30 EE's this may)

(brag mode off)

We also have an s-parameter test set along with 50.000 ohm resistors
How do I use a network analyzer to find the 50 ohm point? I'm familiar
with smith charts and the general operation of the machine, but since
I'm a digital emphisis, I don't really have experience with doing
this sort of thing. Could someone e-mail me some hints?
Something like "probe along until 146 MHZ crossess the r=50 ohm
circle" would be great.

Thanks in advance,

Brian P. McCarty, N9IWP
internet:UCSBPM@UWPLATT.EDU
bitnet:UCSBPM@UWPLATT

3166. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-29 18:40:58 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990May29.184058.1751@elroy.jpl.nasa.gov>
Source record: 11372

In article <1990May29.121239.28784@cbnewse.att.com> parnass@cbnewse.att.com (Bob Parnass, AJ9S) writes:
>
>charlie@oakhill.UUCP (Charlie Thompson):
>
> > .... I cranked up my BC-210, R-7000, and MX4000 to listen ...
> > Much to my surprise I found a local AM radio station (KLBJ-AM) using
> > 407.750 MHz as studio-to-remote director's link.
>
>In article <30500554@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
>> > I suspect that what you heard was an image frequency...
>> 407.750 + (2 * 21.4 [a common IF]) = 450.550 [a common radio remote link]
>
>In an earlier posting, I suggested Charlie heard a spur rather than an
>image. An image seemed unlikely given that the BC-210, R-7000, and
>MX4000 have different IF frequencies.
>
One thing that you all haven't yet considered is that it was the second harmonic of the remote microphones that are used for studio work. Not having the exact channel frequencies before me, the remote mike stuff can occupy many spectrum within many different VHF TV channels, especially around 200 - 215 MHz. Sorry I can't be more exact...

- H

--
Jon Trent Adams, NW6H | "Per Aspera Ad Astra" A Dead Roman
JTA@hydra.jpl.nasa.gov | Way-Rad : Opinionated : Single : Prevaricator :
"jpl don't know me from squat"| Raconteur : Engineer : President, Local Chapter
Ghenghis Khan Fan Club : Honorable Mention, "Calvin" Lookalike Contest

3167. president 2510

Newsgroup: rec.ham-radio
Date: 1990-05-29 18:49:25 UTC
From: mercenary@vax1.acs.udel.EDU
Message-ID: <6541@vax1.acs.udel.EDU>
Source record: 11373

I recently repaired a President model 2510 radio and promptly fell in love
with it. Even though it is not the greatest 10 meter radio, it is a damn
good one, and I have had some remarkable dx's with it. I am now in the process
of buying one, and i need to know all the modifications that can be done to it.
These are the ones I know of, the 11-meter conversion, and the power pod.
But i have just heard of these. If anyone could send me any information that
they have i will try to post a modification on how to convert it to 100 watts
am and 250 peak sideband.
please email any information, and if neccessary i will cover any postage for
schemeatics.
i have heard that some of the mods were in mags like 73, so if you could at
least send the issue number.
many thanks and 73's\
Jake Fortune
general radiotelephone op.
Bwana Productions
P.O. Box 9742
Newark, De. 19714

3168. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-29 19:16:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500557@ux1.cso.uiuc.edu>
Source record: 11374

> "You're a plainclothesman, aren't you?" one of them asked.
>
> "Well, yeah, I've got my plain clothes on."
>
> "Will this be alright?" asked the doper, handing him a $20 bill.
>
> "Sure. You boys be careful, now," he said as they departed.

He should have held out for $50.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3169. Re: Need diagram for old Henry TEMPO fmh-2 HT

Newsgroup: rec.ham-radio
Date: 1990-05-29 19:23:09 UTC
From: jkl141@tijc02.UUCP
Message-ID: <955@tijc02.UUCP>
Source record: 11375

From article <1068@xroads.UUCP>, by kjustice@xroads.UUCP (Keith Justice):
>
>
> I urgently need a schematic diagram for an old Henry Radio Tempo fmh-2
> handie talkie. I had been using this for packet work, but it died.
> It doesn't look too tough to work on, but without a diagram ...
>
> I will be glad to pay for copying, or reasonable price for original, and
> postage.
>
> Please reply via E-mail or packet:
>
> asuvax!xroads!kjustice
> or
> KF7TP@W1FJI.AZ.USA.NA
>
> Thanks for anyone who can help!!! Keith
> --
> \ / C r o s s r o a d s C o m m u n i c a t i o n s
> /\ (602) 941-2005 300|1200|2400 Baud 24 hrs/day
> / \ hplabs!hp-sdd!crash!xroads!kjustice

Call Henry Radio. They sent me one for free.

--

-John LeRoy

Packet Radio: WA4VLV @ WX4S
Compuserve: 74136,401
UUCP: mcnc!rti!tijc02!jkl141
Phone: 615-461-2440

3170. AEA Loop Antenna Comparison

Newsgroup: rec.ham-radio
Date: 1990-05-29 19:53:48 UTC
From: fwc@cbnewsi.att.com
Message-ID: <1990May29.195348.11993@cbnewsi.att.com>
Source record: 11376

I am very interested in comparison type results with the new AEA Loop antenna verses anything else. I have read some good things about the antenna here but nothing comparing it side by side with other types of antennas, even a dipole.

Thanks in advance....Frank n2bqt

3171. Re: Any mods for Yaesu FT726R?

Newsgroup: rec.ham-radio
Date: 1990-05-29 20:37:20 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <14497@ttidca.TTI.COM>
Source record: 11277

In article <9009@rouge.usl.edu> jpd@pc.usl.edu (jpd DugalJP) writes:
+An interesting report, Erik. But are you describing the ft736 or the ft726
+or what? My ft736 covers 430-450 with one module, and I am sure the 220
+module is available. The ft736 comes with 2m & 70cm; you can add 2 more
+band units, choosing from 6m, 220Mhz, and 1.2GHz.

James is correct! My blunder, those mods are good for the FT-726R, and to
my knowledge have never been tried on the FT-736R. Sorry for any confusion,
if anyone has other mods or has tried something like this on either radio
I'd love to hear about it. 73.

-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **
(OPINIONS EXPRESSED DO NOT REFLECT THE VIEWS OF CITICORP OR IT'S MANAGEMENT!)

3172. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-29 20:46:31 UTC
From: danielw@wyn386.mi.org
Message-ID: <345@wyn386.mi.org>
Source record: 11278

In article <9005262018.AA09589@ucbvax.Berkeley.EDU> MCL9337@TAMVENUS.BITNET writes:
>
>So... let's hear your stories about how you were rescued from various real
>and not-so-real emergencies thanks to the radio. I carrry my HT with me

I became a HAM last year. About 6 weeks after I got my license it paid
for itself. A group of college age kids from our church went North here
in Michigan to do some water skiing. One of the kids who went along has
had medical problems (Epilepsy) but hadn't had a fit for about 5 years. He
came along and was enjoying the day. After getting done skiing he
was lying on a towel and went into a fit. There were no telephones for quite
a ways (2-3 miles) from the place we were skiing. This would have been a long
run. I called out on the local repeater frequency (I didn't know how to use
it's autopatch -- or if they had 911). A local ham called the ambulance and
it arrived it <5 minutes. Definitely saved the day and helped our friend
out.

Frankly, this one incident was enough to make getting my license worthwhile.

--
Daniel Wynalda | (616) 866-1561 X22 Ham:N8KUD Net:danielw@wyn386.mi.org
Wynalda Litho Inc. | It's soon to be a united, neutral, mediocre world.
8221 Graphic Ind Pk. | You know you're losing your freedom when everything you
Rockford, MI 49341 | like to do is taxed, charged "user" fees, or banned.

3173. Thanks

Newsgroup: rec.ham-radio
Date: 1990-05-29 21:06:10 UTC
From: DXANDY@WIDENER.BITNET
Message-ID: <5A051D0F3B1502FB-MTABWIDENER*DXANDY@widener>
Source record: 11279

Hi!
I would like to thank everyone who replied to my request for help. Their advice was very much appreciated and as a result of it, I have decided to go ahead and erect a vertical antenna (a Cushcraft R5) on the garage.
I tried to reply to everyone who sent me email, but our mailer went down in a big way and I did lose some mail. The amount of advice and encouragement I have received from hams everywhere never ceases to amaze me. I am now looking forward, more than ever, to getting on the air.

Thanks again,
Andy Greenshields [dxandy@widener.BITNET]

3174. Re: UK reciprocal license

Newsgroup: rec.ham-radio
Date: 1990-05-29 21:25:38 UTC
From: fel@hpcuhb.HP.COM
Message-ID: <10510008@hpcuhb.HP.COM>
Source record: 11280

/ hpcuhb:rec.ham-radio / davew@cpe.UUCP / 9:59 am May 26, 1990 /

> I am planning a
trip to the UK in September and would like to get a '
> reciprocal license. Does anyone know where to apply for one?
>
> I assume that there is an appropriate form and fee required. Any help
> and information is appreciated.
>
> David Williams
> "Passed the tests, just waitn' for the FCC to digest my 610"

I tried mail, but it bounced. The answer is probably of general enough interest. The U.K. recip licence costs 12 pounds Sterling, and is good for 2 months if mobile, 1 year if you supply a U.K. station address. Third-party traffic is prohibited.

Since David just passed his exams, there may be bad news -- you have to be General or above for the reciprocal priviliges. A Technician license isn't good enough.

- Skip ("just did the same thing myself -- I'm G0KK6HK there") La Fetra
KK6HK
fel@hpda.HP.COM

3175. E/H Wave Eaters

Newsgroup: rec.ham-radio
Date: 1990-05-29 21:34:05 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <685.26630E01@weyr.FIDONET.ORG>
Source record: 11281

Jon writes in reply to my comments about WPX CW condx:
> Ahhh-HAH! More of those mysterious high-latitude, iron-ore
> and fresh water signal-eating antics! Gotta have something
> to do with sitting smack-dab in the middle of the Laurentian
> Shield!
> - jon NW6H

For some reason every time there is a DX contest the E/H wave eaters
show up. Some time the geo-magnetic conditions get so bad that I can't
even hear myself think --- Now that's real bad. I know that others
live in QTH's which have the same difficulty. That is why I asked about some ideas on a
FAIR INTERNATIONAL DX CONTEST which would
account for band conditions as well as the station ERP. I guess
I could move but then who would be here to give all you guys the
VE5 prefix for the SS/Sprint/WPX contest. Oh well I guess no matter
how much I spend on rigs/towers/antennae the protons/electrtons
which swirl around up here are going to win any way!
See you all in the next contest .... provided the God's are in a good
mood.
PS. I am moving my QTH in the fall to the south of England. I am
going to take a QRP rig with me but I expect that I will only have
some bedsprings for an antenna. At least I will be able to experience
conditions from another QTH.
73's - Gud DX - Syl (VE5ZX)

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

3176. Re: Bearcat scanner

Newsgroup: rec.ham-radio
Date: 1990-05-29 21:54:35 UTC
From: schuster@dasys1.uucp
Message-ID: <1990May29.215435.13145@dasys1.uucp>
Source record: 11282

In article <38120001@hpindwa.HP.COM> stephenm@hpindwa.HP.COM (Stephen Meredith) writes:
>
>Does anybody have a bearcat 70 XLS? (I think it was XLS... I know it
>was XL something, or something XL.) It $100 a good buy on one of these?

I have the 70XLT (tiny, 20 channels). It cost $169 new, so I guess $100
is a good buy. If you really want one, I'd sell you =mine= for $75.

---mike

--
l\ /l' _ Mike Schuster 70346.1745@compuserve.com
l \/ lll/(_ Big Electric Cat schuster@dasys1.UUCP CIS:70346,1745
l lll\(_ New York, NY USA DELPHI,GEnie,MCI Mail:MSCHUSTER

3177. Re: QSL Managers

Newsgroup: rec.ham-radio
Date: 1990-05-29 22:25:06 UTC
From: trey@ut-emx.UUCP
Message-ID: <30654@ut-emx.UUCP>
Source record: 11283

In article <1990May25.124640.7792@cbnewse.att.com>, waco@cbnewse.att.com (john.l.broughton) writes:
> As usual, I sent my card with a green
> stamp for each contact as they were worked at different times. I have
> received one card back. Guess what? It was mailed from California with
> a 25-cent stamp. Say he handles QSLs for a dxpedition and gets 1,000
> cards from U.S. hams with a green stamp. He spends $250.00 for stamps
> and keeps $750.00. This is more than a making a little money. I have
> had this happen a very few times over the past 13 years. Most QSL
> managers do not do this.
>
> If QSLs are to be mailed back from the U.S., the QSL information should
> include the fact that an sase should be sent with the card. I have no
> problem with honesty, but do have a problem with deception! It is good
> that this type of QSL managing is the exception to the rule.

I don't agree with this sentiment. I don't see this as a deception; I see it as economy. When I send cards to a manager overseas I include: QSL cards (average of two or three), compensation (a green stamp or two IRCs; IRCs can be had for $0.40 on the secondary market) and a return envelope. I try to view this as a fixed expense for getting cards from overseas. Want a card? Send a buck.

What's wrong with making those incoming dollars go a little further? They can be used to buy QSLs, or reply to bureau cards. (QSLing via the bureau is not gratis in every country like it is here .. and face it, $2 per pound of outgoing approximates free.) The money can be used to pay DXpedition bills. What's wrong with spending your money wisely?

For example, if it cost approx. $US 0.80 to send cards from Finland, but only approx. $US 0.60 to send them from Sweden, would you be irate if they drove over to Sweden and sent the cards? I wouldn't.

Where I draw the line is when DXpeditioners expect me to foot the cost of their DXpedition. I don't go for the "I'm doing you a favour by going on a DXpeditions so you can work a new country. You owe it to me to help pay the bills." Bzzzzzt. WRONG. You're going on DXpeditions because you derive personal satisfaction from this kind of activity (in the form of recognition from your peers, you enjoy travelling, you enjoy the challenge, whatever).

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

3178. Re: Stealth Paint Needed

Newsgroup: rec.ham-radio
Date: 1990-05-29 23:14:42 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250172@hpnmdla.HP.COM>
Source record: 11284

I used clear Krylon at one time and discovered that it came apart
pretty badly after a little while, presumably due to UV exposure but
I never proved that was the cause.
I've been building and measuring vhf/uhf antennas for quite a while
and I often use brazing rod for elements and copper water pipes for the boom.
One of the subtle problems that can occur with such construction is
due to corrosion, oxides sulfides and I don't know what all, building
up on the elements if they are not protected. This has the insidious
effect of reducing antenna efficiency without showing up in the pattern.
Essentially the gain drops on both transmit and receive and unless you
have a known good reference antenna you may not even notice it!
(It's a little like the budget deficit (:>) Everything appears to be
"normal".

I have had good results with standard spray paints. I don't remember
the brands, but I've seen no problem as far as changes in feedpoint impedance
before and after spray painting, I've measured quite a number using a
vector network analyzer. The finished (painted)antennas have appeared to
have the correct gains for their number of elements/boomlength.
I can't say that I ever tried camoflouge paint but I don't expect that
would fool the electrons (:>).

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

3179. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-30 01:04:35 UTC
From: karn@thumper.bellcore.com
Message-ID: <23705@bellcore.bellcore.com>
Source record: 11285

I can't think of any cases in which having a radio has gotten me out of a real jam (except for the one time I ran out of gas), but I *can* cite one case in which it almost got me INTO a serious jam.

It was about 9 years ago, just after a USENIX conference. I was taking the San Francisco BART across the bay to visit a friend at UC Berkeley. I had all my luggage with me, and my 2m HT was sticking out of my coat pocket. As I gazed out the window at nothing in particular, I noticed from the reflection in the window that the guy sitting on the other side of the car was counting out pills into the palm of a young girl's hand. This surprised me, and before my better judgement could prevail I reflexively turned my head and looked directly at the guy to see if I saw what I thought I saw.

Yes, this was indeed a mistake. He saw the radio and antenna sticking out of my pocket and apparently took me for some sort of narc or cop: "Hey, what YOU looking at?" All I could do was to turn back to the window and ignore him as best I could, wondering if I'd be alive at the next stop. I stared outside until the guy finally got off at the Oakland stop. He continued to harass me through the window (he apparently didn't like the way I looked right through him) until the doors closed and the train began to move. At this point, I couldn't help myself; I broke into a wide grin and gave him the biggest obscene gesture I could muster.

Since I moved to the NNJ/NYC area about 8 years ago I have ridden the NYC subway many times, but never have I been as concerned for my personal safety as I was that night on the SF BART. But when I carry my HT, I usually hide it under my coat.

Phil

3180. ARRL Letter 18-May-90

Newsgroup: rec.ham-radio
Date: 1990-05-30 01:06:15 UTC
From: gws@n8emr.UUCP
Message-ID: <1508@n8emr.UUCP>
Source record: 11286

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
```

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BOARD TO HONE CODELESS LICENSE STAND

League officials met recently to consider the ARRL position on proposed changes to the Amateur Radio licensing structure. The "strawman" committee, appointed by President Larry Price, W4RA, on recommendation of the Executive Committee, was charged with weighing the League's position in light of the FCC's Notice of Proposed Rule Making on the subject (for the full text of PR 90- 55 see April QST page 38).

The League's board of directors now actively seeks input from all interested members. The board will consider this input, as well as the recommendations of the April 21 working group, to formulate a position.

The "strawman" committee consisted of five directors, First Vice President George Wilson III, W4OYI, and Executive Vice President David Sumner, K1ZZ. Among their recommendations to the board:

* Reaffirmation that the Novice class license as a route of entry into Amateur Radio is absolutely essential.

* Support for the incorporation of Novice testing into the accredited Volunteer Examiner system. This would permit examination elements earned in obtaining a Novice license to be used for credit toward upgrading, without retesting.

* Pursuing rules changes to permit VECs to recoup examination expenses for Novice exams, provided that no fees are charged for any applicant under age 16.

* Retention of the Technician class license as a distinct class of amateur license, and its continued availability to new applicants.

* Clarification of the League's position with regard to Element 3A: that the existing Element 3A should be expanded by five questions (i.e., the pool should be expanded by 50 questions). Requirements for the Novice, Communicator, and Technician licenses would be as follows:
Novice: Elements 1A (5-wpm code) and 2 (30-question written);
Communicator: Elements 2 and 3A (30-question written);
Technician: Elements 1A, 2, and 3A;
Upgrading from Novice to Technician would require passing Element 3A;

Upgrading from Communicator to Technician would require passing Element 1A;

* Certificates of Successful Completion should be issued to candidates who pass either Element 1A or Element 2 without qualifying for a license by passing another element;

* Frequency privileges for Communicators should be as proposed in RM-6995 (the League's original codeless license proposal). The FCC proposal of a 200-watt PEP output power limit for Communicators was acceptable to the working group. However, since the only difference between Communicator and Technician qualifications is the 5-wpm code test, the Committee could find no rationale for denying Communicators control operator privileges for repeater and auxiliary stations. Therefore, the Committee recommended the Board reconsider its position on this matter;

* Technician licensees who have credit for Element 3B by virtue of having taken the old, 50-question Element 3 examination should retain this credit (permitting them to upgrade to General upon passing just the Element 1B 13-wpm code test);

* In all other respects, the committee recommended there be no departures from the ARRL position as adopted in RM-6995. The recommendations of the committee are just that--recommendations.

AWAITING "THE NEW CQ"

Subscribers to both CQ and Ham Radio magazines eagerly await the July issue of CQ, for the first indication of how CQ assimilates Ham Radio.

"[Ham Radio readers] can expect to see the best of what is good in the magazine you already know molded into an even better product," says Ham Radio publisher Skip Tenney, W1NLB, in the June--and final--issue of HR. "The expanded CQ," Tenney says in his final editorial, "will incorporate the best efforts of two of the most experienced publishing staffs anywhere in the Amateur world."

CQ, in an April 27 letter to advertisers, says "we'll be looking at a new circulation figure of just over 100,000. That includes newsstand sales of 32,500..."

CQ's advertising rates also are rising, by "less than 30 percent" (their letter stated).

While organizational planning is still "in the formulative stage," as one of the principals puts it, CQ will waste no time addressing the task of retaining former Ham Radio readers.

Articles accepted for publication by Ham Radio will not necessarily appear in CQ. Their authors were given the option of taking their work elsewhere or automatically letting CQ consider them.

As for staff, no immediate changes have been announced at CQ. Ham Radio assistant publisher J. Craig Clark, NX1G, will remain in New Hampshire, to

manage the Ham Radio Bookstore and to "develop new properties."

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TWO BLOWS STRUCK FOR 220

The Federal Communications Commission continues to consider ways in which the 220-222 MHz band might be used for non-amateur communications, while amateurs still occupy the segment and in spite of the matter being under appeal in federal court. Recent FCC proposals have given the League two more opportunities to remind the Commission that "action to implement the band in the Part 90 rules is premature, and subject to reversal by the Court."

"Bait and switch" is how ARRL General Counsel Christopher Imlay, N3AKD, referred to land mobile industry comments in FCC's PR Docket 89-552, in which it is suggested the Commission group the proposed 5 kHz voice channels into contiguous blocks of five or ten channels, and to permit time division multiple access (TDMA) schemes for data transmission.

In his Reply Comments, Imlay points out that the 25- or 50-kHz channels proposed by industry for 220-222 MHz in the name of "spectrum efficiency" already are available in existing land mobile bands.

"...the entire rationale for the reallocation of the 220-222 MHz band...is now gone ... It is time that the Commission reevaluated the premises which led to the reallocation of the 220-222 MHz band," the League's comments contend. "The conclusions in Docket 87-14 were never correct, and have been shown...to be untimely."

In PR Docket 89-599, FCC in December proposed a "Personal Emergency Locator Transmitter System (PELTS) within the 220-222 MHz band. In comments last March the League pointed out:
* The proposal was premature;
* Rules compliance would likely to be poor;
* Few non-amateurs have receivers for those frequencies--most scanners don't cover them.

The League, in its most recent comments on the matter (May 4), noted that professional search and rescue organizations also saw PELTS as unlikely to be effective, especially in light of the ongoing development of satellite locating systems and of the burden that would be imposed on users to acquire new equipment.

ARRL comments again concluded by seeking "no action" on the PELTS proposal, particularly in light of the uncertain status of the actual reallocation of the frequencies involved.

FDA ISSUES RF ADVISORY

A recent US Food and Drug Administration advisory concerning infant apnea monitors mentions their susceptibility to RF fields, but the risk appears to be minimal, according to experts.

The FDA Drug Bulletin (Vol. 20, No. 1) urges health care professionals to ensure proper setup and use of the monitors. The devices, used primarily to detect cessation of breathing, are used in both hospitals and in homes. The hospital units are more sophisticated than portable devices used in the home.

Infant apnea monitors are hooked up to a child by gluing two wires to the chest; the monitor detects changes in impedance across the wires, setting off an audible alarm. IA monitors are primarily subject to false alarms; fail-safe mechanisms in their microprocessors virtually ensure they will detect episodes of apnea.

The FDA safety alert letter mentions a number of possible flaws in set-up and use of IA monitors; among them:

* "Keep the monitor away from possible sources of interference such as electrical appliances"; and

* "Be aware that strong radio signals from nearby TV or radio stations, airports, ham radios, or police stations could interfere with the monitor, and check for this interference if the monitor is to be operated in such areas."

A biomedical technician contacted by The ARRL Letter said he has experienced not a single incident of an IA monitor interfered with by an RF field. The technician, who maintains the monitors for a home health care company, does say that older units, using analog technology, can be susceptible to all sorts of electrical interference.

Static electricity affects them; "You can get a false alarm by running your hand over the case of an older unit," he said. "A device with a compressor--a refrigerator or air conditioner--on the same circuit can cause a false alarm via a voltage spike."

On the other hand, every instance of failure the technician knew of was due to incorrect usage. His company recommends parents perform a power-up test every time their IA monitor is used.

Copies of the advisory letter are available from FDA, HFZ- 240, Rockville MD 20857.

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FCC ENFORCEMENT ACTIONS

On 1 April 1990 Amateur Radio operator Joseph A. Della Barba (N3HGB) of Annapolis, Maryland was fined $1000 for "operating a pirate radio station," according to an FCC public notice. An electronics technician and engineer from FCC's Baltimore and Laurel offices located the operator transmitting on radio equipment in his vehicle.

The unauthorized station, using the call sign WTNU, ("The Nation's Underground") had been initially overheard during routine monitoring of the aeronautical mobile band. Della Barba was operating on 25,000 kHz, a frequency assigned to the National Bureau of Standards station WWV. (FCC

Public Notice 13 April 1990).

Acting on a tip from a "local amateur radio operator," FCC's Seattle Office identified and fined one George M. Muchin for unauthorized and unlicensed operation of a marine radio transmitter. According to the FCC, Muchin, owner of Redmond Plumbing, was fined $1500 for using 156.575 MHz, a VHF marine frequency, for conducting non-marine business. Mobile direction finding equipment was used "to trace the transmissions first to a worker's truck and then to a private residence." (FCC Public Notice 30 April 1990).

Following several years of complaints by amateurs operating in the 40 meter band from the Pacific Northwest, FCC has tracked down and fined two amateurs for "willfully interfering" with other amateur radio communications. Robert N. Frizzell, W6UCB, of Beatty, Ore., and Richard L. Young, W6UGH, of Los Angeles, each were fined $1000.

FCC personnel observed Frizzell and Young "consistently operat[ing] adjacent to the operations of other amateurs and within the bandpass of state of the art receivers. When the affected amateurs moved, these two amateurs would follow and operate adjacent to them, again within the receiver bandpass of adjacent operators."

The case has been referred to FCC in Washington. (FCC Public Notice, 30 April 1990).

A licensed amateur has been charged with jamming a commercial broadcast satellite, according to the FCC. Thomas M. Haynie of Virginia Beach, Va., has been indicted by a grand jury in the Eastern District of Virginia. Haynie was charged with three counts of intentional interference and three counts of unlicensed operation of a satellite uplink.

Haynie, WB4PVK, is 38 and holds an Advanced class amateur license, according to FCC records.

On September 6, 1987, the indictment alleges, Haynie was uplink operator on duty at the Christian Broadcasting Network facility in Virginia Beach. On three separate occasions a video text message "completely overrode" programming carried on two satellites: Satcom IV and Spacenet I. The programming allegedly jammed was that of The Playboy Channel. (FCC News, 27 April 1990).

IARU PRESIDENT HONORED

International Amateur Radio Union president Richard L. Baldwin, W1RU, has received the Roy Stevens, G2BVN Memorial Trophy for service to international Amateur Radio. The triennial honor was unanimously awarded to Baldwin at the IARU's Region 1 conference, held last month in Spain.

Baldwin joined the ARRL Headquarters staff in 1948, served from 1975 to 1982 as general manager, and was an IARU representative at the general WARC in 1979.

Baldwin recalled his job interview at ARRL Headquarters 42 years ago. "When asked about my qualifications, by General Manager A.L. Budlong," Baldwin

said, "I replied 'I'm reasonably intelligent and I can type.'"

"Anybody can type," Budlong replied. "So what's your code speed?"

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TOWARD AN INTER-ISLAND ACCORD

Using Hurricane Hugo as just the latest example, Caribbean communications officers met recently to continue plans for cooperation in times of need. Their goal, to join in a "regional mechanism," would include relaxing third party restrictions, facilitate reciprocal licensing, and ease customs barriers between islands.

Amateur Radio representatives from 11 Caribbean nations met on St. Lucia in late April to discuss these issues. Included were Trinidad and Tobago; Grenada; St. Vincent; Barbados; St. Lucia; Dominica; Montserrat; Antigua; St. Kitts and Nevis; the British Virgin Islands; and Jamaica.

Meeting under an umbrella organization formed in 1980, the Pan Caribbean Disaster Preparedness and Prevention Project (PCDPPP), comprised of 33 Caribbean and Central American islands and countries, the group focused on presenting a collective front to regional governments and agencies, specifically the Caribbean Telecommunication Union.

Attending as observers and resources were Office of US Foreign Disaster Assistance communications officer Art Feller, KB4ZJ, Texas A&M telecommunications professor Pierre Catala, WA1UAT, and ARRL Field Services Manager Richard Palm, K1CE.

According to Palm, PCDPPP seeks to improve the dissemination of warnings as well as all communications in the event of a natural disaster such as Hugo. The strengthening of Amateur Radio bridges joins commercial telecommunications networks as part of the plan. For this reason, Palm says, the PCDPPP has worked closely with the region's amateur community, including sponsoring the late-April conference.

Several of the participants reported conducting emergency drills on their islands, and most are developing the use of packet radio.

Regularly scheduled nets, such as the twice-daily Antilles Emergency and Weather Net, also play a part in disaster communications. The conference agreed to promote greater participation in such nets and to encourage continued association of such nets with IARU, ARRL, and the Amateur Radio organizations of member countries.

Three conference working groups, Technical, Organizational, and Emergency Procedure, made recommendations to the overall conference, which agreed to form a new Amateur Radio regional organization. To that end a task force was formed.

At the conference, Palm noted the League's work to educate US amateurs in proper techniques during Caribbean emergencies, based on lessons learned from hurricanes Gilbert and Hugo and from Palm's meetings with Caribbean

amateurs in Trinidad and Jamaica.

W1AW RENOVATION UPDATE

Contributions to the Maxim Memorial Station renovation continue to arrive, from manufacturers as well as private individuals. The station, rededicated last July, is nearing completion (as if a ham station is ever complete, or permanent!), with some antennas yet to go up, according to W1AW station manager Eddy Pollock, W6LC.

Last week W1AW was the beneficiary of two Tandy 1000 TL/2 computer systems, through the auspices of Ed Juge, W5TOO, marketing director for the Tandy Corporation. These computers initially will be used--in conjunction with a Buckmaster CD ROM call sign data base--for record keeping and QSLing at the station, as well as for visiting operators to use in log keeping.

Tandy's gift, valued at some $6000, adds their name to a list of corporate supporters of the station that includes Andrew Corp., Bencher, Cushcraft, Digital Radio Systems, Hammond Mfg., Harris Corp., ICOM America, Kenwood USA, MFJ, and Ten-Tec.

Three plaques soon will be on public display at the station, listing individual donors at the $1000 and $500 levels, as well as recognizing corporate supporters of Amateur Radio's most famous station.

SAREX ON HOLD

The launch of shuttle STS-35 was aborted May 15 and postponed until month's end, at the earliest. STS-35 will carry WA4SIR and the SAREX (Shuttle Amateur Radio Experiment).

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

3181. Re: strange claims

Newsgroup: rec.ham-radio
Date: 1990-05-30 01:16:38 UTC
From: driver8@stb.info.com
Message-ID: <1990May30.011638.28831@stb.info.com>
Source record: 11287
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <96594@philabs.Philips.Com> rfc@briar.Philips.Com (Robert Casey) writes:
> "It hunts the airwaves for hidden and weak signals and pulls them in
>like a radio magnet."

Another fave of mine was the ad for a rabbit-ears TV antenna last year:

"Uses revolutionary new 'RF' technology to literally snatch TV programs from
the thin air. Now you can forget those high cable bills forever!"

Yow.

--
++
Hugh Stegman NV6H driver8@stb.info.com
RCMA Below 30 MHz denwa!stb!driver8
++

3182. TAPR TNC2 kits

Newsgroup: rec.ham-radio
Date: 1990-05-30 01:43:23 UTC
From: anderson@skvax1.csc.ti.com
Message-ID: <9005300154.AA03874@ti.com>
Source record: 11288

I was wondering if anyone knows if it is still possible to get the
TNC2 from TAPR as a kit. Or if not, where to look for the cheapest
TNC2 with Kiss support?

I have a need for a number of inexpensive basic TNCs. Some friends
of mine are interested in setting up a packet network in New Guinea.
They are missionary language translators and have very limited budgets.
Most do have portable pcs.

Any help with acquiring information would be appreciated.

--
John H. Anderson, N5OPY
anderson@skvax1.csc.ti.com

3183. learning code

Newsgroup: rec.ham-radio
Date: 1990-05-30 01:52:18 UTC
From: hbg6@citek.phx.mcd.mot.com
Message-ID: <12984@mcdphx.phx.mcd.mot.com>
Source record: 11289

A friend and myself are struggling along trying to prepare for our novice/tech test this July. I got a copy of 'morse tutor' for our computers and I've been doing quite well with it. My friend however says he just isn't picking it up. Does anyone out there have any experience learning code from software like this and what is the nets advice on how to use it. I have been running the teach mode for the group I'm working on for a few minutes, the going to test mode until I make a mistake. I then resume teach mode again for a few minutes.

I'm interested in how others have successfully used these tools.

Thanks,
John R. Schuch
(maybe in a couple of months I'll be able to put a call in my .sig)

3184. Re: 100 GHz and up

Newsgroup: rec.ham-radio
Date: 1990-05-30 05:07:18 UTC
From: john@anasaz.UUCP
Message-ID: <2351@anasaz.UUCP>
Source record: 11290

In article <12012@shlump.nac.dec.com> koning@koning.enet.dec.com (Paul Koning) writes:
]> If the data is scrambled properly, it is virtually assured of self clocking.
]
]That's a common misconception. Scrambling has no effect on whether
]a code is self-clocking. All it does is change WHICH user data pattern
]causes absence of clocking.
]
]Unfortunately this mistake is common in certain parts of the communication
]industry. The reality is that the ONLY way to have guaranteed clocking is
]to use a code that has minimum transition density guarantees. For example,
]FDDI is self-clocking; SONET is not.
]

On the other hand, scrambling can be used for self clocking for most
communications schemes. For example, if you can stand the loss of
clock for 20 bits, then the probability of losing clock because
you didn't GUARANTEE clocking is about 1E-6 - probably better
than your BER anyway. This assumes:
(1) You are receiving and sending crystal controlled (I can't imagine
doing it any other way.
(2) You design your clocking so it can miss clocks and not do anything
silly.
(3) When a packet is retransmitted, it is not scrambled the same as
when it was first sent (again, any normal scrambling modem
will act properly in this regard).

So... from a perfectionist standpoint, scrambling won't work. From
any practical engineering standpoint (except perhaps in extremely
low SWR FEC/no-ACK protocols), scrambling will work just fine.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3185. Re: Damped waves, B waves

Newsgroup: rec.ham-radio
Date: 1990-05-30 05:10:15 UTC
From: markz@ssc.UUCP
Message-ID: <768@ssc.UUCP>
Source record: 11291

In article <30500556@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> > Does anyone out there hapen to know what a 'damped wave' or 'B wave' is?
>
> They are also mentioned all over the place in (as far as I can tell) every
> radio service. So far I have not found the actual definition of damped
> waves, but I'm guessing it is spark-gap. The "damping" is the filtering
> used to select a frequency of a broad nature.

Damped Wave. - From the description of the oscillatory discharge of a
condenser, a clear understanding of the damped wave is obtained. The word
"damp", as use in connection with a radio wave, means to choke or to stifle,
to die out. The damped wave is choked off or stifled, according to the
characteristics of the circuit in which it is oscillating. ...
"Practical Radio Telegraphy, Nilson and Hornung, McGraw-Hill 1928"

Or in modern terms, a ringing resonant circuit decaying exponentially.

markz@ssc.uucp

3186. Lotsa AMSAT Bulletins

Newsgroup: rec.ham-radio
Date: 1990-05-30 05:58:25 UTC
From: karn@ka9q.bellcore.com
Message-ID: <23711@bellcore.bellcore.com>
Source record: 11292

Posted: Sun, Apr 29, 1990 6:01 AM GMT Msg: MGJA-4241-5565
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$118

SB ALL @ AMSAT $ANS-118.01
DOVE STATUS REPORT

HR AMSAT NEWS SERVICE BULLETIN 118.01 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

On the AMSAT-NA Operations Net of 22 April 90, Microsat command engineer
Bob McGwier, N4HY gave a brief rundown on the current status of the
BRAMSAT Project DOVE satellite. After a DOVE CPU crash in March, the
primary transmitter (on 145.825 MHz) was locked on in a condition where
no data was being transmitted. Routine commanding of the spacecraft
was impossible. Eventually, with the help of the moonbounce array
at W5UN and fortuitous circumstances, the CPU was reset and control
was regained. On the following day, the two meter transmitter
was turned off and the experimental S band transmitter was activated
as the only downlink during an interim recovery period.

A decision was made not to resume any DOVE operation on two meters until
a new software load could be accomplished. This meant that return packets
from the Microsat Boot Loader (running in onboard ROM) would have to be
recovered from the S band transmissions. DOVE's owner, BRAMSAT President
Dr. Junior DeCastro, PY2BJO, provided N4HY with an S band receive converter
and antenna system to be used in the recovery effort. When this equipment
was installed at N4HY, Bob was able to verify what other S band receiving
stations around the world (including ON6UG, K0RZ, and KF4AU) had
already discovered, that the phase shift keying modulation index on the
transmitter was much lower than expected. Simply put, the binary data
does not shift the S band carrier a full plus and minus 180 degrees as
it had been designed to. Listening on a sideband receiver, the signal
sounds like mostly carrier with data only at a low volume. Additionally,
data being sent via this transmitter is from the MBL which transmits
incomplete telemetry packets, and those only infrequently. Command
stations have experience with this data format, but it cannot be decoded
directly by regular TNCs so it is difficult for other operators to
participate in data collection though they may have S band gear.

Since the reset, it has been determined that DOVE is in a safe and
stable condition running the MBL firmware. N4HY has developed a DSP
based technique to decode with some certainty the undermodulated

packets returned on DOVE S band during software uploads. He expects to be able to load and verify a new operating system on DOVE with some difficulty and then resume 2 meter transmissions. A full recovery is expected.

During the time required to get the S-band receive gear and demodulation techniques developed, work has been proceeding on the first, rudimentary PBBS systems for LUSAT and PACSAT. After these systems are installed and in use (very shortly), full attention will be concentrated on the DOVE recovery.

AMSAT-NA and BRAMSAT recognize the popularity of DOVE and regret the inconvenience that these startup delays have caused to educators and other amateurs worldwide who are anxious to see DOVE begin its operational mission. It is, of course, imperative that all facets of spacecraft checkout and operation, including this first crash recovery, be done thoroughly and with the utmost care.

/EX
SB ALL @ AMSAT $ANS-118.02
PROJECT OSCAR MEETING REPORT

HR AMSAT NEWS SERVICE BULLETIN 118.02 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

Future Plans Made During Project OSCAR Meeting

Project OSCAR's Executive Committee met on April 22 and has set forth on a number of new projects. Among the items covered was renewed interest to again produce the Project OSCAR Orbital Prediction Calendar Book. The purpose of the orbital prediction book is to provide simple and inexpensive tracking information to anyone interested in the low orbiting satellites such as Microsat, UoSAT, Fuji and the Radio Sputnik series of amateur satellites.

It was determined that Project OSCAR members would like to participate in future satellite projects. Therefore, the Executive Committee will be submitting thoughts to the group meeting in Marburg, West Germany in May, discussing ideas on a Phase IIID satellite.

Project OSCAR will look to develop a Mode S receive system from available (and cost effective) modules now available on the market. Project OSCAR members will complete this project and write up a description of the system for publication in the Amateur Radio media so that anyone interested in Mode S will be able to make the move into this new area of OSCAR communication.

Finally, in response to many who have asked for information, Project OSCAR will sponsor a seminar about operating on all of the available Amateur Radio satellites. This seminar will take place on September 29th and 30th on the San Francisco Peninsula. In addition to a full schedule of talks aimed at the beginning and advanced satellite user, there will be demonstrations available, plus published papers provided to all in attendance. Complete details of this OSCAR seminar, along with names of the speakers scheduled to speak will appear

in the AMSAT bulletins, on Packet and phone BBS', and the usual Amateur Radio Media. To receive complete registration information as soon as it's available, send a Self-Addressed Stamped Envelope (SASE) to:

OSCAR Seminar
Project OSCAR, Inc.
P. O. Box 1136
Los Altos, CA 94023-1136

[ANS thanks Project Oscar President, Ross Forbes, WB6GFJ for the information for this bulletin.]

/EX
SB ALL @ AMSAT $ANS-118.03
R3MIR/7 ON THE AIR

HR AMSAT NEWS SERVICE BULLETIN 118.03 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

Club Station at Russian Launch Site Active.

R3MIR/7 is the clubstation in Bajkonur Cosmodrome (UL7-land). The operator most active at the present time is UA6HZ, Valery Agabekov. He is the one responsible for providing the FT-290 for the MIR mission 2 years ago.

[AMSAT thanks DB2OS and Leonid Labutin for supplying this bulletin]

/EX
SB ALL @ AMSAT $ANS-118.04
UO-14 UPDATE

HR AMSAT NEWS SERVICE BULLETIN 118.04 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

New Bird is Hot Bed of High Speed Data Activity

The level of activity at 9600 baud on UO-14 demonstrates that it is relatively easy to become operational at that speed. A complete list of stations logged on the UoSAT-OSCAR-14 MHEARD list over the last week includes:

DF3LZ, DF5DP, DG3LAE, G0BDD, G3RUH, G4WFQ, G8TZJ, GM4IHJ, I2KBD, JA6FTL, JH1LVN, JH3FDA, JH7CKF, JR1EDE, JR1FRF, KA2MOV, KF4WQ, LU1BEE, LU8DYF, N4HY, ON6UG, VK3DTO, W7KRC.

It was reported that KA2MOV was able to connect to N4HY using 25 watts on transmit and omni-directional antennas for both transmit and receive.

UO-14's command team are planning to load increasingly sophisticated housekeeping software to the PCE this week. The new housekeeping software includes a "file system" for storing WOD and data frames from the Cosmic Particle Experiment (CPE). This data will be downlinked using the standard PACSAT Broadcast Protocol, inside AX.25 UI frames.

Once the housekeeping software is installed, Jeff Ward of the University of Surrey will begin working on the BBS software. This will be a host-mode BBS designed by Jeff and Harold Price, NK6K, specifically for the PACSATs.

[AMSAT thanks AMSAT-UK for the information for this bulletin]

/EX
SB ALL @ AMSAT $ANS-118.05
AO-13 OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 118.05 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

AO-13 Transponder Schedule to 09May90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 208 and BLAT = 0.1 for 30Apr90

Only the Mode-S transponder andd the Mode-B beacon will be ON from MA 195 to MA 200. Beginning in early May, there will be a transponder and attitude change on AO-13. During magnetorquing to BLON/BLAT 180/0 the transponders will be switched off from MA 200 to MA 060. After the attitude change, a new schedule will be announced.

AO-10 is currently experiencing poor solar panel illumination angles and until further notice its transponder is not available for use. It is expected that this will continue for several weeks.

/EX
SB ALL @ AMSAT $ANS-118.06
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 118.06 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970. The net on May 6 may be on Mode B or J/L depending on the transponder schedule at that time.

Date UTC Time Phs Mode NCS U.S. Day

06 May 90 0145 168 *** N5BF Saturday
13 May 90 0250 111 J/L N5BF Saturday
24 May 90 0205 112 J/L TBD Wednesday

04 Jun 90 0120 112 J/L TBD Sunday
15 Jun 90 0035 111 J/L N5BF Thursday
26 Jun 90 0150 156 B N5BF Monday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, or phone (301) 589-6062, or contact your local AMSAT Area Coordinator.

/EX

Posted: Sun, May 6, 1990 6:10 AM GMT Msg: CGJA-4251-7551
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$125

SB ALL @ AMSAT $ANS-125.01
AMSAT'S GREAT SHOWING AT DAYTON

HR AMSAT NEWS SERVICE BULLETIN 125.01 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

Radio Amateurs Show Great Enthusiasm For MICROSATs At Dayton Hamvention '90

At this year's Dayton Hamvention, many thousands of radio amateurs were exposed to the radio amateur satellite service and AMSAT. During the world famous event in which over 35,000 hams participated, over $21,000 was donated to AMSAT. This is taken as a significant expression of support for the MICROSATs and AMSAT's SAREX-II activities. In addition, over 190 hams either became new AMSAT members or renewed their existing membership.

Throughout the weekend, there was always a major traffic jam in front of the AMSAT booth as the friendly AMSAT volunteers worked to answer questions and provide information. All of the volunteers (AA0P, WD0HHU, VK5AGR, N4HY, W5IU, KO5I, W1XT, W3IWI, WA4GSS, K8QKY, K8MU, WA3GOV, WB2IBO, N2QQ, KA8JBA, Martha Sargarovitz, and Barbara Myers) put in long hours to help make this the best Dayton ever for AMSAT.

AMSAT sponsored two forums. AMSAT-NA General Manager and President Doug Loughmiller (KO5I) started things off with a discussion titled: "1990: Year of the Amateur Radio Satellite." At this very well attended forum, Doug presented WD0HHU with a gold watch given to him for his efforts in Kourou, French Guiana during the MICROSAT launch campaign. Doug also talked about where AMSAT has been and what its goals are for the upcoming years.

After Doug, Tom Clark (W3IWI) discussed the Shuttle Amateur Radio Experiment (SAREX) currently planned for mid May. Bill Tynan (W3XO), AMSAT-NA's VP for Manned Operations and news correspondent Roy Neal (N6DUE) further elaborated on the SAREX mission and what it means for hams and school age youngsters all over the world.

Finally, Bob McGwier (N4HY) gave a complete run-down on the MICROSATs. Bob stated that he and Harold Price (NK6K) plan to have all the MICROSAT mailbox BBS software working by Field Day '90. Also, the next time you hear

DOVE-OSCAR-17 (DO-17) on two meters, it will not only be sending packets but also voice transmissions.

During the Saturday evening banquet, N4HY was honored for his many technical contributions to amateur radio by having the "Technical Excellence Award" bestowed upon him by the Dayton Amateur Radio Association.

AMSAT-NA VP for Field Operations, Jack Crabtree (AA0P), coordinator of this year's AMSAT Dayton Hamvention volunteers, wants to thank all those who came by the booth at Dayton. Next year Jack hopes to have an even bigger AMSAT showing at the Hamvention, including an AMSAT dinner banquet.

/EX
SB ALL @ AMSAT $ANS-125.02
WEBERWARE 1.0 NOW AVAILABLE

HR AMSAT NEWS SERVICE BULLETIN 125.02 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

Weberware 1.0 Imaging Software Now Available To Process WO-18 Pictures

Beta testing of Weberware 1.0 (WW 1.0) is complete their testing and it is now released for general distribution. This unique package made its debut at the Dayton Hamvention last week. Many a radio satellite enthusiast was thrilled as an actual picture captured from WEBERSAT-OSCAR-18 (WO-18) was processed on an IBM PC as they watched. Chris Williams (WA3PSD) of Weber State University (WSU) said that although the early pictures from WO-18 were perhaps not all that interesting, now that the ground controllers at WSU have a better understand of this MICROSAT's attitude motion, they have modified the on-board software so that more pictures of the earth are now being snapped. In addition, the software now maintains better control the CCD camera iris settings and settling time. Through more operational experience, many more exciting pictures of the earth are expected soon.

Weberware 1.0 is designed to work on IBM PC clones which support EGA or VGA graphics. WO-18 is constantly sending picture data and the imaging data can be easily collected with a PSK modem. For further information about Weberware 1.0, contact the AMSAT-NA software exchange at (301) 589-6062.

/EX
SB ALL @ AMSAT $ANS-125.03
UOSAT-OSCAR-14 STATUS

HR AMSAT NEWS SERVICE BULLETIN 125.03 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

New Software Being Uploaded Into UO-14

The past several weeks have seen 9600 baud packet activity begin through UO-14's Packet Communication Experiment (PCE). This week a much more sophisticated multi-tasking operating system, known as qcF, was installed in several stages. The first stage involved the multi-tasking kernal and the

Prototype Housekeeping Task (PHT). The PHT greatly facilitates the loading of software into the RAM memory of UO-14. This new software also allows ground stations to digipeat through the PCE. Many stations have been using this digipeating capacity of UO-14 to test their 9600 baud modems. Also added to the PHT software is the telemetry support for the Cosmic Particle Experiment (CPE). The CPE continuously monitors cosmic particle activity and the observations are reported in 53 bytes of data in the telemetry every five minutes.

To complete the final software load to UO-14 so that its mailbox BBS will be in operation, a great deal more work needs to be done. The software which performs the BBS functions include a file server system, the AX.25 packet handling algorithms, and more telemetry development to handle the Whole Orbit Data (WOD) tasks. A major programming milestone was reached on April 27 when a partial load of the final flight software was loaded into UO-14. Software engineers NK6K, G0/K8KA, and WB6YMH are working very diligently on both sides of the Atlantic to get the message store-and-forward software completed soon.

[ANS would like to thank G0/K8KA for providing the information for this bulletin.]

/EX
SB ALL @ AMSAT $ANS-125.04
SAREX-II INFORMATION, PART I

HR AMSAT NEWS SERVICE BULLETIN 125.04 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

Shuttle Amateur Radio Experiment (SAREX) Set To Fly On May 16, 1990

STS-35 is now scheduled to lift-off on May 16, 1990. It will be carrying not only the ASTRO-1 experiment but also SAREX-II. The following is a discussion of the goals of SAREX-II by NASA and the ARRL.

SAREX-II is a secondary payload on STS-35, currently scheduled for launch on May 16, 1990. It will be located in the Aft Flight Deck of the Space Shuttle Columbia. Ron Parise, WA4SIR, the Payload Specialist and astronomer on Columbia will be the Astronaut ham operator.

SAREX-II-02 is a secondary payload on STS-37, currently scheduled for launch on November 1, 1990. It will be located in the Aft Flight Deck of the Space Shuttle Atlantis. Ken Cameron, KB5AWP, the pilot of Atlantis will be the Astronaut ham operator.

The American Radio Relay League (ARRL) is the customer on the SAREX-II payloads. NASA gave its authorization for SAREX operations for the following reasons:

To encourage our youth to become excited about science and technology, and

To familiarize large numbers of the general public with manned space flight

NASA's intent in making astronauts available for SAREX operations is to involve the largest possible number of people, particularly youngsters, in Amateur Radio and the US space program. With amateur radio clubs and hams, our astronauts will speak over amateur frequencies directly with large groups of students, showing teachers, parents and communities how Amateur Radio energizes youngsters about science, technology, and learning.

You can easily become a part of this activity in your local school, as the astronauts will operate the SAREX equipment in the amateur two meter band. You will be able to send and receive messages via packet for periods of about 12 hours daily. The astronauts' work schedules will determine your chances for a voice or television message, but Ron and Ken may have an hour or more each day for these modes.

The Johnson Space Center's Amateur Radio Club station, W5RRR, in Houston, Texas, will re-transmit astronaut's signals to WA3NAN, at Goddard Space Flight Center, in Greenbelt, MD (near Washington, DC), and to W6VIO, at the Jet Propulsion Laboratory in Pasadena, CA. These stations, plus W1AW and several VHF and UHF repeater groups, will re-transmit the signals on most amateur bands so that you and the students can copy the communications. You will hear NASA Mission Commentary, frequent bulletins to advise listeners of astronaut planned transmissions, and all amateur two-way voice and amateur television transmissions with the shuttles. Using a simple hand-held transceiver, you can open the world of science to hundreds of youngsters. Students themselves can take part in the shuttle flight via a packet connection, and some will even be able to talk directly to the astronauts in orbit.

ARRL and AMSAT are co-sponsoring these exciting missions, with AMSAT heading up technical operations. Hundreds of Amateur Radio operators have already been working behind the scenes for months. The ARRL takes the lead with information and educational support. ARRL Educational Activities Branch (EAB) and NASA HQ will create lesson plans for teachers. All you need to provide is a 2-meter rig or a packet radio setup. If you are a teacher or instructor, contact ARRL EAB to get everything you will need and regular news updates. If you are a parent or a grandparent, contact ARRL EAB and a local school. EAB will send you materials, including ways to convince teachers and school administrators that Amateur Radio is an important discipline the school should take advantage of on a full-time basis.

This a tremendous opportunity for you to showcase SAREX 1990 and amateur radio to kids of all ages in a big way. Plan on being a part of it; contact ARRL EAB now and give your best to our exciting hobby and to our hope for tomorrow: America's youth.

Listen to the ARRL Bulletins on W1AW (see QST for CW and voice bulletins) on a daily basis; and to the AMSAT Nets on Tuesdays (U. S.), 3.840 MHz, 01:30Z to 03:00Z, and on Sundays (international), 14.282 MHz, 18:00Z to 21:00Z, +/- QRM.

[ANS would like to thank ARRL and NASA for this contribution. Stay tuned next week to the ANS bulletins for more details about the STS-35 mission and its amateur radio operations.]

/EX
SB ALL @ AMSAT $ANS-125.05
OPERATIONS NET SCHEDULE, REVISED

HR AMSAT NEWS SERVICE BULLETIN 125.05 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Note that the times of these nets have been advanced slightly from the schedule released last week. Please discard the old schedule and refer to this one when planning to participate in the AMSAT-NA Operations Net.

Date UTC Time Phs Mode NCS U.S. Day

13 May 90 0230 104 J/L N5BF Saturday
24 May 90 0145 104 J/L TBD Wednesday

04 Jun 90 0100 104 J/L TBD Sunday
15 Jun 90 0115 104 J/L N5BF Thursday
26 Jun 90 0115 144 B N5BF Monday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, or phone (301) 589-6062, or contact your local AMSAT Area Coordinator.

/EX
SB ALL @ AMSAT $ANS-125.06
PHASE III-D DESIGN MEETING

HR AMSAT NEWS SERVICE BULLETIN 125.06 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

Preliminary Design Review for New Satellite Held in Germany

Amateurs from around the world who are involved in the Radio Amateur Satellite Service are meeting in Marburg, West Germany from May 7 through May 9 to begin work on another major amateur satellite project. The purpose of the meeting is to set specific design goals for Phase III-D. The three days of meetings will cover a wide range of topics. Areas to be discussed will include: launch opportunities, orbit choices and constraints, transponder choices, antenna design, on-board computer systems, and propulsion systems. In addition to setting hardware and software design goals, equally important discussions will focus on labor division between groups, monetary commitment required, and development of a communication structure between groups involved in the program.

AMSAT-NA will be represented at the meeting by Jan King, W3GEY, VP-Engineering, Bob McGwier, N4HY, Dick Jannson, WD4FAB, and Dick Daniels, W4PUJ. (It appears that these guys just can't seem to grasp the concept of "taking a break").

Once formal design goals have been determined, they will made available through the AMSAT News Service.

/EX
SB ALL @ AMSAT $ANS-125.07
FO-20 SCHEDULE ANNOUNCED

HR AMSAT NEWS SERVICE BULLETIN 125.07 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

FO-20 to Remain in JA Mode Temporarily

JAMSAT has announced that while software improvements to the Store and Forward Digital BBS on FO-20 are being implemented, the satellite will remain in Mode-JA. The week of April 29 through May 6 is a Holiday in Japan, and it is expected that the software improvements will be finalized and tested during that week.

/EX
SB ALL @ AMSAT $ANS-125.08
NEW AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 125.08 FROM AMSAT HQ
SILVER SPRING, MD MAY 5, 1990
TO ALL RADIO AMATEURS BT

New Transponder Schedule in Effect After Magnetorquing

Command Stations have been magnetorquing AO-13 during the perigees of orbits this past week. This procedure is essentialy complete and has re-aligned AO-13 for better pointing (squint) angles. A new transponder schedule has been announced by the AO-13 Command Station Team:

AO-13 Transponder Schedule from 05 May 90

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The best estimate of the current attitude is:

BLON = 180 and BLAT = +3 for 05 May 90

More exact values will be announced soon. Only the Mode-S transponder and the Mode-B beacon will be ON from MA 135 to MA 140.

AO-10 is currently experiencing poor solar panel illumination angles and until further notice its transponder is not available for use.

/EX

Posted: Sun, May 6, 1990 6:13 AM GMT Msg: MGJA-4251-7561
From: TCLARK
To: is
Subj: SAREX News Bulletins

SB SAREX @ AMSAT < W3IWI $SAREX.001
SAREX Bulletin #1: Concerning logs

SAREX INFORMATION BULLETIN SAREX.001
de W3IWI 5/6/90

The WA4SIR flight aboard the STS-35 flight of the Shuttle Columbia is still officially scheduled for early May 16th (GMT), although there are some hints that it might slip by one day. The SAREX mission will carry the packet ROBOT automatic QSO machine which will allow many amateurs around the world to have two-way packet QSO's with the Shuttle during the times when our ham astronaut, Ron Parise is busy.

To work the ROBOT, you transmit on 144.950 MHz and listen to the Shuttle on 145.550 MHz. Subsequent SAREX information bulletins will give you operating hints and describe the schedule in more detail.

If you are successful in making a two-way QSO, you call and your unique QSO serial number will be automatically logged and you will receive a QSL card after the mission. You will know you met all requirements of a two-way QSO by seeing your call in the QSL beacon which will be sent every 2 minutes and looks something like:

WA4SIR>QSL <UI>:
NI3F/186 WB2TNL/185 W3IUI/179 WB3AFL/177 NF3N/176 WA3EPT/175
N4QQ/174 W3IWI/172 JY1/153 U6MIR/127

If you are heard by the ROBOT, your call will appear in the QRZ beacon which will look something like:

WA4SIR>QRZ <UI>:
#3405-NE3H NI3F K1LNJ WB2TNL WB3ILO N3ACL N3FWX WA3TSD WA3USG
etcetera

where the #3405 is a serial number incremented every 2 minutes when the QRZ beacon is sent.

Unlike the QSL "worked" list, the QRZ "heard" list is not retained in the ROBOT and the laptop computer on the shuttle. In order to send SWL cards to those who were heard, it will be necessary to have amateurs around the world help to collect the list. When you are monitoring the WA4SIR SAREX transmissions, try to capture the beacons and send them in to us in machine readable format. We are only interested in the QRZ and QSL beacon information; please strip out everything else (like QSOs monitored, any other beacons, etc.). You may send it through the amateur packet network addressed like this:

SP SAREX @ W3IWI.MD.USA

or via the Internet addressed like:

sarex@tomcat.gsfc.nasa.gov

and make the Subject: field contain the date/time of the beacons like:

May 19 @ 03:42z

/EX
SB SAREX @ AMSAT < W3IWI $SAREX.002A
SAREX Bulletin #2: Hints and Suggestions

SAREX INFORMATION BULLETIN SAREX.002
de W3IWI 5/6/90

Here are several hints that may help you make a successful packet QSO with the SAREX ROBOT that will fly with Ron Parise, WA4SIR in mid-May.

1. Frequencies: Your transmitter uplink frequency should be 144.950 MHz and you should listen for the shuttle downlink 600 kHz higher on 145.550 MHz. Under no conditions should you transmit on the 145.550 downlink!

Since there may be other packet or voice activity in your area on these frequencies, local coordination to insure a clear frequency during the ten day STS-35 mission may be needed.

2. Modulation: The uplinks and downlinks are ordinary AFSK/FM 1200 BPS signals, just like most terrestrial VHF packets. No special modems are needed. You are advised to check your transmitter's FM deviation and set it to 3 kHz or less. Most radios are typically set to 5-6 kHz and this will be too wide because of doppler shifts. If you don't have a deviation meter, listen on another radio and crank the tone level down until you hear the volume drop noticeably. Most people run too much deviation on their packet signals anyway, and you will probably find this improves the reliability on terrestrial paths too!

3. When to hear/work the shuttle: During the mission Keplerian elements and predictions will be sent frequently by WA3NAN, W5RRR, W6VIO, and many local FM repeaters, as well as by packet bulletins addressed to @AMSAT. Check with your local AMSAT area coordinators for information in your area. In general in the USA, the windows are in the late evening and early morning hours. Don't expect the SAREX hardware to be activated until the second day of the ten-day mission. Because the inclination of the shuttle orbit is only 28.5 degrees, the signals can only be heard between about +43 and -43 degrees latitude.

[continued in part 2]

/EX
SB SAREX @ AMSAT < W3IWI $SAREX.002B
SAREX Bulletin #2: Hints cont'd

SAREX INFORMATION BULLETIN SAREX.002 continued
de W3IWI 5/6/90

4. LISTEN!!!: Most packeteers don't listen to the BRAAAAP! from their radios, but you should listen during the shuttle activity. If Ron is

personally available, he may turn off the SAREX packet hardware and be QRV on voice.

5. Connecting to the shuttle: All you do is to issue a connect. If you are heard, you will see something like this:

cmd: CONNECT WA4SIR
*** Connected to WA4SIR
#191--- Tnx QSO with the SAREX Shuttle "ROBOT" automatic QSO machine
*** DISCONNECTED

When the ROBOT hears your "ack" of its transmission, it will disconnect and you will be in the log. Because the ROBOT queues information for 3 seconds and sends several replies in one transmission, you should set your DWAIT to about 4 seconds.

6. Multiple QSO's: Once you have worked the ROBOT and make it into the log, no further QSO's from you will be logged (even if you use a different SSID). Give others a chance and don't connect multiple times!

7. Monitor!!!: Every 2 minutes a beacon addressed to QRZ will list stations heard recently, and the QSL beacon will list those worked. Every 3 minutes the Metabeacon (up to 1.7 kbytes in 7 packet frames) addressed to QST will send text describing shuttle activities. Monitor these beacons to keep informed. In Bulletin #1 we ask for you to submit copies of the QRZ and QSL beacons you copy.

8: Your chances for success: Signals from many hundreds of stations can be heard from the shuttle. With FM transmissions, only the strongest signal "wins", just like in a DX pileup. To help, the ROBOT can have up to 9 QSO's in progress at any one time. Perserverance and a well equipped station will help -- but if activity levels are high and the uplink channels are busy, it will be a matter of luck.

/EX

SB SAREX @ AMSAT < W3IWI $SAREX.003
SAREX Bulletin #3: ASTRO-1

SAREX INFORMATION BULLETIN SAREX.003
de W3IWI 5/6/90

Despite all the SAREX activity, our STS-35 ham astronaut Dr. Ron Parise, WA4SIR, is NOT officially going into orbit for the ultimate DXpedition! The reason for the STS-35 mission is to fly ASTRO-1.

With the recent successful STS-31 mission deploying the Hubble Space Telescope (HST) was the first step of an astronomical "double-header". It will be followed in mid-May by the ASTRO-1 mission which will carry a number of specialized telescopes on its 10 day mission. Ron is one of the STS-35's crew of seven which also includes

Vance Brand, Mission Commander
Col. Guy Gardner, Pilot

Dr. Bob Parker and Mike Lounge, Mission Specialists
Drs. Jeff Hoffman, Sam Durrance and Ron Parise, Payload Specialists

The ASTRO-1 Observatory in the STS-35 payload bay consists of four instruments. The first three are mounted on a single pointing systems and fly above the earth's atmosphere to observe in the ultraviolet spectral regions:

1. HUT: The Hopkins Ultraviolet Telescope from Johns Hopkins Univ. is a spectroscopic instrument for observing faint objects like quasars, active galactic nuclei and normal galaxies in the far UV.

2. UIT: The NASA/Goddard Ultraviolet Imaging Telescopy is designed to obtain images (pictures) of hot stars and galaxies with a wide field of view.

3. WUPPE: The Wisconsin Ultraviolet Photo-Polarimeter Experiment is intended to observe the polarization of UV light from quasars, hot stars and galaxies.

This cluster of three UV instruments work together and should make 200-300 observations during the mission.

The fourth instrument is an X-ray experiment with its own independent pointing system:

4. BBXRT: The Broad-Band X-Ray Telescope views high-energy objects like active galaxies and quasars. While BBXRT can be operated independently of the 3 UV instruments, it can be slaved to the UV telescopes for coordinated observations. It is also expected to make 200-300 observations during the mission.

The ASTRO-1 mission is but the first of a series. These and similar instruments will be reflown on later missions. ASTRO requires an orbit with maximum time at night, and minimum exposure to charged particles in the South Atlantic Anomaly -- these requirements dictate a nighttime launch from Cape Kennedy.

/EX

Posted: Thu, May 10, 1990 3:47 AM GMT Msg: CGJA-4255-7711
From: TCLARK
To: is
Subj: SAREX.004: Launch Delay

SB SAREX @ AMSAT < W3IWI $SAREX.004
WA4SIR SAREX/STS-35 LAUNCH DELAYED

SAREX Bulletin SAREX.004
de W3IWI 5/9/90

The flight of WA4SIR with the SAREX hardware aboard the Shuttle Columbia is delayed at least 2 weeks, meaning the flight will be in June at the earliest. The problem is contamination in a valve in

one of the two redundant freon cooling systems. All the tubing associated with the valve is sweated together and there is a lot of concern about using torches in the orbiter to fix it on the launch pad. Normally a repair like this would be done in Orbiter Processor Facility, but this would mean a rollback of the Columbia and a long delay which would in turn force a re-scheduling of the mission. Since the valve replacement is not a usual activity, it is not possible to predict the delay. Stay tuned for more information.

The following is excerpted from a 5/9 NASA press release:

NASA managers today decided to replace an apparently faulty valve in the orbiter Columbia's freon coolant loop. The work, will likely delay the launch of STS-35 by 2 to 3 weeks. A better es- timate of the time required to perform the work will be available early next week. Shuttle managers assessed the relative risks associated with performing the work at the launch pad, versus in the Orbiter Processing Facility, and decided that completing the replacement and checkout on the pad is as safe and effective.

"We are obviously disappointed that we are not ready to fly," said Space Flight Associate Administrator Dr. William B. Lenoir. "However, this particular system is absolutely critical to the safety of the crew and overall mission success, so we have decided to change the component."
/EX

Posted: Sun, May 13, 1990 12:58 AM GMT Msg: MGJA-4258-6063
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$132

SB ALL @ AMSAT $ANS-132.01
STS-35/SAREX-II MISSION DELAYED

HR AMSAT NEWS SERVICE BULLETIN 132.01 FROM AMSAT HQ
SILVER SPRING, MD MAY 12, 1990
TO ALL RADIO AMATEURS BT

Payload Cooling Problem Delays STS-35/SAREX-II Mission

NASA managers this week announced that they have decided to delay the launch of STS-35 due to a problem in a freon cooling system designed to keep the temperature of electronic instruments in the ASTRO-1 Observatory payload within safe limits. The repair of the faulty cooling valve in Shuttle Columbia could take up to three weeks depending on if the work can be done at the launch pad. It is hoped that Columbia will not have to be rolled back to the Orbiter Processing Facility for this work. On this STS-35 mission, payload specialist Ron Parise (WA4SIR) will be be the station operator of WA4SIR-1 for the Shuttle Amateur Radio Experiment (SAREX) that will consist of

a ROBOT packet station and voice operation on 2 meter FM.

Based on information from NASA press releases, it appears that the STS-35/SAREX mission will not be launched before the first week of June. And that depends on how well this never-done-before repair goes. As soon as ARRL/AMSAT officials have be notified about the new launch date, all pertinent information will be issued immediately via ARRL bulletins, ANS bulletins, and AMSAT Nets.

/EX
SB ALL @ AMSAT $ANS-132.02
AMSAT HF NET SCHEDULES

HR AMSAT NEWS SERVICE BULLETIN 132.02 FROM AMSAT HQ
SILVER SPRING, MD MAY 12, 1990
TO ALL RADIO AMATEURS BT

Numerous Regularly Scheduled AMSAT HF Nets Provide Timely Information

With events occuring so quickly in the world of amateur radio satellites, the quickest place to find information about operational news is on one of the many weekly HF AMSAT Nets. The following is a schedule some of these nets:

DAY TIME FREQUENCY NCS COMMENT

Sunday 09:00 UTC 14.280 MHz ZS6AKV AMSAT-SA Net
Sunday 10:00 UTC 3.685 MHz VK5AGR AMSAT Australia
Sunday 19:00 UTC 14.282 MHz WD0HHU AMSAT International Net
Sunday 19:00 UTC 21.280 MHz W8GQW Simulcasts On AO-13 when in View On 145.955 Mode B
Sunday 23:00 UTC 18.155 MHz N4QQ Excellent DX Windows
Tuesday 9:00 P.M. EDT 3.840 MHz W8GUS AMSAT East Coast Net
Tuesday 9:00 P.M. CDT 3.840 MHz W0CY AMSAT Mid America Net
Tuesday 9:00 P.M. PDT 3.840 MHz KI6QE AMSAT West Coast Net
Saturday 15:00 UTC 28.460 MHz WB2YGA AMSAT Beginner's Net
Saturday 10:00 UTC 14.280 MHz PA0DLO AMSAT European Net
Saturday 22:00 UTC 14.282 MHz ZL1WN AMSAT South Pacific Net

In addition to these weekly nets, there are also AMSAT Operations Nets held on AO-13 on a regular basis. The Operation's Net Schedules are published by AMSAT VP of Operations, Courtney Duncan (N5BF). If you are unable to copy any of the above nets, the AMSAT News Service (ANS) bulletins are found on many packet radio BBSs throughout the world. The ANS bulletins contain the latest operational information.

The AMSAT/DRIG land-line BBS contains the not only the current ANS bulletins for the week but also the bulletins for the past several months and other timely information. The AMSAT/DRIG BBS can be reached at (214) 394-7438. Check into the AMSAT Net nearest you and stay up to date in the exciting world of OSCAR satellites.

/EX
SB ALL @ AMSAT $ANS-132.03

MOUSE DRIVER PROBLEM WITH INSTANTTRACK

HR AMSAT NEWS SERVICE BULLETIN 132.03 FROM AMSAT HQ
SILVER SPRING, MD MAY 12, 1990
TO ALL RADIO AMATEURS BT

Microsoft Software Found to Cause Intermittant Problems

Some InstantTrack users have recently discovered a problem where the map "goes away" or "freezes" when they use their mouse. InstantTrack's author Franklin Antonio (N6NKF) has determined that this problem is a result of a conflict with the Microsoft mouse driver [MOUSE.COM] versions 7.00, 7.01, 7.02, and 7.03. Changing to a mouse driver version earlier than 7.00 or later than 7.03 is the cure. An update of InstantTrack is not required to resolve this problem.

Microsoft is aware of the problem, as it occurs with many programs other than InstantTrack. InstantTrack users who are experiencing this problem should contact Microsoft and ask to obtain version 7.04 of MOUSE.COM.

/EX
SB ALL @ AMSAT $ANS-132.04
TELEMETRY ARCHIVE FORMAT ANNOUNCED

HR AMSAT NEWS SERVICE BULLETIN 132.04 FROM AMSAT HQ
SILVER SPRING, MD MAY 12, 1990
TO ALL RADIO AMATEURS BT

OSCAR Telemetry Archive Data Submission Format Announced

Reid Bristor (WA4UPD), AMSAT-NA Microsat Data Archive Manager has released the following information intended to govern submissions to the telemetry archive. Submissions using any file naming convention will be accepted through June 1, 1990 as previously announced. Following that date, files submitted not conforming to the following requirements may be returned for updating by the submitter.

Data is currently being stored within the archive in raw format since this form contains all information and uses the smallest amount of file space. Abbreviated submissions may consist only of raw digital telemetry or CW.

Whole Orbit Data collected from the Microsats to date has been archived; it was collected in single sessions and downlinked repeatedly afterwards. Future WOD reports and all live data, past, present, and future are requested from all satellite listeners.

Reid reports that submissions of and requests for Microsat data are picking up.

DATA SUBMISSION REQUIREMENTS

MEDIA FORMAT:** IBM 5 1/4", 180k,360k,1.2m
IBM 3 1/2", 770k,1.44m

COMMODORE 1541, 1571, 1581
DEC RX01/02, RX50, TK50

FILE FORMAT: 1 file per pass
Filename - mmddhhmm.ssx
mm = Month (02=Feb, 05=MAY, 11=NOV, etc.)
dd = DAY (Correct UTC DAY)
hh = HOUR OF AOS (UTC)
mm = MINUTE OF AOS
ss = SATELLITE NUMBER (17 = DOVE, 19 = LUSAT, etc.)
x = DATA TYPE AS INDICATED

DATA TYPE (x) - A = ASCII (DOVE ascii text, N4HY dump)
C = CW (LUSAT, FO20, AO13, etc.)
P = Processed (N4HY, or LU7ABF, etc.)
R = RAW (KISS format)
T = TELEMETRY
* W = WEBERSAT info

"*" indicates additional characters will be assigned as
WEBERSAT PICTURE data matures.

"**" For accomodation of other disk formats, contact WA4UPD.

SUBMIT TO: Reid Bristor, WA4UPD
4535 Deerwood Trail
Melbourne, Florida 32934
Phone (407) 242-0082

/EX
SB ALL @ AMSAT $ANS-132.05
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 132.05 FROM AMSAT HQ
SILVER SPRING, MD MAY 12, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are
conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are
conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

24 May 90 0145 104 J/L TBD Wednesday

04 Jun 90 0100 104 J/L TBD Sunday
15 Jun 90 0115 104 J/L N5BF Thursday
26 Jun 90 0115 144 B N5BF Monday

For information on the amateur satellite program and how you can participate,
contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062,
or contact your local AMSAT Area Coordinator.

/EX
SB ALL @ AMSAT $ANS-132.06
NEW AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 132.06 FROM AMSAT HQ
SILVER SPRING, MD MAY 12, 1990
TO ALL RADIO AMATEURS BT

New Transponder Schedule in Effect After Magnetorquing

Command Stations have completed magnetorquing of AO-13 during the perigees of
recent orbits. This procedure is essentialy complete and has re-aligned
AO-13 for better Sun angles. The new transponder schedule has been announced
by the AO-13 Command Station Team:

AO-13 Transponder Schedule from 05 May 90

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The best estimate of the current attitude is:

BLON = 180 and BLAT = +3 for 05 May 90

More exact values will be announced soon. Only the Mode-L transponder and the
Mode-S beacon will be on from MA 125 to MA 130. Cross mode B and S QSOs are
possible during MA 135 to 140.

AO-10 is currently experiencing poor solar panel illumination angles and until
further notice its transponder is not available for use.

/EX
SB ALL @ AMSAT $ANS-132.07
FO-20 ELEMENT SET PROBLEMS NOTED

HR AMSAT NEWS SERVICE BULLETIN 132.07 FROM AMSAT HQ
SILVER SPRING, MD MAY 12, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NAs Orbital Data Manager, Dick Campbell, N3FKV has
been informed by Tak Okamoto of JAMSAT that the NASA
elements for FO-20 are in error. It appears that NORAD is tracking
another vehicle launched with MOS-1B and FO-20 (called DEBUT).
This vehicle is about 2.75 minutes behind FO-20 and the elements
from NASA appear to be for this spacecraft. The current elements
being distributed for FO-20 are valid if approximately 2.5-3.0
minutes are added to the user's clock, which should be acceptable
in most cases. Dick is working to resolve this element set problem.

Dissemination of this information to FO-20 users will be appreciated.

/EX

Posted: Sun, May 20, 1990 3:42 AM GMT Msg: NGJA-4265-5154
From: TCLARK
To: is
Subj: SAREX.005 Bulletin

SB SAREX @ AMSAT < W3IWI $SAREX.005
SAREX/WA4SIR flight May 30th

SAREX Bulletin SAREX.005
de W3IWI May 19, 1990

AMSAT has received word that launch of the Shuttle Columbia STS-35 mission with Ron Parise, WA4SIR and the SAREX amateur radio hardware may now take place as early as Wed. May 30 at 04:38z. A flight readiness review that will confirm the launch date is planned for Thurs. May 24.

The NASA launch status report issued 14:30z on Friday, May 18th from Cape Kennedy reports:

STS-35 - COLUMBIA (OV 102) - PAD 39-A

"A new flow proportional valve was successfully installed in Columbia's freon cooling system. A leak check of the freon cooling system pump is planned today. Later today, vacuuming of the system will begin and will continue through the weekend. Early next week, the system will be filled with refrigerant and tested. Repair work and associated testing of the freon cooling system is estimated to be complete by next week."

"Payload officials are continuing to monitor the status of the Astro payload. The Broad Band X-ray Telescope, one of the Astro-1 telescopes, was serviced with argon yesterday."

"Pre-launch activities scheduled this weekend include the installation of ordnance devices, pressurization of the orbiter's hypergolic propellant tanks and loading the dewars, or storage tanks, on the pad's structure with liquid oxygen and liquid hydrogen reactants. During the launch countdown, the orbiter's fuel cell storage tanks will be loaded from these dewars."

Based on an 04:38z launch, the following preliminary Keplerian elements have been supplied by W5RRR at the NASA Johnson Space Center. First the "2-liner" element set JSC-0011:

STS-35
1 00035U 90150.24513889 .00031000 22174-3 0 110
2 00035 28.4690 148.3930 0005720 246.6067 119.6564 15.71792660 20

And the same data in the longer "AMSAT standard" format:

Satellite: STS-35
Epoch time: 90150.24513889
Element set: JSC-0011
Inclination: 28.4690 deg
RA of node: 148.3930 deg

Eccentricity: 0.0005720
Arg of perigee: 246.6067 deg
Mean anomaly: 119.6564 deg
Mean motion: 15.71792660 rev/day
Decay rate: 3.1e-04 rev/day^2
Epoch rev: 2

/EX

Posted: Sun, May 20, 1990 6:16 AM GMT Msg: HGJA-4265-5204
From: CDUNCAN
To: is
CC: w1aw
Subj: ANS$139

SB ALL @ AMSAT $ANS-139.01
ZRO TEST SCHEDULE ANNOUNCED

HR AMSAT NEWS SERVICE BULLETIN 139.01 FROM AMSAT HQ
SILVER SPRING, MD MAY 19, 1990
TO ALL RADIO AMATEURS BT

Station Receiving Tests Schedule Announced

The ZRO Memorial Technical Achievement Award Program, or "ZRO Test" will be reactivated in late May following the mid-May reorientation of AMSAT-OSCAR-13. This activity is a test of operating skill and equipment performance.

During a typical ZRO run, a control station will send numeric code groups using CW at 10 words-per-minute. At the beginning of the run, uplink power from the control station is set so that the downlink matches the general beacon downlink strength. This is level "zero". The control operator will send and repeat a random five-digit number, then lower uplink power by 3 dB (half power) and repeat the procedure with a new random number. This pattern is repeated until a level 27 dB below the beacon is reached (level "nine").

A participating listener monitors the downlink signals until they can no longer copy the numbers. Those who can hear the beacon will qualify for the basic award by copying the code group heard at level "zero". The challenge is to improve receiving station performance to a point where the lower level downlink signals can be copied (levels 6 through 9).

The following schedule of Mode "B" and "JL" ZRO tests were chosen for convenient operating times and favorable squint angles. The "B" tests can be heard on 145.840 MHz and the "JL" tests on 435.945 MHz.

Saturday May 26, 1990 at 2230 UTC "JL"
Sunday May 27, 1990 at 0010 UTC "B"
Sunday June 03, 1990 at 0210 UTC "JL"
Sunday June 03, 1990 at 0350 UTC "B"
Saturday June 16, 1990 at 2200 UTC "JL"
Saturday June 16, 1990 at 2340 UTC "B"

Saturday June 30, 1990 at 1840 UTC "JL"
Saturday June 30, 1990 at 1930 UTC "B"

Any changes will be announced as soon as possible via the AMSAT HF and AO-13 Operations Nets. Recently updated ZRO brochures are available from WA5ZIB, Andy MacAllister, AMSAT V.P. User Operations, 14714 Knightsway Drive, Houston, TX 77083 for an S.A.S.E. with two units of postage. The brochure describes test procedures and means for obtaining certificates and gives some historical background about the program.

All listener reports with date of test and numbers copied should be sent to WA5ZIB at the address above. A report will be returned verifying the level of accurate reception. Good luck!

/EX
SB ALL @ AMSAT $ANS-139.02
PHASE 3A REMEMBERED, PART I

HR AMSAT NEWS SERVICE BULLETIN 139.02 FROM AMSAT HQ
SILVER SPRING, MD MAY 19, 1990
TO ALL RADIO AMATEURS BT

PHASE 3A Lost Ten Years Ago May 23, 1980, Part I

Next Wednesday marks the tenth anniversary of the death of an OSCAR -- an OSCAR which had all the potential of being a great satellite. On May 23, 1980 Phase 3A sat atop the Ariane launch vehicle known as LO-2, attach sideways to the huge Max Planck Institute's Firewheel experiment (See ORBIT June/July '80, pg 9). On that day optimism was running high at the European Space Agency's Kourou, Fr. Guianna launch center because of a previous launch success, and there was no reason to think that LO-2 wouldn't be equally successful. For those who are straining to remember, AMSAT President Tom Clark (W3IWI) was giving the "play-by-play-action" from the Goddard Space Flight Center (GSFC) radio club station, WA3NAN, to radio amateurs around the world through the AMSAT Launch Information Net/Service (ALINS). The launch window opened at 11:30 UTC; because of intermittent rain showers and minor equipment malfunctions "holds" were common during the first hours of the launch window. Finally, the LO-2 vehicle lifted off at 14:29:40 UTC. At this point thousands of hams were holding their breaths as FY7KRU and WA3NAN provided the commentary on the last few moments Phase 3A's short life: at 14:32:57 UTC French controllers were heard saying things like: "non-nominal flying...problem in one engine...the rocket is going down...Kourou radar still tracking" and finally, the worst shock of all, the word "splashdown" was uttered. Phase 3A never reached orbit and the greatness it was destined for. Jan King, holding back tears, summed it up shortly after the launch failure when he said that "the [radio amateur] community will never know what they lost today."

/EX
SB ALL @ AMSAT $ANS-139.03
PHASE 3A, REMEMBERED PART II

HR AMSAT NEWS SERVICE BULLETIN 139.03 FROM AMSAT HQ
SILVER SPRING, MD MAY 19, 1990

TO ALL RADIO AMATEURS BT

Phase 3A Lost Ten Years Ago May 23, 1980, Part II

Jan, Tom, and many of the volunteers who had helped build Phase 3A listened with great sadness as they realized that the focus of many thousands of hours of effort (Jan estimated 30 man years!) was now sitting at the bottom of the Atlantic. Jan recently related the events of that day to WD0HHU saying that upon realizing what had happened he flung a very large book across the room and shouted something appropriate at the top of his lungs. Now, however, he says he doesn't recall what he said -- it is all a "blurr." It should be noted that Jan and the other volunteers were not very far from the tiny little building on the GSFC grounds where Phase 3A was built, integrated, and tested.

According to Tom Clark, "the gloom, despair, and depression lasted for about a day" when Jan and Karl Miezer (DJ4ZC) were heard saying: "Darn it! We worked to hard to quit now. Lets try again. Lighting can't strike twice." At that point Tom wrote to all the AMSAT members requesting their moral and financal support in order to start Phase 3B. The reponse was immediate: over $30,000 was raised in a few months to start the construction of Phase 3B. This unequivocal show of support proved that radio amateurs from around the world wanted to see the AMSAT OSCAR satellite program continue. Recovering quickly from this disaster, AMSAT volunteers realized they still had the knowledge and know-how to build another OSCAR satellite and another: Phase 3B became AO-10, and later, Phase 3C became AO-13.

This week, May 23, 1990, one decade later, take a moment to think about Phase 3A, at 14:36:38 UTC when mission controllers in Kourou announced a "splashdown."

/EX
SB ALL @ AMSAT $ANS-139.04
UO-14 9600 BAUD UPDATE

HR AMSAT NEWS SERVICE BULLETIN 139.04 FROM AMSAT HQ
SILVER SPRING, MD MAY 19, 1990
TO ALL RADIO AMATEURS BT

TNC operations at 9600 bps

Jeff Ward G0/K8KA and other members of the University of Surrey Engineering Team have recently been experimenting with 9600-baud operation using KISS software on TNC-2 clones. The clones used are a Pac-Com TINY-2 and an MFJ 1270. Initially, a version of KISS dated "26 Mar 87" was used but it was found that this version did not work very well for near-full-duplex 9600-baud KISS operation.

Jeff et. al. upgraded the firmware in the TNCs to a version of KISS dated "20 Mar 88". They found that operating on either the Pac-Com or the MFJ TNC with the updated KISS firmware will correctly receive a continuous stream of 9600 baud packets and relay them to the host computer at 9600 baud. The TNC did not seem to drop packets, even when operating at the 2 MHz standard clock speed. It is believed that this is the version of KISS which shipped with the

current TAPR firmware version 1.1.7.

Jeff reports that, unfortunately, with a 9600 baud synchronous input stream and a 9600 baud asynchronous output stream, the TNC's buffers begin to fill up. When the buffer fills (after a minute or so), the TNC crashes. An extra long packet is passed to the host, and operation (on the async side) ceases. You can cure this by turning the async link up to 19.2 kbps - if your host hardware and software can keep up.

Recently, the UoS Engineering Team received a version of KISS firmware dated "11 Dec 89". This version seems not to crash when presented with a continuous 9600 baud input stream and 9600 baud async speed. A setup running this code ran successfully for a number of hours. Unfortunately, this version of the firmware cannot keep up with the input stream unless the TNC clock rate is increased to 4 MHz. If a 2 MHz clock is used, approximately 50% of the packets on a BTTW 9600 baud downlink will be missed.

Jeff concludes: "Get KISS dated "11 Dec 89" or later, jump your TNC-2 clock rate up (using JMP2), and wait for further entertainment as we try full-duplex, full-duty cycle 9600 baud connected mode in a month or so."

[AMSAT thanks Jeff Ward G0/K8KA for the information for this bulletin]

/EX
SB ALL @ AMSAT $ANS-139.05
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 139.05 FROM AMSAT HQ
SILVER SPRING, MD MAY 19, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

24 May 90 0145 104 J/L WB9ANQ Wednesday

04 Jun 90 0100 104 J/L N5BF Sunday
15 Jun 90 0115 104 J/L N5BF Thursday
26 Jun 90 0115 144 B N5BF Monday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your local AMSAT Area Coordinator.

/EX
SB ALL @ AMSAT $ANS-139.06
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 139.06 FROM AMSAT HQ
SILVER SPRING, MD MAY 19, 1990

TO ALL RADIO AMATEURS BT

Transponder Schedule for AO-13 Effective 05MAY90

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The best estimate of the current attitude is:

BLON = 180 and BLAT = +3 for 05 May 90

More exact values will be announced soon. Only the Mode-L transponder and the Mode-S beacon will be on from MA 125 to MA 130. Cross mode B and S QSOs are possible during MA 135 to 140.

AO-10's Mode-B Transponder Now Available for Use:

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

[AO-10 update received from Graham Ratcliff, VK5AGR, via AO-13 beacons.]

/EX

Posted: Wed, May 23, 1990 3:47 AM GMT Msg: GGJA-4268-4161
From: TCLARK
To: is
Subj: SAREX.006 & .007 Bulletins

SB SAREX @ AMSAT < W3IWI $SAREX.006
SAREX Btn #6: WA4SIR-? Call Clarification

SAREX BULLETIN SAREX.006
de W3IWI May 23,1990

Concerning the WA4SIR-? call for SAREX ROBOT operations: In the articles in the AMSAT JOURNAL and 73 MAGAZINE, it was indicated that the SAREX ROBOT would use the call WA4SIR-1 (i.e. using a SSID = 1), and in more recent SAREX @ AMSAT packet bulletins it was indicated that the call would just be just WA4SIR (i.e. SSID = 0); several people sent messages indicating that they were confused.

Both the HK21 ROBOT TNC and the operational software for the GRID laptop computer have the calls defaulted to WA4SIR (SSID = 0) and that call should

be used unless, for some unanticipated reason, the defaults are over-ridden.

The best advice is for you to MONITOR the downlink signals from STS-35 and use whatever call you see on the downlink. The ROBOT TNC code uses only one SSID at a time.

/EX
SB SAREX @ AMSAT < W3IWI $SAREX.007
SAREX Btn #7: Some comments on timers

SAREX BULLETIN SAREX.007
de W3IWI May 23,1990

This note is to give you some additional information on timers involved in sequencing ROBOT packet transmissions.

Because the WA4SIR SAREX ROBOT will be bombarded with signals from tens or hundreds of ground-based users when STS-35 is flying over populated areas, it is not possible for the ROBOT TNC and radio to use normal half-duplex packet procedures -- the CD (carrier detect) signal will simply never drop!

The ROBOT will be running in a modified full-duplex mode. When the ROBOT copies a valid packet frame (or when it is time to send a beacon), the data to be sent is put into a buffer and a timer (which we call the FUDtimer) is started. The ROBOT firmware then queues all other outgoing transmissions in the buffer until FUDtimer expires (3 seconds later), and all downlink frames in the queue are sent in one long transmission. Many who had QSOs with the SAREX demo station at the AMSAT or HEATH booths at Dayton commented on how sluggish the 3 second FUDtimer seemed to be when compared to normal packet operations.

Since the SAREX handheld radio cannot receive when it is transmitting, users should insure that they remain silent and listen when the shuttle is transmitting. In other words, DO NOT RUN FULL DUPLEX ON THE GROUND! Leave your TNC in half-duplex mode (FULLDUP OFF) with CD active just like you do for normal VHF packet operations.

However you should be careful with the setting of two of your TNC's timers -- DWAIT and FRACK. DWAIT is the time interval after your Carrier Detect light goes out and before your transmitter turns on. You want to make sure your connects requests and acks are contained in the 3 second FUDtimer window. If everybody runs the same DWAIT (like the typical 0.1 - 0.5 second values used for terrestrial packet), then everybody will be transmitting at the time. Part of the key to your success when uplink QRM is heavy is to pick a DWAIT that nobody else is using!

FRACK sets the time interval between your transmissions. After you send a frame, your TNC waits for the FRACK time, and then waits for the Carrier Detect signal to drop, then waits DWAIT, and then tries again. You should make sure your FRACK is at least 3 seconds so that you are not transmitting when the ROBOT's FUDtimer decides it is time for it to transmit -- if you are transmitting at the same time, you will miss any packets the shuttle

is addressing to you and you won't have a successful QSO.

Note that your DWAIT (how soon do I transmit?) and FRACK (then how long
do I wait?) parameters and the need to stop transmitting so you can hear
a reply are just like you encounter when working a DXpedition pileup on HF.
If the DX station has a pattern of listening for a few seconds (=FUDtimer)
before transmitting, you may have better luck being the LAST station he
hears, after the din dies down. The differences are that (1) the ROBOT
is a computer and is very predictable and (2) the ROBOT can be working
several stations at one time.

WA4SIR's SAREX mission on STS-35 is the ultimate DXpedition!
/EX

Posted: Fri, May 25, 1990 3:03 AM GMT Msg: LGJA-4270-7634
From: TCLARK
To: is
Subj: SAREX.008: NASA SETS LAUNCH DATE

SB SAREX @ AMSAT < W3IWI $SAREX.008
SAREX Btn 8: NASA Announces Launch Date

SAREX Bulletin AREX.008
de W3IWI May 24,1990

Late this afternoon NASA released the following announcement concerning
next week's launch of the Shuttle Columbia with WA4SIR and the SAREX
hardware:

"STS-35 FLIGHT READINESS REVIEW STATEMENT 5/24/90 5:10P.M. EDT"

NASA managers today set May 30 as the launch date for Shuttle
Mission STS-35 which will carry the Astro-1 payload into orbit.
Columbia will be launched during a window that opens at 12:38
a.m. EDT and extends for 2 1/2 hours. The mission is scheduled
to last 10 days. Landing is set for 4:24 p.m. PDT on June 8."

The May 30 at 12:38 AM EDT = 04:38z launch window is the same as was
indicated in our SAREX.005 bulletin released May 20th. That bulletin
contains the predicted Keplerian element set JSC-0011 which will apply
for a nominal launch at the time the window opens.

We plan to circulate a bulletin this weekend (probably SAREX.009) which
will contain a more detailed time-line for the SAREX activities.
/EX

Posted: Sun, May 27, 1990 3:02 AM GMT Msg: HGJA-4272-3958
From: TCLARK
To: is
CC: sarex
Subj: SAREX.009 Bulletin: Operating Schedule

SB SAREX @ AMSAT < W3IWI $SAREX.009
SAREX Btn 9: Operations Timeline

SAREX Bulletin SAREX.009
de W3IWI May 27, 1990

This table details planned events for Ron Parise, WA4SIR's SAREX activities on the STS-35 mission of the Shuttle Columbia. The tabular entries are given in both Mission Elapsed Time (MET) and UTC (GMT) time. If the launch is delayed from May 30th at 04:38z, the all UTC times should be adjusted accordingly. All times are approximate and should only be used for guidance.

In general Ron's voice opportunities for scheduled demonstrations all take place during the pre-sleep and post-sleep periods. The planned classroom demonstrations to be relayed via Australia and Brazil are denoted by the (VK) and (PY) windows. Any time Ron might choose to try general voice operation should also be during the pre- and post-sleep windows. Ron must also eat and take care of personal matters during these pre- and post-sleep periods.

SAREX ROBOT packet operations are planned for the approximately 12 hour windows between the post- and pre-sleep while Ron is on duty with the ASTRO experiments.

MISSION ELAPSED TIME			
UTC FROM -TO-	DAY FROM	DAY -TO-	
DATE HH:MM HH:MM	# HH:MM	# HH:MM	ACTIVITY
30-May 04:38	0d+00:00		NOMINAL LAUNCH
30-May 15:08 - 15:38	0d+10:30 -	0d+11:00	Pre-Sleep, no activity
30-May 23:38 - 02:23	0d+19:00 -	0d+21:45	Post-Sleep
30-May 23:38 - 01:18	0d+19:00 -	0d+20:40	Setup SAREX
31-May 01:03 - 01:18	0d+20:25 -	0d+20:40	Demo #0 (VK)
31-May 01:23 - 14:58	0d+20:45 -	1d+10:20	SAREX ROBOT
31-May 14:58 - 16:38	1d+10:20 -	1d+12:00	Pre-Sleep
31-May 14:58 - 15:08	1d+10:20 -	1d+10:30	Demo #1 (PY)
01-Jun 01:00 - 01:53	1d+20:22 -	1d+21:15	Post-Sleep
01-Jun 01:53 - 13:38	1d+21:15 -	2d+09:00	SAREX ROBOT
01-Jun 13:13 - 15:08	2d+08:35 -	2d+10:30	Pre-Sleep
01-Jun 13:48 - 14:03	2d+09:10 -	2d+09:25	Demo #2 (PY)
01-Jun 23:08 - 00:38	2d+18:30 -	2d+20:00	Post-Sleep
02-Jun 00:18 - 00:38	2d+19:40 -	2d+20:00	Demo #3 (VK)
02-Jun 00:38 - 12:33	2d+20:00 -	3d+07:55	SAREX ROBOT
02-Jun 12:30 - 14:08	3d+07:52 -	3d+09:30	Pre-Sleep
02-Jun 12:38 - 12:48	3d+08:00 -	3d+08:10	Demo #4 (PY)
02-Jun 22:08 - 23:38	3d+17:30 -	3d+19:00	Post-Sleep
02-Jun 23:08 - 23:28	3d+18:30 -	3d+18:50	Demo #5 (VK)
02-Jun 14:38 - 11:33	3d+10:00 -	4d+06:55	SAREX ROBOT

03-Jun 11:18 - 13:08 | 4d+06:40 - 4d+08:30 | Pre-Sleep
03-Jun 13:03 - 13:18 | 4d+08:25 - 4d+08:40 | Demo #6 (PY)
| |
03-Jun 21:08 - 22:53 | 4d+16:30 - 4d+18:15 | Post-Sleep
03-Jun 21:53 - 22:13 | 4d+17:15 - 4d+17:35 | Demo #7 (VK)
03-Jun 22:38 - 10:38 | 4d+18:00 - 5d+06:00 | SAREX ROBOT
04-Jun 10:23 - 12:38 | 5d+05:45 - 5d+08:00 | Pre-Sleep
04-Jun 11:58 - 12:08 | 5d+07:20 - 5d+07:30 | Demo #11 (PY)
| |
04-Jun 21:38 - 21:58 | 5d+17:00 - 5d+17:20 | Post-Sleep
04-Jun 21:58 - 10:38 | 5d+17:20 - 6d+06:00 | SAREX ROBOT
05-Jun 10:23 - 12:38 | 6d+05:45 - 6d+08:00 | Pre-Sleep
05-Jun 12:18 - 12:33 | 6d+07:40 - 6d+07:55 | Demo #8 (PY)
| |
05-Jun 20:38 - 21:15 | 6d+16:00 - 6d+16:37 | Post-Sleep
05-Jun 21:08 - 10:43 | 6d+16:30 - 7d+06:05 | SAREX ROBOT
06-Jun 10:38 - 11:38 | 7d+06:00 - 7d+07:00 | Pre-Sleep
| |
06-Jun 19:38 - 22:28 | 7d+15:00 - 7d+17:50 | Post-Sleep
06-Jun 19:58 - 20:18 | 7d+15:20 - 7d+15:40 | Demo #9 (VK)
06-Jun 21:38 - 21:58 | 7d+17:00 - 7d+17:20 | Demo #10 (VK)
06-Jun 22:08 - 09:23 | 7d+17:30 - 8d+04:45 | SAREX ROBOT
| |
07-Jun 09:23 | 8d+04:45 | QRT & Stow Hardware
07-Jun 19:33 | 8d+14:55 | Begin De-Orbit

This material was compiled by W3IWI with inputs from W3XO, WA4SIR and W5DID.
It is provided for guidance only and is in no way an offical list.

Check your local packet BBS for bulletins addressed to SAREX @ AMSAT and
listen to WA3NAN, W5RRR and W6VIO for updates during the mission.
/EX

Posted: Sun, May 27, 1990 4:16 AM GMT Msg: NGJA-4272-4062
From: CDUNCAN
To: is
CC: w1aw, bpasternak
Subj: ANS$146

SB ALL @ AMSAT $ANS-146.01
SAREX-2/STS-35 LAUNCH SET

HR AMSAT NEWS SERVICE BULLETIN 146.01 FROM AMSAT HQ
SILVER SPRING, MD MAY 26, 1990
TO ALL RADIO AMATEURS BT

STS-35/SAREX-2 Planned Lift-off Set For May 30, 1990 04:38:00 UTC

This week, NASA officals informed AMSAT and the ARRL that the planned lift-off
of the Shuttle Columbia carrying the Shuttle Amateur Radio Experiment (SAREX)
is now planned for Wednesday, May 30, 1990 at 04:38:00 UTC. PLEASE NOTE: this
is Wednesday morning, 12:38 A.M. EDT in the U.S. Payload Specialist Ron

Parise (WA4SIR) will be the control station operator during the ten day mission. The SAREX payload will consist of a ROBOT packet radio station which will use the call WA4SIR. Also, Ron will be operating 2 meter FM voice when his work schedule permits. Stations wishing to connect to WA4SIR will receive a QSO number which they can use to verify their contact when they send in their QSL card. QSL'ing will be handled by the ARRL. Cards may be sent to the American Radio Relay League, 225 Main Street, Newington, CT, 06111. Please include a s.a.s.e. with your QSL card.

/EX
SB ALL @ AMSAT $ANS-146.02
STS-35 PRELIMINARY ELEMENTS

HR AMSAT NEWS SERVICE BULLETIN 146.02 FROM AMSAT HQ
SILVER SPRING, MD MAY 26, 1990
TO ALL RADIO AMATEURS BT

STS-35/SAREX-2 Preliminary Orbital Elements & Packet/Voice Frequencies

On Wednesday, May 30, 1990, 04:38:00 UTC the Shuttle Columbia is scheduled to lift-off from Cape Canaveral carrying the Shuttle Amateur Radio Experiment (SAREX). As part of the crew, Ron Parise (WA4SIR) will be aboard with the capability to work 2M FM voice and packet radio. The primary frequencies which will be used for both operations will be a simple 600 kHz repeater split of 145.550/144.950 MHz.

The following is the best set of orbital elements available at press time from NASA for the STS-35 mission.

STS-35
1 00035U 90150.24513889 .00031000 22174-3 0 110
2 00035 28.4690 148.3930 0005720 246.6067 119.6564 15.71792660 20

And the same data in the longer "AMSAT standard" format:

Satellite: STS-35
Epoch time: 90150.24513889
Element set: JSC-0011
Inclination: 28.4690 deg
RA of node: 148.3930 deg
Eccentricity: 0.0005720
Arg of perigee: 246.6067 deg
Mean anomaly: 119.6564 deg
Mean motion: 15.71792660 rev/day
Decay rate: 3.1e-04 rev/day^2
Epoch rev: 2

For updates on the orbital elements for STS-35 throughout the ten day mission, stay tuned to WA3NAN, W5RRR, W6VIO, AMSAT Nets, and ARRL bulletins.

/EX
SB ALL @ AMSAT $ANS-146.03
SAREX FREQUENCY LISTING

HR AMSAT NEWS SERVICE BULLETIN 146.03 FROM AMSAT HQ
SILVER SPRING, MD MAY 26, 1990
TO ALL RADIO AMATEURS BT

Downlink/Uplink Frequencies to be used on Upcoming Mission

Get out your HTs and HT programming manuals. You will want to program your 2 meter FM transceivers with the following information.

Shuttle Shuttle
TX Freq RX Freq
+-
North/South 145.55 MHz 144.95 MHz *** Primary ***
American " 144.91 MHz
Frequencies " 144.97 MHz

Remainder 145.55 MHz 144.95 MHz *** Primary ***
of the World " 144.70 MHz
Frequencies " 144.75 MHz
" 144.80 MHz
" 144.85 MHz

These are the frequencies Ron Parise (WA4SIR) will use on both voice and packet. Please note that the frequencies where Ron will be listening for stations ARE DIFFERENT than the one he will transmit on. This is a very important fact to understand. Ron will transmit to earth (downlink) on a single frequency: 145.55 MHz. He will listen for stations transmitting to him (uplink) on the other frequencies listed. This "split" operation is used quite successfully by DXers when operating in an environment where large pile ups are expected.

The first pair of frequencies (noted as primary) is a standard 600 KHz split used by repeaters. This pair was selected so that communicating with SAREX could be accomplished by Hams using standard FM transceivers. If Ron finds that the receive QRM becomes unmanageable, he may listen on the alternate frequencies listed. In North America, the lower section of the FM repeater bandplan extends as high as 144.90. This is why the uplink frequencies only extend down to 144.91 MHz.

There will be no simplex operation with SAREX on either voice or packet. Although packeteers are not used to operation with a TX/RX offset, in this case, it is the only way to connect to SAREX. If you transmit on 145.55 MHz the only people who will hear you are those other Hams in your area trying to contact SAREX (You will most likely become an notorious instantly!).

There should be about 3 KHz of Doppler shift due to the orbital velocity of the Columbia spacecraft. By limiting the deviation of your transmitter to 3 KHz, Ron's receiver should have little trouble capturing your signal.

[This information was extracted from an article written by W3IWI, WA4SIR, and W3XO and published in the March 1990 issue of The AMSAT-NA Journal]

/EX
SB ALL @ AMSAT $ANS-146.04

OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 146.04 FROM AMSAT HQ
SILVER SPRING, MD MAY 26, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

04 Jun 90 0100 104 J/L N5BF Sunday
15 Jun 90 0115 104 J/L N5BF Thursday
26 Jun 90 0115 144 B N5BF Monday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your local AMSAT Area Coordinator.

/EX
SB ALL @ AMSAT $ANS-146.05
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 146.05 FROM AMSAT HQ
SILVER SPRING, MD MAY 26, 1990
TO ALL RADIO AMATEURS BT

Transponder Schedule for AO-13 Effective 05MAY90

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The best estimate of the current attitude is:

BLON = 180 and BLAT = +3 for 05 May 90

Cross mode B and S QSOs are possible during MA 135 to 140.

AO-10's Mode-B Transponder Now Available for Use:

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude

is LON 24 deg LAT -9 deg.

[AO-10 update received from Graham Ratcliff, VK5AGR, via AO-13 beacons.]

/EX
SB ALL @ AMSAT $ANS-146.06
FIFTH ANNUAL AMSAT-UK COLLOQUIUM

HR AMSAT NEWS SERVICE BULLETIN 146.06 FROM AMSAT HQ
SILVER SPRING, MD MAY 26, 1990
TO ALL RADIO AMATEURS BT

AMSAT-UK Sponsors 5th Annual Satellite Colloquium at U. of Surrey.

AMSAT-UK is sponsoring a symposium dealing with all OSCAR satellites and digital communications. With the recent launch of the MICROSATs, UOSAT D & E, and FO-20, OSCAR enthusiasts should find this year's meeting particularly interesting. Questions & Answer sessions with various Amateur Satellite and Packet experts are planned as are tours of the UoSat command station. As in years past, the University of Surrey will be the meeting place for this colloquium. The following is the "line-up" of programs planned for the week of July 26-29:

Thursday July 26th: International Satellite Day
Friday July 27th: Introductory Satellite Sessions
Saturday July 28th: Advanced Satellite Sessions/Packet
Sunday July 29th: Advanced Satellite Sessions/Packet

If you are interested in finding out more details concerning accommodations and the programs to be presented, contact:

Ron Broadbent, G3AAJ
94 Herongate Road
Wanstead Park
London E12 5EQ England

Tel: 081-989-6741
Fax: 081-989-3430 (24 Hours)

Information is also available on the DRIG BBS and the Hamnet Forum of Compuserve in Data Library 5. The file name is UKCOLL.TXT. It is in MSDOS text format. A file in Wordperfect 5.0 format, named UKCOLL.WP5, is also available in the same data library on Compuserve.

Note that the area code for AMSAT-UK has changed. To use AT&T in the United States to call AMSAT-UK replace the 081 prefix with 011-44-81. Contact your long distance carrier for their international dialing instructions.

[ANS thanks Ron Broadbent G3AAJ and Eric Cottrell WB1HBU for this bulletin]

/EX

Posted: Sun, May 27, 1990 4:39 AM GMT Msg: LGJA-4272-4088
From: TCLARK
To: is

Subj: SAREX.009A: Minor correction to SAREX.009

SB SAREX @ AMSAT < W3IWI $SAREX.009A
SAREX Btn #9 correction

A minor typographical error crept into one entry in the timeline in the SAREX.009 bulletin. The line which was sent as:

02-Jun 14:38 - 11:33 | 3d+10:00 - 4d+06:55 | SAREX ROBOT

should have read:

02-Jun 23:38 - 11:33 | 3d+19:00 - 4d+06:55 | SAREX ROBOT

73 de Tom, W3IWI
/EX

Posted: Sun, May 27, 1990 4:43 AM GMT Msg: BGJA-4272-4092
From: TCLARK
To: is
Subj: Concerning changed BIDs

Some of us who post these bulletins onto the packet channels have been taking a lot of heat because some stations, somewhere are changing the BIDs, creating un-necessary duplication of the @AMSAT bulletins. I had complaints from Washington state, Costa Rica, Delaware, Wisconsin just today. Here is the text of a packet bulletin I have circulated about this topic:

SP SYSOP@AMSAT < W3IWI $14001_W3IWI
Concerning @AMSAT BIDs
R:900526/1826z 14001@W3IWI.MD.USA [Balto/Wash MD/DC/VA/DE] Z:21029

Concerning @AMSAT dupes and their BIDs: The @AMSAT bulletins originate (usually on weekends) on a non-amateur channel and are fanned out to regional distribution points with a standard BID like ORB-139.M or ANS-125.03. The local gateways (including KD9QB, W3IWI, N4QQ, WA4ONG) all post them with the same pre-assigned BID but with their own call as the originating station. Any you see with BIDs like 12345_W3IWI or 23456_KD9QB have been changed somewhere!

The past couple of weeks (and for the duration of the WA4SIR STS-35 flight) you have also seen some SAREX @ AMSAT bulletins with BIDs like SAREX.008 originating here at W3IWI. Occasionally (like right after a launch) you may also see some @AMSAT bulletins with "hot" news originating with non-standard BIDs, and some @AMSAT bulletins from elsewhere (like Europe and Australia) may also "leak" into the system with non-standard BIDs.

It appears that some BBS stations have their software configured to drop the original BIDs under some conditions, while others have their software configured to reassign BIDs (or MIDs=Message IDs) based on the forwarding headers in a message. It appears that AA4RE's REBBS and WA8BXN's MSYS code may have some options which may permit this to happen. No problems have been seen that could be traced to WA7MBL, W0RLI, CBBS or PRMBS BBS code.

The problem is serious -- some weeks I have seen as many as 3 or 4 copies of some @AMSAT and @ARRL bulletins make it into the system. Please review your BBS software configuration options and make sure that you are not the unwitting source of problems.

Tnx & 73 de Tom, W3IWI

/EX

3187. Stealth Paint Needed

Newsgroup: rec.ham-radio
Date: 1990-05-30 07:43:11 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9005300743.AA29059@tecnet1.jcte.jcs.mil>
Source record: 11293

In article<2341@anasaz.UUCP> Reply-To: john@anasaz.UUCP (John Moore) writes:

>The problem is that the paint apparently had a significant dielectric
>effect, screwing up the antenna. I certainly don't want to mess up
>my HF beam!

>Does anyone KNOW where to get paint with minimal effect, that can be
>applied directly to aluminum radiating surfaces? Does anyone know what
>this stuff is called, or specific brands?

I would suggest either an epoxy-polymide base paint or a polyurethane
(poly-u) commonly called by the trade name of Imron. Poly-u is rather
hazardous to your health if you happen to inhale it... like it coats
your lungs and then you die by suffocation. I won't bore you with a
lot of horror stories, but it is dangerous if you are careless, so be
careful... enough said.

Neither of these paints contain any form of lead base or anything else
that will screw up RF with the proviso of the pigment. Some colors
contain lead and WILL cause weird things to happen. We have used these
paints on aircraft antennas that operate across the spectrum (well, at
least up to about 20 Ghz) with no measured ill effects.

Commercially, ask for Imron, but be careful to study the contents of
pigmentation.

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

3188. 2M antenna ideas for Dodge caravan wanted

Newsgroup: rec.ham-radio
Date: 1990-05-30 11:21:00 UTC
From: tom@ARO-EMH1.ARMY.MIL
Message-ID: <9005301137.AA20427@ucsd.edu>
Source record: 11294

I have a Plymouth Voyager, and mounted a Larsen dual-band (2/70) antenna using the "L-bracket" on the front hood of the car (directly opposite to the van's broadcast band antenna). The coax is easy to snake into the passenger compartment through one of the firewall feedthroughs. The biggest difficulty I had was physically mounting the rig: my van has the "console" option, which doesn't leave much room for a radio. I have it mounted just over the drivers right knee, which seems to work OK (but you need to use care when mounting it to give it adequate support, and keep it insulated from the car electronics). Other hams I know have mounted theirs on the drivers chair. My only problem now is a spur created by the car electronics on 146.52 (you can pick this up quite well on caravans/voyager from quite a distance with your HT!).
Tom, N9CGD

3189. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-30 12:03:20 UTC
From: bower@hfsi.UUCP
Message-ID: <377@hfsi.UUCP>
Source record: 11295

One afternoon, while driving home (on an interstate toll road), I was being held up by someone driving UNDER 55 in the left lane. I flashed my lights at the driver and was ignored. I did it again and was still ignored. The third time (I avoid passing on the right since I consider it very dangerous) I was not ignored. I was flipped the bird by the passenger.

Well, that was enough so I started to go around on the right. As I drew beside the car, I noticed that the passenger noticed my strange antenna on the roof. (I have a dual bander in the car and my antenna is actually two short whips on one base in a "V" shape.) I QUICKLY reached for my microphone and started (from her visual perception) describing the car in detail. She could see I was talking on the microphone and she could see that I was looking very intently at parts of the car but she couldn't see that I didn't have the mic keyed. After "describing" the car, I backed off to "get the license number" and report that. When I dropped back, she QUICKLy moved to the right lane. She must have thought I was the cops or something.

Michael Bower - N4NMR Honeywell Federal Systems Inc.
e-mail: uunet!hfsi!bower 7900 Westpark Drive.
phone:(h) 703-435-5081 (o) 703-827-3559 McLean, VA 22102

3190. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-05-30 12:56:42 UTC
From: ean@gvlv3.gvl.unisys.com
Message-ID: <753@gvlv2.GVL.Unisys.COM>
Source record: 11296

In article <9005251954.AA06231@ti.com> dube@cpdvax.csc.ti.com (DUBE TODD) writes:
>Robert Casey (rfc@briar.Philips.com (Robert Casey)) mentions commercial
>radio call sign "NERD" and wondered if there were a "N3RD". How about
>a new "B" prefix? It would be great for one of our private pilots...
>it could be "B1RD".

Yes, indeedy, there is a N3RD. Dave Hawes who once lived a block from
me holds that call. He *IS* active in DX.

Ed Naratil (All standard disclaimers apply)
AMPR: W3BNR@N3LA.#EPA.PA.USA.NA ean@gvlv3.gvl.unisys.com

3191. Re: E-skip city!!

Newsgroup: rec.ham-radio
Date: 1990-05-30 14:56:45 UTC
From: reisert@tallis.enet.dec.com
Message-ID: <12048@shlump.nac.dec.com>
Source record: 11297

In article <9005291534.AA12629@marlin.nosc.mil>,
price@MARLIN.NOSC.MIL (James N. Price) writes...

>Well, two unusual occurances in San Diego yesterday--it rained
>almost an inch (probably hasn't rained in Southern Calif. on
>Memorial Day for 50 years) AND the TV was hopping with E-skip all
>day long! The 6-meter guys were going nutz with working rare grid
>squares, too.

Here in the "Nawtheast" the band opened up on Sunday afternoon for the first time. W1JR managed to work a VP9 and FY, but the W2's had a much better day, working Cuba, Uruguay and Argentina. On Monday, LU2DEK finally broke through the W2 curtain (about 55 here), as did a couple of CO2s (CB and KK). There were also reports of W7s (double hop). Yesterday afternoon was poorer, didn't hear any SA, but did work K1FJM in Miami with great signals. This is in addition to the 'normal' stateside E-skip in the evenings.

jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@tallis.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!tallis.enet!reisert
295 Foster Street
P.O. Box 1123
Littleton, MA 01460

3192. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-30 15:18:38 UTC
From: jenkins@jpl-devvax.JPL.NASA.GOV
Message-ID: <8236@jpl-devvax.JPL.NASA.GOV>
Source record: 11298

In article <345@wyn386.mi.org> danielw@wyn386.UUCP (Daniel Wynalda) writes:
>I became a HAM last year. About 6 weeks after I got my license it paid
>for itself. [story deleted]

I was going to email a reply, but this warrants wider distribution.
Please don't use the word "fit" to describe an epileptic seizure. It's
an archaic term, a vestige of darker times when epilepsy was seen as
more sinister than it is today.

--
Steve Jenkins N6UNI jenkins@jpl-devvax.jpl.nasa.gov
Caltech/Jet Propulsion Laboratory (818) 354-0162

3193. Calls we'd like to hear (was re:funky calls...)

Newsgroup: rec.ham-radio
Date: 1990-05-30 15:44:40 UTC
From: lkay@ecs.umass.edu
Message-ID: <9964.2663ea69@ecs.umass.edu>
Source record: 11299

Of course, it's only a matter of time before the USSR issues:

RG8U

I don't remember seeing it in the '90 CB, and, forgive me, I can't remember where UG* is right this moment (Georgia?).... I do remember a friend (not me, of course) goofing off at Field Day a few years back, passing out QSOs at 4 am on 40 phone from RG8U in the Coaxial Islands....

Len
--

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3194. Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-05-30 15:53:00 UTC
From: postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
Message-ID: <9005301451.AA26599@ucsd.edu>
Source record: 11300

From: POSTMSTR @SSXMB
To: MRREMNET @MRGATE
WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

Author:
Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
Subject: Info-Hams Digest V1 #1
Message Class:

Recipients:

BCCROWE@DALMAC

Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

3195. Re: TH215 speaker woes

Newsgroup: rec.ham-radio
Date: 1990-05-30 16:00:07 UTC
From: lcz@dptspd.sat.datapoint.com
Message-ID: <527@dptspd.sat.datapoint.com>
Source record: 11301

dave@csd4.csd.uwm.edu (David A Rasmussen) writes:
>I turned on my kenwood Th215 the other day and got no audio from the speaker.
>The earphone jack still works but I hadn't used that before the speaker died.

I have not had exactly that problem, but yesterday I had to replace the volume control on my 215 for the THIRD time. The first time was under warrenty, but not the last two. The problem is that the only mechanical support for the volume (and squelch) control is from the leads soldered to the PCB. In each case, the control developed a hairline crack in one of the leads. This time, when I replaced the control, I used a hot glue gun to add some support.

Has anyone else had this problem, or am I just lucky? One of the guys at the local ham store told me that Kenwood had this problem, as well as a problem with the PTT switch, in the 215. He said that they supposedly fixed them in the 225. Any truth to this?

As a side issue, can anyone tell me the difference between the 215 and the 225? The ads look almost identical, except that the 225 is rated for 6 watts when run from an external power supply.

73/Lee, N5LYT

3196. Finding power-line noise

Newsgroup: rec.ham-radio
Date: 1990-05-30 16:28:31 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <46167@iuvax.cs.indiana.edu>
Source record: 11302

The following was received from KA5FYI (Austin, Texas). I have sent a copy to a friend at the local power company:

TIPS FOR FINDING LINE NOISE

The City of Austin Electric Utility Department (397-1433) will look for and repair sources of radio noise provided the noise source can be found and that it is caused by equipment owned by the City. This process can be greatly speeded up if you perform as many of the following as possible and have a good idea of the noise source from your own investigation.

1. CHECK YOUR SHACK AND HOME FIRST

Kill the power to your house and listen on a portable receiver. Test the individual loads if necessary.

2. LOCATE THE GENERAL NEIGHBORHOOD OF NOISE

A low-frequency radio like an A.M. radio can be used to find the boundaries of a large area that is noisy.

3. WALKING DIRECTLY TO A SOURCE USING ONLY AN A.M. RADIO

Sometimes it is possible to use the null position on an A.M. portable radio and walk directly to the source. Walk in a direction that parallels the axis of the rod antenna. If noise standing-waves are present, this method will not work.

4. SWITCH TO A HIGHER FREQUENCY

The higher the frequency on which the noise can be heard, generally the nearer you are to the source and the more direct will be the radiation from the source.

5. USE A BEAM ANTENNA ON THE HIGHEST FREQUENCY POSSIBLE

If the noise can be heard on VHF (2 meters) and you have a beam antenna and a portable rig (transmitter hunters), then you are all set up to pinpoint the noise source. Even FM rigs indicate noise on their S meters. Also try your 10 meter beam antenna to find the general direction of noise.

6. FREQUENCY CHARACTERISTIC OF THE NOISE

If the noise can be herd loudly on 80 or 40 meters and very weakly on 10 meters, the noise may be blocks from you. If it is loud on all bands it is probably nearby. If it is loud on a higher frequency band like 15 meters but cannot be heard on other bands, then the noise is

radiating from a metal object resonant on that band.

7. PERIODIC NATURE OF NOISE GIVES CLUES

If the noise comes on at a given time, it is probably not power line noise; try to find the culprit by observation.

8. THE SOUND OF THE NOISE GIVES CLUES

A sharp-sounding noise that a noise-blanker handles well is probably a shunt discharge to ground (lightning arrestor or leaky insulator). This is a low-current leakage (it would blow up with high current) through a high resistance go ground. An exception to this is a sharp noise that comes from a loose ground connection. A soft buzzing sound that varies considerably with time indicates a bad connection with a relatively high current (a bad switch or connector).

9. VARIATION WITH WIND AND RAIN

If the noise stops with rain, it probably was caused by a bad switch, connector, or a very slack span of bell insulators. The rain fills the microscopic gap, thereby extinguishing the arc momentarily. On windy days a noise source may vary with the motion of the conductor in the wind. Either of these eliminates the source being a leaky lightning arrestor.

10. SLOWLY PULLING ELECTRIC GUY-WIRES YIELDS INFORMATION

If pulling hard but smoothly on a guy wire on about 2-second intervals causes the noise to drop in and out, it's time to call the Electric Utility.

11. THINK SAFETY FIRST; NOISE IS SECONDARY TO LIVING

Be careful around power lines. They can produce as much power as a dynamite explosion under a fault condition if it occurs near a substation. Do not use ladders, poles, etc. to touch any 'hot' elements. Watch for anything else that might come in contact with the line, such as a tree. Also, the noise could be caused by loose hardware hanging and touching something that has high resistance.

12. NOISE IS 99.9% CERTAINLY NOT FROM A TRANSFORMER

They self-destruct if noisy enough to be heard.

....K5GP

--

Frank W9MKV reid@ucs.indiana.edu

3197. IRC prices

Newsgroup: rec.ham-radio
Date: 1990-05-30 16:59:48 UTC
From: Luigi@MTS.RPI.EDU
Message-ID: <1832533@MTS.RPI.EDU>
Source record: 11303

>From: swrinde!cs.utexas.edu!ut-emx!trey@ucsd.edu (Trey Garlough)
>Subject: QSL Managers
>Message-ID: <30654@ut-emx.UUCP>
>....<other stuff here>....
>QSL cards (average of two or three), compensation (a green stamp or
>two IRCs; IRCs can be had for $0.40 on the secondary market) and a
>return envelope. I try to view this as a fixed expense for getting
>cards from overseas....

I use a similar how-to-get-a-dx-QSL method, but I must be in the
dark about IRC's! I have been paying uncle sam $0.95 for each at
my local post office. How do you get them for $0.40 and where??

Tell us about this secondary market (or e-mail direct)!

--... ...-- -.. . -.- .- .---- ..- - ..-
J. Luigi Giasi, KA1UTU: luigi@mts.rpi.edu; luigi@RPITSMTS.BITNET
President of W2SZ, RPI-ARC (dammit Joel, why didn't you run again!)
Rensselaer Polytechnic Institute ARC, Troy, NY W2SZ@WA2UMX
W2SZ/1 FN32 Mount Greylock, Massachusetts: Work us 6m->24Ghz 6/9-10
"Even a blind chipmunk stumbles across an acorn once in awhile!"
-- ----.-

3198. Need copy of ascii to braille filter

Newsgroup: rec.ham-radio
Date: 1990-05-30 17:04:25 UTC
From: kinsman@ektools.UUCP
Message-ID: <2671@ektools.UUCP>
Source record: 11304

Hello net, I'm searching for a copy of a program which was popular in the early to mid 70's. It would take a line of characters destined for a printer and convert them to braille characters in a 2x3 pattern of periods which after multiple strike-overs could be read as braille through the back of stiff paper. An impact type printer like an old ASR 33, or IBM selectric was required, but the end result was tolerable braille output. These old printers often are sold at ham fests, I've had requests from several bind hams for software to do this type of conversion. If you have a program like this for general distribution, I'd truly enjoy a copy. Thanks.

Andrew Kinsman rutgers!rochester!kodak!ektools!kinsman
Eastman Kodak Co., Rochester, N.Y. "Little Yellow Box Factory"

3199. RE: funny callsigns etc.

Newsgroup: rec.ham-radio
Date: 1990-05-30 17:18:01 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990May30.171801.6378@ecn.purdue.edu>
Source record: 11305

>>From: AllanWS@cup.portal.com (Allan BA Schlaugat)
>> "So who got VD....."
>ragchew repeater it became clear that someone local got KE9VD.
>Yup.. my good friend contracted the call. :-)) To add misery
>to this story, he works in the local hospital as a surgical
>technician.
>By the way, he applied for a change of call from the FCC citing
>that he thought it was "disgusting". He did get a new call:
>KE9VV.. humm the beginning of a exam!! ;-)))

Wow...funny this would pop up - I just worked KE9VV on 10M recently. If I'd have known about this, I would have suggested he keep KE9VD. Here's why:

Some years ago, I used to work Field Day with the La Porte, IN, club, call K9JSI. Used to be great fun, mostly because the group of guys were really nice folks - there weren't any overbearing snobs involved with the contest stuff.

At any rate, this particular FD there was quite a nice opening on 40M somewhere around, oh, I'd guess about 3AM. Stuff rolling in from about anywhere.

Upon having more or less established a frequency and becoming the center of a minor pileup, we called, once again, "QRZ - here is K9JSI" and got called by (I think this is the right call) W2SEX. Everybody in the tent laughed and the op. at the time (I was tracking dupe sheets) asked, "have you contracted, er, contacted W4VD yet?" (we had and thought it an amusing co-incidence). He said no, and immediately we heard W4VD, who was still listening to our pile-up, come back - they completed an extremely funny contest QSO and would have gone on their respective ways were it not for the relative anarchy of probably 100 stations all calling at once asking "may I contract W4VD?" and/or "we'd like some W2SEX..."

K9JSI vacated the frequency for them. :-)

Disclaimer: Not having the K9JSI log sheets available, I am *not* 100% certain about the callsigns. It *was* 3 AM, you know... :-)

Gosh, WB9JLH was one of the other fellows, but that call isn't in the database. Shows KD9FG - wonder if it is the same fellow.....

Duane - WB9OMC

3200. Re: HST transmissions

Newsgroup: rec.ham-radio
Date: 1990-05-30 17:43:52 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990May30.174352.9182@portia.Stanford.EDU>
Source record: 11306
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

HST uses the Tracking Data Relay Satellite System (TDRSS), which is encrypted (with something presumably stronger than DES). It would be the proverbial good thing if someone at STSCI would make some of the images available via anonymous ftp....

-=Paul Flaherty, N9FZX/VK2WYX | "Anything below 1,000,000,000 Hz
->paulf@shasta.Stanford.EDU | is just nervous DC."

3201. Re: E-skip city!!

Newsgroup: rec.ham-radio
Date: 1990-05-30 17:51:27 UTC
From: trey@ut-emx.UUCP
Message-ID: <30698@ut-emx.UUCP>
Source record: 11307

In article <12048@shlump.nac.dec.com>, reisert@tallis.enet.dec.com (Jim Reisert) writes:
|
| In article <9005291534.AA12629@marlin.nosc.mil>,
| price@MARLIN.NOSC.MIL (James N. Price) writes...
|
| >Well, two unusual occurances in San Diego yesterday--it rained
| >almost an inch (probably hasn't rained in Southern Calif. on
| >Memorial Day for 50 years) AND the TV was hopping with E-skip all
| >day long! The 6-meter guys were going nutz with working rare grid
| >squares, too.
|
| Here in the "Nawtheast" the band opened up on Sunday afternoon for the first
| time. W1JR managed to work a VP9 and FY, but the W2's had a much better
| day, working Cuba, Uruguay and Argentina. On Monday, LU2DEK finally broke
| through the W2 curtain (about 55 here), as did a couple of CO2s (CB and KK).

No joke. HF Conditions were so bad this weekend during the contest that
I occasionally wandered over and worked some guys on 50 MHz. I managed
to pick up HR1LW (Honduras), VP2VCW (Tortola) and some Cubans. You could
call one CQ and get a pileup of W4's and W8's. I guess it's getting to
be summertime again.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

3202. Re: QSL managers

Newsgroup: rec.ham-radio
Date: 1990-05-30 18:44:19 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005301901.AA22060@ti.com>
Source record: 11308

I used to qsl 100%. After 9 months of operation and qsl's to a number of European and Japanese stations/managers/bureaus who haven't seen fit to respond, I've reduced my qsl-ing to 100% U.S., where I get about 65 percent return.

I've always felt that the qsl was a neat little courtesy that you extend to other Hams whom you've not worked before; not a means to finance your station.

As for me sending blackmail money to get qsl cards back; well, forget it! If I don't get theirs, it's no biggie. I got 'em in my log.

No, you don't owe me your qsl card, even if I send one to you. But

3203. Re: "Espionage Devices"

Newsgroup: rec.ham-radio
Date: 1990-05-30 19:08:17 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <46187@iuvax.cs.indiana.edu>
Source record: 11309

In article <999@s8.Morgan.COM> amull@Morgan.COM (Andrew P. Mullhaupt) writes:
>>I would assume this is why in the recent anti-espionage law, they
>>only outlawed high capacity burst transmitters, as opposed to burst
>>transmitters in general.

>...
>Gawd. What idiocy.

>Phil

Like the ECPA, this is just another step toward a brutopia where
everything not mandatory is forbidden.

--

Frank W9MKV reid@ucs.indiana.edu
"In Pottsylvania, everybody is a spy and everything is a secret."
--Bullwinkle

3204. 6JB6s etc.

Newsgroup: rec.ham-radio
Date: 1990-05-30 19:19:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005310602.AA10386@ucsd.edu>
Source record: 11310

I have a Drake TR-4C (my first HF rig--purchased a year ago in November) and as it was my first rig, in learning to tune up, etc. the finals have been through some torture. Does anyone know of a good source for tubes of all kinds, especially the 6JB6s. I need three and they must be matched. Drake wants about $26 apiece (double their price a year ago!).

As an example of the wear and tear these tubes have seen, when I first got the rig, I was able to get out over 100 W on 10M. That's now down to < 25W on a good day!

On lower bands (15,20,40,80) I was able to get out over 200 and am now down to < 150W. Not too bad, really. But under 25 W doesn't cut it for me on 10M.

The Drake is capable of over 300 barefoot, so you can understand my interest in new tubes! At least now I can tune up quickly and properly, so the old finals served their purpose.

Donations will be accepted!! :-)

Thanks for your help, as usual.

Mark Lowe - KB5III

MCL9337@TAMVENUS.BITNET

3205. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-30 19:37:03 UTC
From: tad@ssc.UUCP
Message-ID: <772@ssc.UUCP>
Source record: 11311

N9FZX told about being pulled over by a ham/hiway patrolman who wanted
to use his two meter radio.

Last year I was on my first date (and last) with Heidi, and she was kind of
wondering about the antennas on my car. We were headed down Roosevelt Way
in Seattle, when I saw flashing blue lights behind me. I got out of the
car to meet the Seattle police officer. He had just gotten his ham license,
and all he wanted to know was what kind of radios I had in the car!
We chatted for a few minutes, and then I was on my way.
f
I think after that Heidi KNEW we
hams were crazy.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3206. e-mail callsign server

Newsgroup: rec.ham-radio
Date: 1990-05-30 19:40:58 UTC
From: brian@positron.amd.com
Message-ID: <1990May30.194058.13167@mozart.amd.com>
Source record: 11312

Is there a callsign server on the network that responds to e-mail
requests? How recent is its database?

--
Brian McMinn brian@amd.com
Advanced Micro Devices N5PSS
Austin, Texas 1-(512)-462-5389
"You can't leap a chasm in two jumps."
Brian McMinn brian@amd.com
Advanced Micro Devices N5PSS
Austin, Texas 1-(512)-462-5389
"You can't leap a chasm in two jumps."

3207. Cable (As in fire breathing monster cable)

Newsgroup: rec.ham-radio
Date: 1990-05-30 21:32:06 UTC
From: guhsd000@crash.cts.com
Message-ID: <2906@crash.cts.com>
Source record: 11313

I have quite a bit if Andrew Twinax (no number on it, sorry) that's 100% shielded, foam, and a center conductor of more than 1/8 inch in diameter.

The shielding looks alot more like conduit. I know it's for microwave, basically no loss, quality cable.

But, since I don't own a microwave tower and dishes, waveguides etc...and have no plans to, can I use it for regular applications? I'm not worried about the cable, the way it's designed it could be used to carry AC to the house, I just don't know the ratings of such monsters, dielectric/impedence/etc...

I can load it for 50 ohm if need be, yes, I know it would be over designing my antenna system quite a bit, but I rather use it than sell it off, if I could find someone interested in such a small quanity, when utilities buy it in 2000 foot bolts.

Ideas? (Constructive) Comments?

3208. Re: e-mail callsign server

Newsgroup: rec.ham-radio
Date: 1990-05-30 22:51:50 UTC
From: lcz@dptspd.sat.datapoint.com
Message-ID: <528@dptspd.sat.datapoint.com>
Source record: 11314

brian@positron.amd.com (Brian McMinn) writes:
>Is there a callsign server on the network that responds to e-mail
>requests? How recent is its database?

I have a callsign server that responds to mail requests. To access it,
send mail to callbook@sat.datapoint.com. In the body of the message,
include a line with the word "lookup" followed by one or more callsigns.

For example:

lookup n5lyt w5ifp kz5zzz

For more information, include a line with the single word "help".

The database is based on September 1989 FCC records, but does not
include club stations. U.S. callsigns only, of course. I intend to
update the database each year.

Currently, you can lookup by callsign only. I hope to add other
search criteria in the future.

73/Lee, N5LYT

3209. Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-05-30 23:04:58 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9005302304.AA13302@cmr.ncsl.nist.gov>
Source record: 11315

I've noticed a running series of messages concerning short or odd ham calls.
Here's another. Looking through the RSGB Call Book which I bought a couple of
weeks ago at the RSGB VHF Conference, I came across a list of VHF/UHF ham
beacon stations. It lists a number of those in the US, but also a lot we don't
ever hear this side of the Pond..... one of which is --- I5I !!!!
That must hold the record as the shortest ham call.
Full details are: frequency 1296.855 MHz location Pistoia (Italy)
Grid locator JN53LL height asl 550 meters antenna 4 Mini wheels
ERP 10 W
Can you top this?
73, Bob W3OTC

3210. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-30 23:44:00 UTC
From: hays@apollo.HP.COM
Message-ID: <4ab5c461.20b6d@apollo.HP.COM>
Source record: 11316
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <3342@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>
>The AF-1 phone patch frequencies were silent but later I found out
>that Bush had taken a helicopter to Austin from Houston so AF-1
>never landed in Austin hence no AF-1 activity.
> C.T.
> WB4HVD

Air Force 1 is any aircraft carryin the president ... thus the helicopter
for that short trip was AF-1 ....

John KD7UW

3211. Re: Callsign restructuring

Newsgroup: rec.ham-radio
Date: 1990-05-31 00:06:00 UTC
From: hays@apollo.HP.COM
Message-ID: <4ab5d808.20b6d@apollo.HP.COM>
Source record: 11317

While living in Seattle area I was told I could mae a good deal of money
if I could sell my callsign (KD7UW) .. seems University of Washington fans
like those sort of things?!?

John KD7UW

3212. Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-05-31 00:28:42 UTC
From: spl@duck.ncsc.org
Message-ID: <2239@speedy.mcnc.org>
Source record: 11318
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays) writes:
>Air Force 1 is any aircraft carryin the president ... thus the helicopter
>for that short trip was AF-1 ....

I don't think that's correct. I believe the Presidential helicopter is flown
by the Marine Corps and is called Marine 1.

I tried looking this up in a couple of references that I had handy but
couldn't find anything either confirming or negating. Does anyone have a
better library?

spl (the p stands for
Presidential Candidate
of the Silly Party)
--
Steve Lamont, sciViGuy (919) 248-1120 EMail: spl@ncsc.org
NCSC (The other one), Box 12889, Research Triangle Park, NC 27709
"It's not a question of whose habitat it is, it's a question of how hard you
hit it." -Douglas Adams, "Hitchhiker's Guide to the Galaxy"

3213. Re: Calls we'd like to hear (was re:funky calls...)

Newsgroup: rec.ham-radio
Date: 1990-05-31 01:12:10 UTC
From: brian@ucsd.Edu
Message-ID: <14026@ucsd.Edu>
Source record: 11319

That's "RG8AU, stranded on polyfoam island. Handle here is Braid."

At least you got part of it right.

3214. Re: Calls we'd like to hear (was re:funky calls...)

Newsgroup: rec.ham-radio
Date: 1990-05-31 01:31:35 UTC
From: cs00jmc@unccvax.UUCP
Message-ID: <2078@unccvax.UUCP>
Source record: 11320

In article <14026@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>That's "RG8AU, stranded on polyfoam island. Handle here is Braid."
>
>At least you got part of it right.

I thought it was Belden.

--
John Covington WN4BBJ Internet: cs00jmc@unccvax.uncc.edu
P.O. Box 217122 MCI Mail: JCOVINGTON 342-6957
Charlotte, NC 28221-7122 Packet Radio Mail: WN4BBJ @ W4BFB.NC.USA.NA
(704) 537-7653 "Give it back, Eric, it's not yours" (the ICOM)

3215. Re: IRC prices

Newsgroup: rec.ham-radio
Date: 1990-05-31 03:31:56 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990May31.033156.12240@cbnewsk.att.com>
Source record: 11321

> I use a similar how-to-get-a-dx-QSL method, but I must be in the
> dark about IRC's! I have been paying uncle sam $0.95 for each at
> my local post office. How do you get them for $0.40 and where??
>
> Tell us about this secondary market (or e-mail direct)!

Well, here we go. Several places often let you know that they have IRCS available. the W6GO list often has them, and I just saw a note a few weeks back that Joe, W3HNK, perhaps the most famous QSL manager in the US, had some. First, both ask 50 cents for an IRC, not 40.....and I believe both are out at the present. There is a guy in VE land that sells them as well, but I think he wants 55 or 60 cents each. Basically, the post office gives you 40 cents for each one....they cost 95 at the post office, thus the 'secondary' market.

I sometimes have them in 'limited' quantities of a few hundred or less, as most of the DX QSLs I get seem to have GreenStamps (i.e., $1.00 bills). Send me an email if interested.

--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

3216. Re: AEA Loop Antenna Comparison

Newsgroup: rec.ham-radio
Date: 1990-05-31 03:54:34 UTC
From: wordy@cup.portal.com
Message-ID: <30355@cup.portal.com>
Source record: 11322

Fred requested A-B comparison of the IsoLoop with anything else...

I'm deveoping a bicycle-mobile system, and am thus constrained to things
I can carry. My wire dipoles have thus been left out of the testing,
and I don't even want to know how a beam compares.

My A-B tests have been against a mini-dipole made out of Hustler
mobile resonators (2 for each band) and a pair of MO-4 masts. This
assembly is much more portable and packable than the IsoLoop, but
operationally, it's not so simple.

The basic trade-off is gain-bandwidth. The IsoLoop is EXTREMELY narrow,
requiring tweaking with almost every change of the VFO. Using an Icom 725,
this requires switching to CW, turning power all the way down, and sending
a carrier while watching SWR and nudging the stepper in the antenna.
Not a long process, but a bit of a nuisance... and it could very easily
be automated (derive DC from an SWR bridge and drive the stepper until
it is lowest; interpolate between band edges if using computer control
of the radio and output stepper pulses at the same time; etc).

On 20 meters, the IsoLoop receives consistently better reports -- like
the difference between 54 and 59. On 10 and 15, they seem similar, though
I seem to have better subjective penetration of the QRM with the loop
but less effort working with the mini-dipole. I've been using the loop
in horizontal (omni) mode with the coupling loop at 45 degrees.

I've been thinking of packaging options, including increasing the size
of the loop to include 40 meters (and match the solar panel array on
my trailer). But it's heavier and requires more setup effort, so in
my particular application it may not be optimal. But after this testing,
I can easily recommend the IsoLoop to anyone with limited space or
more conventional mobile needs. One big plus is that it's ALL BANDS between
14 and 30 MhZ, including 17 and 12 meters. With the other approach,
I need 7 pairs of resonators.

CHeers and 73...
Steven K. Roberts N4RVE

Nomadic Research Labs
P.O. Box 2390
Santa Cruz, CA 95063

3217. Re: Calls we'd like to hear (was re:funky calls...)

Newsgroup: rec.ham-radio
Date: 1990-05-31 04:12:50 UTC
From: brian@ucsd.Edu
Message-ID: <14035@ucsd.Edu>
Source record: 11323

In article <2078@unccvax.UUCP> cs00jmc@unccvax.UUCP (John Covington WN4BBJ) writes:
>In article <14026@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>>That's "RG8AU, stranded on polyfoam island. Handle here is Braid."
>
>I thought it was Belden.

Belden is his last name, and he lives at 52 Ohm Drive, Coaxial, CA, 82140

3218. Re: IRC prices

Newsgroup: rec.ham-radio
Date: 1990-05-31 04:38:30 UTC
From: trey@ut-emx.UUCP
Message-ID: <30739@ut-emx.UUCP>
Source record: 11324

In article <1832533@MTS.RPI.EDU>, Luigi@MTS.RPI.EDU writes:
> >From: swrinde!cs.utexas.edu!ut-emx!trey@ucsd.edu (Trey Garlough)
> >two IRCs; IRCs can be had for $0.40 on the secondary market) and a
> >return envelope.
>
> I use a similar how-to-get-a-dx-QSL method, but I must be in the
> dark about IRC's! I have been paying uncle sam $0.95 for each at
> my local post office. How do you get them for $0.40 and where??
>
> Tell us about this secondary market (or e-mail direct)!

I used to send $40 and a few stamps to KX6DS's QSL manager and get
100 IRCs back. I have done similarly with managers for other operations.

Often there will be ads in DX bulletins from W3HNK or somebody who
is selling recycled IRCs for $0.50. This still beats $0.95.

I have neither bought nor redeemed an IRC through the post office.
I view them as ham currency. Of course, for all I know this is
probably against the law or something. Sillier things are illegal.

Personally, I operate lots of contests and consequently get scores
of IRCs in a given year. As few cards as I ever initiate any more
(I'm too lazy), the incoming supply is adequate for me.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

3219. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-05-31 05:17:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500560@ux1.cso.uiuc.edu>
Source record: 11325

In Part 2 of the FCC Rules and Regulations is where allocations are made. Frequencies are allocated to services as well as call signs. It just so happens that the call signs K0A-K9Z, N0A-N9Z, and W0A-W9Z are allocated to the Amateur Service. There happens to be not policy of issuing them, but if they decided to do so, the rules are in place and they could do so w/o a rulemaking proceeding.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3220. Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-05-31 06:31:00 UTC
From: postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
Message-ID: <9005310529.AA09321@ucsd.edu>
Source record: 11326

From: POSTMSTR @SSXMB
To: MRREMNET @MRGATE
WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

Author:
Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
Subject: Info-Hams Digest V1 #2
Message Class:

Recipients:

BCCROWE@DALMAC

Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

3221. Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-05-31 07:49:00 UTC
From: postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
Message-ID: <9005310825.AA14869@ucsd.edu>
Source record: 11227

From: POSTMSTR @SSXMB
To: MRREMNET @MRGATE
WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

Author:
Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
Subject: Info-Hams Digest V1 #3
Message Class:

Recipients:

BCCROWE@DALMAC

Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

3222. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-31 08:22:10 UTC
From: guhsd000@crash.cts.com
Message-ID: <2916@crash.cts.com>
Source record: 11228

A variation of the pretend to run a plate trick I have used a few times, esp when I know they are listening to the radio is throw my tranmitter way out of tune, and hit the power, and sneak into the early stages of their amplifier.

It drives speakers faintly when they arn't even hooked up at all.

Also screws up my electronic ignition, set off car alarms, and pay phones seem to be made to pick up stray RF.

I know it's not a good practice, but driving behind me with your brights on isn't either.

3223. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-05-31 09:20:59 UTC
From: keith@uhccux.uhcc.Hawaii.Edu
Message-ID: <7975@uhccux.uhcc.Hawaii.Edu>
Source record: 11229
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays) writes:
>Air Force 1 is any aircraft carryin the president ... thus the helicopter
>for that short trip was AF-1 ....

Air Force One is any aircraft that is carrying the President
crewed by Air Force personnel. A specialized VIP Military Airlift unit
in the Air Force is responsible for this.
The helicopters are Marine Corps helicopters, and I believe
there is a specialized VIP unit within the Corps that takes care
of the helicopters. If he is in the Marines helicopters the aircraft
isn't called "Air Force One," but "Marines One."

--
Keith Kinoshita, UHCC Mac Pgmr & UHCC NeXT CuBE NeOPHyTE (SoON-PgMR)
INTERNET: keith@uhccux.UHCC.HAWAII.EDU ARPA: uhccux!keith@nosc.MIL
BITNET: keith@uhccux UUCP: ...!ucsd!nosc!uhccux!keith
"Rise, Sir Pooh de Bear, most faithful of all my Knights." -Christopher Robin

3224. Neat Ham stories...

Newsgroup: rec.ham-radio
Date: 1990-05-31 12:10:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9005311212.AA29304@ucsd.edu>
Source record: 11252

To begin with, I must say that carrying a Motorola MX-360 - (converted to the ham bands) has it's advantages and they're not only technical. It happens to be the "Law Enforcement" industry standard and just having one on you leaves all (including Hams !) baffled as to who you are and whom you work for.
Numerous times in New York City - I've had Patrol Cars pull up to me, assuming I was a street crime unit and asked if I needed any assistance ! (This will often happen in cities too large for government agencies to know exactly who's who). Carrying other HT's such as the small Japanese go-anywhere-do-everything type don't seem to carry as much clout since they don't have much resemblance to the real thing from the standpoint of one who uses an MX3xx 8 TO 10 hours a day.
I carry a two fold wallet with my driver's license on one side and my FCC license on the other. I added a small photo of myself to the top right corner of the FCC license. Since the photo is not actually attached to the license but rather between the license and the outer plastic - I have legally not tampered with the license. The small alteration leaves the wallet looking very official with the FCC Logo standing out very nicely. The few times that I've been pulled over for traffic violations I've handed over the whole wallet when asked to show my driver's license. The fact that I'm immediately called "Sir" in every instance and have never been ticketed might say something. The radio antennas certainly give it more credibility. They don't call Feds "Untouchables" for nothing. - Assumption - is the key word here.
The last cop that stopped me in Brooklyn at 4 AM - asked me if I was aware that I had just made an illegal U-turn ? As I handed him my driver's license he caught a glimpse of the radio equipment and clearly heard the "Modat" signal transmissions (we've all heard that "Brroop- Brroop" kind of sound before somewhere...) coming from the car.
"Excuse me - why the radio ?" he asked.
"I'm monitoring Narrow-Band FM spurious emissions on the VHF spectrum officer"
he looked at the wallet again and then confided in me by admitting that he never notices that "No U-turn" sign either when he's off duty.

3225. Re: Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-05-31 12:23:27 UTC
From: taber@pstjtt.enet.dec.com
Message-ID: <1640@ryn.esg.dec.com>
Source record: 11230
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <2239@speedy.mcnc.org>, spl@duck.ncsc.org (Steve Lamont) writes...
>In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays) writes:
.>>Air Force 1 is any aircraft carryin the president ... thus the helicopter
.>>for that short trip was AF-1 ....
>
>I don't think that's correct. I believe the Presidential helicopter is flown
>by the Marine Corps and is called Marine 1.
>
>I tried looking this up in a couple of references that I had handy but
>couldn't find anything either confirming or negating. Does anyone have a
>better library?
>
Well, I can say from first-hand experience that the Army helicopter
designated for presidential transport is called "Army 1". It hangs
out at Davidson Army Airfield just outside D.C. It's probably the
only Chinook in the Army inventory that doesn't drip hydraulic fluid...

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Mail address: Nahhhhh, you don't want to send me mail....

3226. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-05-31 12:30:04 UTC
From: cs00jmc@unccvax.UUCP
Message-ID: <2079@unccvax.UUCP>
Source record: 11231

In article <30500560@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>In Part 2 of the FCC Rules and Regulations is where allocations are made.
>Frequencies are allocated to services as well as call signs. It just so
>happens that the call signs K0A-K9Z, N0A-N9Z, and W0A-W9Z are allocated
>to the Amateur Service. There happens to be not policy of issuing them,
>but if they decided to do so, the rules are in place and they could do
>so w/o a rulemaking proceeding.

Back in the late 70s the call N6V was issued as a special event call. I
think they were broadcasting SSTV pictures from Pioneer or Voyager spacecraft.
The main reason I remember it is that they were using some unusual feedline
for some of their antennas (nitrogen-filled hardline or something, it's been
too long!).

--
John Covington WN4BBJ Internet: cs00jmc@unccvax.uncc.edu
P.O. Box 217122 MCI Mail: JCOVINGTON 342-6957
Charlotte, NC 28221-7122 Packet Radio Mail: WN4BBJ @ W4BFB.NC.USA.NA
(704) 537-7653 "Give it back, Eric, it's not yours" (the ICOM)

3227. Re: strange call signs

Newsgroup: rec.ham-radio
Date: 1990-05-31 12:31:56 UTC
From: msjohnso@ensub.Wichita.NCR.COM
Message-ID: <344@ensub.Wichita.NCR.COM>
Source record: 11232

When I was at Purdue in the middle 1970's there was a YL ham named Alicia
who had the callsign WB9LAD.
--
Mark Johnson WB9QLR/0 NCR Peripheral Products Division
Mark.Johnson@Wichita.NCR.COM 3718 N. Rock Rd.
(316) 636-8189 NAR #14025 Wichita, KS 67226

3228. QSL'ing for money

Newsgroup: rec.ham-radio
Date: 1990-05-31 12:47:11 UTC
From: davet@tsdiag.ccur.com
Message-ID: <991@tsdiag.ccur.com>
Source record: 11233

Could earning money in excess of the cost of QSL cards, postage, etc
be considered doing buisness on the air? Just like VE's aren't allowed
to charge more than the cost of materials for exams, couldn't the same
idea be applied? I thought Amateur radio was for enjoyment, not for profit
or extortion in order to get a rare card. Just a thought.
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

3229. Request addition to Digest

Newsgroup: rec.ham-radio
Date: 1990-05-31 13:17:00 UTC
From: EVERETT@HIARAS.NRC.CA
Message-ID: <9006022236.AA00329@ucsd.edu>
Source record: 11234

```
sub INFO-HAMS Jerry Everett VE1DE
```

3230. Re: 6JB6s etc.

Newsgroup: rec.ham-radio
Date: 1990-05-31 13:21:44 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <122@ultrix.uhasun.hartford.edu>
Source record: 11235

In article <9005310602.AA10386@ucsd.edu>, MCL9337@TAMVENUS.BITNET writes:
>
> through some torture. Does anyone know of a good source for tubes of all
> kinds, especially the 6JB6s. I need three and they must be matched. Drake
> wants about $26 apiece (double their price a year ago!).
>
Well, RF Parts wants $93.75 for a matched set of 3 6JB6's, so I don't
think Drake's price is that unreasonable. Face it, tubes are becoming
scarcer and scarcer, and when that happens prices rise.

Jon

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3231. Weather fax question?

Newsgroup: rec.ham-radio
Date: 1990-05-31 13:55:04 UTC
From: wejones@CRDEC7.APGEA.ARMY.MIL
Message-ID: <9005310955.aa21400@crdec7.apgea.army.mil>
Source record: 11236

I have been trying for a couple of years to download readable
wefax charts using the pakrat pk-232 fax option. Up until recently,
my attempts have been limited to the Halifax transmissions, and although
I was able to generate low quality maps, much of the lettering on the
maps has been unreadable. I blamed this problem on noise, and the fact
that my antenna is not ideal (50 foot wire making turns through tree
limbs and window jams, etc). Recently, however, someone posted
information on the re-transmission of GOES wefax on the C band satellite S3-
channel 17, so I tried it (ie hooked up hf receiver to baseband out of
the satellite receiver). This signal is a strong clean signal, so I
figured there should be no problems. The maps I get from this signal are
nice clean maps, however again, the lettering (ie temperatures, pressures,
etc) seem to be too small to be readable. I am using the highest
resolution available on the PK-232 (1900+), and have tried different
aspect ratios, but it seems that the maps put out by this service are
much more detailed than those from Halifax. ?What kind of resolution is
necessary for these maps?! Has anyone (ie the original poster of this
info) produced readable maps from this service? If so, what equipment is
requirred? I assume that these maps must be the same as what comes off
the GOES, and it was my understanding the the pk-232 fax capability was
being used by people to get readable maps from this satellite. Am I
doing something wrong, or am I just expecting too much from the equipment
I have?

3232. Re: Choosing calls.

Newsgroup: rec.ham-radio
Date: 1990-05-31 14:30:00 UTC
From: george@genat.UUCP
Message-ID: <172@genat.UUCP>
Source record: 11237

While you're at it on nice calls to have; DX calls:

RG8U Beldon op QSL via C0AX
PH0OL
SP0OF
APR1L

and ligit (from some years ago)

ST0RK

There's a story about RG8U because recently a group in USSR tried to get
it issued for a contest club and were turned down. Best time to work
the above is any April 1st (UTC)

--
George Gorsline Director of Marketing (416) 475-9434
Genamation, Inc., 351 Steelcase Rd. W, Markham Ontario L3R 3W1
uunet{!mnetor,!utzoo}!genat!george
__... ...__ . ... _.. _.._ _.. . VE3FIU / K8HI

3233. RE: QSL managers (continued)

Newsgroup: rec.ham-radio
Date: 1990-05-31 14:34:11 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9005311455.AA15059@ti.com>
Source record: 11238

Just noticed that some of my message got lost somehow. Here's the rest:
But I appreciate all that I get in return. In most cases, I probably won't
ever see or hear these people again, and the cards are a lasting reminder ot
our one contact with each other.

73, Dube N5PDK "Ask not what we can do for ourselves, but what can we
do for one another"

3234. Need info on SYT corporation

Newsgroup: rec.ham-radio
Date: 1990-05-31 15:13:56 UTC
From: hs0u+@andrew.cmu.edu
Message-ID: <UaNHGoC00WB_IJ91EY@andrew.cmu.edu>
Source record: 11253

I have an SYT TeleConnect 870 simplex autopatch, and would like to add an option board to it. Unfortunately, I cannot locate SYT corporation, formerly of El Paso, Texas. If anyone knows what happened to SYT, please let me know. Thanks and 73.

-Harry NR3L hs0u@andrew.cmu.edu -

3235. Bypass wire on a power amp module, help needed.

Newsgroup: rec.ham-radio
Date: 1990-05-31 15:35:35 UTC
From: rfc@briar.Philips.Com
Message-ID: <97457@philabs.Philips.Com>
Source record: 11239

Last night, I tried to build a bypass wire on a power amp module I have. The module is a brick that amplifies and makes about 7W on the 440 band. Made by Motorola. I put it in a shielded box with heatsink. Works fine, except, of course, the HT driving it cannot 'hear' anything in receive mode. I had heard that a way to fix that is to measure out two lengths of coax, connect one length to the input of the module, the other to the output, and join the two lengths at the far end. Put two diodes from center to shield at the joint, one with cathode on center, the anode of the other on center. (back to back) The idea is to create shorted stubs during transmit (the high RF voltage turns the diodes on), and to give the received signals a path to travel around the module to the HT receiver. I thought that the lengths should be 1/4 wavelength (adjusted for propagation factor of the coax). I tried some HP high speed diodes, and also tried some IN914s.
Tried it, didn't work. Turn on the power to the module, then key up the HT (whose' power level is attenuated to a proper value that the module wants to see). Looking at the amp meter on the power supply, I see current draw go up. then key off the HT. current stays at the same level (indicating that the module is oscillating). Tried connecting the coax at a few different spots (like a few inches away from the module. still oscillates). One thought springs to mind, maybe oscillation happens because the input phase and output phase of the module are in phase, maybe if I insert a half wave length of coax between the module output and the spot where I connect the bypass to make it look like 180 phase might work (something to try tonight). BTW, the module worked after I removed the bypass. So, I didn't blow it up! :-)
Is this concept correct, or is there something missing, or wrong?
thanks in advance, 73 de WA2ISE

3236. Re: "Espionage Devices"

Newsgroup: rec.ham-radio
Date: 1990-05-31 16:11:04 UTC
From: stephenm@hpindwa.HP.COM
Message-ID: <38120002@hpindwa.HP.COM>
Source record: 11240

mn@atari.UUCP writes

>There's a monthly ham radio flea market here, lots of surplus electronic

Where and when is this flea market? I would like to check it out.

Steve

3237. Re: E-skip city!!

Newsgroup: rec.ham-radio
Date: 1990-05-31 16:12:43 UTC
From: hoenig@osage.csc.ti.com
Message-ID: <125959@ti-csl.csc.ti.com>
Source record: 11241

In article <30698@ut-emx.UUCP> trey@ut-emx.UUCP (Trey Garlough) writes:
>In article <12048@shlump.nac.dec.com>, reisert@tallis.enet.dec.com (Jim Reisert) writes:

(deleted)

>| Here in the "Nawtheast" the band opened up on Sunday afternoon for the first
>| time. W1JR managed to work a VP9 and FY, but the W2's had a much better
>| day, working Cuba, Uruguay and Argentina. On Monday, LU2DEK finally broke
>| through the W2 curtain (about 55 here), as did a couple of CO2s (CB and KK).
>
>No joke. HF Conditions were so bad this weekend during the contest that
>I occasionally wandered over and worked some guys on 50 MHz. I managed
>to pick up HR1LW (Honduras), VP2VCW (Tortola) and some Cubans. You could

(more deleted)

>
>Trey Garlough

I also experienced some good sporadic-E effects (I've never seen it this good).

I watched about an hour of CKVR-TV Channel 3, Ontario, Canada, Tuesday evening.
I have a Radio Slack fringe-area TV antenna just above roof-level at my house
and the Canadian signal was interfering with the signals from Channels 2 and 4
here in the Metromess. The antenna was pointed SSW toward the D/FW antenna
farm in Cedar Hill, approximately 50 miles away, as the grackle flies (we don't
have many crows here...just those ugly grackles). All I've got to say about
the remote station is this: You Canucks get a whole lot better quality TV than
the drivel and recycled pablum we get spooned here in the States!

de N5LTL
Deep in the Heart of Texas...naaah! Too far north for that!
Mike

3238. Antenna wanted.

Newsgroup: rec.ham-radio
Date: 1990-05-31 18:05:02 UTC
From: swifty@tc.fluke.COM
Message-ID: <1990May31.180502.8756@tc.fluke.COM>
Source record: 11242
Cross-posted to: rec.ham-radio,misc.wanted,rec.radio.shortwave

Does anyone have an Hewlett-Packard 117A receiver antenna
cluttering up their storage shed? I would like to get
one. Please send e-mail if you have one.

Thanks.
--
Steve Swift
Domain: swifty@tc.fluke.COM
Voice: (206) 347-6100, Ext. 5737 direct: 356-5737
UUCP: {microsof,sun}!fluke!swifty
U S mail: John Fluke Mfg. Co. / P.O. Box C9090 / MS 241F / Everett WA 98206

3239. weird calls

Newsgroup: rec.ham-radio
Date: 1990-05-31 18:15:24 UTC
From: batchler@PICA.ARMY.MIL
Message-ID: <9005311415.aa22928@FSAC1.PICA.ARMY.MIL>
Source record: 11254

what about the poor soul with K0TEX
kb3ts

3240. Re: learning code

Newsgroup: rec.ham-radio
Date: 1990-05-31 18:17:28 UTC
From: bert@hpnjld.HP.COM
Message-ID: <4140015@hpnjld.HP.COM>
Source record: 11243

Have you tried MM? It is a package that I got off of a free BB that
my company maintains. I imagine that it is out there lots of places.
It is a good package with little overhead. It consists of a mm.exe
and mm.doc file. It is well enough written so you don't need the
mm.doc file.

```
/\__/\
(Q__Q) Bert Bjorklund NJD tn 586-5885
=(oo)= bert@hpnjld.hp.com
VV GRRRR! WA2GOX/3 mon 224.14 Mhz FM in Bangor PA.
^U FAA A&P Tech.
' ARNG UH1M Crew Chief E-5
`
@
```

3241. HELP! Kenwood TR-2400 handheld

Newsgroup: rec.ham-radio
Date: 1990-05-31 18:18:22 UTC
From: s36572u@puukko.hut.fi
Message-ID: <1990May31.181822.15894@santra.uucp>
Source record: 11244

I've got a kenwood tr-2400 handheld, but no manual. I desperately
need to find out from the schematic what kind of transistor Q11 is.
It says on this transistor:
603
99E

, but so far it has been of no help.
So, help me, if you can! What kind of transistors could be used to replace
this one??

"Life's a bitch - and then you marry one..."

Karl R. Tigerstedt email : s36572u@puukko.hut.fi
Helsinki University of Technology packet : OH2MBM@OH2TI.OH.EU

3242. Re: Request for mods for Pro-38 handheld scanner

Newsgroup: rec.ham-radio
Date: 1990-05-31 19:26:42 UTC
From: umrose05@ccu.umanitoba.ca
Message-ID: <1990May31.192642.2078@ccu.umanitoba.ca>
Source record: 11257

In article <11034@pixar.UUCP> whorfin@pixar.uucp (Entropy is the essence of free will.) writes:
>If anyone knows of mods to the Radio Shack Pro-38, would you please mail them
>to me? This might even be of general interest, since I could not find them
>on the hamster archive. I'm particularly interested in adding 800 Mhz coverage,
>adding 66-88 Mhz, and expanding the channel memory. Responses which say
>``you can't do that'' are also welcome.
>

I would like to get a copy of this as well, please "followup" all messages
on this newsgroup.

Dave (umrose05@ccu.umanitoba.ca)
--
Dave Rose : Local (UnixWS) - UMRose05@CCU.UManitoba.CA
P.O. Box 403 : Local (Amdahl) - #Rose05@CCM.UManitoba.CA
Winnipeg, Manitoba, Canada: UUCP Node #005 - drose@trash.UUCP
R2M-5H3 :

3243. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-05-31 19:27:05 UTC
From: wille@hpccc.HP.COM
Message-ID: <5540035@hpccc.HP.COM>
Source record: 11245

I live in the San Francisco Bay Area and have a friend, Mark, who is stationed at Moffett Naval Air Station near where I live. I wanted to visit him one evening at his home on the base, so he arranged to have a guest pass waiting for me at the main gate.

Upon entering the base and driving around for a while in the dark I was totally lost. All the streets looked the same with block after block of standard base housing. "Good thing I'm a ham," I thought, "I'll just bring up the autopatch and give Mark a call." I parked my car at the side of the road and stuck my whip antenna out thru the sun roof. The repeater was in use, so I waited a minute or so for a chance to break in.

Just as I was starting to make my call I noticed that it was getting brighter. Several security vehicles had converged on me and all I could see were spotlights aimed in my direction. I started to get out of my car to explain the situation. Big mistake! I was ordered to FREEZE. I felt that it might be most appropriate to keep my hands on my head. They ordered me out of the car and made me hug a tree while they frisked me. (I guess they thought I was carrying an extra battery pack.) I could now see that several weapons were trained on me.

This was a military base, not your local police and I was starting to get a little nervous. They asked me a ton of questions (it's hard to think when guns are pointed at you) and I answered as best I could. I told them that I held a valid FCC license to use my radio, but that didn't seem to matter. They had obviously captured a spy!

Fortunately a base security officer is a friend of mine and I asked my custodians to please check me out thru him. They also contacted my friend Mark and got his address. I was "escorted" to his house by a convoy of security vehicles-- front and back. The funny thing was that the lead vehicle didn't know where to go either. We would drive into the wrong parking lot and have to turn around. One lot was so small that we all had to back out. After several wrong turns we finally arrived at Mark's house and they had him identify me as his friend and take responsibility for me.

I learned my lesson... Ham radio works! If you're ever in trouble just grab your rig. Even if you don't transmit, help will arrive!

Ross Wille - N6SJD

3244. Re: Calls we'd like to hear (was re:funky calls...)

Newsgroup: rec.ham-radio
Date: 1990-05-31 19:38:16 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <12107@shlump.nac.dec.com>
Source record: 11255

In article <14035@ucsd.Edu>, brian@ucsd.Edu (Brian Kantor) writes...
>In article <2078@unccvax.UUCP> cs00jmc@unccvax.UUCP (John Covington WN4BBJ) writes:
>>In article <14026@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>>>That's "RG8AU, stranded on polyfoam island. Handle here is Braid."
>>I thought it was Belden.
>Belden is his last name, and he lives at 52 Ohm Drive, Coaxial, CA, 82140

But before Africa was decolonialized, he was 5U4GB in the Belden Congo.

A friend of mine (a printer by trade, and a big DXer) made a faux-QSL
for something like 5Y3GT, in the Emirate of Tubobia. Now that's rare
DX!

Fred R. Goldstein goldstein@carafe.enet.dec.com
k1io or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

3245. Antique Radio Equipment For Sale

Newsgroup: rec.ham-radio
Date: 1990-05-31 20:13:01 UTC
From: root@conexch.UUCP
Message-ID: <41595@conexch.UUCP>
Source record: 11246
Cross-posted to: rec.ham-radio,misc.forsale,sci.electronics

Thu May 31 12:03:12 PDT 1990

The following antique wireless radio equipment is offered for sale. This collection represents fine examples of some of the first commercially available electronic equipment available to the public. Please contact: Larry Dighera, P. O. Box 12100, Santa Ana, CA, 92712,(714) 842-2862 for details.

RADIOS:
1. Atwater Kent Model 10 "Radiodyne" breadboard. Rare model fully operational with 120V power supply, tubes, owner's manual, and Model M horn speaker. $1,000.00

2. Western Coil Model WC19 "Radiodyne" mint conditon and working. $200.00

3. R C A Radiola III and Balanced Amplifier with tubes. $200.00

4. Priess "Stright Eight" with loop antenna. $185.00

5. Grebe "Synchrophase" excelent condition. $195.00

6. Philco Model 71 "Cathedral". $285.00

7. Philco Model 90 "Cathedral". $495.00

8. Kennedy Model 20 Type 440 with tubes. $175.00

SPEAKERS:
1. Burns curved "petal" horn speaker, sounds great. $250.00

2. Western Electric Model 540-AW paper cone, works. 60.00

3. Bristol Baby Grand hard rubber horn speaker. $55.00

4. Atwater Kent Model "R", rare. $80.00

5. Sonochord paper cone with cloth front, mint, nice. $80.00

6. Music Master wooden horn speaker, nice. $130.00

7. Small Magnavox metal horn speaker, works. $65.00

MISC.
1. F. B. Myers RAC3 "Audion" triode tube new in box. $125.00

2. Tubes: '99's, 01A's,... $10.00 - $25.00

3. Rider Manual I-V Abridged $35.00

4. Rider Manual II $30.00

5. Books ... Fine historical colletcion. Offers accepted.

--
USPS: The Consultants' Exchange, PO Box 12100, Santa Ana, CA 92712
TELE: (714) 842-6348: BBS (N81); (714) 842-5851: Xenix guest account (E71)
UUCP: conexch Any ACU 2400 17148425851 ogin:-""-ogin:-""-ogin: nuucp
UUCP: ...!uunet!spsd!conexch!root || ...!ccicpg!conexch!root

3246. Re: E-skip city!!

Newsgroup: rec.ham-radio
Date: 1990-05-31 21:57:21 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1919@aurora.cs.athabascau.ca>
Source record: 11247

>>Well, two unusual occurances in San Diego yesterday--it rained
>>almost an inch (probably hasn't rained in Southern Calif. on
>>Memorial Day for 50 years) AND the TV was hopping with E-skip all
>>day long! The 6-meter guys were going nutz with working rare grid
>>squares, too.

This one made it up to central VE6 as well. We began to get suspicious after hearing FM BCST stations from San Francisco, Dallas, and somewhere in the southeastern US all fight over the same frequency.

I managed to dash home and fire up the TS-680, but it wasn't too happy to load up my HF dipole :-(I managed to pick up 5 or 6 W6's on CW, however we had a *very* high noise level. Oh well ...

The openings occured on Monday and Tuesday between 1400 and 1630 MDT. Nothing's been heard here since then.

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,cbmvax,mips}!atha!lyndon || lyndon@cs.athabascau.ca
Sendmail has been described as the largest program yet created
that does absolutely nothing. -- Mr. Protocol

3247. Re: EBS tones

Newsgroup: rec.ham-radio
Date: 1990-05-31 22:42:24 UTC
From: rusty@cadnetix.COM
Message-ID: <12553@cadnetix.COM>
Source record: 11248

In article <9005262017.AA09500@ucbvax.Berkeley.EDU> MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
>
>Can someone out there tell what the composition of an EBS alert tone is?
>
A solid tone of (I forgot the frequency) for 30 seconds. My understanding is that 'most' of the ebs recievers trigger on 15 seconds of continuous tone.

Sorry that I don't know the exact freq. Seems to me that I had to know it when I took the 3rd class test years ago, see if you can find an old 3rd class Radiotelephone license study manual (you don't need a 3rd class license anymore, so there will be no new manuals :-), they should have the freqs there.

BTW, it used to be 15 seconds (or more or less, I forget) of no carrier, followed by 15 seconds of silent carrier, followed by 30 seconds of tone. (I'm pretty fuzzy on this, it has been a LONG time) It was pretty exciting to be sitting there working the station and have that doggone EBS monitor go off on you. Just about enough to send you through the ceiling, as you got the last 15 seconds of alert tone at FULL VOLUME. Now they only do the 30 seconds of tone.

(I ran an AM station for a few months while in Jr. college, years ago...)

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

3248. the un-net

Newsgroup: rec.ham-radio
Date: 1990-05-31 22:51:36 UTC
From: rusty@cadnetix.COM
Message-ID: <12554@cadnetix.COM>
Source record: 11249

In article <12549@cadnetix.COM> rusty@cadnetix.COM (Rusty Carruth) (that's me!) writes:

>---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!

Well, due to our lightning season fast approaching, I am going to be removing my
10m ground plane RSN. Also, there are quite a few house projects which
must be done VERY RSN, so it looks like I will not be around during the un-net
for a while.

However, lets not let that stop others from getting on 10 before it goes totally
dead!

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

3249. Re: FUNKY CW CALLS

Newsgroup: rec.ham-radio
Date: 1990-05-31 23:46:00 UTC
From: hays@apollo.HP.COM
Message-ID: <4abacdae.20b6d@apollo.HP.COM>
Source record: 11275

In article <XNB-4A#@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:

>valid. I don't believe 1AA-1ZZ is assigned, either, so that makes the
>longest calls [JY]00[JQY][JQY][JQY]. I think Y0A-Y0Z is assigned to the
>DDR (for now), but can't guess about J0A-J0Z.

Shouldn't that be [[0JY][JQY]][0|00][JQY][JQY][JQY] ????

John KD7UW

3250. Wow...

Newsgroup: rec.ham-radio
Date: 1990-05-31 23:51:00 UTC
From: MCL9337@TAMVENUS.BITNET
Message-ID: <9005312351.AA08550@ucsd.edu>
Source record: 11274

When did info-hams switch over to UCSD??

Also... PLEASE don't post a megabyte of AMSAT stuff right in the middle of a digest! I wanted to read the messages after the AMSAT stuff in the recent V1 #1 of the new digest, but fifty screens later I decided to call it quits and go for a swim! The digest is TOO BIG!!!

Mark Lowe - KB5III

MCL9337@TAMVENUS.BITNET

3251. Info on antenna wanted

Newsgroup: rec.ham-radio
Date: 1990-06-01 00:21:25 UTC
From: thomas@mvac23.UUCP
Message-ID: <256.UUL1.3#5131@mvac23.UUCP>
Source record: 11250

Here is a message that one of the folks at work wondered about. He does
not have net.access, so please send responses back to the group or send
them to me, and I will see that he gets the response.

-tom

================ begin forwarded message ================

From: NAME: RICHARD L PHILLIPS
FUNC: PPD
TEL: 695-4302
Date: 30-May-1990
Posted-date: 30-May-1990
Precedence: 1
Subject: R5 CUSHCRAFT VERTICAL ANTENNA

HAS ANYONE HAVE ANY INFORMATION ON THE CUSHCRAFT R5 VERTICAL,

I'M LOOKING FOR INFO TO FIND OUT IF IT IS AS GOOD AS THE STD.

1/4 WAVE TRAP TYPE WHICH USES A GROUND PLANE AND IF ANY PROBLEMS

HAVE ARISED AFTER USING IT FOR A SHORT TIME.

Thanks,
- tom

--
internet : mvac23!thomas@udel.edu or thomas%mvac23@udel.edu
uucp : {ucbvax,mcvax,psuvax1,uunet}!udel!mvac23!thomas
Europe Bitnet: THOMAS1@GRATHUN1 Location: Newark, DE, USA
Quote : The only way to win thermonuclear war is not to play.

--
The UUCP Mailer

3252. Re: INFO-HAMS Digest V90 #559

Newsgroup: rec.ham-radio
Date: 1990-06-01 00:41:00 UTC
From: JOHNSTON@NKUVAX.BITNET
Message-ID: <87C115E092DF0071AB@NKUVAX.BITNET>
Source record: 11276

Talk about funky callsigns... I endured the first few young
and tender years as a ham as WN4FAT then WB4FAT. Thank heavens
I didn't look the part (at least then!) cuz I took a load of
kidding. BUT, people remembered my call!

Gary Johnston KI4LA

3253. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-01 02:11:05 UTC
From: kjh@pollux.usc.edu
Message-ID: <25016@usc.edu>
Source record: 11178

In article <30500560@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>It just so happens that the call signs K0A-K9Z, N0A-N9Z, and W0A-W9Z
>are allocated to the Amateur Service.

If they would use them, it might be nice to let them be chosen only by extras who had had amateur (extra class) licenses for some long continuous period, like 25 years or more.

There is a great difficulty in choosing a method which is somewhat fair, and I think this method is fair, and it would also be possible to make sure that the demand didn't exceed the supply by making the long continuous period long enough.

Also, I think you might have overlooked, K0-K9, N0-N9, W0-W9, and AA0-AL9.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

3254. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-01 02:38:33 UTC
From: brian@ucsd.Edu
Message-ID: <14059@ucsd.Edu>
Source record: 11180

In article <25016@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>In article <30500560@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>>It just so happens that the call signs K0A-K9Z, N0A-N9Z, and W0A-W9Z
>>are allocated to the Amateur Service.
>
>If they would use them, it might be nice to let them be chosen only by
>extras who had had amateur (extra class) licenses for some long
>continuous period, like 25 years or more.

I think special call signs such as these should be reserved for those
hams who have in some technical way advanced the state of the art.
There'd be damned few qualified applicants.

Let's start rewarding quality instead of quantity, eh?
- Brian

3255. Callsigns

Newsgroup: rec.ham-radio
Date: 1990-06-01 03:13:35 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006010327.AA01739@ti.com>
Source record: 11181

Just a little while ago I had the pleasure of working Stan, N1HAM. Now
THERE'S a call you could be happy with!

73,
Dube N5PDK

P.S. Stan's in Bangor, Maine, in case you want to point your beams his way.

3256. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-06-01 03:30:28 UTC
From: skipsand@crash.cts.com
Message-ID: <2937@crash.cts.com>
Source record: 11184
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Actually, it's more likely to have been MARINE-ONE... it's only AF-1 if it's an Air Force Aircraft. the Helios used by the President are usually Marine Corps Aircraft. Same thing applies to Navy-1, Coast Guard-1, etc.

3257. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-01 04:17:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500561@ux1.cso.uiuc.edu>
Source record: 11183

> If they would use them, it might be nice to let them be chosen only by
> extras who had had amateur (extra class) licenses for some long
> continuous period, like 25 years or more.

Seems reasonable, although I'd think I'd rather hold them for things
like special events and such.

We could also have a super class requiring an EE dissertion and 40 WPM
and them have them.

> There is a great difficulty in choosing a method which is somewhat fair,
> and I think this method is fair, and it would also be possible to make
> sure that the demand didn't exceed the supply by making the long
> continuous period long enough.

No matter what system might be considered, it would be very important for
the FCC to recycle the calls.

> Also, I think you might have overlooked, K0-K9, N0-N9, W0-W9, and
> AA0-AL9.

I believe these were aallocated to something else. They definitely were
not allocated to the amateur service.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3258. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-01 04:18:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500562@ux1.cso.uiuc.edu>
Source record: 11182

> I think special call signs such as these should be reserved for those
> hams who have in some technical way advanced the state of the art.
> There'd be damned few qualified applicants.
>
> Let's start rewarding quality instead of quantity, eh?
> - Brian

I agree on this one 100%.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3259. Czech Pony Express Riders!

Newsgroup: rec.ham-radio
Date: 1990-06-01 05:26:57 UTC
From: flt@sactoh0.UUCP
Message-ID: <3191@sactoh0.UUCP>
Source record: 11188
Cross-posted to: rec.railroad,rec.ham-radio,sac.general

An EDUCATIONAL EXCHANGE OPPORTUNITY for teachers & kids worldwide!

In commemoration of the 130th anniversary of the PONY EXPRESS a group of riders will be making a venture from the wild west marking the original route of the HISTORIC MAIL RUN.

I received a call yesterday from the ST. JOSEPH MISSOURI PONY EXPRESS MUSEUM that four of the courageous riders will be from CZECHOSLOVAKIA representing their enthusiastic chapter of the INTERNATIONAL PONY EXPRESS ASSOCIATION. Braving some of the original trail on horseback that was covered by young riders long ago the contingent intends to visit SUTTER'S FORT and the PONY EXPRESS STATUE in OLD SACRAMENTO on FRIDAY, JUNE 1ST 1990.

As Sacramento readies for - RAILFAIR '91 - we are reminded of our history and the important parts in communication that the PONY EXPRESS, the TELEGRAPH, and the RAILROAD INDUSTRY each played in it. I have invited this group to visit the COMMUNICATIONS MUSEUM in the historic CALIFORNIA SUPREME COURT BUILDING where we will be wishing them well on their journey and passing "mail" to them of greetings to the CHILDREN of ST. JOSEPH and CZECHOSLOVAKIA on the occasion of their trip and the SACRAMENTO CHILDREN'S FESTIVAL this weekend.

ANY EDUCATORS who would care to join us in congratulating them further on the completion of the journey - June 17th - are invited to forward joint or individual (batch) messages from their students either to me via ELECTRONIC MAIL _or_ TO THE ST. JOSEPH MUSEUM DIRECTLY BY LETTER to meet the group at trail's end at the following address:

Scott Koch, museum display technician
St. Joseph Museum
11th & Charles
St. Joseph, MO 64501

- note: -

At this time we have no address for receipt of Email in St. Joseph or along the historic route. If any users are aware of an Email address of an educator, member of the INTERNATIONAL PONY EXPRESS ASSOCIATION or chapter of the AMERICAN RADIO RELAY LEAGUE along the route or in St. Joseph that might enjoy helping out please contact. (Individual expressions of international goodwill and peace would also be welcome of course.)

I'll post updates as they are known.

Please consider joining this effort.

Frank L. Topping, docent
Sacramento Convention & Visitor's Bureau

Phone: (916) 455-5154, 451-0282

--
Frank Topping - CIS: 76537,1713 SAC-*NIX, Sacramento, Ca.
FidoNet: EDUCATORS ECHO UUCP=..ames!pacbell!sactoh0!flt
"OERI": "The Educational Exchange Conference" (800)222-4922

3260. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-01 05:34:45 UTC
From: kjh@pollux.usc.edu
Message-ID: <25021@usc.edu>
Source record: 11187

In article <14059@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>I think special call signs such as these should be reserved for those
>hams who have in some technical way advanced the state of the art.
>There'd be damned few qualified applicants.
>Let's start rewarding quality instead of quantity, eh?

Brian, I wholeheartedly agree with you. I take back my original
suggestion. Let's stand together and fend off the impending attacks
from the so-called "public service" hams.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

3261. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-06-01 06:18:31 UTC
From: andy@rbdc
Message-ID: <1990Jun1.061831.15233@rbdc>
Source record: 11251

Did you know that radar detectors of the mid 70's could be faked out
by 220 fm? Well...while driving down the interstate, wait for a truck
to pass and call cq (or something) and the truck slows down *REAL* fast
and pulls back into the right lane. You would be amazed how many trucks
you can get all lined up behind you on the way to ham fests.
--
Andy Pitts andy@rbdc.UUCP : "God is an overwhelming responsibility"
...!emory!kd4nc!rbdc!andy : --Jethro Tull--

3262. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-06-01 07:26:20 UTC
From: dt@yenta.alb.nm.us
Message-ID: <1375@yenta.alb.nm.us>
Source record: 11260

I used to have a cb in my car, and it came over the intercom at a local burger joint perfectly. My 'neat ham trick' was to go and order my burger, get my order number ("We'll call number 21 when that's ready") then go back to the CB and transmit "Number 20, your order is ready", and watch the fun!

David N5IZU Thomas
dt@yenta.alb.nm.us

3263. Re: 6JB6s etc.

Newsgroup: rec.ham-radio
Date: 1990-06-01 08:19:54 UTC
From: guhsd000@crash.cts.com
Message-ID: <2944@crash.cts.com>
Source record: 11267

This is of general interest to most radio radio oriented hobbies so
I made it a public response.

RF PARTS
1320 #16 Grand Ave.
San Marcos, CA 92069
(619) 744-0728

They carry mainly RF Transistors, have a good slection of common RF tubes,
and can usally special order anything they don't have sitting on the shelf.

They carry tubes from the small 6X4 to the monster amp eater 4CX5000A.

Some books, related equipment and parts. They are part of what is left of
Palomar, which basically has split into two divisions, the RF Parts, and a
local retail store mainly dealing in CB/10 METER (although they carry other
bands, this is what they seem to be geared for...)

I'm not affiliated with them, or anything along those lines, but they have
kept me as a satisfied customer so far.

3264. Calls without suffixes (was Re: Shortest Ham Call ?)

Newsgroup: rec.ham-radio
Date: 1990-06-01 10:15:50 UTC
From: lkay@ecs.umass.edu
Message-ID: <9972.26664056@ecs.umass.edu>
Source record: 11270

In article <25016@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>
> Also, I think you might have overlooked, K0-K9, N0-N9, W0-W9, and
> AA0-AL9.

The only `prefix-only' call I'm aware of is, of course, King Hussein, JY1.
Are there any others? His wife is JY1?? and King Juan Carlos of Spain has
his own prefix and his initials as his suffix, EA0JC, but I think he's the
only one sans suffix.

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3265. Re: 2M antenna ideas for Dodge caravan wanted

Newsgroup: rec.ham-radio
Date: 1990-06-01 11:31:26 UTC
From: dls@ccird1.uucp
Message-ID: <DLS.90Jun1073126@ccird1.uucp>
Source record: 11261

In article <577@mtune.ATT.COM> jak@mtune.ATT.COM (Jim Kutsch) writes:

I have a Dodge caravan and a garage with a fairly low door.
I want to install a permanent 2M antenna on the Caravan.
The mag mount gets knocked over and scratches the roof.
Does anyone have any success stories or recommendations?

Thanks in advance.
73, jim ky2d

This past Memorial Day, I was coming home on the NYS Thruway and was
talking to N2ERX. John said he was using a Un-tanna. It was only
5" tall (or short!). It had a diameter of about 7". He uses it on
the trunk of his new car; it has a mag mount and a trunk lip mount.

He also said that it rates as well as, and sometimes better, than
the Larsen he also has (I cannot remember if he said a 1/4 wave or
a 5/8th wave Larson).

He said he picked it up at one of the areas hamfests. But he did say
that it was made in Buffalo, NY. Maybe someone else here has more info.

--

Darren Swartzendruber CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII
KB2JJO/KT CC CC CC CC II II COMPUTER
CC CCC CC CC CCC CC IIII IIII CONSOLES,
cci632!dls@cs.rochester.edu CC CCCCCCC CC CCCCCCC IIII IIII INCORPORATED
rochester!rit!cci632!dls CC CCC CC CC CCC CC IIII IIII
uunet!ccicpg!cci632!dls CC CC CC CC II II An STC Company
uunet!rlgvax!cci632!dls CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII

3266. Re: Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-06-01 12:10:12 UTC
From: jay@splut.conmicro.com
Message-ID: <8SF-PF
Source record: 11263
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <2239@speedy.mcnc.org> spl@duck.ncsc.org (Steve Lamont) writes:
>In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays) writes:
>>Air Force 1 is any aircraft carryin the president ... thus the helicopter
>>for that short trip was AF-1 ....
>I don't think that's correct. I believe the Presidential helicopter is flown
>by the Marine Corps and is called Marine 1.
>I tried looking this up in a couple of references that I had handy but
>couldn't find anything either confirming or negating. Does anyone have a
>better library?

This one came up on rec.aviation a while back.

Whenever the President is aboard a military aircraft, that aircraft uses
the callsign [service] One. The 707 is operated by the Air Force, and
that helicopter is operated by the Marines; if he was to use a Navy C-2
Greyhound (AKA COD) to get to a carrier at sea, that would be Navy One,
etcetera.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
attctc, RIP. It was nice knowing ya +--
Teaching a Yankee to be polite is a lot like teaching a Texan to be humble.

3267. Weird Calls

Newsgroup: rec.ham-radio
Date: 1990-06-01 12:54:15 UTC
From: carrigan@PICA.ARMY.MIL
Message-ID: <9006010854.aa07484@COR3.PICA.ARMY.MIL>
Source record: 11262

Talking of weird calls; I remember reading in QST that during the election of 1978 there were reports of station N1XON working F0RD! Oh well....

Chuck, W2RK

3268. Re: Neat Ham stories...

Newsgroup: rec.ham-radio
Date: 1990-06-01 13:01:24 UTC
From: jim@ghp.UUCP
Message-ID: <605@ghp.UUCP>
Source record: 11271

RHAREL%FAB8@SC.INTEL.COM ("RICHARD HAREL ") writes:

>he caught a glimpse of the radio equipment and clearly heard the "Modat"
>signal transmissions (we've all heard that "Brroop- Brroop" kind of
>sound before somewhere...) coming from the car.

What information (if any) is in this transmission? Also, some
local people claim that if you give them some $$, they will make
a modification to your scanner to squelch out that signal--what
do they actually do to the radio?

tnx
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

3269. Re: Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-06-01 13:56:04 UTC
From: mjt@nagshead.ncsc.org
Message-ID: <2244@speedy.mcnc.org>
Source record: 11264

In article <2239@speedy.mcnc.org>, spl@duck.ncsc.org (Steve Lamont) writes...
>In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays) writes:
>>Air Force 1 is any aircraft carryin the president ... thus the helicopter
>>for that short trip was AF-1 ....
>
>I don't think that's correct. I believe the Presidential helicopter is flown
>by the Marine Corps and is called Marine 1.
>
>I tried looking this up in a couple of references that I had handy but
>couldn't find anything either confirming or negating. Does anyone have a
>better library?

Experience. From the ATC point of view, the helicopter is called Marine-1,
the plane is called AF-1. However the crew and support staff usually
referred to the plane as 26000 (2-6-thousand) or 27000. These numbers refer
to the tail numbers of the planes. One is the real plane, the other is the
back up (This info is two years old).

Interesting sidenote: When President Nixon resigned from office, he left
the DC area aboard AF-1 before his resignation took effect (1200 08-Aug, I
think). However, enroute, his resignation took effect and he was no longer
the President. Therefore, when he landed his plane was referred to as
AF-xxxxx, not AF-1.
--
Michael Tighe, mjt@ncsc.org
(919)-248-1157

3270. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-01 14:34:57 UTC
From: gbastin@x102c.harris-atd.com
Message-ID: <3758@trantor.harris-atd.com>
Source record: 11265

In article <2079@unccvax.UUCP> cs00jmc@unccvax.UUCP (John Covington WN4BBJ) writes:
>
>Back in the late 70s the call N6V was issued as a special event call. I
>think they were broadcasting SSTV pictures from Pioneer or Voyager spacecraft.
>The main reason I remember it is that they were using some unusual feedline
>for some of their antennas (nitrogen-filled hardline or something, it's been
>too long!).
>

I worked N6V, and later received the QSL card. It was for Nasa6Viking,
the 6 being ostensibly for 1976. Nice QSL, folded out, and showed the
descent to Mars.

My all-time favorite though, was NU3DE. It was a nudist colony in
Crownsville Md. And, yes, I did get the QSL from this one too! The
operator was Phil, and the front features a family around the ham
rig. This one was from the late 70's also. The FCC was more
amenable to special event stations back then.

Gary Bastin /-/-/ Internet: gbastin@x102c.ess.harris.com
Mail Stop 102-4826 | phone: (407) 729-3045
Harris Corporation GASD | packet: WB4YAF @ N4JLR.FL.USA.NA
P.O.B. 94000, Melbourne FL 32902 Speaking from, but not for, Harris!

3271. Re: E-skip city or tropo or something

Newsgroup: rec.ham-radio
Date: 1990-06-01 15:18:58 UTC
From: trey@ut-emx.UUCP
Message-ID: <30813@ut-emx.UUCP>
Source record: 11191

> Well, two unusual occurances in San Diego yesterday--it rained
> almost an inch (probably hasn't rained in Southern Calif. on
> Memorial Day for 50 years) AND the TV was hopping with E-skip all
> day long! The 6-meter guys were going nutz with working rare grid
> squares, too.

While driving home from work yesterday I had the FM radio on in the car. The band was open a little and I was hearing the usual unusual stations down by Corpus Christi and so forth. Then I hit the "seek" button on the radio and it stopped on 107.something and I heard some kind of Q5 screaming redneck truck dealer selling his wares, "Yeah. We got trucks. All kinda trucks. Big trucks. Little trucks. Pre-owned trucks" (I love that expression "pre-owned") and I was thinking the band must be open toward Beaumont someplace. "We got a great deal on a 1986 F-150. A real beauty. Low mileage. Only $4995!!!! Just take the blah-blah-blah exit off of I-95 and go east." I-95???? "That's at Biscayne (or whatever it was) Ford Truck.

Pretty neat.

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

3272. Re: Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-06-01 15:31:37 UTC
From: fyfe@bgsuvax.UUCP
Message-ID: <5878@bgsuvax.UUCP>
Source record: 11192
Cross-posted to: rec.ham-radio,rec.radio.shortwave

From article <2239@speedy.mcnc.org>, by spl@duck.ncsc.org (Steve Lamont):
> In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays) writes:
> I don't think that's correct. I believe the Presidential helicopter is flown
> by the Marine Corps and is called Marine 1.

....I agree....

--
****
* Bob Fyfe / EMT-A/ Ham Radio KA8YWQ | INTERNET: fyfe@andy.bgsu.edu *
* University Computer Services | BITNET: fyfe@bgsuopie *
* Bowling Green State University (OH)| UUCP: ...!osu-cis!bgsuvax!fyfe *
****

3273. 2m/70cm Repeaters

Newsgroup: rec.ham-radio
Date: 1990-06-01 15:56:00 UTC
From: DXANDY@WIDENER.BITNET
Message-ID: <5A06010A2E14019A-MTABWIDENER*DXANDY@widener>
Source record: 11256

Hi All!
Since my new Tech license allows me full privileges on the vhf bands
I have decided to buy an HT to play with. I have been reading with interest
all the recommendations for the various HTs available, but so far I have
not seen anyone mention Alinco's equipment. Their stuff seems competively
priced (plus their HTs look good :-)). Is it any good?

Last night I was listening on my receiver to someone on 2m who said he was
working through two repeaters. Maybe I misheard, but if I didn't, does this
mean that the output frequency of one repeater is on the input of another?
Would this mean that every time the first repeater was used, the second would
also be operated?

Andy Greenshields [dxandy@widener.BITNET]

3274. Re: Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-06-01 16:41:17 UTC
From: richardn@sdd.hp.com
Message-ID: <1990Jun1.164117.2877@sdd.hp.com>
Source record: 11266

Sony SW-7600 vs. ICF-SW1S

Does anyone know the difference between these two radios?
I have seen a picture of the SW1 and it looks like the 7600.
The specs say that the SW1S is not as good as the 2003.
Is the 7600 as good as the 2003 (sensitivity, etc.)?
Any ideas?
I'm not sure what to buy...

3275. Re: Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-06-01 17:10:09 UTC
From: pierson@cimnet.dec.com
Message-ID: <1659@ryn.esg.dec.com>
Source record: 11273
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <5878@bgsuvax.UUCP>, fyfe@bgsuvax.UUCP (Bob Fyfe) writes...
>From article <2239@speedy.mcnc.org>, by spl@duck.ncsc.org (Steve Lamont):
>> In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays)
>>writes:
>> I don't think that's correct. I believe the Presidential helicopter is flown
>> by the Marine Corps and is called Marine 1.
>.....I agree....

From a vaguely recalled article (maybe in Smithsonian?): [service]1 is
the call used by an aircraft _with_ _the_ _president_ _on_ _board_. The usual
White House shuttle is a Marine chopper, hence, Marine 1. There exists an
Army 1. When the same a/c does not have the president on board, it has a
conventional callsign (forgotten...). If one of the back up planes is in use,
by the president, _it_ assumes the [service]1 callsign. They recounted Nixon
flying to California after resigning. Someplace in midcontinent, the a/c
stopped answering Air_Force1 and started using a conventional call.

thanks
dave pierson |the facts, as accurately as i can manage,
Digital Equipment Corporation |the opinions, my own.
600 Nickerson Rd
Marlboro, Mass
01752 pierson@cimnet.enet.dec.com

"He has read everything, and, to his credit, written nothing" A J Raffles

3276. Battery Packs

Newsgroup: rec.ham-radio
Date: 1990-06-01 17:22:10 UTC
From: jpedley@RIA-EMH2.ARMY.MIL
Message-ID: <9006011721.AA10744@rutgers.edu>
Source record: 11269

Does anyone have any good ideas on how to open up some of these sealed
battery packs that are used on late model hand helds? Specifically
I am trying to open and repair a Yaesu FNB-12 battery pack.

Thanks,

John, N0IPO

3277. Re: Air Force One (was Re: Who's on 407.75MHz?)

Newsgroup: rec.ham-radio
Date: 1990-06-01 18:29:39 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230021@hpfcdj.HP.COM>
Source record: 11258

>Air Force 1 is any aircraft carryin the president ... thus the helicopter
>for that short trip was AF-1 ....

I don't think so; it's true that there are (currently) several aircraft, converted 707s, which can be Air Force One when the President is aboard. However, I seem to recall that the helicopters used by the President are NOT Air Force craft, and are called either Marine One or Army One (I don't recall which service operates the 'copters) when the Chief is aboard.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

3278. TS-140S TX All Freq Mod

Newsgroup: rec.ham-radio
Date: 1990-06-01 18:43:04 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12594388639.10.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 11268

To enable the TS-140S ofor transmitting on all bands:

1. Disconnect radio from power supply and antenna
2. Remove top and Bottom covers
3. Locate the control board (I believe it is on the bottom --NOT BEHIND TH
THE KNOBS LIKE THE 440!!)
4. Cut D31 on the control board
5. Reassemble the radio
6. Reset the radio by holding the A=B switch while powering up the rig.

Disclaimer: This Modification is for those who need it to operate MARS only.

73 wf2v

3279. VHF Es on May31/June1

Newsgroup: rec.ham-radio
Date: 1990-06-01 18:46:22 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9006011846.AA17602@cmr.ncsl.nist.gov>
Source record: 11272

Last evening, May 31 U.S. time, there was a good 6- and 2-meter Es opening.
The 6-meter opening didn't have anything RARE from here in W3, mostly 5s.
The big event was an hour of loud 2-meter sigs from Texas and Oklahoma. I managed to p;ick up a few new grids.
An attempt to DX on the FM BC band failed as usual. The 50+ local stations don't allow much chance to hear DX.

What did you hear?
Bob W3OTC
(The June 1 refers to the fact that the 2-meter opening started about 0005 UTC June 1.)

3280. Re: Cable (As in fire breathing monster cable)

Newsgroup: rec.ham-radio
Date: 1990-06-01 18:52:12 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230022@hpfcdj.HP.COM>
Source record: 11259

I would think that you'd have no problems using this cable IF you can manage to obtain and use the necessary connectors. By the way, you should be able to figure out the characteristic impedance using the following formula:

Z = 138*(1/SQRT(K))*log (D/d)
10

where D is the inner diameter of the outer conductor (shield), d is the outer diameter of the inner conductor, and K is the dielectric constant of the insulator (foam). Typical numbers here are -

Foam polystyrene.......1.02-1.24
Teflon.................2.1
Polystyrene............2.45-4.0
Polypropylene..........3.5-3.6

Note that the dielectric constant of foamed material is *less* than that of the "unfoamed" version.

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

3281. Re: Bypass wire on a power amp module, help needed.

Newsgroup: rec.ham-radio
Date: 1990-06-01 19:21:52 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250175@hpnmdla.HP.COM>
Source record: 11189

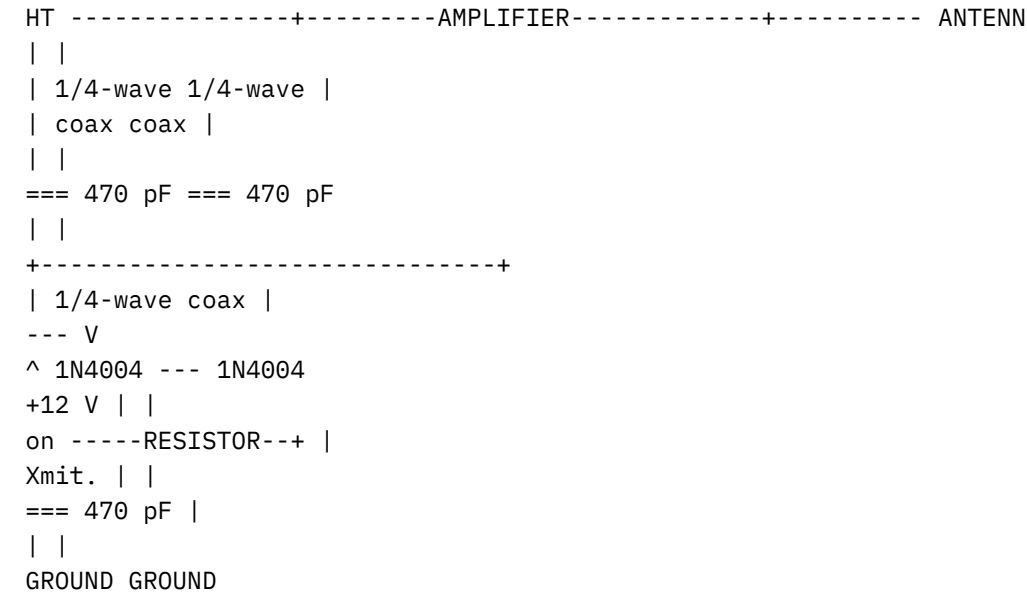
WA2ISE tried to bypass his 2 meter power amplifier (so his HT could hear on receive) by connecting a pair of 1/4-wave coaxes between input and output with a pair of back-to-back diodes shunting the junction between the two lines.

The diodes do not act as a perfect short when the high-power RF turns them on. Forward conduction voltage is .7 Volts or so peak, perhaps .5 VRMS of fundamental energy, which represents 12.5 Watts into 50 Ohms.

The amplifier will oscillate with all this feedback. In fact, you might be in danger of overdriving the amplifier input with this much power.

Messing with the phase (by changing line length) probably won't help. The phase shift of the amplifier is a strong function of frequency -- achieving negative feedback at one frequency is no guarantee that you won't have positive feedback at some other frequency.

Try replacing the switching diodes with a PIN diode, and run a high DC current through it on transmit. To get enough isolation you might need two diodes, separated by a 1/4-wave line (total of 3 lines). Some people have had success using 1N4004 power supply rectifiers as PIN diodes. Their switching time is slow enough that they work pretty well, and they have good power dissipation.



Sorry for the crude diode symbols. You may need to stick a 1 uH choke in series with the resistor to keep RF out of the +V line. Resistor value might be 120 Ohms, 2W (100 mA thru the diodes).

If the 1N4004's don't work, you might have to use real PIN diodes.

Al N1AL

3282. Re: QSL managers

Newsgroup: rec.ham-radio
Date: 1990-06-01 19:32:56 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9006011932.AA20091@ucsd.edu>
Source record: 11177

The latest (June '90) issue of CQ has a letter in the letters-to-the-editor column from a QSL manager about some of the problems and expenses he has, and he suggests they run an article explaining *all* the details and proper procedures for QSLs via bureaus and managers. There was no editorial response indicating that the magazine would do this, but, since there's been so much discussion here on the net about this topic, I think one of you out there could make a little money on the side by writing such an article and submitting it to CQ. I know that I didn't really understand what the problems he was complaining about really were, and I'm sure others could use clear and detailed explanations, aimed at a level starting with the very basics, and written with practical considerations in mind -- exactly what actions should the ham take, and what should the manager/bureau do, to handle all this stuff with the maximum efficiency, speediest turnaround, and minimum cost (to *all* concerned).

(If anyone out there does this, do it on-line, and send the list an electronic copy of the article so we can compare it with the edited version that eventually gets published. So many people claim magazine editors mangle their submissions that it would be informative to have a chance to see the "before and after" of such an exercise.)

Regards, Will

3283. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-06-01 19:47:09 UTC
From: guhsd000@crash.cts.com
Message-ID: <2949@crash.cts.com>
Source record: 11179

Reguarding the burger place....

While I'm in the mobile, I'm usally yacking at my pal who lives about 2 blocks from me, and when I get to the window, the girl usally has a goofy look on her face. I have an AS 927 antenna, which is pretty fine, and un-noticible, esp from the angle of her position at the driveup window.

I ask her, "What's wrong?" not realizing I'm bleeding over again, to which she replied "Something strange is happening..."

Then I realize what happened, and pick up the mike, turn it up all the way, and said to look for Rod Sterling, she turned around as I was still keyed up...

"THAT'S SOOooo WIERD!!"

I now play little mind games with them, mumble something like Cancel the order, and I'd like a orange drink instead, when there's no one at the intercom...

3284. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-06-01 20:24:51 UTC
From: tvf@cci632.UUCP
Message-ID: <37535@cci632.UUCP>
Source record: 11193

I don't know if this counts, but..

I used to hang around with a group of hams who ran several repeaters in town (BTW, are there any other old Gridd Radio Network people here besides myself?). They all seemed to have PA's in their cars, too.

Anyway, the local county government used to have a tape message for rat control that sounded like a friendly phone conversation. The voice was something like an older gentleman, slightly gravelly, and he said something like this:

"Hey there! How're ya doing? Oh, everybody's fine. Except we've got this problem. Yeah, rats. There all over the place. In the basement, in the cupboards. One of them almost bit the baby! Scared the wife half to death. Yeah, I'm going to call the Monroe County Pest Control Board at XXX-YYYY. They'll be ablt to help me.

"Uh-oh, gotta go. One of them's trying to chew up the phone cord. Get outta there!"

We would go to our favorite restaurant/hangout, dial this up on the autopatch on one of the repeaters, and pump it out the PA. Then we'd go in and hang around for a few hours, eat, and gab.

Gawd, it's been years now...
--
Thomas V. Frauenhofer ...!rutgers!rochester!kodak!swamps!!frau!tvf *or*
...!uunet!atexnet!kodak!swamps!frau!tvf (tvf@frau, tvf@cci632) WA2YYW
"Why don't you try acting? It's much easier."
- Laurence Olivier to Dustin Hoffman during filming of "Marathon Man"

3285. Satellite antenna help?

Newsgroup: rec.ham-radio
Date: 1990-06-01 20:53:56 UTC
From: pgraham@wyse.wyse.com
Message-ID: <2738@wyse.wyse.com>
Source record: 11185

Hello all,
I am looking to get into satellite and I have found (but not yet aquired)
a KLM 435-40CX, KLM 2M-22C and a Kenpro KR500 Elevation rotor...

What I need is feedback about each of these. I am just starting out so
any feed back would be great!

I have heard that these may have too narrow beamwidth and this may make
tracking satellites difficult, can any one comment on this?

I have also heard that if you do not have the space you can remove one
section (the end director) and you can shorten the antenna from 19 ft
to about 15 feet. While this affects gain a little the antenna is still
supposed to perform as well as antennas of this size.

Thanks inadvance folks...
DE KJ6NN
Phil

(You can also reply to KJ6NN @ N6IIU-1)
(on packet or on the Northern Cal packetcluster)

3286. Re: "Espionage Devices"

Newsgroup: rec.ham-radio
Date: 1990-06-01 20:57:38 UTC
From: mn@atari.UUCP
Message-ID: <2206@atari.UUCP>
Source record: 11190

In article <38120002@hpindwa.HP.COM> stephenm@hpindwa.HP.COM (Stephen Meredith) writes:
>mn@atari.UUCP writes
>
>>There's a monthly ham radio flea market here, lots of surplus electronic
>
>Where and when is this flea market? I would like to check it out.
>
>Steve

Foothill College has a ham radio flea market on the 2nd Saturday of each
month March-September. Get there early, like 6 AM if you want a crack at
the good stuff.

| Michael Nowicki N6LUU Atari Corp,Sunnyvale CA /TT/UNIX/X team |
|.....|
| char *disclaimer=" Views expressed are my own, not my employer's"; |

3287. Re: E-skip city!!

Newsgroup: rec.ham-radio
Date: 1990-06-02 01:50:32 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990Jun2.015032.24645@cbnewse.att.com>
Source record: 11198

There's a neat band opening tonight (Friday) also.
I saw WEDU(?) in the Tampa (Florida) area on TV channel 3 here tonight.
I live 60 miles SW of Chicago, Illinois.
--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

3288. Re: Callsigns

Newsgroup: rec.ham-radio
Date: 1990-06-02 03:31:24 UTC
From: rfc@briar.Philips.Com
Message-ID: <97633@philabs.Philips.Com>
Source record: 11186

I imagine noone would want to be assigned A1DS nowdays.

Is this a USA call, or is A1 assigned to another country? I don't believe
that this is a USA call myself.

3289. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-02 05:11:35 UTC
From: skipsand@crash.cts.com
Message-ID: <2958@crash.cts.com>
Source record: 11196

While the K0A etc calls are available for hams, the general rule (last I saw a
list of callsign types from FCC) is that in general, these 1 by 1 type calls are used for
SPACE stations... so, STS-35 could be assigned A1A, and be in line
with the normal callsign assigning rules.

3290. Re: HST transmissions

Newsgroup: rec.ham-radio
Date: 1990-06-02 05:38:52 UTC
From: medin@cincsac.arc.nasa.gov
Message-ID: <50750@ames.arc.nasa.gov>
Source record: 11195
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <1990May30.174352.9182@portia.Stanford.EDU> paulf@jessica.stanford.edu (Paul Flaherty) writes:

>HST uses the Tracking Data Relay Satellite System (TDRSS), which is
>encrypted (with something presumably stronger than DES). It would be
>the proverbial good thing if someone at STSCI would make some of the
>images available via anonymous ftp....

Paul, the HST PI's have exclusive access to HST data for a year after it's acquisition I believe. This is inline with NASA policy for spacecraft data. This is the reason that no images of the voyager Neptune encounter (except those digitized from NASA Select video by Stanford) have been released to the public (except for press photos). If the PI's choose to release data early, I guess this could be made available.

This is designed to protect scientists who may have waited years for their experiment to fly, and not allow some 3rd party to quickly analyze the data and publish before the PI can. I think this is reasonable, but it certainly can be frustrating. Perhaps it would be possible to get some low resolution bitmaps of press photos released to the public.

Thanks,
Milo

PS Usual disclaimers about this not representing NASA or Government policies or positions apple of course.

3291. Re: HST transmissions

Newsgroup: rec.ham-radio
Date: 1990-06-02 06:12:00 UTC
From: leech@ornat.cs.unc.edu
Message-ID: <14424@thorin.cs.unc.edu>
Source record: 11197
Cross-posted to: rec.ham-radio,sci.astro,sci.electronics

In article <1990May30.174352.9182@portia.Stanford.EDU> paulf@jessica.stanford.edu (Paul Flaherty) writes:
>encrypted (with something presumably stronger than DES). It would be
>the proverbial good thing if someone at STSCI would make some of the
>images available via anonymous ftp....

It would certainly not be a good thing for their network
connection and whatever machine hosted the images, as it would rapidly
be swamped under hundreds to thousands of connections. Using the
Internet to copy large images merely to satisfy people's curiosity
and/or give them more background bitmaps is not wise.
--
Jon Leech (leech@cs.unc.edu) __@/
``There ain't hardly nothin' cuter nor a sleepin' baby tad
lessen it's a pork chop'' - Churchy La Femme

3292. FT-207 battery

Newsgroup: rec.ham-radio
Date: 1990-06-02 09:03:10 UTC
From: querubin@uhccux.uhcc.Hawaii.Edu
Message-ID: <8021@uhccux.uhcc.Hawaii.Edu>
Source record: 11199

I've inherited an old Yaesu FT-207 walkie that is supposed to use an NBP-9 battery pack (which it doesn't have). So far I haven't been able to locate any dealer who sells a replacement battery pack. Does anyone know where I might be able to buy one?

3293. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-02 12:58:33 UTC
From: lkay@ecs.umass.edu
Message-ID: <9979.2667b7fa@ecs.umass.edu>
Source record: 11200

In article <2958@crash.cts.com>, skipsand@crash.cts.com (Skip Sanders) writes:
> While the K0A etc calls are available for hams, the general rule (last I saw a
> list of callsign types from FCC) is that in general, these 1 by 1 type calls
> are used for SPACE stations... so, STS-35 could be assigned A1A, and be in
> line with the normal callsign assigning rules.

Except that A1 is not a valid US prefix. US only owns AA-AL. In fact, a quick
glance at my ITU allocation table shows that no ?1 prefix blocks are assigned,
except for the countries that own entire first letters (F,G,K,etc.)

Too bad U.K. owns MAA-MZZ. The USSR could have used M1R instead of U1MIR!

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3294. Re: QSL'ing for money

Newsgroup: rec.ham-radio
Date: 1990-06-02 13:49:41 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990Jun2.134941.28957@cbnewsk.att.com>
Source record: 11194

In article <991@tsdiag.ccur.com>, davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>
> Could earning money in excess of the cost of QSL cards, postage, etc
> be considered doing buisness on the air? Just like VE's aren't allowed
> to charge more than the cost of materials for exams, couldn't the same

With few exceptions (in which cases, the card can become invalid for things like DXCC - I have a TI9 card that is of this variety - the operator was 'obviously' padding his pocket), the manager does not request more than the cost of returning the card. In fact, consider that, if one sends a manager a SASE with his/her card, then the manager AUTOMATICALLY is out some money due to QSL card printing. Admittedly that isn't much, but when you get something in excess of 500 cards per month (as I do), it adds up. Add to that the cost of replying to bureau replies (the envelopes at the bureau, postage and cost to send back thru the buro, etc...) NOT TO MENTION THE TIME!, QSL managing isn't a profitable situation. (Note...some managers DO NOT reply to bureau cards, but there is increased pressure from various ham organizations to do so).

The folks that send a greenstamp for return postage without being required to do so are essentially 'donating' to the QSL manager's war chest. I think your point is interesting, but unless required, the money sent above and beyond the cost of returning a QSL is usually an attempt on that ham's part to keep the Manager from LOSING any more money, rather than 'padding his/her wallet'. As mentioned earlier, of all the DX stations I QSL for, the balance runs positive for only one, that because he is extremely rare, and does some 1000+ contacts a month, often on rare modes (VHF, Satellite, RTTY, etc). The balance is kept near '0' by sending equipment to further these operations. I am more comfortable doing this than 'pocketing' the change, but this decision is my own. I suspect, having been in this arena for some time, that managers are not a profitable function. If you doubt it, try being one sometime!

73, steve ku9c
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

3295. (none)

Newsgroup: rec.ham-radio
Date: 1990-06-02 19:59:06 UTC
From: tcs@GANDALF.LL.MIT.EDU
Message-ID: <9006021959.AA18319@GANDALF.LL.MIT.EDU>
Source record: 11203

First: An appology to Al well in advance of this reply.
I really enjoy most of your comments Al, I just choked on this one!

>Date: 1 Jun 90 19:21:52 GMT
>From: hpl-opus!hpnmdla!alanb@hplabs.hp.com (Alan Bloom)
>Subject: Bypass wire on a power amp module, help needed.
>To: info-hams@wsmr-simtel20.army.mil

>WA2ISE tried to bypass his 2 meter power amplifier (so his HT could hear on
>receive) by connecting a pair of 1/4-wave coaxes between input and output with
>a pair of back-to-back diodes shunting the junction between the two lines.

>The diodes do not act as a perfect short when the high-power RF turns them on.

This is O.K.

>Forward conduction voltage is .7 Volts or so peak, perhaps .5 VRMS of
>fundamental energy, which represents 12.5 Watts into 50 Ohms.

??? What does this mean??? =============^^^^^^^^^^^^^^^^^^^^

Suppose you wished to have a shunting impedance of 1 ohm, I=.5/1 = .5 Ampere.
Power = .5 VRMS *.5 A = .25 Watt!!! [This might be a problem for the amp!]
For 10 Ohms, The Power in the diode is .025 Watt.
It's real hard for me to imagine a 12.5 Watt, 25 Amp signal diode for .02 Ohm.
You can't have meant that!

Since the impedance of the diodes determine the "I" in the above equation,
and the impedance of the diode is driven by the applied voltage and current
it cannot be explaned so simply. Still, I agree there is very little current
in these diodes. As you might guess from the size of the diode packages used
in these circuits.

>The amplifier will oscillate with all this feedback. In fact, you might be in
>danger of overdriving the amplifier input with this much power.

Probably, NOT the real culprit!

BUT,,, Your missing the point of the 1/4 wave transmission line transformers.
Imagine a Smith Chart...
The diodes receive enough energy (RF) to conduct from the amplifier.
Ths energy is about .5 volt at a small current. Why???
Well it's the magic of the transformer. The low impedance presented by the
diodes to the end of the 1/4 wave line is transformed to a very high impedance
at the amplifier. The amount of energy actually getting to the diodes is
controlled by how accurate the 1/4 wave lines are, and how good the diodes are.
I don't have a chart here, but I seen to remember that 1 ohm shunt get you
well over 2500 ohms at the other end of the cable. Assuming a loss-less

transformer, the amount of power that can couple into a >2500 ohm load from a 50 Ohm source is what will arrive at the diodes. But nothing like 12.5 Watts. And we haven't even begun to consider the non-resistive effects of the diodes.

I have built many of these solid state RF switches for "brick" power amps. The real problem is how good (bandwidth) the coax 1/4 wave line is. What is really needed is a 1/4 wave transformer that only works over "our" band of frequencies. Alas! Reality strikes! As frequency departs from the band of interest, the transformer action produces a very different result. Where the amplifier's gain bandwidth is greater than our desired switch, enough energy at (typically) lower frequencies now passes unhindered (except possibly by diode clipping) to the amplifier's input. (Check and see if your amp is an oscilator at a frequency other than in the band of choice! If so, there's your problem!)

The other thing not mentioned, is the necessity of dual diodes at the input and output of the amp. These are to isolate the 50 ohm "load" of the unpowered amplifier from robbing your incoming receive signal. These diodes will not see enough voltage to conduct and therefore represent an open circuit to the receive signals.

>Messing with the phase (by changing line length) probably won't help. The phase
>shift of the amplifier is a strong function of frequency -- achieving negative
>feedback at one frequency is no guarantee that you won't have positive feedback
>at some other frequency.

Attempting a "phase change" by varying line length is a BAD idea! First look up how much line you need to even vary the phase 10 degrees! But far more important is the implication of what you are doing to the 1/4 wave transformer. Phase changes end up being made with LOTS of coax and must ALWAYS arrive at odd wave lengths, E.I 1/4, 3/4, 1 1/4, etc.

>Al N1AL

Again, NO FLAME INTENDED, I might be missing something here, but this is my experience and sense of what is happening.

73
DE
Tom WA1RHP

3296. Re: HST transmissions

Newsgroup: rec.ham-radio
Date: 1990-06-02 19:59:37 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990Jun2.195937.11784@portia.Stanford.EDU>
Source record: 11201

In article <14424@thorin.cs.unc.edu> leech@ornat.cs.unc.edu (Jonathan Leech) writes:
> It would certainly not be a good thing for their network
>connection and whatever machine hosted the images, as it would rapidly
>be swamped under hundreds to thousands of connections. Using the
>Internet to copy large images merely to satisfy people's curiosity
>and/or give them more background bitmaps is not wise.

Sad, but true. VGA quality GIFs run about 300kB per shot, and the combination
of disk saturation and network saturation usually dooms most image sites.

It should be posible for one of the T1 - based NSFNet sites to carry the
images, on something like a NET based pc with lots of scsi disk (ala grape).
Once the PI exclusion period is over, maybe this will be a possibility.

-=Paul Flaherty, N9FZX/VK2WYX | "Anything below 1,000,000,000 Hz
->paulf@shasta.Stanford.EDU | is just nervous DC."

3297. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-02 22:02:12 UTC
From: kjh@pollux.usc.edu
Message-ID: <25068@usc.edu>
Source record: 11202

In article <2958@crash.cts.com> skipsand@crash.cts.com (Skip Sanders) writes:
>so, STS-35 could be assigned A1A, and be in line
>with the normal callsign assigning rules.

No, it wouldn't be in line if it was to be considered a US callsign. We
only have AA0-AL9. We don't have A0-A9.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

3298. MJF1278 Multi-level FAX

Newsgroup: rec.ham-radio
Date: 1990-06-02 22:42:54 UTC
From: john@anasaz.UUCP
Message-ID: <2366@anasaz.UUCP>
Source record: 11205
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Has anyone figured out the format of the multi-level fax
format for RS232 from the MFJ1278. The documentation indicates that
the lower 6 bits of each character represent 3 2-bit pixels. However,
as far as I can tell (using a signal generator), individual pixels
are meaningless - only the average 6-bit values are real.

Does anyone know?
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3299. Re: FT-207 battery

Newsgroup: rec.ham-radio
Date: 1990-06-03 00:44:51 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990Jun3.004451.15878@cbnewse.att.com>
Source record: 11207

In article <8021@uhccux.uhcc.Hawaii.Edu>, querubin@uhccux.uhcc.Hawaii.Edu (Antonio Querubin) writes:
> I've inherited an old Yaesu FT-207 walkie that is supposed to use an NBP-9
> battery pack (which it doesn't have)...Does anyone know where I might
> be able to buy one?

The JaBro catalog in front of me lists 2 NiCds available for
the Yaesu FT-207R: a 450 mAH and a 500 mAH, both 11.25 volts.

Keep in mind that Wilson walkie-talkies were made by Yaesu so
you could look for batteries for the Wilson BP-4 also.

Contact:
JaBro Batteries, Inc. 5003 Chase Drive, Downers Grove, IL 60515
tel. 708-964-9358

--
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Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

3300. Re: 100 GHz and up

Newsgroup: rec.ham-radio
Date: 1990-06-03 02:15:29 UTC
From: karn@ka9q.bellcore.com
Message-ID: <23828@bellcore.bellcore.com>
Source record: 11204

In article <12012@shlump.nac.dec.com> koning@koning.enet.dec.com (Paul Koning) writes:
>That's a common misconception. Scrambling has no effect on whether
>a code is self-clocking. All it does is change WHICH user data pattern
>causes absence of clocking.

True, but instead of runs of 1s or 0s causing absence of clocking, the user
data pattern must be a long pseudo-random sequence with just the right
phase. This is MUCH less likely in practice. That's why scrambling is still
a very useful and widespread practice.

Phil

3301. Re: EBS tones

Newsgroup: rec.ham-radio
Date: 1990-06-03 04:31:15 UTC
From: jre@sactoh0.UUCP
Message-ID: <3201@sactoh0.UUCP>
Source record: 11208

The frequencies of the tones are 853 Hz and 960 Hz. They are broadcast for a period of 23.5 seconds. Hope this helps.

3302. Re: Shortest Ham Call ?

Newsgroup: rec.ham-radio
Date: 1990-06-03 04:41:15 UTC
From: news@bellcore.bellcore.com
Message-ID: <23829@bellcore.bellcore.com>
Source record: 11206

In article <2958@crash.cts.com>, skipsand@crash.cts.com (Skip Sanders) writes:
>> is that in general, these 1 by 1 type calls
>> are used for SPACE stations... so, STS-35 could be assigned A1A, and be in
>> line with the normal callsign assigning rules.

Even if this is true (I don't know) I doubt they'll be used any time soon.
All of the ham-in-space operations have used the existing callsign of the
astronaut (even though they've all gotten waivers of the Extra Class
requirement) and all of the US-licensed Oscars have also used the existing
callsigns of their licensees. And because space stations are exempted from
ID requirements, most of you don't even know what these callsigns are,
I bet...

Phil

3303. Re: shortest ham call

Newsgroup: rec.ham-radio
Date: 1990-06-03 10:27:33 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9006031027.AA18911@cmr.ncsl.nist.gov>
Source record: 11211

Jim Docke, WB2HBZ, has sent me a message claiming a tie for shortest ham call between my candidate (I5I) and King Hussein (JY1).

I calim to still be winning (on CW), since I5I is just two "dits" away from the shortest possible "letter-number-letter" call - E5E.

73, Bob W3OTC

Ah, the serious technical matters discussed in this group !

3304. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-06-03 14:56:44 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9006031605.AA00855@ucsd.edu>
Source record: 11209

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #704 -
Alouette 1
1 00424U 62B-A 1 90143.97482870 .00000248 00000-0 28755-3 0 3260
2 00424 80.4630 309.9464 0023488 337.6047 22.4082 13.67348077379387
ATS 3
1 03029U 67111 A 90149.66583382 -.00000074 00000-0 99999-4 0 3810
2 03029 13.1793 21.3844 0015148 211.1036 148.7618 1.00272295 82604
Cosmos 398
1 04966U 71 16 A 90151.76171728 .00076993 17286-4 43192-3 0 8987
2 04966 51.5045 280.2288 2283971 116.2467 269.0482 11.03418353589884
Starlette
1 07646U 75010 A 90151.22546814 -.00000008 00000-0 41305-4 0 799
2 07646 49.8202 225.4107 0206578 135.4438 226.3271 13.82138596773430
LAGEOS
1 08820U 76039 A 90140.54852092 .00000002 00000-0 00000 0 0 826
2 08820 109.8518 345.6617 0044634 244.1467 115.4691 6.38664018 72179
GPS-0001
1 10684U 78020 A 90146.99449198 .00000007 00000-0 99999-4 0 4305
2 10684 63.7146 90.2072 0117429 199.3293 160.1953 2.00557062 75428
GPS-0002
1 10893U 78 47 A 90149.96132770 -.00000025 00000-0 00000 0 0 1916
2 10893 64.3944 330.9686 0164756 26.1341 334.7165 2.00545706 88301
SeaSat 1
1 10967U 78064 A 90150.34570317 .00001223 00000-0 46575-3 0 3377
2 10967 108.0149 283.3299 0002480 251.6485 108.4364 14.35684161623892
GPS-0003
1 11054U 78093 A 90150.74895542 -.00000024 00000-0 00000 0 0 2312
2 11054 63.9196 327.2396 0060796 116.2799 244.3401 2.00566660 85330
Nimbus 7
1 11080U 78098 A 90150.23174242 .00000147 00000-0 16206-3 0 6775
2 11080 99.1974 55.5638 0009343 126.7484 233.4523 13.83434684585558
GPS-0004
1 11141U 78112 A 90147.35759457 .00000007 00000-0 00000 0 0 3814
2 11141 63.7068 90.0816 0060289 316.4213 43.0769 2.00557907 83969
GPS-0005
1 11690U 80 11 A 90147.99727796 .00000009 00000-0 00000 0 0 9813
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2 11690 64.1695 92.1341 0117246 203.4235 156.0117 2.00555200 89838
GPS-0006
1 11783U 80 32 A 90147.30816754 -.00000024 00000-0 00000 0 0 1503
2 11783 63.7175 326.9205 0150877 60.6471 300.8528 2.00557428 73908
GOES 5
1 12472U 81049 A 90144.75391302 -.00000192 00000-0 99999-4 0 9347
2 12472 3.4415 75.9252 0005789 267.4498 92.2838 1.00150874 31994
DE 1
1 12624U 81 70 A 90145.00000000 .00000072 00000-0 99999-4 0 4454
2 12624 88.9917 148.1417 6199927 290.3392 225.0727 3.51092079901445
SME
1 12887U 81100 A 90151.16251463 .00034539 00000-0 61913-3 0 6758
2 12887 97.6377 197.5868 0003128 107.2562 252.8993 15.49863040478634
Salyut 7
1 13138U 82 33 A 90151.88508010 .00030730 00000-0 33680-3 0 2964
2 13138 51.6028 26.7166 0001926 147.6701 212.4059 15.62973778462305
Cosmos 1383
1 13301U 82 66 A 90148.93808898 .00000141 00000-0 15440-3 0 5770
2 13301 82.9274 314.8799 0026057 212.3583 147.5979 13.67828297395043
LandSat 4
1 13367U 82 72 A 90151.09913306 -.00000516 00000-0 -10958-3 0 3507
2 13367 98.1665 213.9611 0002830 164.5448 195.5894 14.57124235418812
IRAS
1 13777U 83 4 A 90151.04001392 .00000194 00000-0 15827-3 0 7791
2 13777 99.0258 348.1000 0013985 77.1669 283.1050 13.98784104 44549
Cosmos 1447
1 13916U 83 21 A 90149.04385117 .00000150 00000-0 14772-3 0 7275
2 13916 82.9436 26.2109 0036769 191.2634 168.7704 13.74041873360045
TDRS 1
1 13969U 83 26 B 90148.00000000 .00000127 00000-0 99999-4 0 9987
2 13969 4.4267 65.7775 0001262 25.9874 342.6523 1.00264093 92917
GOES 6
1 14050U 83 41 A 90145.91808644 .00000119 00000-0 99999-4 0 1829
2 14050 2.1829 78.4061 0002724 298.0016 61.3412 1.00277319 10043
OSCAR 10
1 14129U 83 58 B 90141.55893209 -.00000034 00000-0 00000 0 0 5259
2 14129 25.9838 203.2065 5966345 144.7263 275.5441 2.05881342 24183
GPS-0008
1 14189U 83 72 A 90151.33752823 .00000006 00000-0 99999-4 0 7636
2 14189 63.3512 88.4085 0148353 219.4478 139.4362 2.00706295 50427
LandSat 5
1 14780U 84 21 A 90151.12639736 -.00000874 00000-0 -18903-3 0 2097
2 14780 98.2061 211.4477 0001375 359.3198 0.8046 14.57105466332238
UoSat 2
1 14781U 84 21 B 90150.60681341 .00002274 00000-0 42882-3 0 7394
2 14781 97.9502 203.7363 0012427 309.2706 50.7376 14.65386404333392
GPS-0009
1 15039U 84 59 A 90147.94792292 .00000006 00000-0 00000 0 0 9411
2 15039 63.1139 87.6999 0021411 240.1042 119.6554 2.00612096 43636
Cosmos 1574
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1 15055U 84 62 A 90148.75304990 .00000157 00000-0 15702-3 0 8805
2 15055 82.9571 76.6383 0028994 19.6955 340.5312 13.73356223297405
GPS-0010
1 15271U 84 97 A 90147.35481838 -.00000025 00000-0 00000 0 0 8418
2 15271 63.1533 326.4832 0108663 326.8812 32.7246 2.00579678 40733
Cosmos 1602
1 15331U 84105 A 90151.56118705 .00003489 00000-0 47700-3 0 2987
2 15331 82.5387 16.3278 0024525 30.5366 329.7183 14.78120361305639
NOAA 9
1 15427U 84123 A 90151.33671649 .00000535 00000-0 30985-3 0 5887
2 15427 99.1661 150.7762 0016197 58.6978 301.5781 14.12582294281608
Cosmos 1686
1 16095U 85 86 A 90151.69326974 .00047626 00000-0 51779-3 0 6523
2 16095 51.6018 27.6852 0001996 155.1133 204.9901 15.62969339263377
GPS-0011
1 16129U 85 93 A 90147.54052903 .00000007 00000-0 00000 0 0 5388
2 16129 63.8715 88.6778 0122491 149.3321 211.3666 2.00510357 33944
Mir
1 16609U 86 17 A 90151.89394067 .00025638 00000-0 30525-3 0 7042
2 16609 51.6144 52.9043 0010267 351.6325 8.4458 15.60876417245554
SPOT 1
1 16613U 86 19 A 90150.66915162 .00000485 00000-0 24565-3 0 9624
2 16613 98.7334 225.3352 0000677 162.6722 197.4486 14.20036008 61449
Cosmos 1766
1 16881U 90151.41503776 .00003766 00000-0 52156-3 0 77
2 16881 82.5226 75.5264 0023773 46.3381 313.9790 14.77597639206678
EGP
1 16908U 86 61 A 90151.13353072 -.00000025 00000-0 99182-4 0 2247
2 16908 50.0119 308.4246 0011567 150.6038 209.5417 12.44387145172739
NOAA 10
1 16969U 86 73 A 90151.33758012 .00000776 00000-0 35651-3 0 4369
2 16969 98.6028 179.6616 0013195 324.3723 35.6572 14.23622739192217
MOS-1
1 17527U 87 18 A 90150.64043371 -.00009554 00000-0 -71278-2 0 5605
2 17527 99.1082 223.4167 0001591 108.7193 251.3776 13.94843014166813
GOES 7
1 17561U 87 22 A 90150.60088712 -.00000074 00000-0 99999-4 0 5476
2 17561 0.0357 65.3356 0017803 270.7418 24.2189 1.00299769 5243
Kvant-1
1 17845U 87 30 A 90151.70199822 -.00153708 00000-0 -18695-2 0 1536
2 17845 51.6198 53.8745 0012087 357.5892 3.1789 15.60753678181574
DMSP B5D2-3
1 18123U 87 53 A 90151.35527382 .00000750 00000-0 41368-3 0 6005
2 18123 98.8199 342.1842 0015584 71.5806 288.7060 14.14044879152028
RS-10/11
1 18129U 87 54 A 90150.88464022 .00000158 00000-0 16207-3 0 2068
2 18129 82.9265 341.3123 0012162 160.4836 199.6814 13.72090897147075
Meteor 2-16
1 18312U 87 68 A 90148.94694968 .00000219 00000-0 18868-3 0 4307
2 18312 82.5526 305.5432 0011639 313.9154 46.1044 13.83647461140325
```

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Meteor 2-17
1 18820U 88 5 A 90149.04324165 .00000259 00000-0 22073-3 0 2815
2 18820 82.5454 5.6828 0017771 22.4076 337.7855 13.84344066117536
DMSP B5D2-4
1 18822U 88 6 A 90151.30820641 .00000813 00000-0 38912-3 0 4996
2 18822 98.6512 30.6904 0006637 330.7506 29.3289 14.21452407120424
AO-13
1 19216U 88 51 B 90148.23246392 .00000105 00000-0 99999-4 0 1283
2 19216 56.9522 153.1540 6957743 228.0483 47.3201 2.09698248 14984
OKEAN 1
1 19274U 88 56 A 90150.78736689 .00000946 00000-0 13068-3 0 8077
2 19274 82.5160 174.7474 0022300 175.0080 185.1272 14.76973880102359
Meteor 3-2
1 19336U 88 64 A 90148.81638992 .00000391 00000-0 99999-3 0 4914
2 19336 82.5393 291.1318 0018163 5.3412 354.7893 13.16897428 88401
NOAA 11
1 19531U 88 89 A 90151.29768223 .00000422 00000-0 25334-3 0 2875
2 19531 98.9813 99.5874 0011697 337.4032 22.6622 14.11610796 86580
TDRS 2
1 19548U 88 91 B 90149.59999999 .00000115 00000-0 99999-4 0 1329
2 19548 0.0622 73.9550 0002349 5.1610 209.6580 1.00271293 93
Cosmos 2001
1 19796U 89 11 A 90149.25500550 -.00001106 00000-0 99999-4 0 4900
2 19796 63.2050 95.2686 7096507 319.9211 5.1075 2.00539617 9422
GPS BII-01
1 19802U 89 13 A 90142.03861096 .00000016 00000-0 99999-4 0 1303
2 19802 55.0581 198.4458 0055803 164.4555 195.7971 2.00642300 9225
Akebono
1 19822U 89 16 A 90151.21630117 .00031269 00000-0 21332-2 0 6196
2 19822 75.1299 247.1118 4182379 232.6414 81.6185 7.09971076 32221
Meteor 2-18
1 19851U 89 18 A 90146.33488642 .00000242 00000-0 20864-3 0 2307
2 19851 82.5223 245.8618 0016457 68.4243 291.8676 13.83974338 62547
TDRS 3
1 19883U 89 21 B 90150.00000000 -.00000237 00000-0 99999-4 0 1336
2 19883 0.0845 72.3959 0001135 75.3140 58.1378 1.00260322 74754
GPS BII-02
1 20061U 89 44 A 90148.21773375 -.00000032 00000-0 00000 0 0 1347
2 20061 54.7621 16.6280 0084996 173.2298 186.9331 2.00485672 7098
Nadezhda 1
1 20103U 89 50 A 90148.79606181 .00000182 00000-0 18404-3 0 1306
2 20103 82.9566 299.2900 0039317 91.2423 269.3237 13.73592784 45054
GPS BII-03
1 20185U 89 64 A 90148.66599514 .00000016 00000-0 99999-4 0 1279
2 20185 54.9117 199.0425 0024309 158.5464 201.6329 2.00626849 5674
Activnyi
1 20261U 89 80 A 90151.94524728 .00000969 00000-0 30214-3 0 5299
2 20261 82.5958 238.8764 1258004 15.1738 348.3793 12.43731760 30579
Activnyi RB
1 20262U 89 80 C 90149.32940519 .00000711 00000-0 21905-3 0 2377
```

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2 20262 82.5967 240.5799 1261492 21.2551 343.6429 12.43194614 30243
Magion 2
1 20281U 89 80 B 90151.91760807 .00000978 00000-0 30321-3 0 5286
2 20281 82.5940 238.8269 1257601 15.1068 348.4279 12.43981641 30575
GPS BII-04
1 20302U 89 85 A 90148.44922332 -.00000028 00000-0 99999-4 0 1305
2 20302 54.6386 317.8760 0032365 318.4218 41.3207 2.00374813 4479
Meteor 3-3
1 20305U 89 86 A 90148.67705882 .00000004 00000-0 -29841-5 0 1329
2 20305 82.5528 231.7493 0016722 22.7210 337.4648 13.15857469 28388
COBE
1 20322U 89 89 A 90150.07480559 .00004720 00000-0 31031-2 0 1339
2 20322 99.0180 160.4641 0010103 61.0335 299.1824 14.02216762 26951
Kvant-2
1 20335U 89 93 A 90151.76587851 .00039560 00000-0 46701-3 0 2565
2 20335 51.6049 53.5506 0011181 345.1484 14.8346 15.60855246 29194
GPS BII-05
1 20361U 89 97 A 90134.23449072 .00000015 00000-0 99999-4 0 797
2 20361 54.9699 141.6148 0062040 50.1010 310.4793 2.00579149 3041
SPOT 2
1 20436U 90 5 A 90150.63401732 .00000538 00000-0 27031-3 0 2175
2 20436 98.7345 225.3553 0001390 88.2566 271.8944 14.20038838 18254
UO-14
1 20437U 90 5 B 90151.43733054 -.00002350 00000-0 -92812-3 0 1534
2 20437 98.7024 227.5906 0010468 201.5841 158.4689 14.28616292 18471
UO-15
1 20438U 90 5 C 90149.42673205 .00000467 00000-0 20312-3 0 880
2 20438 98.7014 225.5743 0009407 205.2460 154.8262 14.28370125 18184
PACSAT
1 20439U 90 5 D 90142.25412747 .00000692 00000-0 29135-3 0 801
2 20439 98.7039 218.5151 0010628 229.1515 130.8783 14.28715882 17162
DO-17
1 20440U 90 5 E 90150.23446723 .00000754 00000-0 31558-3 0 835
2 20440 98.7039 226.4855 0011009 204.9054 155.1593 14.28772891 18305
WO-18
1 20441U 90 5 F 90150.64496878 .00000667 00000-0 28031-3 0 832
2 20441 98.7040 226.9105 0011547 204.2814 155.7811 14.28871939 18363
LO-19
1 20442U 90 5 G 90150.63884055 .00000694 00000-0 29056-3 0 838
2 20442 98.7046 226.9194 0011741 205.3066 154.7526 14.28941027 18363
GPS BII-06
1 20452U 90 8 A 90147.83563653 .00000001 00000-0 99999-4 0 755
2 20452 54.5567 256.8002 0028456 44.6049 315.6465 2.00875970 2439
MOS-1B
1 20478U 90 13 A 90151.95860156 -.00000602 00000-0 -43545-3 0 2841
2 20478 99.1888 222.2462 0001664 105.8337 254.2939 13.94837739 15879
DEBUT
1 20479U 90 13 B 90144.15135168 .00000003 00000-0 34803-4 0 753
2 20479 99.0426 195.1993 0541743 102.9595 263.2557 12.83155784 13666
FO-20
```

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1 20480U 90 13 C 90150.62541163 .00000166 00000-0 42108-3 0 789
2 20480 99.0422 200.4479 0542054 88.4220 277.8864 12.83137126 14496
MOS-1B R/B
1 20491U 90 13 D 90136.10780581 -.00000427 00000-0 -77931-3 0 792
2 20491 99.0427 191.4403 0471504 106.3773 258.9702 13.02729566 12220
Soyuz TM-9
1 20494U 90 14 A 90151.70175299 .00205185 00000-0 23423-2 0 1505
2 20494 51.6174 53.8693 0010807 339.5718 19.8705 15.60927967 17090
LACE
1 20496U 90 15 A 90151.07568746 .00007091 00000-0 43543-3 0 1570
2 20496 43.1047 56.7343 0014831 243.5782 116.3509 15.10471662 15934
RME
1 20497U 90 15 B 90151.07029405 .00010952 00000-0 31371-3 0 1560
2 20497 43.1068 35.1846 0016798 234.7806 125.1398 15.35841557 16206
Nadezhda 2
1 20508U 90 17 A 90148.26491101 .00000112 00000-0 10797-3 0 822
2 20508 82.9548 74.5968 0046077 42.6772 317.7945 13.73210926 12276
OKEAN 2
1 20510U 90 18 A 90150.80779470 .00001776 00000-0 27183-3 0 1585
2 20510 82.5256 113.7302 0019264 336.8355 23.2213 14.73114524 13515
INTELSAT-6
1 20523U 90 21 A 90150.90188554 .00003458 00000-0 23603-3 0 1561
2 20523 28.3487 16.9746 0014233 358.0027 2.0446 15.03223310 11847
GPS BII-07
1 20533U 90 25 A 90140.98718512 -.00000032 00000-0 00000 0 0 473
2 20533 55.0719 17.0265 0033840 99.7665 260.6670 2.00594792 1054
1990 026A
1 20536U 90 26 A 90122.10370766 -.00001185 00000-0 99999-4 0 780
2 20536 62.9350 19.4659 7361653 318.4665 4.7275 2.00601511 721
1990 026D
1 20539U 90 26 D 90123.19890815 -.00000836 00000-0 35903-4 0 467
2 20539 63.1476 18.9963 7337411 318.6473 4.7855 2.03011371 773
Offeq 2
1 20540U 90 27 A 90149.55125110 .00910991 -63433-4 18994-2 0 1260
2 20540 143.2014 44.8999 0646506 123.7204 241.9367 14.73300769 8041
1990 027B
1 20541U 90 27 B 90123.04805883 .00708832 -16106-4 16657-2 0 794
2 20541 143.1984 260.2975 0736069 284.9261 66.9139 14.51751386 4221
PegSat
1 20546U 90 28 A 90151.55259018 .00005390 00000-0 33942-3 0 1024
2 20546 94.1203 206.2684 0151628 32.7329 328.3125 15.00157096 8348
1990 028B
1 20547U 90 28 B 90122.74447785 .00003392 00000-0 26009-3 0 760
2 20547 94.1448 191.0320 0130894 131.0001 230.2685 14.95392931 4025
Cosmos 2065
1 20550U 90 29 B 90123.10692118 -.00000007 00000-0 00000 0 0 410
2 20550 73.9831 214.6497 0008708 267.9873 92.0182 12.48998567 3377
Cosmos 2071
1 20556U 90 29 H 90124.02949648 -.00000007 00000-0 00000 0 0 411
2 20556 73.9817 213.3030 0002572 55.7863 304.3394 12.50727585 3491
```

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1990 029J
1 20557U 90 29 J 90122.70329070 .00001049 00000-0 95280-2 0 453
2 20557 73.9852 216.8636 0148428 234.1468 124.5703 12.22657531 3258
1990 030B
1 20559U 90 30 B 90133.67279168 .00011178 00000-0 37832-2 0 528
2 20559 31.2905 11.0753 7319241 198.5461 105.1812 2.22962208 811
Cosmos 2072
1 20568U 90 33 A 90133.90710463 .00331011 56513-4 42018-3 0 1052
2 20568 64.7618 49.0650 0033867 86.1627 274.2603 16.05900007 4844
Palapa-B2R
1 20570U 90 34 A 90137.02166144 -.00000317 00000-0 99999-4 0 514
2 20570 0.0523 15.3218 0007680 110.1335 231.8008 1.00108506 295
1990 034B
1 20571U 90 34 B 90135.25637826 .00001978 00000-0 32479-3 0 554
2 20571 22.7504 176.4934 0628149 118.0040 248.5409 13.82067297 4332
1990 034C
1 20572U 90 34 C 90135.84989660 .00032231 00000-0 39037-2 0 491
2 20572 18.9297 347.9472 7375661 200.8035 96.7659 2.18270624 692
Cosmos 2074
1 20577U 90 36 A 90136.03907435 .00000094 00000-0 93615-4 0 474
2 20577 82.9451 138.3064 0025496 217.6457 142.2914 13.73710956 3463
1990 036B
1 20578U 90 36 B 90142.63696705 .00000143 00000-0 13889-3 0 539
2 20578 82.9423 133.3810 0019220 181.1997 178.9117 13.75020736 4373
HST
1 20580U 90 37 B 90150.88742595 .00003084 00000-0 34287-3 0 754
2 20580 28.4718 359.6348 0005887 308.7717 51.2277 14.84364223 5406
Cosmos 2075
1 20581U 90 38 A 90144.24709396 -.00004275 00000-0 -17923-3 0 877
2 20581 74.0254 356.0235 0023185 277.7210 82.1092 15.23022306 4379
1990 038B
1 20582U 90 38 B 90142.57824248 .00024584 00000-0 98348-3 0 723
2 20582 74.0294 359.4297 0031040 293.1471 66.6509 15.24541833 4124
Molniya1-77
1 20583U 90 39 A 90144.15730607 .00000070 00000-0 -16867-2 0 793
2 20583 62.7982 183.9973 7353596 288.2139 9.5835 2.00619305 573
1990 039B
1 20584U 90 39 B 90144.83967752 .03903616 41472-4 10039-2 0 1048
2 20584 62.7619 78.2685 0067648 125.7776 235.2487 16.21902308 4540
1990 39D
1 20586U 90 39 D 90143.60954820 .00000419 00000-0 68663-3 0 226
2 20586 62.8248 184.0281 7395335 288.1806 9.3720 1.96420289 535
Cosmos 2076
1 20596U 90 40 A 90151.40303225 -.00001233 00000-0 79009-3 0 438
2 20596 63.0666 334.8186 7375665 318.5072 4.4103 2.00587266 669
1990 40B
1 20597U 90 40 B 90148.20589656 .39662252 43947-4 29451-3 0 822
2 20597 62.7886 226.6703 0013442 121.7004 238.9820 16.52106649 4698
1990 40D
1 20599U 90 40 D 90150.97163910 -.00000504 00000-0 -84377-3 0 296
```

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2 20599 63.1771 334.5570 7351260 318.5828 4.4750 2.03474794 660
Progress 42
1 20602U 90 41 A 90147.79608887 .00055396 00000-0 65860-3 0 322
2 20602 51.6168 73.5490 0010704 331.8751 28.3807 15.60528331 3439
Cosmos 2077
1 20604U 90 42 A 90151.93363997 .00480988 40460-4 31058-3 0 695
2 20604 62.8309 358.9785 0081250 37.0574 323.5882 16.09679053 3896
1990 043A
1 20607U 90 43 A 90142.18591923 .00001682 00000-0 31334-3 0 158
2 20607 89.8923 195.0757 0110837 236.8242 122.2311 14.60769425 1824
1990 043B
1 20608U 90 43 B 90143.14391612 .00004472 00000-0 83439-3 0 163
2 20608 89.8888 195.0566 0111317 233.7917 125.2989 14.60920699 1963
1990 043C
1 20609U 90 43 C 90151.57511911 .00006531 00000-0 10602-2 0 176
2 20609 89.6510 194.2885 0060793 248.4749 110.9840 14.69840818 3216
Cosmos 2078
1 20615U 90 44 A 90151.92089799 .00193167 60843-5 15211-3 0 515
2 20615 69.9892 14.8457 0052594 43.9159 316.5783 16.11252561 2661
Cosmos 2079
1 20619U 90 45 A 90150.96592927 -.00000015 00000-0 99999-4 0 223
2 20619 64.8786 39.5832 0112514 293.8670 65.0137 2.16693521 252
Cosmos 2080
1 20620U 90 45 B 90150.99278110 -.00000015 00000-0 99999-4 0 223
2 20620 64.8721 39.5790 0089249 300.7926 58.3720 2.16022862 264
Cosmos 2081
1 20621U 90 45 C 90150.97805050 -.00000015 00000-0 99999-4 0 186
2 20621 64.8784 39.5975 0031792 269.3757 87.7594 2.14046704 265
1990 046E
1 20623U 90 45 E 90148.67855131 -.00000015 00000-0 99999-4 0 75
2 20623 64.8767 39.6709 0011797 337.3294 22.6646 2.13413399 217
1990 046A
1 20624U 90 46 A 90150.92537201 .00008575 00000-0 46808-2 0 171
2 20624 71.0021 346.5317 0004155 36.6079 323.5640 14.12193837 1230
1990 046B
1 20625U 90 46 B 90150.70603916 -.00000171 00000-0 -80227-4 0 109
2 20625 71.0024 346.9638 0015606 334.6764 25.3566 14.13303293 1200
1990 047A
1 20632U 90 47 A 90151.90599695 .00057938 00000-0 92827-4 0 198
2 20632 82.3355 19.9789 0009349 310.0627 49.9470 16.03296291 426
1990 047B
1 20633U 90 47 B 90150.95164055 .13828572 -65775-5 19311-3 0 108
2 20633 82.3310 21.0787 0010549 87.3806 273.8570 16.48569860 273
Kristall
1 20635U 90 48 A 90151.93124717 .00558866 13869-4 61629-3 0 51
2 20635 51.6189 53.9284 0083548 88.8595 272.2165 16.01912758 83
1990 048B
1 20636U 90 48 B 90151.93010197 .00798325 14312-4 77759-3 0 60
2 20636 51.6271 53.9153 0068995 88.0671 272.8524 16.05696453 87
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

3305. NASA Prediction Bulletin Format

Newsgroup: rec.ham-radio
Date: 1990-06-03 14:57:13 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9006031605.AA00817@ucsd.edu>
Source record: 11210

As a service to the satellite user community, the following description of the NASA Prediction Bulletin's two-line orbital element set format is uploaded to sci.space on a monthly basis. The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical to that used by NASA and NORAD. The format description is:

```
Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1; plus sign = 2)
```

```
Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
```

09-16 Inclination [Degrees]
18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6
1 11416U 86 50.28438588 0.00000140 67960-4 0 5293
2 11416 98.5105 69.3305 0012788 63.2828 296.9658 14.24899292346978

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.

--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

3306. Re: Satellite antenna help?

Newsgroup: rec.ham-radio
Date: 1990-06-03 17:08:06 UTC
From: wordy@cup.portal.com
Message-ID: <30490@cup.portal.com>
Source record: 11212

Phil KJ6NN asked about comments on the KLM satellite antennas....

They work fine, and beamwidth is about 25-30 degrees effectively
(at least on my shortened model, probably less on the full size units).
This is by no means too narrow, especially since you will be using
an Az-El tracker. Actually, with Oscar 13, you can set it and forget
it for an hour or so during the good part of the orbit, as long as
you use something like Instant-Track to point it in the first place.
During my early bicycle-mobile satellite experiments, I had no
trouble pointing using only a compass and an eyeball (pedaling with
the things attached was another matter entirely, and caused great
guffaws from passers-by, snagged tree limbs, and a bit too much
instability for comfort).

Tracking microsats or other low-orbit birds is considerably more
challenging, and does require active control on the part of your
computer. And in the case of Microsats, a well-designed omni system
(like the stacked J-poles described by Dick Jansson in a recent
AMSAT news) should work almost as well.

Best of luck, and see you on the birds....

Steve Roberts N4RVE
Nomadic Research Labs

3307. Re: MJF1278 Multi-level FAX

Newsgroup: rec.ham-radio
Date: 1990-06-03 19:49:55 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990Jun3.194955.2544@portia.Stanford.EDU>
Source record: 11223

In article <2366@anasaz.UUCP> john@anasaz.UUCP (John Moore) writes:
>Has anyone figured out the format of the multi-level fax
>format for RS232 from the MFJ1278. The documentation indicates that
>the lower 6 bits of each character represent 3 2-bit pixels. However,
>as far as I can tell (using a signal generator), individual pixels
>are meaningless - only the average 6-bit values are real.
>Does anyone know?

If you have the latest ROM Rev, you should have 8 level capability as well as 4 level. MULTIFAX should be ON, 8LEVEL should be ON. The pixels are packed two to a byte, and 40H is added to the byte to make it printable ASCII. WEFAX comes out to 607.5 pixels per line; I usually just drop a pixel every other line.

If you don't have the documentation on this, call or write MFJ.

-=Paul Flaherty, N9FZX/VK2WYX | "Anything below 1,000,000,000 Hz
->paulf@shasta.Stanford.EDU | is just nervous DC."

3308. Ford Taurus HF Mobile question

Newsgroup: rec.ham-radio
Date: 1990-06-03 21:00:03 UTC
From: summers@hpspkla.spk.hp.com
Message-ID: <4630013@hpspkla.spk.hp.com>
Source record: 11213

I am thinking about trying HF mobile operation from my 1987 Ford Taurus sedan. I would like to hear from anyone who has successfully (or otherwise) attempted this. Several specific questions I have are:

1. What type of antenna system (mounting) did you use?

2. I intend to operate with output powers of about 100 watts PEP. Did you experience any problems with the electronic control system (fuel injection, cruise control, etc) caused by the transmitted RF? If so were you able to remedy the problems?

3. Is there any noise generated by the Taurus that a good quality noise blanker would have trouble with at HF? If so, any effective fixes?

My current plans are to try to get some sort of an antenna mount built for a hustler mobile antenna (which I already have) that would bolt to the frame similar to a trailer hitch. What ever I do I have to get it done in less than a month (trip planned) so I am hoping to get a jump on any problems by asking for any experiences out in net-land. Thanks in advance for any responses.

Jim Summers, KD7F

3309. EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-03 23:33:47 UTC
From: TCOMGRD1@OUACCVMB.BITNET
Message-ID: <9006032356.AA15701@ucsd.edu>
Source record: 11214

Date: 3 June 1990, 19:22:11 EDT
From: TCOMGRD1 at OUACCVMB
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL at MIL

About the EBS (Emergency Broadcast Network)....

I worked at out campus staion fall quarter (semester) [WOUB/WOUC -- Athens (ch 20) and Cambridge (ch 44?) in Ohio]. We had the EBS button right there by the Duty Directors console (the guy who does the on-air switching of programs) as well as the audio carts (commonly used in radio for commercials. We use them with slides for quick voice-overs and to fill space when satellite shows end early) for the EBS. There were 2 carts, bright flourscent orange, marked something to the effect of: EBS (0:30min [30secs]) xx/xx/xx [date] Male Voice. "Thermonuclear Announcement". I asked what the heck they were, and was told that they (one male voice and one female voice) were the tapes to be played in event of Nuclear War. Ever curious, I asked what they said. No one knows. It seems only the station manager has ever heard them, and he decided that they are potentially too stress provoking to let anyone else hear.
Some of the DD's there said they dont want to know what they say... but I still want to know, heck, if yer nuked your nuked.... what doesit matter if you know the announcemnt ahead of time! I asked some more authoritative people at the station if i could listen to one of the "carts" in an isolated room sometime and was told "No.".

Does anyone out there know what these say? If so could you email me what is says, or is that illegal somehow?? WHATEVER YOU DO... Dont reply with the actual message to the net!!!!!

Pete Simpson as of June 7th:
KB9DWN
226 Tiffin Hall R.R. 2, Box 450 [NOT P.O. BOX!]
Ohio University Fremont, IN 46737
Athens, OH 45701 (219) 833-2552
(614) 597-3568

3310. Re: Neat ham tricks...

Newsgroup: rec.ham-radio
Date: 1990-06-04 01:33:25 UTC
From: tad@ssc.UUCP
Message-ID: <798@ssc.UUCP>
Source record: 11216

In article <1375@yenta.alb.nm.us>, dt@yenta.alb.nm.us (David B. Thomas) writes:
> I used to have a cb in my car, and it came over the intercom at a local
> burger joint perfectly. My 'neat ham trick' was to go and order my burger,
> get my order number ("We'll call number 21 when that's ready") then go back
> to the CB and transmit "Number 20, your order is ready", and watch the fun!

Reminds me of a story....

Don Wallace, W6AM, had a KW rig in his convertable back in the early 1950s.
According to an item I read in an old magazine (CQ? QST?) he used to drop
his wife off at a department store in LA for shopping, and then drive off
and visit a ham store or do some hamming.

The killowatt transmitter got into the store's PA system very nicely on
AM (I don't recall the band). When Don was ready to pick her up, he
would pull up in front of the store and announce, "WILL MRS DON WALLACE
PLEASE COME TO THE FRONT OF THE STORE".

>
Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3311. AMSAT Bulletins for 6/2/90

Newsgroup: rec.ham-radio
Date: 1990-06-04 02:21:46 UTC
From: tad@ssc.UUCP
Message-ID: <801@ssc.UUCP>
Source record: 11217

KA9Q used to post AMSAT bulletins on a regular basis. Awhile back I wrote to him and asked if he was going to continue doing it, and he said he was too busy. To get them on the local packet network, I have been calling the BBS in Texas every weekend where they are posted (214/394-7438) and downloading them. From now on I will post them here. I have made some minor changes to clean them up for packet, such as limiting titles to 30 characters, line length to less than 79 characters, and running them through a spelling checker (there seem to be 3 or 4 minor misspellings per week).

I encourage anyone who is on VHF packet to download them from the BBS, or get them here, and upload them to packet. BE SURE to preserve the bulletin IDs (BID$) so that we don't have multiple copies running around the packet network. This should help fill in some of the holes in distribution around the country.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

SB ALL @ AMSAT $ANS-153.01
WO-18 STATUS REPORT

HR AMSAT NEWS SERVICE BULLETIN 153.01 FROM AMSAT HQ
SILVER SPRING, MD JUNE 2, 1990
TO ALL RADIO AMATEURS BT

WO-18 CCD Camera Iris Settings Experiments

For the past several weeks WEBERSAT-OSCAR-18 (WO-18) has been sending three to four pictures daily from outer-space. This continuous stream of imaging data has been part of an on going experiment by the students at Weber State University (WSU) to characterize the amount of natural light which enters the CCD camera for the various iris settings. The goal of this experiment is to find the proper settings for the camera iris for a particular light level. This will help considerably in improving the overall picture quality. With the integration of the on-board earth's sensors in the current software, the occurrence of over exposed pictures or totally dark pictures taken when WO-18 isn't earth pointing is no longer a problem. Chris Williams (WA3PSD) says that the painstaking task of manually setting

the iris from the ground and observing the results will help software engineers in the future as they continue to understand the CCD camera operation. "The early days of random picture taking are gone," according to WA3PSD. There are 256 possible settings which ground controllers can command the camera iris to; a "zero" setting has the iris completely closed, a "255" setting has it wide open.

What will ultimately come out of this experiment is a look-up table in WO-18's software which will say "for this light level, use this iris setting."

For those wishing to take part in this experiment, WeberWare 1.0 is currently available from the AMSAT Software Exchange. Contact the Exchange at (301) 589-6062 for further information.
/EX
SB ALL @ AMSAT $ANS-153.02
WEBERWARE 1.0 USER QUESTIONS

HR AMSAT NEWS SERVICE BULLETIN 153.02 FROM AMSAT HQ
SILVER SPRING, MD JUNE 2, 1990
TO ALL RADIO AMATEURS BT

Most Asked Questions About WeberWare 1.0

WeberWare 1.0 is a software program for IBM PCs and clones which will take raw packets from WO-18 and turn the packets into pictures on EGA/VGA CRT screens.

Recently, as more amateurs start to use WeberWare 1.0, the following questions are being asked of AMSAT Area Coordinators about its use:

"Does the TNC [automatically] go into KISS Mode?"
The answer to this no. You must command your TNC into KISS mode by typing: KISS ON. After this, the TNC must be RESTARTed or turned off and back on so that it will actually start to operate in KISS mode.

"How do you store the files? As ASCII"
The picture data from WO-18 comes down as raw binary data, that is, it is not displayable as ASCII characters. As the data is received, your communications program must store the binary packets in a file. Do not be concerned about ASCII telemetry frames which occasionally come down along with the binary packets. WeberWare 1.0 ignores the ASCII telemetry.

"How do you upload a picture to WeberWare 1.0?"
When you store the data from a WO-18 pass, name the file so that its file extension has a ".RAW" and put the file in the same directory in which WeberWare 1.0 resides. After you have invoked WeberWare 1.0 and the main menu comes up, you will see an option for "PACKETS TO PIXELS." Upon choosing that option, WeberWare will give you a choice of all files that have file extensions ".RAW"

Chris Williams (WA3PSD) of Weber State University (WSU) points out that a complete picture file will take up about 156 Kbytes in a disk file. According to Chris, one can quickly start to run out of hard disk space in a HURRY!
/EX
SB ALL @ AMSAT $ANS-153.03
NOMINATIONS FOR AMSAT-NA BOD

HR AMSAT NEWS SERVICE BULLETIN 153.03 FROM AMSAT HQ
SILVER SPRING, MD JUNE 2, 1990
TO ALL RADIO AMATEURS BT

Nominations Period for Three Seats on AMSAT-NA BOD to Close Soon

Nominations are sought for the AMSAT Board of Directors. Directors are elected by the membership for two-year terms. Any member society or group of five members can nominate someone (a member) to run for the position.

This year there are three seats to be filled. Those directors whose seats are up for election are Phil Karn, KA9Q, Tom Clark, W3IWI, and the seat vacated by the resignation of Vern Riportella, WA2LQQ.

All nominations should be sent to AMSAT BoD Nominations, 850 Sligo Ave #600, Silver Spring, MD 20910 to arrive no later than June 15, 1990.
/EX
SB ALL @ AMSAT $ANS-153.04
SAREX PACKET HINTS (PART-1)

HR AMSAT NEWS SERVICE BULLETIN 153.04 FROM AMSAT HQ
SILVER SPRING, MD JUNE 2, 1990
TO ALL RADIO AMATEURS BT

You learn very quickly when venturing into the world of Packet Radio that unless you use the correct call sign when attempting to connect to another packet station, you won't get too far. Such is the case with the packet operation on SAREX. A number of publications reported earlier this year that the SSID for the SAREX packet ROBOT would be = 1 (ie: WA4SIR-1). Tom Clark, W3IWI, reports that both the HK21 ROBOT TNC and the operational software for the GRID laptop computer have the calls defaulted to WA4SIR (SSID = 0) and that call should be used unless, for some unanticipated reason, the defaults are overridden. Tom continues, the best advice is for you to MONITOR the downlink signals from STS-35 and use whatever call you see on the downlink. The ROBOT TNC code uses only one SSID at a time.

Because the WA4SIR SAREX ROBOT will be bombarded with signals from tens or hundreds of ground-based users when STS-35 is flying over populated areas, it is not possible for the ROBOT TNC and radio to use normal half-duplex packet procedures -- the CD (carrier detect) signal will simply never drop! The ROBOT will be running in a modified full-duplex mode. When the ROBOT copies a valid packet frame (or when it is time to send a beacon), the data to be sent is put into a buffer and a timer (which is called the FUDtimer) is started. The ROBOT firmware then queues all other outgoing transmissions in the buffer until FUDtimer expires (3 seconds later), and all downlink frames in the queue are sent in one long transmission. You may discover

that the response time while running in this mode is sluggish when compared to normal packet operation.

Since the SAREX handheld radio cannot receive when it is transmitting, users should insure that they remain silent and listen when the shuttle is transmitting. In other words, DO NOT RUN FULL DUPLEX ON THE GROUND! Leave your TNC in half-duplex mode (FULLDUP OFF) with CD active just like you do for normal VHF packet operations.
/EX
SB ALL @ AMSAT $ANS-153.05
SAREX PACKET HINTS (PART-2)

HR AMSAT NEWS SERVICE BULLETIN 153.05 FROM AMSAT HQ
SILVER SPRING, MD JUNE 2, 1990
TO ALL RADIO AMATEURS BT

You should be careful with the setting of two of your TNC's timers: DWAIT and FRACK. DWAIT is the time interval after your Carrier Detect light goes out and before your transmitter turns on. You want to make sure your connects requests and acks are contained in the 3 second FUDtimer window. If everybody runs the same DWAIT (like the typical 0.1 - 0.5 second values used for terrestrial packet), then everybody will be transmitting at the same time. Part of the key to your success when uplink QRM is heavy is to pick a DWAIT that nobody else is using! (sort of like picking a lottery number!)

FRACK sets the time interval between your transmissions. After you send a frame, your TNC waits for the FRACK time, and then waits for the Carrier Detect signal to drop, then waits DWAIT, and then tries again. You should make sure your FRACK is at least 3 seconds so that you are not transmitting when the ROBOT's FUDtimer decides it is time for it to transmit -- if you are transmitting at the same time, you will miss any packets the shuttle is addressing to you and you won't have a successful QSO.

Note that your DWAIT (how soon do I transmit?) and FRACK (then how long do I wait?) parameters and the need to stop transmitting so you can hear a reply are just like you encounter when working a DXpedition pileup on HF. If the DX station has a pattern of listening for a few seconds (=FUDtimer) before transmitting, you may have better luck being the LAST station they hear, after the din dies down. The differences are that (1) the ROBOT is a computer and is very predictable and (2) the ROBOT can be working several stations at one time.

[ANS thanks W3IWI for compiling the information for this bulletin]

Note: At press time, the leak problem in Columbia's Hydrogen fuel system had not been resolved and a new launch date had not been set. Usually reliable sources indicated that a launch date before June 8, 1990 was not to be expected and the delays could persist for several more weeks.
/EX
SB ALL @ AMSAT $ANS-153.06
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 153.06 FROM AMSAT HQ
SILVER SPRING, MD JUNE 2, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

04 Jun 90 0100 104 J/L WB9ANQ Sunday
15 Jun 90 0115 104 J/L N5BF Thursday
26 Jun 90 0115 144 B N5BF Monday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your local AMSAT Area Coordinator.
/EX
SB ALL @ AMSAT $ANS-153.07
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 153.07 FROM AMSAT HQ
SILVER SPRING, MD JUNE 2, 1990
TO ALL RADIO AMATEURS BT

Transponder Schedule for AO-13 Effective 05MAY90

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The best estimate of the current attitude is:

BLON = 179 and BLAT = -2.1 for 04 Jun 90

Cross mode B and S QSOs are possible during MA 135 to 140.

AO-10's Mode-B Transponder Now Available for Use:

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.
/EX
SB ALL @ AMSAT $ORBS-153.O
Orbital Elements 153.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JUNE 2, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90141.55893209
Element set: 525
Inclination: 25.9838 deg
RA of node: 203.2065 deg
Eccentricity: 0.5966345
Arg of perigee: 144.7263 deg
Mean anomaly: 275.5441 deg
Mean motion: 2.05881342 rev/day
Decay rate: -3.40e-07 rev/day^2
Epoch rev: 5218

Satellite: UO-11
Catalog number: 14781
Epoch time: 90150.60681341
Element set: 739
Inclination: 97.9502 deg
RA of node: 203.7363 deg
Eccentricity: 0.0012427
Arg of perigee: 309.2706 deg
Mean anomaly: 50.7376 deg
Mean motion: 14.65386404 rev/day
Decay rate: 2.274e-05 rev/day^2
Epoch rev: 33339

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90150.88464022
Element set: 206
Inclination: 82.9265 deg
RA of node: 341.3123 deg
Eccentricity: 0.0012162
Arg of perigee: 160.4836 deg
Mean anomaly: 199.6814 deg
Mean motion: 13.72090897 rev/day
Decay rate: 1.58e-06 rev/day^2
Epoch rev: 14707

Satellite: AO-13
Catalog number: 19216
Epoch time: 90148.23246392
Element set: 128
Inclination: 56.9522 deg
RA of node: 153.1540 deg
Eccentricity: 0.6957743
Arg of perigee: 228.0483 deg
Mean anomaly: 47.3201 deg

Mean motion: 2.09698248 rev/day
Decay rate: 1.05e-06 rev/day^2
Epoch rev: 1498

Satellite: FO-20
Catalog number: 20479
Epoch time: 90144.15135168
Element set: 75
Inclination: 99.0426 deg
RA of node: 195.1993 deg
Eccentricity: 0.0541743
Arg of perigee: 102.9595 deg
Mean anomaly: 263.2557 deg
Mean motion: 12.83155784 rev/day
Decay rate: 3.00e-08 rev/day^2
Epoch rev: 1366
/EX
SB ALL @ AMSAT $ORBS-153.D
Orbital Elements 153.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JUNE 2, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90151.43733054
Element set: 153
Inclination: 98.7024 deg
RA of node: 227.5906 deg
Eccentricity: 0.0010468
Arg of perigee: 201.5841 deg
Mean anomaly: 158.4689 deg
Mean motion: 14.28616292 rev/day
Decay rate: -2.350e-05 rev/day^2
Epoch rev: 1847

Satellite: AO-16
Catalog number: 20439
Epoch time: 90142.25412747
Element set: 80
Inclination: 98.7039 deg
RA of node: 218.5151 deg
Eccentricity: 0.0010628
Arg of perigee: 229.1515 deg
Mean anomaly: 130.8783 deg
Mean motion: 14.28715882 rev/day
Decay rate: 6.92e-06 rev/day^2
Epoch rev: 1716

Satellite: DO-17
Catalog number: 20440

Epoch time: 90150.23446723
Element set: 83
Inclination: 98.7039 deg
RA of node: 226.4855 deg
Eccentricity: 0.0011009
Arg of perigee: 204.9054 deg
Mean anomaly: 155.1593 deg
Mean motion: 14.28772891 rev/day
Decay rate: 7.54e-06 rev/day^2
Epoch rev: 1830

Satellite: WO-18
Catalog number: 20441
Epoch time: 90150.64496878
Element set: 83
Inclination: 98.7040 deg
RA of node: 226.9105 deg
Eccentricity: 0.0011547
Arg of perigee: 204.2814 deg
Mean anomaly: 155.7811 deg
Mean motion: 14.28871939 rev/day
Decay rate: 6.67e-06 rev/day^2
Epoch rev: 1836

Satellite: LO-19
Catalog number: 20442
Epoch time: 90150.63884055
Element set: 83
Inclination: 98.7046 deg
RA of node: 226.9194 deg
Eccentricity: 0.0011741
Arg of perigee: 205.3066 deg
Mean anomaly: 154.7526 deg
Mean motion: 14.28941027 rev/day
Decay rate: 6.94e-06 rev/day^2
Epoch rev: 1836
/EX
SB ALL @ AMSAT $ORBS-153.M
Orbital Elements 153.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JUNE 2, 1990
TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90151.88508010
Element set: 296
Inclination: 51.6028 deg
RA of node: 26.7166 deg
Eccentricity: 0.0001926

Arg of perigee: 147.6701 deg
Mean anomaly: 212.4059 deg
Mean motion: 15.62973778 rev/day
Decay rate: 3.0730e-04 rev/day^2
Epoch rev: 46230

Satellite: MIR
Catalog number: 16609
Epoch time: 90151.89394067
Element set: 704
Inclination: 51.6144 deg
RA of node: 52.9043 deg
Eccentricity: 0.0010267
Arg of perigee: 351.6325 deg
Mean anomaly: 8.4458 deg
Mean motion: 15.60876417 rev/day
Decay rate: 2.5638e-04 rev/day^2
Epoch rev: 24555
/EX
SB ALL @ AMSAT $ORBS-153.W
Orbital Elements 153.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JUNE 2, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90151.33671649
Element set: 588
Inclination: 99.1661 deg
RA of node: 150.7762 deg
Eccentricity: 0.0016197
Arg of perigee: 58.6978 deg
Mean anomaly: 301.5781 deg
Mean motion: 14.12582294 rev/day
Decay rate: 5.35e-06 rev/day^2
Epoch rev: 28160

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90151.33758012
Element set: 436
Inclination: 98.6028 deg
RA of node: 179.6616 deg
Eccentricity: 0.0013195
Arg of perigee: 324.3723 deg
Mean anomaly: 35.6572 deg
Mean motion: 14.23622739 rev/day
Decay rate: 7.76e-06 rev/day^2
Epoch rev: 19221

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90148.94694968
Element set: 430
Inclination: 82.5526 deg
RA of node: 305.5432 deg
Eccentricity: 0.0011639
Arg of perigee: 313.9154 deg
Mean anomaly: 46.1044 deg
Mean motion: 13.83647461 rev/day
Decay rate: 2.19e-06 rev/day^2
Epoch rev: 14032

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90149.04324165
Element set: 281
Inclination: 82.5454 deg
RA of node: 5.6828 deg
Eccentricity: 0.0017771
Arg of perigee: 22.4076 deg
Mean anomaly: 337.7855 deg
Mean motion: 13.84344066 rev/day
Decay rate: 2.59e-06 rev/day^2
Epoch rev: 11753

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 90148.81638992
Element set: 491
Inclination: 82.5393 deg
RA of node: 291.1318 deg
Eccentricity: 0.0018163
Arg of perigee: 5.3412 deg
Mean anomaly: 354.7893 deg
Mean motion: 13.16897428 rev/day
Decay rate: 3.91e-06 rev/day^2
Epoch rev: 8840

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90151.29768223
Element set: 287
Inclination: 98.9813 deg
RA of node: 99.5874 deg
Eccentricity: 0.0011697
Arg of perigee: 337.4032 deg
Mean anomaly: 22.6622 deg
Mean motion: 14.11610796 rev/day
Decay rate: 4.22e-06 rev/day^2
Epoch rev: 8658

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90146.33488642
Element set: 230
Inclination: 82.5223 deg
RA of node: 245.8618 deg
Eccentricity: 0.0016457
Arg of perigee: 68.4243 deg
Mean anomaly: 291.8676 deg
Mean motion: 13.83974338 rev/day
Decay rate: 2.42e-06 rev/day^2
Epoch rev: 6254

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90148.67705882
Element set: 132
Inclination: 82.5528 deg
RA of node: 231.7493 deg
Eccentricity: 0.0016722
Arg of perigee: 22.7210 deg
Mean anomaly: 337.4648 deg
Mean motion: 13.15857469 rev/day
Decay rate: 4.00e-08 rev/day^2
Epoch rev: 2838
/EX

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3312. Re: Info-Hams Digest V1 #5

Newsgroup: rec.ham-radio
Date: 1990-06-04 04:24:00 UTC
From: JOHNSTON@NKUVAX.BITNET
Message-ID: <854685049D5F0003C3@NKUVAX.BITNET>
Source record: 11215

>>>>
I've got a kenwood tr-2400 handheld, but no manual. I desperately
need to find out from the schematic what kind of transistor Q11 is.
>>>>

My Instruction Manual says Q11 functions as an AVR using a 2SC2603 (E). At
least that's what the block diagram says. The schematic diagram on the next
shows it as a 2CS2668 (Y) ?!! Good luck. If this doesn't help, I have
a Service Manual tucked in a drawer somewhere around here. Maybe a
third opinion might help!

Gary KI4LA

3313. Re: shortest ham call

Newsgroup: rec.ham-radio
Date: 1990-06-04 09:01:02 UTC
From: lkay@ecs.umass.edu
Message-ID: <9981.266a234e@ecs.umass.edu>
Source record: 11225

In article <9006031027.AA18911@cmr.ncsl.nist.gov>, rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
> Jim Docke, WB2HBZ, has sent me a message claiming a tie for shortest ham call
> between my candidate (I5I) and King Hussein (JY1).

A tie, of course, in # of Roman characters only. In standard Morse spacing, I5I wins hands down (21 units to 49). But JY1 probably breaks through the pileups faster.

Another JY1 tidbit: I was browsing through the '90 CB (I know, it's like reading the phone book, but I was sitting in a pileup anyway) and found that Hussein also has an Iranian call - EP1JY. Hmmm.... Also, I5I is not in the 90 CB, but that's probably not surprising.

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3314. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-04 10:26:57 UTC
From: jack@swlabs.uucp
Message-ID: <1990Jun4.102657.22867@swlabs.uucp>
Source record: 11218

In article <9006032356.AA15701@ucsd.edu> TCOMGRD1@OUACCVMB.BITNET writes:
> I asked what the heck they were, and was told
>that they (one male voice and one female voice) were the tapes to be played
>in event of Nuclear War. Ever curious, I asked what they said. No one knows.
> .
> .
> .
> Does anyone out there know what these say? If so could you email me
>what is says, or is that illegal somehow?? WHATEVER YOU DO... Dont reply with
>the actual message to the net!!!!!

Oh come on. Why not just post it?

You have us all curious now.

Heck, I'd be tempted to play them on the air! :-) OK, at least into the
input of the local repeater. Seems to be better than ordering a pizza
(a thermonuclear pizza, now that's well-done).

This isn't one of those jokes that will drive you insane, is it? :-)
--
Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612
uunet!swlabs!jack (UUCP)
jack@kc1uh (TCP/IP)
kc1uh@wb1cqo (AX.25)

3315. Re: Callsign re-structure

Newsgroup: rec.ham-radio
Date: 1990-06-04 11:10:53 UTC
From: rcmcc@hera.uucp
Message-ID: <14@towernet.UUCP>
Source record: 11142

I requested and received one of the blue and white
Extra class diplomas about 1980 from my local FCC office
in New York. With all the budget cuts the FCC has had
I doubt that they're still available.

Ron McConnell, W2IOL

3316. Re: VHF Es on May31/June1

Newsgroup: rec.ham-radio
Date: 1990-06-04 12:47:35 UTC
From: tijoma@uta.fi
Message-ID: <1359@kielo.uta.fi>
Source record: 11219

In article <9006011846.AA17602@cmr.ncsl.nist.gov> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
>
>Last evening, May 31 U.S. time, there was a good 6- and 2-meter Es opening.
>The 6-meter opening didn't have anything RARE from here in W3, mostly 5s.
>The big event was an hour of loud 2-meter sigs from Texas and Oklahoma. I managed
>to p;ick up a few new grids.
>An attempt to DX on the FM BC band failed as usual. The 50+ local stations don't
>allow much chance to hear DX.
>
>What did you hear?
>Bob W3OTC

Actually I am not radioamateur but DX-listener, but I am also interested in VHF. It is surprising that there was an Es opening at the same time in North America and in Europe. Here in Finland I was able to hear on June 1 1700-2000 UTC and June 2 0500-0700 UTC stations from Southern Europe in the BC-FM-band 87,5-108 MHz. Most powerful signals from France and Italy but I also heard stns from Austria, Yugoslavia, Switzerland and W-Germany. MUF was not very high and sometimes there were stns only below 100 MHz, the 100-108 MHz part was open for less than 2 hours.

****
Jorma Mantyla tijoma@uta.fi
Univ.of Tampere, PO Box 607, SF-33101 Tampere, Finland
****

3317. Re: QSL'ing for money

Newsgroup: rec.ham-radio
Date: 1990-06-04 12:53:05 UTC
From: dls@genrad.com
Message-ID: <37421@genrad.UUCP>
Source record: 11224

In article <991@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>
>Could earning money in excess of the cost of QSL cards, postage, etc
>be considered doing buisness on the air? Just like VE's aren't allowed
>to charge more than the cost of materials for exams, couldn't the same
>idea be applied? I thought Amateur radio was for enjoyment, not for profit
>or extortion in order to get a rare card. Just a thought.

For those who believe that QSL managers and the like are simply doing it for the money, let me remind you that MOST of us do it simply for the enjoyment and the public service it provides to others. I actually end up putting my own money into it....although I have to think long and hard before I continue to send QSL cards and/or post cards to those hams who feel it's their right to receive QSL cards at another's expense.

I generally send a post card once maybe twice.....after that, their QSL cards go in the trash.

I enjoy sorting QSL cards, but I sure can't say I make any money at it.....

CHEERS!

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

3318. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-04 13:05:34 UTC
From: rfc@briar.Philips.Com
Message-ID: <97859@philabs.Philips.Com>
Source record: 11147

"Beeeeeeeeeeeeeeeeep! This is only a test. If this was real, we would all be dead by now!"

:-)

3319. Re: Ford Taurus HF Mobile question

Newsgroup: rec.ham-radio
Date: 1990-06-04 14:33:36 UTC
From: mcross@hpcvck.CV.HP.COM
Message-ID: <5440015@hpcvck.CV.HP.COM>
Source record: 11150

Don't know about the Taurus but, in a 1986 Sable a 2M handitalkie was
able to turn on the warning panel and advise me that the taillamps were
all bad!
Insert Standard Disclaimer notice here:


```
___
/ / Minor Cross KD7YJ
/ / Hewlett-Packard Northwest IC Division [ NID ]
/ /_____ _________ 1020 NE Circle Blvd.
/ ___ / ____ / ___ / Corvallis, OR 97330
/ / / / /___/ / /__/ / -------------------------
/__/ /__/ / ______/ AT&T: (503) 750-2044
/ / HP telnet 750-2044
/__/ }inhp4!hplabs!hp-pcd!hpcvca!hpcvck!mcross
```

3320. EBS followup and comments on the "old" EBS stuff

Newsgroup: rec.ham-radio
Date: 1990-06-04 14:39:59 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9006041620.AA24453@ucsd.edu>
Source record: 11226

Thanks to all for the reply on the EBS tones. I have information I need.

As for the old EBS nuclear annoucements...

Play the cart. It's pretty wild. If they are the ones I remember, those are the carts that used to come with the packet of authenticator words for the validation of the War Warning message. They essentialy tell you to "Be strong" and "listen for emergency information." The scripts were published in Government documents years ago. They are typical Cold War Doom and Gloom material. They have old strident sounding 1950's-type announcers reading the messages. They don't make 'em like that anymore.

They stopped shipping the carts after at least one (maybe two) incidents involving stations accidentally broadcasting the war carts when they were supposed to run the EBS test. One of those incidents caused a panic in the town it was played. Station got in trouble, national press, etc., etc. It's bad enough to be an idiot, but to become a Nationally Known Idiot is really bad. Incidents like that are bound to happen, especially with deregulation allowing untrained personnel to operate broadcast stations.

I work as a board op at a PBS affiliate here in Louisville. We still get the sealed envelopes with the authenticator words in them. When the old envelope expired once, we opened it to see what was in it. There's a red card with a list of words and dates. There are also scripts for use when you get the messages. I think that replaced the pre-recorded carts. I know we just have a test cart in our stack. I'll ask around about the war carts. I'm sure a paraphenalia junkie has one around somewhere. I don't think they'll cause stress, except if they get played when they shouldn't be :-). Talk about your Maalox Moments!

Yours for a better tomorrow!

de N4PLE

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

3321. Re: 2m/70cm Repeaters

Newsgroup: rec.ham-radio
Date: 1990-06-04 14:58:43 UTC
From: jpd@pc.usl.edu
Message-ID: <9434@rouge.usl.edu>
Source record: 11220

He may have been using one of the new dual-band radios in cross-band repeat mode. Say, an HT on 446.x repeated on the 2m repeater input freq.

--

-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

3322. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-04 15:08:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500563@ux1.cso.uiuc.edu>
Source record: 11128

> Some of the DD's there said they dont want to know what they say... but
> I still want to know, heck, if yer nuked your nuked.... what doesit matter
> if you know the announcemnt ahead of time! I asked some more authoritative
> people at the station if i could listen to one of the "carts" in an isolated
> room sometime and was told "No.".

Never never never ask first. They will ALWAYS just say "NO" when there is any
doubt whatsoever, and there always is some. Just go ahead and do it and ask
for forgiveness later.

[BTW, this also applies to asking they FCC if "it" is illegal]

> Does anyone out there know what these say? If so could you email me
> what is says, or is that illegal somehow?? WHATEVER YOU DO... Dont reply with
> the actual message to the net!!!!!

Sure, go ahead and post it after you listen to it, unless the cart begins
with a COPYRIGHT NOTICE :-) I doubt if it is copyrighted, so feel free to
make duplicates and all that.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3323. Re: 2m/70cm Repeaters

Newsgroup: rec.ham-radio
Date: 1990-06-04 15:10:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500564@ux1.cso.uiuc.edu>
Source record: 11129

There are in fact networks of repeaters linked together. He may have been operating through such a network. Also, the new dual-band radios have a repeater feature that allows cross-band repeater (fun to try, boring after a while).

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3324. Re: Battery Packs

Newsgroup: rec.ham-radio
Date: 1990-06-04 15:35:19 UTC
From: jim@foobar.hf.intel.com
Message-ID: <414@foobar.hf.intel.com>
Source record: 11141

In article <9006011721.AA10744@rutgers.edu> jpedley@RIA-EMH2.ARMY.MIL ("John Pedley, AMSMC-DSP-L") writes:
>
>Does anyone have any good ideas on how to open up some of these sealed
>battery packs that are used on late model hand helds? Specifically
>I am trying to open and repair a Yaesu FNB-12 battery pack.
>
While I own two FNB-12s, I haven't had to open them yet. But that day will come. They don't look as hard to do as some of the plastic puzzles I have tackled. The worst one was a battery pack for the STS AV7600 aircraft handheld. It had a L-joint on the top and a neat job was not to be had, but results were usable.
I use various small sharp things like an industrial razor blade, jewelers screwdrivers, hammer and cold chisel, and whatever else it takes to split the seam. I used to have an Ungar soldering iron tip that had an Xacto blade on it, but I haven't had to resort to that yet. This tip was great for making doors that open on model cars, but I haven't seen it since 1966.
Persistance is the word, and I absolutely will not pay $50 to $70 for a new battery pack when all that is wrong in there is usually one bad cell. About 12 volts across its butt for a moment sometimes gives it a new lease on life, but my experience doing this is about 50% success. If you try this, only zap the shorted cell, not the whole pack. Good luck and good cracking.

--
Jim Garver Intel Corp. <tektronix!psueea | uunet!littlei>!foobar!jim
WA7LDV Hillsboro, Oregon jim@foobar<.hf.intel.com|.uucp>

3325. Ham Tricks

Newsgroup: rec.ham-radio
Date: 1990-06-04 15:36:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9006052251.AA14005@ucsd.edu>
Source record: 11221

REF ham radio and radar detectors

A few years back, I had just turned south on I-75 from I-10 when I was nearly blown off the road by a station wagon with the sign of a real estate agency on the door and Georgia license plates. I keyed up the old tube type two-meter rig on 52 and gave a call, of course not expecting an answer in that particular area. The expected result was, of course, to set off his fuzzbuster. The guy immediately slowed down and got on the CB looking for Smokey. Minutes later, he sped up again and several miles later, I repeated the episode. More calling on the CB and re-adjusting the sensitivity on the detector (he turned the dome light on for this). I slowed down and dropped back, then caught up agian to repeat the senario several times. Finally he turned on the dome light again, ripped the detector from his windshield, and threw it into the rear of the wagon and took off. He lost me at about 75 and accelerating. Twenty miles later I passed him whilst he was in the presence of one of Floridas finest receiving his welcome to the state. Justice triumphs again!

Unfortunately most two-meter rigs don't set off the new detectors today, but J.C. Whitney advertises a radar gun that should do the job nicely, no license required!

73

3326. RE: Field Day rules in re "packet QSO"

Newsgroup: rec.ham-radio
Date: 1990-06-04 15:39:00 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006041551.AA24213@ti.com>
Source record: 11222

From: FLOPN2::RLWEST "Bob West, WA8YCD" 4-JUN-1990 10:35:15.02
To: TILDE::"faunt@CISCO.COM"
CC: RLWEST
Subj: RE: Field Day rules in re "packet QSO"

> From: TILDE::"faunt@CISCO.COM" "Doug Faunt N6TQS 415-688-8269" 4-JUN-1990 03:42:34.52
> To: info-hams-incoming
> CC:
> Subj: Field Day rules in re "packet QSO"
>
> So, what constitutes a "packet QSO"? Does a contact with a BBS count,
> or do I have to find someone to keyboard to keyboard with?
> thanx, and 73, doug

Doug,

Unless the rules have changed from last year, NO, BBS and DIGIPEATER
contacts DO NOT COUNT. Only direct connects.

73 ES GL TEST QRZ FD QRZ FD DE WA8YCD
--oops, a littel early for that!

--Bob WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

3327. I need Manuals

Newsgroup: rec.ham-radio
Date: 1990-06-04 16:07:18 UTC
From: chuck@eng.umd.edu
Message-ID: <1990Jun4.160718.21321@eng.umd.edu>
Source record: 11127

Hi gang!
I am looking for a couple of manuals for some equipment that I own:

1) Systron Donner 6057 Microwave Freq. Counter.
2) Systron Donner 7244A System DVM
3) Dana 6900 Digital Multimeter.

If anybody has a copy of any of these manuals that I can borrow/buy, please
let me know.

Thanx,
Chuck Harris - WA3UQV
chuck@eng.umd.edu
(301)490-7443

3328. Dual-banders

Newsgroup: rec.ham-radio
Date: 1990-06-04 16:12:58 UTC
From: herbster@b11.ingr.com
Message-ID: <8105@b11.ingr.com>
Source record: 11145

Hello,

I am looking for a mobile dual-bander (2m/70cm) rig for
the car. My problem is this, nowhere in the ads do they mention
whether they have single or dual antenna ports. I would like one
with seperate ports for the antennae. The units in question are;

Kenwood TM-731A, Icom IC-2400, Alinco DR-570T and DR-590T. I have
already eliminated the Kenwood TM-701 as a single porter. I know
the Yaesu 4700RH has two, but would like more memories. Any help
appreciated.

73's de KM4JN

3329. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-04 17:18:40 UTC
From: mikew@hpsadpei.HP.COM
Message-ID: <1530045@hpsadpei.HP.COM>
Source record: 11138

From: TCOMGRD1@OUACCVMB.BITNET (Pete Simpson):

Re: EBS nuclear alert tapes...
>
> Does anyone out there know what these say? If so could you email me
> what is says, or is that illegal somehow?? WHATEVER YOU DO... Dont reply with
> the actual message to the net!!!!!
>
Why not?? Is the stuff copyrighted? Top Secret? Or is it like the
Monty Python World's Funniest Joke, that will cause instant death to
all listeners from overlaughter?

Seriously, is there a good reason not to post it, or a good reason you
should not havbe been permitted to hear the tapes in the first place?

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsadmjw.hp.com
mikew%hpsad@hp-sde.sde.hp.com

Hewlett-Packard Co. Volunteer firefighter/EMT
Signal Analysis Division Penngrove Fire Prot. Dist.
1212 Valley House Drive Penngrove, CA
Rohnert Park, CA 94928
(707)794-4454
****

3330. G3RUH's FT736R mods for 9600 baud

Newsgroup: rec.ham-radio
Date: 1990-06-04 17:23:58 UTC
From: jpd@pc.usl.edu
Message-ID: <9442@rouge.usl.edu>
Source record: 11130
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Originated From: G3RUH 90/05/28 22:51 Msg# 184

FT736 & 9600 Baud Operation
---
by James Miller G3RUH

These notes tell you where to get FM RX audio direct from the discriminator, and where to modulate the FM TX varactor directly. These mods are non-destructive and take no more than a few minutes. The signals bypass the "DATA SOCKET" for high grade FM operations.

The RX mod is suitable for:

* UOSAT-D 9600 baud downlink and terrestrial links
* 1200 baud AFSK/FM Standard Packet - BUT IT'S UNSQUELCHED.

The TX mod is suitable for:

* FO-20/PACSAT uplink (1200 bps Manchester FM)
* UOSAT-D 9600 baud uplink direct FSK and terrestrial links
* 1200 baud AFSK/FM Standard Packet.

---****---

FT736 - FM Direct from Discriminator

Detected FM direct from the receiver discriminator is available from the RX UNIT at the junction of R91 and C83. These components are shown in the top right-hand corner of the schematic.

Proceed thus:
1. Disconnect FT736 from the mains electricity. (Safety).
2. Remove top cover only.
3. RX Unit is the vertical module on the left.
4. Locate R91 which is about 25mm from the top, 50mm from the radio rear. the resistor is "on-end", and near a couple of glass diodes.
5. Scrape any paint off R91's free end and wet with solder.
6. Your RXaudio lead should be a fine screened cable; connect the inner to R91, and the outer braid to a ground point (e.g. can of TO09)
7. Route the cable out though any convenient aperture in the case.
8. The discriminator sensitivity (FM Normal) as about 6 kHz/volt.

Important note on 9600 Baud Use

Most FT736 receivers are fitted with an LFH12-S IF filter for FM. (CF01 at the top front of the RX Unit). This is a 12 kHz bandwidth filter which is

a little narrow for 9600 bps FSK operation. It is recommended you change this to 15 kHz or better still for UOSAT-D use, 20 kHz bandwidth which will allow more tolerance for doppler shift, and give a far better "eye". Suitable filters are: LFH-15S or CFW455E, and LFH-20S or CFW455D. The first of these is a Yaesu spare part, and is often already fitted. Try the standard first and see what happens; these filters have moderate part to part variations.

---****---

FT736 DIRECT VARACTOR FM MODULATION

Refer to the circuit diagram; inject your TXaudio at the junction of R32/C29 on the TX Unit. The signal level at this point should be 800 mV peak-peak, and will give +/- 3 kHz deviation. DO NOT EXCEED THIS LEVEL. Set Mic Gain to min.

Modulating the FM transmitter this way you get an LF response down to 18 Hz (at which point the associated synthesiser PLL begins to track the modulation), and an HF response which is flat to some 10 kHz.

Proceed thus:
1. Disconnect FT736 from the mains electricity. (Safety).
2. Remove top cover only.
3. TX Unit is the module flat on the left (not the one tucked down the side vertically).
4. R32 is just to the left of the rectangular shielded enclosure. The resistor is "on end". Scrape any paint off the free leg.
5. Your TXaudio lead should be a fine screened cable; connect the inner to R32, and the outer braid to the adjacent enclosure.
6. Route the cable out though any convenient aperture in the case.

7a. 1200 BAUD G3RUH PSK MODEM: TXAudio of 800 mV pk-pk can be obtained by adjusting the components C9= 1uf, R3=47k, R5=infinity (i.e. remove). C10 stays at 10nf (0.01uf).

7b. 9600 BAUD FSK MODEM: Adjust TXAudio level with VR1

Notes compiled by G3RUH @ GB7SPV 1990 Mar 16
--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

3331. RE: EBS MESSAGES

Newsgroup: rec.ham-radio
Date: 1990-06-04 18:06:58 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006041832.AA27821@ti.com>
Source record: 11131

I forwarded your message about EBS messages to some folks here...

> From: SKVAX1::PANZER "I survived the 1750A" 4-JUN-1990 12:44:44.54
> To: FLOPN2::RLWEST
re-forwarded to INFO-HAMS
>
> Back in the late 60's? there was the famous incident I actually heard on my
> car radio while traveling in Michigan where the a glitch occurred during on of
> those "tests of the EBS". Apparently, some airman at Cheyenne Mountain who's
> on the other end of the tests, played the wrong tape. Instead of the familiar
> "This is a test of the EBS. For the next 30 seconds we will conduct ..." with
> a long beep, it came on "This is the Emergency broadcast system. All normalprogramming
will now be discontinued. Standby for civil defense information
> from the EBS." (or words real close to that). I had the Dow Chemical complex
> in Midland right behind and was watching my rearview for bright flashes. It
(Midland, Texas)
> caused a real mess because some radio stations went off the air for a while
> like they were supposed to and others figured quickly it must be a mistake and
> went right back to normal programming. So at least I heard that part of the
> actual EBS messaging. Yes, it can be scary.

=== * * * === === * * * === === * * * === === * * * ===
73, de !
Bob West WA8YCD ! "In order to accomplish the
RLWEST@FLOPN2.CSC.TI.COM ! impossible, you must attempt
! the absurd!"
P. O. Box 863069 ! -- Miguel de Animo y Jugo
Plano Texas 75086 !
(214) 995-1908 !
=== * * * === === * * * === === * * * === === * * * ===

3332. Re: VHF Es on May31/June1

Newsgroup: rec.ham-radio
Date: 1990-06-04 18:43:20 UTC
From: slightbo@encore.com
Message-ID: <126689@infocenter.encore.com>
Source record: 11136

From article <9006011846.AA17602@cmr.ncsl.nist.gov>, by rc@CMR.NCSL.NIST.GOV (Robert Carpenter):

>
> Last evening, May 31 U.S. time, there was a good 6- and 2-meter Es opening.
> The 6-meter opening didn't have anything RARE from here in W3, mostly 5s.
> The big event was an hour of loud 2-meter sigs from Texas and Oklahoma. I managed
> to p;ick up a few new grids.
> An attempt to DX on the FM BC band failed as usual. The 50+ local stations don't
> allow much chance to hear DX.
>
> What did you hear?
> Bob W3OTC
> (The June 1 refers to the fact that the 2-meter opening started about 0005 UTC
> June 1.)

That thursday evening around midnight driving home from work I tuned in the
Miami National Weather Service on 162.55 Mhz. Only to find it was being
wiped out by the NWS from Melbourne, FL over 150 miles to the North.
This is usually a good reliable indicator of some kind of opening. This
has happened several times in the past. Thats when I scan the bands look
ing for distant repeaters.

Sam Lightbourne KI4JJ
Sunrise, FL
Encore Computer Corporation "Together We Will...."
Ft. Lauderdale, FL

3333. Whatever you do, don't post this to the net..."

Newsgroup: rec.ham-radio
Date: 1990-06-04 18:44:52 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006041850.AA28196@ti.com>
Source record: 11132

It has been reported that an alien vessel has landed near Hamtramck, MI. This event closely followed the mysterious disappearance of all orbiting AMSAT satellites. Pointing smoking lasers at the population, the aliens demanded to know the way to the satellite launch site, and said that, due to a malfunction in their ILS, they missed their PIL by "a few hundred" miles.

Oh, heck! I wasn't supposed to post this to the net.......

:)

Dube Todd N5PDK

3334. Re: Who's on 407.75MHz?

Newsgroup: rec.ham-radio
Date: 1990-06-04 18:57:20 UTC
From: driver8@stb.info.com
Message-ID: <1990Jun4.185720.7037@stb.info.com>
Source record: 11159
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <4ab5c461.20b6d@apollo.HP.COM> hays@apollo.HP.COM (John Hays) writes:
>
>Air Force 1 is any aircraft carryin the president ... thus the helicopter
>for that short trip was AF-1 ....

Uh-uh. Were POTUS (the Prez) to take a non-military aircraft, ID would be
"Executive One". Helicopters are usually USMC, and ID "Nighthawk #" until
the Prez boards, then it's "Marine One". Perhaps a USAF helo would be AF-1
for the trip.

--
++
Hugh Stegman NV6H driver8@stb.info.com
RCMA Below 30 MHz denwa!stb!driver8
++

3335. Re: 2M antenna ideas for Dodge caravan wanted

Newsgroup: rec.ham-radio
Date: 1990-06-04 19:06:00 UTC
From: cb@cci632.UUCP
Message-ID: <37589@cci632.UUCP>
Source record: 11139

I have first seen the FIN (can you say shark) type antennas on airplanes
a few years back. I'm pretty sure the antenna specialists make some for
150 & 450 bands. I have seen then around here on school buses (151.XXX)
and other vehicles. They are usually white and I thisn that they're
about 2 inches wide 7or8 inches long and maybe 5 inches (440<3) high.
Sorry I don't have my catalog(s) handy, but if there's interest I'll
look it up. IS Anyone using these antennas?.
--

email: cb@cci632 or !rochester!kodak!n2hkd!curtis
Curtis Braun, N2HKD, Computronics, PO Box 1002 Fairport NY, 14450

3336. Re: VHF Es on May31/June1

Newsgroup: rec.ham-radio
Date: 1990-06-04 19:45:23 UTC
From: charyd@silver.ucs.indiana.edu
Message-ID: <46654@iuvax.cs.indiana.edu>
Source record: 11137

On the night of May 31, I was able to monitor the following from my Gary, IN location:

Various fire calls in south central Pennsylvania (33.6-34.0 MHz)
An 6m FM repeater in Wichita, Kansas (I think it was 29.66 MHz)
KVOU-TV Channel 4 (FOX) in Billings, Montana.

Whenever a band opening such as this comes about, I tune my tv to WBBM Channel 2 in Chicago to determine the "severity" of the band opening. Sometimes the interference in the picture is such that it becomes unintelligible. I have seen stations in Connecticut, Texas, Montana, and Quebec (including a French version of Wheel of Fortune!) during such band openings. Last June (appropiately enough on Field Day :)), there was a E opening and a tropospheric opening at the same time, and lasted almost the entire weekend. I was able to record an FM broadcast in French around 92 Mhz. I could not get the call sign, but I am unaware of any local French language broadcasts.

David Chary
(charyd@amber.ucs.indiana.edu)
N9JRV

3337. Tower help

Newsgroup: rec.ham-radio
Date: 1990-06-04 20:10:39 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120124@hpcupt1.HP.COM>
Source record: 11133

I am planning to install a tower and have interest in the Aluma Tower T-40H
from the Aluma Tower Company in Vero Beach,Fl. There are no local dealers
where I can go "kick the tires" so I would appreciate comments from owners
of these towers. Comments on quality, installation problems, permit problems,
any problems on weathering, problems on raising/lowering the tower, would
you buy again, how long you have had the tower, and the like, both pro
and con, would be appreciated. In the area of installation and permits,
comments on what you would do different next time would also be appreciated.
Also if you have owned other towers and have comparision comments I would
appreciate these.
73's
Jim, WA6SDM @ N6LDL
jholly.hpcupt1.hp.com
405-447-0725 work
408-923-4074 home

3338. TNC Simulation

Newsgroup: rec.ham-radio
Date: 1990-06-04 20:26:15 UTC
From: pompano@deaths.dec.com
Message-ID: <12183@shlump.nac.dec.com>
Source record: 11140

Is anyone aware of software that will emulate a TNC?

The reason I'm asking is that I have computer (VAXStation-3100) and a
2400 Modem. I've been considering the purchase of a TNC (MFJ-1278),
however it is about a $280 investment.

I would like to test the whole idea of TNC (i.e. CW, RTTY, Packet, etc.)
without investing a lot of mony up front.

The second part of the above "project" is getting the signal amplified from
the radio output level (mv?) to modem-input level (24-48 volts). I was
planing on building a simple audio amp (with good freq-response).

Any suggestions from the TNC-qeru's?
Jim

3339. MOD FILE: ts790a

Newsgroup: rec.ham-radio
Date: 1990-06-04 20:28:45 UTC
From: mark@HAMSTER.BUSINESS.UWO.CA
Message-ID: <9006041928.AA21802@ria.ccs.uwo.ca>
Source record: 11134

==========

I received this in the mail so I am posting it to the net.

x---- cut -----x

CROSS BAND REPEATER MOD
To operate the TS790A in the repeater cross band mode,diode D32 on the control board must be opened.In addition,two resistors must be soldered to a 13 pin din plug which will be connected to the ACC. 2 jack on the back panel of the transceiver.

TO LOCATE AND OPEN D32
1 Disconnect the power supply and antenna from the radio.

2 Remove the 14 screws that secure the top and bottom covers.

3 Carefully remove the top and bottom covers.

4 Locate the control board. this is a vertically mounted board that is positioned approximately 1 inch behind the front panel.

5 Locate diode d32 towards the top right side of the board.

6 Using a small pair of wire cutters,cut the lead of the diode. do not pull on the lead or the diode as this may tear the foil on the other side of the board.

7 assemble the radio by reversing steps 1-3.

13 PIN DIN PLUG CONFIGURATION.

1 Using a small flat blade screwdriver,lift up on the tab of the nylon cover.

2 Once the tab clears the slot of the metal holder,pull the cover off the plug.

3 Carefully separate the two metal holders and remove the pin assembly.

4 First tin pins 1,8 and 11 of the assembly so the resistors can easily be soldered in place.

5 SOLDER A 100K ohm,1/4 watt resistor between pins 1 and 11 of the assembly (the resistor leads should be cut and shaped before soldering).

6 Solder a 1.5K ohm,1/4 watt resistor between pin 8 and the lead of the 100K ohm resistor that is attached to pin 11.(the resistor leads should be cut and shaped before soldering)

7 Wrap a small piece of electrical tape around the resistors.This will insulate them from the metal holder after the plug is assembled.

8 Mount the pin assembly in the two metal holders.

9 Slide the cover over the plug until the tab engages in the slot. The "U" shaped strain relief will not be used.

10 Plug the 13 pin din plug in the ACC2 jack on the back panel of the radio.

OPERATING PROCEDURES

The repeater cross band operation allows the TS790A to receive on one band and re-transmit the signal on the other band. Incoming signals will automatically be switched to the sub band.The TS790A will then re-transmit the signals from the main band. Each band may contain offset and sub-audible tone information (an optional TSU-5 must be installed in EACH BAND for decode).

1 Press the MAIN function swich to select the MAIN band.

2 Select the first operating frequency and mode (fm only).Select the offset as required.

3 If the CH.Q is on,press the CH.Q switch to turn the function off.

4 Select the sub-audible tone as required .

5 Transfer the contents of the MAIN band to the SUB band.

6 Select the second operating frequency anf mode (FM ONLY) and turn the CH.Q off.

7 Select the offset and sub-audible tone as required.

8 Adjust the MAIN and SUB band squelch controls to the threshold point.The TS790A will transmit in the repeater crossband mode if the squelch controls are set too low or a signal is received.

9 Adjust the power control to allow normal output power from the MAIN band.

10 Adjust the sub band volume control to a normal listening level to monitor incoming signals.

11 To place the radio in the repeater cross-band mode,press the F. switch and then press the M.IN switch. An asterisk will light in the MAIN band display for confirmation.

12 To cancel the operation,repeat step 11 and disconnect the DIN plug.

13. If the DIN plug is left in place after use,bleedover from the SUB band audio if present will be mixed with any transmitted audio. This will make your audio during a conversation hard to understand.

TSU-5 TONE UNIT

When the TSU-5 tone units are not installed,only the tone (encode)
function can be used.
If CTCSS is to be used it must be installed in both bands to function
with the cross-band repeater mode.

TX AUDIO ADJUSTMENT

The audio gain can be adjusted by variable resistor VR36 on the IF unit.
If the range of VR36 does not suffice for normal transmit audio,the
values of the resistors on the 13 pin din plug can be changed.
as an example,if the audio is too low,reduce the value of the 100K ohm
resistor and increase the value of the 1.5K ohm resistor.

TO ACCESS VR36

1 Remove the bottom cover of the radio to expose the IF unit.

2 locate VR36

3 Use a plastic alignment tool to adjust VR36 for normal TX audio.

4 After the audio is adjusted,install the bottom cover.

73 AND HAPPY MODING

CARL

packet: VE3ZCO@VE3GYQ BBS

Internet: VE3ZCO@ardsley.business.uwo.ca

=-=

Mark Bramwell, VE3PZR Located in sunny London, Ontario

Internet: mark@hamster.business.uwo.ca IP Address: 129.100.22.100
Packet: VE3PZR @ VE3GYQ UWO Phone: (519) 661-3714

3340. MOD FILE: alr22t

Newsgroup: rec.ham-radio
Date: 1990-06-04 20:29:40 UTC
From: mark@HAMSTER.BUSINESS.UWO.CA
Message-ID: <9006041929.AA21821@ria.ccs.uwo.ca>
Source record: 11135

==========

I received this in the mail so I am posting it to the net.

x----- cut ------x

EXTENDED FREQUENCY RX AND TX OF THE ALR22T & ALR22HT
ALINCO 2 METER RADIOS.

BEWARE OF ANY STATIC WHEN WORKING WITH THIS RADIO !!!

1 Remove the top and bottom covers of the radio.

2 Remove the 4 screws that hold the front panel assembly to the main
chassis.

3 Pull front panel away from the main chassis very gently.

4 Locate the Volume\Squelch pot on the left side of the radio.

5 Locate the VFO control on the left side of the radio.

6 Between the two above units is an IC that runs vertically between
the two units. (ONLY THE 12 PINS OF THE IC ARE SEEN FROM THE BACK)

7 After locating the IC locate 3 sets of unsoldered jumper pads between
the IC pins.

8 Make a solder bridge between the top 2 pads,then the middle 2 pads,then
between the bottom 2 ONLY of the bottom set of 3 pads.

REAR VIEW OF FRONT PANEL

```
/ ------\ 12 PIN O * O /---------\
/ VOLUME \ IC -> |<-SOLDER BRIDGE / \
/ CONTROL \ O * O / \
/ \ / VFO \
\ / O * O \ CONTROL /
\ / |<-SOLDER BRIDGE \ /
\-----/ O * O \--------/
```

```
O * O
* DO NOT SOLDER THE TOP PAD
O |< O OF THESE 3 PADS
* \SOLDER BRIDGE HERE
```

9 RE-ASSEMBLE RADIO .

10 RESET MICROPROCESSOR.

11 This mod will extend the RX range as well as the TX range of the above unit.The display will have a range from 29mhz to 299 mhz but this is just an erroneos display as the PLL on a typical radio will rx between 130 mhz and 180mhz with a TX range that may be a little beyond these these frequencies.

GOOD LUCK AND HAPPY MODING

73 CARL

Packet: VE3ZCO@VE3GYQ

Internet: VE3ZCO@ardsley.business.uwo.ca

CARL VE3ZCO [44.135.80.8]

=-=
Mark Bramwell, VE3PZR Located in sunny London, Ontario

Internet: mark@hamster.business.uwo.ca IP Address: 129.100.22.100
Packet: VE3PZR @ VE3GYQ UWO Phone: (519) 661-3714

3341. Hamster??

Newsgroup: rec.ham-radio
Date: 1990-06-04 21:55:05 UTC
From: ken@vpnet.chi.il.us
Message-ID: <266aa4df-d5.1rec.ham-radio-1@vpnet.chi.il.us>
Source record: 11156

Well, some friends of mine, and myself had a bowling team called
'The Hamsters'.....but I doubt if that would help.... Seriously
I think it is a server somewhere in UUCPland but I am not sure....

Questioning......
KA9RVK Ken LInder

3342. Packet radio advice

Newsgroup: rec.ham-radio
Date: 1990-06-04 21:55:05 UTC
From: ken@vpnet.chi.il.us
Message-ID: <266aa419-d1.1rec.ham-radio-1@vpnet.chi.il.us>
Source record: 11157

I have used the MFJ 1270B TNC for a while now and find that it
has very few operating problems. I have heard of a few people who
had diodes go bad on them, but it is not the majority of the users,
and anyway, these were older models.... I do recomend the 1270B....

DE KA9RVK Ken Linder.....7373

3343. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-05 00:16:57 UTC
From: skaggs@nsslsun.gcn.uoknor.edu
Message-ID: <1990Jun5.001657.12028@uokmax.uucp>
Source record: 11143

In article <1990Jun4.102657.22867@swlabs.uucp> jack@swlabs.UUCP (Jack Bonn) writes:
>In article <9006032356.AA15701@ucsd.edu> TCOMGRD1@OUACCVMB.BITNET writes:
>> I asked what the heck they were, and was told
>>that they (one male voice and one female voice) were the tapes to be played
>>in event of Nuclear War. Ever curious, I asked what they said. No one knows.
>> .
>> .
>> .
>> Does anyone out there know what these say? If so could you email me
>>what is says, or is that illegal somehow?? WHATEVER YOU DO... Dont reply with
>>the actual message to the net!!!!!
>
>Oh come on. Why not just post it?
>
>You have us all curious now.
>
>Heck, I'd be tempted to play them on the air! :-) OK, at least into the
>input of the local repeater. Seems to be better than ordering a pizza
>(a thermonuclear pizza, now that's well-done).
>
>This isn't one of those jokes that will drive you insane, is it? :-)
>--

I used to be the supervisor of the NOAA Weather Radio unit at the NWS office
in the OKC/Norman area. That message (from memory!) says, "The United States
Government has declared that a Nuclear Attack is imminent(sp?). You are
directed to tune to your local Emergency Broadcast Station for safety
information." Or some such nonsense.

Procedure was: tone alert it. Do it live while recording and leave it as
the only one running on the console.

Off the record, most of my employees said that if it were the real thing, they
would append .."and stick your head between your legs and kiss your a..
goodbye." I would've problably done it too.

Gary Skaggs Internet: skaggs@nsslsun.gcn.uoknor.edu
The National Severe Storms Laboratory (The Tornado People)
"Shall we repair to my tent?" "I didn't know it was broken!"

3344. Review: AOR AR-1000 Handheld Scanner

Newsgroup: rec.ham-radio
Date: 1990-06-05 01:02:02 UTC
From: garvin@ccvr1.ncsu.edu
Message-ID: <1990Jun5.010202.6800@ncsuvx.ncsu.edu>
Source record: 11144
Cross-posted to: rec.ham-radio,rec.radio.shortwave

As I mentioned in an article a few weeks ago I ordered the new AOR AR-1000 handheld scanner from Grove Enterprises. I had been looking at the ICOM R-1 intending it as a replacement for my old Bearcat 100XLT, but the R1 is either a short or a long way off depending on the phase of the moon. Several people have posted or mailed asking for a report on how the scanner performs, so here is my review.

* * * * *
DISCLAIMER: These are my opinions. I am not an engineer, just a scanning fan. I do not work for any of the companies mentioned below, nor will I gain any compensation for this report.
* * * * *

AOR AR-1000 Handheld Wide Range Communications Monitor
---

o Frequency range: 8-600, 805-1300 Mhz (minus TV)
o Scan/search/manual tuning
o 1000 non-volatile memories, 10 banks of 100 channels/bank
o Scan rate: 20 memories/sec
o Tuning steps: 5 to 995 kHz, divisible by 5 or 12.5
o Receiving modes: AM, NFM, WFM
o Sensitivity: 0.35 uV NFM, 1 uV AM/WFM
o Search: 40 increments/sec
o Features: delay/hold, squelch, priority on any channel, 10 db selectable attenuator, 4 AA nicads (13.6 VDC), 12 oz weight, 2.5"W x 6.84"H x 1.75"D, AC wall charger/adapter, carrying case, belt clip, cigarette lighter adapter
o Price: $499, Grove has for $459

First (open box) impressions:

The case looks much better than the Uniden cases. There is a removable metal belt clip poking through from the back of the scanner and a clear plastic shield over the keys. The whip antenna looks like one of the Larsens. The weight and feel are JUST right, unlike the heavy and tiring Bearcat. The manual tuning knob on the top seems a bit too long for the unit; it rotates left/right to decrement/increment the frequency by the desired step. Squelch and volume are a single knob on the top; the squelch is the outside jacket of the volume. The local/DX switch is also on top.
The keypad looks nice, and so does the display. The light is a little wimpy, though. Four(4) AA nicads supply power to the unit, no more hunting for odd battery packs.

Operation:

Here we go. It took about 1 hour to master the Bearcat; it took 3 _DAYS_
to learn the AOR. Their manual didn't help matters. It looks like something
an engineer knocked out (no offense intended). It is a piece of junk. Things
are cut-and-pasted into a mess, there are two(2) sections on scan limiting
that are identical, and there are general errors. But the manual is vital in
order to learn the unit. It's like flying the shuttle. Take entering bank
numbers to scan for example:

o Bearcat: hit <SCAN>, then the bank number. For multiple banks press
their numbers. The numbers are toggles (on/off).
o AOR: hit <SCAN>, <BANK>, <PROG>, <LIMIT>, lower bank limit, <LIMIT>,
upper bank limit, <ENTER>.

Searching is MUCH worse.
Gripe: if I wanted to scan banks 1 and 5, I can't. I'd have to scan
banks 1 THROUGH 5. Trying to lock and unlock banks is also a pain. I
accidentally locked out all the banks, and it took 2 hours of unlocking
every channel to get the scanner back.

Scanning:

Performance rolls off below 30 Mhz and above 1200 Mhz. As a shortwave
receiver I don't put much stock in the AOR. It didn't do well. I was
able to copy a few stations but they faded in and out. OK, so I didn't
hook it up to an active antenna or a longwire. I only used the whip and a
shortwire. But I barely picked up anything under 30 Mhz even under good
conditions.
UHF, particularly ~460 Mhz (local police): does OK. Some birdies and
false detections around here (400 to 600 Mhz), but all-in-all just as good
as the Bearcat. Couldn't test the 200 Mhz region since we don't have any
close military installations, and I couldn't get any drug/FBI/Secret
Service/gov't stuff.
Aircraft bands (108-136 Mhz): here I had a problem. Even sitting at the
end of the runway I could not pick up traffic as well as the Bearcat. The
transmissions were garbled and faint. The AOR apparently has problems with
this region.
Cellular? Of course I didn't listen, so I can't say (ahem). I imagine,
though, that it would do as well as can be expected (cough). The upper
reaches (900+ Mhz) went untested as I never could hear anything.

Conclusion:

It went back to Grove 12 days after receipt. I got tired of fighting it
and constantly being reminded of its shortcomings. And I really wanted
shortwave, where it showed its worst performance. Perhaps a real shortwave
antenna would have helped. As far as the other bands were concerned I used
the unit with the supplied whip and with a Radio Shack discone antenna
(25-1300 Mhz). Reception improved, but so did the false reports (it locked
more noise as a station). Rejection was not too good.
Also, it seemed that every time I turned the unit on I had to re-adjust

the squelch, even if I had not moved it. Another thing: it picks up harmonics VERY well. One of our local stations on 89.7 Mhz FM came through on our local NWS weather channel (162.55 Mhz), down to about 50 Mhz, and all the way up to 200 Mhz in good conditions. Admittedly this is their problem, but the AOR didn't make it its problem.
In short, I was disappointed. Looking back I have to realize that AOR was trying to cram quite a lot into such a small package and that I should not have set my hopes too high (an ICOM R-9000 in a handheld). But I still feel that a separate shortwave and scanner are the way to go with the current market situation. I continue to await the ICOM R1, and will make a road trip to see and test it. But I'm going to be happy with my new Bearcat 200XLT until then.
This may, however, be the scanner for you. I will not go onto the record as opposed to the AOR; it simply wasn't what I wanted. You should try one out before you buy it or any other.

If anyone has any specific questions or discussion I'll be happy to answer them as best I can without the unit. Just drop me some mail.

Michael Garvin garvin@ccvr1.ncsu.edu
NCSU Computing Center - Systems Raleigh, NC

3345. RTTY DX Notes, 6/1/90

Newsgroup: rec.ham-radio
Date: 1990-06-05 01:17:20 UTC
From: gws@n8emr.UUCP
Message-ID: <1511@n8emr.UUCP>
Source record: 11149

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ RTTYDX $RTDX0106
RTTY DX Notes, 1of3, 6/1/90

RTTY DX Notes for Weekending 1st June 1990.
Part 1 of 3.
BID: $RTDX0106

If this week's DX notes appear a little sparse, I must apologize, as I
can only report what information I receive. This week there has been
very little activity, or maybe everyone was chasing the Yemen station.
Conditions of course were not the best for most of the week, and that
did not help either. So all that I can say is that we are not up to
our usual standard this week. We will try harder next week in the
ANARTS contest.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, JA1BLV, OD5NG, TG9VT,
VK2EG, VU2DPG, and W0LHS. Thanks chaps for the news and DX in your
areas. It all helps a lot.

Bandpass:

Friday 25:
ZP6DN 14089 at 0020Z
FY4FS 14090 at 0023Z
EA9MY 14087 at 0026Z QSL
9K2EC 14074 at 0140Z ARQ
TK/DL7HZ 14074 at 0140Z ARQ
RB5TF 14087 at 0646Z
FO5MA 14086 at 0700Z
3B8CS 14098 at 1807Z 50 Baud
UQ2HO 14090 at 1845Z
SV0GB 14087 at 1857Z
UO5OK 14083 at 1900Z

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0206
RTTY DX Notes, 2of3, 6/1/90

RTTY DX Notes for Weekending 1st June 1990.
Part 2 of 3.
BID: $RTDX0206
```

Saturday 26:
RB5TV 14085 at 0650Z
TJ1MW 14090 at 0655Z
FO5MA 14086 at 0710Z
5B3ONC 21084 at 0825Z
EA9MY 14085 at 0856Z
TK/DL7HZ 14081 at 0920Z
HI8BG 14085 at 1221Z
FR4EC 21087 at 1435Z
UM8MU 21091 at 1436Z
BY1QH 14088 at 1526Z
5N8ALE 21077 at 1527Z QSL/FEC
UQ2HO 14085 at 1612Z

Sunday 27:
FY4FS 14086 at 0044Z
CN8CC 14086 at 0049Z

Monday 28:
EA9MY 14083 at 0224Z
HK4DUM 14086 at 0248Z
UQ2HO 14087 at 0357Z
RB5TF 14089 at 1330Z

Tuesday 29:
VQ9ZZ 14075 at 0120Z FEC/Note

Wednesday 30:
9M2AX 21086 at 1609Z

Thursday 31:
SU1HN 14087 at 0035Z
FY4FS 14091 at 0235Z
TK/DL7HZ 14082 at 0325Z
9M2CR/SM5 14072 at 0930Z ARQ
AL0C/KL7 14099 at 2100Z

QSL Information:

EA9MY says to QSL via Box 368 Melilla, via Spain.

5N8ALE will QSL via DJ2VZ.

Notes of Interest:

Minami Torishima. KA2XX should be active from June 1st for a one week operation. QSL to KD7P.

Solomon Islands H44. ZL1AMO, Ron, will be QRV from June 6th until June 24th, signing H44RW. It is believed that he will be on RTTY as usual. QSL to his home call.

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0306

RTTY DX Notes, 3of3, 6/1/90

RTTY DX Notes for Weekending 1st June 1990.
Part 3 of 3.
BID: $RTDX0306

Lord Howe Island. VK9LI will be active from June 7th until approximately June 13th, especially during the ANARTS RTTY Contest from June 9th to 11th. He will operate RTTY only, maybe some AMTOR. Due to the sudden rise in costs, small donations would be appreciated.

Chafartnas Island, AN9CI. EA9JV will be qrv from June 14th for one week. This is good for IOTA and prefix hunters awards.

Yemen, 7O1AA. Beware. There are pirates using this call. Make sure that you work the right one. They are only on SSB at the moment and for the next nine days.

Marion Island. ZS8MI has a new operator. He may turn up on RTTY, who knows?

VQ9ZZ. He is active again. The last time we saw this call he was onboard ship in the harbor, and using commercial gear. Hence he cannot use the four letter selcal, so that is why he is on FEC Only. Maybe it is the same operator, and not being on land it does not count as a legitimate VQ9 operation.

Everyone is smiling. They have received their JT0DX cards. It pays to wait and wait at times.

See you in the ANARTS contest on 9th June 0000Z until 11th June 0000Z.

For VK9LI QSL card and donations send via VK2SG.

Sorry for the brief notes, chaps. Hope for better things next week.

GL DE DX1 (VK2SG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX

3346. Re: EBS followup and comments on the "old" EBS stuff

Newsgroup: rec.ham-radio
Date: 1990-06-05 03:57:58 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Jun5.035758.27520@Neon.Stanford.EDU>
Source record: 11146

In article <9006041620.AA24453@ucsd.edu> MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:

> ...Incidents like that are bound to happen, especially with deregulation
>allowing untrained personnel to operate broadcast stations.

What does deregulation have to do with it? The old FCC 3rd class license
didn't particularly require brains, you know. Besides, when you are the sole
operator of a station, for hours at a time, you're bound to make some mistakes.
Blame the station manager (or Chief Engineer) for putting the tapes where they
could be confused with the test tapes. This stuff was happening in the late
50's and 60's, when we were still regulated.

Marc Kaufman (kaufman@Neon.stanford.edu)

3347. specific 73 magazines needed--HELP!!

Newsgroup: rec.ham-radio
Date: 1990-06-05 04:35:42 UTC
From: Justin_Randall_Padawer@cup.portal.com
Message-ID: <30533@cup.portal.com>
Source record: 11152

I desperately need these four 73 magazines. I would be willing to
photocopy what I need and return them at my expense, reimbursing
any postal costs. Will someone please help me? Please email.
The four needed 73 mags (ALL 1989, last year)... April, June, Aug., Nov.
Thanks.
Internet: Justin_Randall_Padawer@cup.portal.com
GEnie: RANDYPAD
America Online: RandyPad1
--Randy Padawer, WA4FJF
P.O. Box 1167
Knoxville, TN 37901

3348. Logbook program available (Logger v1.2)

Newsgroup: rec.ham-radio
Date: 1990-06-05 04:55:09 UTC
From: news@udenva.cair.du.edu
Message-ID: <13281@udenva.cair.du.edu>
Source record: 11151

I've written a quick-and-dirty computer-based logbook
to keep track of stations contacted/heard. I'll post
it to the group if I receive more than 5 requests for
it.

It uses the MS-DOS sort routine, and I've only tested
the program with MS-DOS v3.3.

This program requires beta testing. It's freeware.
You're welcome to use it, and if you think someone else
would like to try it, pass it on.

Art Winterbauer
awinterb@du.edu

3349. modifications

Newsgroup: rec.ham-radio
Date: 1990-06-05 04:59:43 UTC
From: mercenary@vax1.acs.udel.EDU
Message-ID: <6570@vax1.acs.udel.EDU>
Source record: 11153

if anyone has any information regarding the following radios concerning
modifications or repair tips I would greatly appreciate it as it would
help my radio repair work.

Cobra 142, 146, 148 gtl sideband models (particularly 10 meter modifications)
Cobra 2000 gtl
President (Uniden) Grant, Lincoln, Washington and Madison, as well as 2510
and 2600

ANY help would be apreciated.

Jake Fortune
general radiotelephone

3350. Re: 2M antenna ideas for Dodge caravan wanted

Newsgroup: rec.ham-radio
Date: 1990-06-05 05:53:48 UTC
From: bobw@col.hp.com
Message-ID: <24300013@col.hp.com>
Source record: 11155

```
>/ col:rec.ham-radio / jak@mtune.ATT.COM (Jim Kutsch) / 10:33 am May 22, 1990 /
>
>I have a Dodge caravan and a garage with a fairly low door.
>I want to install a permanent 2M antenna on the Caravan.
>The mag mount gets knocked over and scratches the roof.
>Does anyone have any success stories or recommendations?
>
>Thanks in advance.
>73, jim ky2d
>---------

I don't have a Caravan, but I do have a Jeep Cherokee and a similar
problem. I ended up using a Larson 1/4 wave with the L-shaped
mounting bracket that is designed to attache between the trunk lid
and fender of a sedan using sheet
metal screws. I mounted this antenna at the top of the hatchback.
The antenna doesn't quite miss the open garage door (by about 1.5 inches)
but its good enough to enter and exit without problems. It ends up
being a pretty good low profile antenna.

-------------------------------------------------------------------
Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd
"All disclaimers apply."
-------------------------------------------------------------------
```

3351. Re: VHF Es on May31/June1

Newsgroup: rec.ham-radio
Date: 1990-06-05 06:15:12 UTC
From: rk76073@korppi.tut.fi
Message-ID: <13467@etana.tut.fi>
Source record: 11148

In article <126689@infocenter.encore.com> slightbo@encore.com (Sam Lightbourne) writes:

>
>That thursday evening around midnight driving home from work I tuned in the
>Miami National Weather Service on 162.55 Mhz. Only to find it was being
>wiped out by the NWS from Melbourne, FL over 150 miles to the North.
>This is usually a good reliable indicator of some kind of opening. This
>has happened several times in the past. Thats when I scan the bands look
>ing for distant repeaters.
>
>Sam Lightbourne KI4JJ
>Sunrise, FL
>Encore Computer Corporation "Together We Will...."
>Ft. Lauderdale, FL

This can't be Sporadic E because the station you heard is only 150
miles away but tropo-opening.

Risto Kotalampi rk76073@tut.fi # Phones :
Tampere University of Technology # Work (room SL 212) : (931) 162 921
Signal Processing Laboratory # Home : (931) 615 025
P.O.Box 527, 33101 TAMPERE # Radioclub (SH 101) : (931) 162 010

3352. Re: Dual-banders

Newsgroup: rec.ham-radio
Date: 1990-06-05 06:19:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500565@ux1.cso.uiuc.edu>
Source record: 11154

> I am looking for a mobile dual-bander (2m/70cm) rig for
> the car. My problem is this, nowhere in the ads do they mention
> whether they have single or dual antenna ports. I would like one
> with seperate ports for the antennae. The units in question are;
>
> Kenwood TM-731A, Icom IC-2400, Alinco DR-570T and DR-590T. I have
> already eliminated the Kenwood TM-701 as a single porter. I know
> the Yaesu 4700RH has two, but would like more memories. Any help
> appreciated.

The Icom IC-2400 is a dual antenna port radio. The IC-3210 uses one port
but it is on sale right now while dealers try to unload their stock. The
difference is greater than the cost of an external VHF-UHF duplexor.

The IC-2400 has 20 memories. I believe it might even be possible to save
20 VHF and 20 UHF frequencies with offsets, but I am not sure.

Icom also has a matching UHF/UHF dual band, the IC-2500, with 70cm and 23cm.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3353. Re: QSL'ing for money

Newsgroup: rec.ham-radio
Date: 1990-06-05 12:58:13 UTC
From: davet@tsdiag.ccur.com
Message-ID: <998@tsdiag.ccur.com>
Source record: 11171

In article <1990Jun2.134941.28957@cbnewsk.att.com> wheatley@cbnewsk.att.com (steven.m.wheatley) writes:
-In article <991@tsdiag.ccur.com>, davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
->
-> Could earning money in excess of the cost of QSL cards, postage, etc
-> be considered doing buisness on the air? Just like VE's aren't allowed
-> to charge more than the cost of materials for exams, couldn't the same
-
-With few exceptions...the manager does not
-request more than the cost of returning the card. In fact, consider
-that, if one sends a manager a SASE with his/her card, then the
-manager AUTOMATICALLY is out some money due to QSL card printing.
-Admittedly that isn't much, but when you get something in excess of
-500 cards per month (as I do), it adds up. Add to that the cost of
-replying to bureau replies (the envelopes at the bureau, postage and
-cost to send back thru the buro, etc...) NOT TO MENTION THE TIME!,
-QSL managing isn't a profitable situation. (Note...some managers
-DO NOT reply to bureau cards, but there is increased pressure from
-various ham organizations to do so).
-
-The folks that send a greenstamp for return postage without being
-required to do so are essentially 'donating' to the QSL manager's
-war chest. I think your point is interesting, but unless required,
-the money sent above and beyond the cost of returning a QSL is
-usually an attempt on that ham's part to keep the Manager from
-LOSING any more money, rather than 'padding his/her wallet'. As
-mentioned earlier, of all the DX stations I QSL for, the balance
-runs positive for only one, that because he is extremely rare, and
-does some 1000+ contacts a month, often on rare modes (VHF,
-Satellite, RTTY, etc). The balance is kept near '0' by sending
-equipment to further these operations. I am more comfortable doing
-this than 'pocketing' the change, but this decision is my own. I
-suspect, having been in this arena for some time, that managers are
-not a profitable function. If you doubt it, try being one sometime!
-
-73, steve ku9c

In my original article I didn't intend to imply that all or even most QSL managers are trying to line their pockets!! I understand that the vast majority are volunteering their time and efforts (and sometimes money) to the cause, and I appreciate that. The problem I have is with folks who say, "You want my QSL? Send SASE and $1." If they expect me to pay return postage that's OK, but I fear too many people are using QSL cards to finance trips and the purchase of new equipment. This income is earned over the air,

and IMHO, could be construed as business/using Amateur radio for profit. QSL'ing is for the joy of collecting cards from exotic places, not for trying to finance your next DXpedition or your next rig out of it. If money is earned(?) above and beyond the cost of QSL'ing, I think that (ideally) it should go back to the Amateur community at large, either donated to RACES or other worthwhile public service, Amateur related groups. Another place that needs money is for educating the young about AR. What about setting up a program (like uniden) to donate radios/time for schools out of this money? Just a thought. I'm sorry if I offended any QSL managers - you don't set your Dx station's policy for QSLing, they do. I know you put in long hours and lots of labor, and I certainly do appreciate it!

--

David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

3354. EBS NUCLEAR CART

Newsgroup: rec.ham-radio
Date: 1990-06-05 14:01:49 UTC
From: THM33@ISS1.AF.MIL
Message-ID: <9006060107.AA21810@ucsd.edu>
Source record: 11172

I've always been curious about the EBS Nuclear Announcement also.
C'mon, P*O*S*T IT !!!

Tom Mullins - WB8MVR | Uh, Biplane on short final - Get a move on,
FTD/SDJMM | You've got a P-51 on your tail!
WPAFB, OH 45433-6508 |
THM33@ISS1.AF.MIL | - Unknown Controller, Oshkosh, WI

3355. Yaesu FT-101EE question

Newsgroup: rec.ham-radio
Date: 1990-06-05 15:39:02 UTC
From: lrj@ishtar.cs.cornell.edu
Message-ID: <41755@cornell.UUCP>
Source record: 11161

I've a question regarding a Yaesu FT-101EE HF rig.
Essentially, what should the microphone impedance be?

When I purchased the rig a few days ago, I got a Yaesu
four-pin hand-mike with it. I'm not sure if this is working
properly. Here we go:

Here is supposed to happen: you key up the mic and start
talking into it. The ALC needle starts at full scale with no
modulation, and you advance the mic gain until voice peaks are
causing the needle to dip about halfway through the green
region on the meter. This translates to the needle dipping to
roughly 2/3 of full-scale.

What happens: at full mic gain, the ALC hardly even moves.
Yelling/whistling into the mic will obtain some deflection.
However, I had a QSO with two friends last night on 10m and
I had to drop the mic gain to "2" to be intelligible. At this
level, neither the Power Out nor the ALC indicators moved.
The Drake matching network also didn't indicate any output
power. The two friends were about 1 mile and 15 miles away
and were getting S9 signals.

Before I purchased the rig, the fellow I bought it from
demonstrated it using a desk mike (which he wanted to keep).
I've not yet had a chance to get in touch with him to find out
what he knows about the mic he gave me.

As a side note; the power output needle (on the Drake and
the Yaesu) does move to appropriate values when operating
10m CW.

So, anyone know what's happening? I put an Ohm meter
across the mic terminals (with the mic disconnected) and
saw ~500 ohm impedance.

73

-- Lewis R. Jansen, N2KNV lrj@helios.tn.cornell.edu
LASSP/LNS Systems Manager (607) 255-6065

"You can't fight in here, this is the War Room!"

3356. Re: Packet radio advice

Newsgroup: rec.ham-radio
Date: 1990-06-05 15:40:27 UTC
From: brian@ucsd.Edu
Message-ID: <14122@ucsd.Edu>
Source record: 11160

In article <266aa419-d1.1rec.ham-radio-1@vpnet.chi.il.us> ken@vpnet.chi.il.us (Ken Linder) writes:
>I have used the MFJ 1270B TNC for a while now and find that it
>has very few operating problems. I have heard of a few people who
>had diodes go bad on them, but it is not the majority of the users,
>and anyway, these were older models.... I do recomend the 1270B....
>KA9RVK Ken Linder.....7373

And if you install the TAPR XR2211-DCD modification, for $11, you'll be able to run with your radio's squelch open, which means the other guy can cut his TXD in half or better, which means that EVERYONE on the channel will enjoy increased throughput and fewer collisions.

Takes about 15 minutes to install, assuming you know how to solder.
- Brian

3357. NJ Scanner Law Coming up for Vote

Newsgroup: rec.ham-radio
Date: 1990-06-05 16:03:08 UTC
From: judice@sulaco.enet.dec.com
Message-ID: <9006051603.AA18569@decpa.pa.dec.com>
Source record: 11162

According to Senator John Lynch's office, S-305 is coming up for a vote shortly in the NJ Senate. This bill repeals Public Law 1977 and makes it a crime to MISUSE information intercepted by radio, while LEGALIZING the installation/use of scanners and wide-band tranceivers in vehicles.

New Jersey residents should call their State Senator TODAY to express support, for this legislation.

If you don't know who your state senator is, call:

NJ State House - 609-292-2121 and ask for the public affairs office.

Call today!

/ljj

3358. ICOM IC24/AT realy does more than advertized

Newsgroup: rec.ham-radio
Date: 1990-06-05 16:14:38 UTC
From: rbono@necis.UUCP
Message-ID: <1335@necis.UUCP>
Source record: 11169

I have seen several postings concerning the ICOM IC-24AT. This is the latest/hotest hand held tranceiver from ICOM, the local radio shops (there are three of them in the area) can't keep these things in stock, one store sold 10 of them in less than a week! Most postings were concerning how to "modify" the radio to expand its receive range, and how to get it to do 'cross-band-SIMPLEX-repeat' functions.....

Well, I purchased one of these neat little 'babies' for my wife!!! She recently passed her Extra exams (she is now WG1G), and held me to my promise of buying her any radio that she wanted if she passed the Extra. (Boy, am I glad she doen't *like* CW and has not YET found out how much fun the HF bands are... I might have had to buy her an IC-781..... about $6,000.00!!!).

So I thought that I would let the net know what I have found out about this radio first hand.... (instead of a 'I heard that it can do this' message).

The radio is very well designed (in my opinion). No, there is not just one Integrated Circuit inside the thing!!! It appears to be very ruggedly constructed. Out of the BOX it does everything that ICOM says.

One thing that is confusing in the advertisements.... they state that each memory channel (there are 40 of them) is 'double spaced' and can hold a separate frequency for each band. This implies to me that I should be able to use about 80 channels (since the radio has two bands, 2 meters, and 70 cm). What this really means is that each memory 'channel' can hold all information concerning offset, split, etc... and including, FOR CHANNELS PROGRAMMED AS FULL DUPLEX or 'split' mode, both frequencies used for the 'split' operation (this 'split' is for full duplex-cross-band, not a transmitter offset for repeater use). Although you can (with some button pushing) use each frequency stored as 'split' in a simplex mode, you have to not mind pushing a few buttons.

By the way, only one 'band' can be active at a time... you can't listen to both bands at the same time. My wife thinks that this is a blessing... If you were able to listen to both bands at the same time, there could be confusion on which band someone called you from.

Here is some of the "interesting" information. The so-called "modification" to enable the wide range RECEIVE ONLY frequency converage did NOT require any hardware changes to the unit.... (a FEW early units did require a diode to be removed)... simply hold down a few buttons when turning on the unit and keep them held until the unit is done with it's self test (Light-B-#).

If you also do one of the following (each one override the other) you can 'modify' the method used to enter the frequency: (Hold down the indicated keys WHILE turning on the power switch)

Light-1 must enter the 1 MHz through 5 KHz (4 digit entry)
Light-2 must enter the 10 MHz throuth 5 KHz (5 digit entry (default))
Light-3 must enter the 100 MHz throuth 5 KHz (6 digit entry)

When the Light-3 mode is set, I can get the radio's display to go from 0.000 to 1.3GHz (or so, enter 999.995 MHz and then use the 'vfo' knob to 'scroll' up into the 1 GHz 'display' range).... sorry to report that the dislpay shows that the PLL is 'unlocked' over *most* of this range.

The radio will RECEIVE (only) on many interesting frequencies... alas, some have lower sensitivity (this is acutally a plus, the radio's front end is not as wide open as a 'barn door').

I have heard significant signals on the aircraft band (Yes it does demodulate the AM signals here), the Marine, and VHF commercial range (including NOAA weather), and a lot of interesting signals around the 800+ frequency range. Sorry to say that the sensitivity is a bit lacking around the 220MHz range. I live less than 1/2 mile from a 220MHz repeater and I couldn't hear the repeater on the IC24AT with it's flexible antenna... yet I could hear a 1 watt handheld when used on my property (line of sight??).

The radio offers a significant number of scanning modes, searching, etc, that can be programmed as each user desired... see the manual, there are too many 'programmable' modes to mention here.

The ONE hardware mod that I performed on my radio (oops, her radio) was the removal of a diode from the CPU board... the diode is VERY easy to locate (D14), it is NOT a 'surface mount' device, and it's very obvious, it can be 'clipped' out if the user is not handy with a soldering iron (if you are not handy with tools, DON'T dive into your radio... get someone to help you who is technically able).

After D14 is removed, the radio can be placed into 'cross-band-simlex-repeat' mode by pressing a few buttons (Function-5D). This works ONLY when the radio is set to 'split' mode (Function-C). The way it works is as follows:

Program two SIMPLEX frequencies into the VHF and UHF vfo's and set the radio for cross-band-full-duplex (press Function-C until the 'split' indicator is displayed) (or use a memory channel programmed for 'split' operation), then put the radio into 'reapeat' mode (press Function-5D). The radio will start to quickly 'scan' back and forth between the two frequencies. When a signal opens the squelch on one band, the transmitter turns ON on the other band, viola! instant SIMPLEX repeater! When the first signal drops its carrier, the radio continues to scan the two frequencies. To turn off the 'repeater' function, press Function-D.

This works great, and will allow a 146MHz to 440MHz 2 way link. But you must remember that it is a SIMPLEX link. As long as there is a carrier present, the transmitter is ON for the other band. DON'T TRY TO LINK TO A 'STANDARD' REPEATER in this mode. One drawback (or blessing) is that the transmit offset is cancelled when in split mode. This forces a simplex circuit on each band.

We have used these types of things to allow hams without 146MHz hand held
radios to work with a public service event that is using a 146MHz simplex
frequency as the operating frequency. One of these babies set to 'link' in
a 440MHz to the operating 146MHz frequency allows hams with 440 hand helds
to operate. We just have to be careful about several things....,
there is no (auto) IDer... so we need to remember to ID the link in voice.
Also, don't remote mount one of these babies... if something goes wrong,
the only control is to walk up to the unit and turn it off, or press some
buttons.... BE CAREFULL out there, and refer to part 97 of the FCC rules
governing links, remote bases, repeaters, and other such things!!!

I hope *someone* finds this information useful. I am sorry that I don't
have the radio in front of me so that I can describe a lot of other things
that it does... But my wife will not let me near the thing!!! She says that
everytime I pick it up, I reprogram it, and don't return it to her 'favorite'
settings.... Gee, maybe there is a way to program its mode for a particular
operator, with password security, and such!!!! I'll just have to sell my
IC-u2AT, IC-3AT so that I can afford one of these IC-24ATs for myself!!!

Rich (NM1D)
--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

3359. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-05 16:31:35 UTC
From: tad@ssc.UUCP
Message-ID: <805@ssc.UUCP>
Source record: 11158

In article <1990Jun4.102657.22867@swlabs.uucp>, jack@swlabs.uucp (Jack Bonn) writes:
> > I asked what the heck they were, and was told
> >that they (one male voice and one female voice) were the tapes to be played
> >in event of Nuclear War. Ever curious, I asked what they said. No one knows.
> > .
> > .
> > .
> > Does anyone out there know what these say? If so could you email me
> >what is says, or is that illegal somehow?? WHATEVER YOU DO... Dont reply with
> >the actual message to the net!!!!!
>
> Oh come on. Why not just post it?
>
> You have us all curious now.
>

I played one of these tapes at a non-commercial station in the 1960s.
The reference to nuke war must have been a joke. These are generic
tapes for any emergency (tornado, hurricane, civil unrest) and simply
direct listeners to tune to the EBS station serving their community.

Any implication that these are only for nuclear conflict are the result
of someone's fantasy and cold war hysteria.

1
Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3360. Re: Dual-banders

Newsgroup: rec.ham-radio
Date: 1990-06-05 17:23:39 UTC
From: jre@sactoh0.UUCP
Message-ID: <3211@sactoh0.UUCP>
Source record: 11167

The Kenwood 731 has two antenna ports. I highly recommend
this radio. It is the best dual-bander I've ever used.

It has 14 memories per band, plus a seperate VFO per band,
plus a call channel. I've got more memories than I know
what to do with. And it is easily modified to receive
out of band (so it can be used as a scanner to listen
to the fire dept, etc).

It is also easily modified (just clip a diode) to operate
as a "cross-band repeater", which allows you to use the
radio as a "mobile extender" from your low-powered HT.

--
##
UUCP=...ames!pacbell!sactoh0!jre
SAC-UNIX, Sacramento, California
##

3361. WA4LPR Waveguide Filter Program wanted.

Newsgroup: rec.ham-radio
Date: 1990-06-05 18:43:20 UTC
From: U009@cs.cciw.ca
Message-ID: <5A06050D2621003B-MTACY830*U009@cs.cciw.ca>
Source record: 11163

I am looking for a copy of the Waveguide filter program Dennis published in "Microwave Update '89". If he is on the net, or if anyone else has a copy, I would appreciate receiving it. If you know an FTP site that has it, I can try there too.

Regards, Stu Beal, VE3MWM, (U009@CS.CCIW.CA),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

3362. E. Journal of the Astro. Soc. of the Atlantic Vol. I, No. XI

Newsgroup: rec.ham-radio
Date: 1990-06-05 19:32:31 UTC
From: don@chara.UUCP
Message-ID: <172@slipher.chara.UUCP>
Source record: 11164
Cross-posted to: sci.astro,sci.space,rec.ham-radio

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Volume 1, Number 11 - June 1990

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Atlanta, Georgia 30303
U.S.A.

asa%chara@gatech.edu or asa@chara.uucp

ASA BBS: (404) 985-0408, 300/1200 Baud.

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net addresses or the above Society addresses:

klaes@wrksys.enet.dec.com
or - ...!decwrl!wrksys.enet.dec.com!klaes
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A COMPARISON OF OPTICAL AND RADIO ASTRONOMY

by David J. Babulski

Electromagnetic radiation from space arrives at all wavelengths,
from very short wavelength gamma rays to long wavelength radio waves.
This wide spectrum of electromagnetic radiation is constantly
bombarding the atmosphere of Earth. We humans live on the surface
of the planet at the bottom of a giant ocean of atmosphere. This
several-hundred-kilometer thick layer of mixed gases filters out
most of the impinging electromagnetic radiation, leaving only two
substantial "windows" into the Cosmos.

The narrower of these two primary windows is called the Optical
Window and includes three portions of the spectrum:

The near-ultraviolet, that is, wavelengths longer than about three thousand Angstroms (an Angstrom is equal to one-hundred-millionth of a centimeter) or 0.3 micrometers (a micrometer is equal to ten to the negative six power or 0.000010 meter).

The "visible" section, which includes the "colors" that we can see: Blue (about five thousand Angstroms or 0.5 micrometers) to red (about seven thousand Angstroms or 0.7 micrometers).

Portions of the infrared (with wavelengths up to forty Angstroms or 0.04 micrometers).

The other, larger portal into the Cosmos is called the Radio Window. It includes wavelengths from about one millimeter to about twenty meters. The long wavelength cutoff depends somewhat on conditions in Earth's ionosphere.

Before we continue with a comparison of optical and radio astronomy, it may be useful to discuss the major component that these two disciplines have in common: Electromagnetic radiation.

Electromagnetic Radiation -

To fully understand electromagnetic radiation, we must first travel back in time. Our first stop is to early Greek history circa 585 B.C. It was around this period that Thales of Miletus (c.624-c.547 B.C.) noted that bits of amber rubbed with fur mysteriously attracted feathers and other lightweight objects. Also during this era, the curious property of the mineral lodestone to attract bits of iron was observed.

These observations were long regarded as curiosities and were generally ignored until the early years of the Nineteenth Century, when such curiosities were described in terms of electricity and magnetism.

In the early 1800s, Charles A. de Coulomb (1736-1806) in France measured the electrostatic force acting against a spring. About the same time, Count Alessandro Volta (1745-1827) in Italy invented a battery which was the first practical source of continuous electrical current.

Stepping ahead twenty years to 1820, Oersted of Denmark demonstrated that a magnetic field existed around a wire which was carrying electrical current. In this same time period, a French physicist named Andre Marie Ampere (1775-1836) described the attraction and repulsion between two wires carrying electrical current in the same or opposite directions.

It was shortly after these discoveries in the early 1820s that Georg S. Ohm (1787-1854) of Germany developed a thermocouple of iron and copper bars. When the junction of these bars was placed in a fire, Ohm noted that electrical current was generated. By using various lengths of copper wire, he formulated the famous laws that

bear his name. These laws relate the flow of electric charges (current) in a conductor to the electrical potential (voltage) and the reaction of the circuit (resistance).

By the year 1830, it was fairly well known in scientific circles that when current flowed through a conductor, a magnetic field was formed around the wire. The reverse case was not an easy experiment to verify. Several luckless investigators tried to wrap a wire around a magnet to generate an electrical current in the wire.

In 1831 an English physicist named Michael Faraday (1791-1867) almost accidentally discovered that it was a moving magnet and not a stationary one that produced an electrical current in an adjacent conductor. Faraday proposed the daring concept that all space was filled with various force fields: Magnetic, electric, radiant, thermal, and gravitational. Based on his field theory, Faraday daringly postulated the principles of electromagnetic induction and the field theory, which proved to be the missing links between electricity and magnetism.

In the United States one decade later, a scientist by the name of Joseph Henry (1797-1878) demonstrated the concept that electromagnetic energy could be propagated through space and detected at a distance by noting the inductive action of a spark circuit picked up by a parallel circuit some nine meters (thirty feet) away.

By the 1850s, the various bits and pieces about electricity and magnetism were well known and documented: Coulomb's Law covering the relationship between the electric charge and the mechanical force it produced; Ampere's Law relating electrical current and magnetism; Gauss' Law covering the relationship between electric charge and the electric field; and Faraday's Law, which explained the relationship between the magnetic field and the induced voltage.

It was not until the late 1860s that the brilliant Scottish theoretician James Clerk Maxwell (1831-1879) unified these various laws into a complete electromagnetic theory which is today ranked in importance with Sir Isaac Newton's (1642-1727) concept of gravitation and Albert Einstein's (1879-1955) theory of relativity.

James Clerk Maxwell -

This Scottish physicist and mathematician is generally considered to be the greatest theoretical physicist of the Nineteenth Century. Maxwell became a student of the senior scientist Faraday, studying all of Faraday's work in order to become thoroughly familiar with his concepts and line of reasoning. Maxwell was intrigued by the apparent lack of a unified theory of electric and magnetic behavior.

From Faraday's work and his own experiments, Maxwell derived a breathtaking concept and a set of elegant equations that encompassed the various laws of electricity and magnetism and which form today's basis of electromagnetic theory.

The unique picture presented by Maxwell of the interchange between electric and magnetic fields in free space was supported by a set of equations descriptive of any form of wave motion propagating itself freely from place to place.

Equation 1: div E = 0

Equation 2: div H = 0

Equation 3: curl E = -1/c dH/dt

Equation 4: curl H = 1/c dE/dt

In these equations, the term "E" represents the electric field, commonly expressed in Volts/meter, and the term "H" represents magnetic induction and is expressed in "Teslas" (1 Tesla = 1 Weber/meter squared).

The term "Div", referring to the mathematical operation "Divergence" is a measure of the total flow of E or H into or out of a point in space. Similarly, the term "Curl" is a mathematical operation measuring "vorticity", the amount of whirlpool-like structure about a point in space. A detailed analysis of Maxwell's Equations is beyond the scope of this article. However, a brief discussion of what each of the four equations describes follows:

Equation 1 states that in the absence of electric charges, electric lines of force can neither be created nor destroyed.

Equation 2 states that in the absence of electric charges, magnetic lines of force can neither be created nor destroyed. In addition, Equation 2 states that magnetic charges do not exist.

Equation 3 is a generalized statement of Faraday's Law that a changing magnetic field produces an electric field and that the ratio of the electrostatic units to the electromagnetic units is a constant related to the speed of light (300,000 kilometers per second/186,000 miles per second).

Equation 4 states that a changing electric field produces a magnetic field.

These four equations also showed that a "disturbance" in the electromagnetic field did not die out, but rather could propagate outwards from its origin in the form of waves traveling at the speed of light.

Maxwell termed such a disturbance in the electric and magnetic fields an "electromagnetic wave" and pictured it as an electric wave at right angles to a magnetic field with both waves propagating in phase. Maxwell was able to show that these waves have all the known properties of light. Light was therefore discovered to be an electromagnetic phenomenon.

As the 1800s neared an end, Heinrich Hertz (1857-1894) of Germany succeeded in generating electromagnetic waves of long wavelength, which we now call radio waves. Further, Hertz found that the velocity of these long waves was exactly equal to the velocity of light. Thanks to Maxwell and Hertz, we now know that light and radio waves are both forms of electromagnetic radiation, with light being composed of very short wavelength and radio waves composed of very long wavelength. Equation 5 shows the mathematical relationship between wavelength and frequency:

v = c/lambda

In Equation 5, the symbol "c" equals the speed of light in meters per second; the Greek letter lambda is the wavelength in meters; and the symbol "v" equals the frequency in Hertz (or cycles per second). A more convenient arrangement is to convert Hertz to megahertz (abbreviated "MHz"). The revised mathematical expression is shown in Equation 6:

v (in MHz) = 300/lambda (in meters)

To see how this relationship works, let us convert the mid-point wavelength of the Optical and Radio windows to their corresponding frequencies.

The mid-point wavelength of the Optical window is about two micrometers (or 0.000002 meter). Using the relationship in Equation 6, the corresponding frequency is 150 million MHz - a very high frequency indeed!

At the other extreme, the mid-point wavelength of the Radio window is about 0.5 meters. Again, using the relationship in Equation 6, the corresponding frequency is about six thousand MHz, or six gigahertz (GHz).

Most amateur radio telescopes operate in the meter wavelength range. For example, the radio telescopes described later in this series of articles will operate at a wavelength of about 2.9 meters. Using the relationship in Equation 6, the corresponding frequency is about 103 MHz.

With this perspective in mind, we will now look at the instruments used to investigate these two regions of the electromagnetic spectrum.

Short Wavelength Astronomy -

For millennia, humans were able to observe the Cosmos with only their unaided eyes. History has shown that the construction of major observatories has been a continuous practice for a wide variety of cultures of varying levels of sophistication.

However, for most of recorded time, these ancient observatories were concerned almost exclusively with astrology and not astronomy. Telescopes, as we know them today, were a relatively late addition to the complement of instruments in observatories. This is somewhat

surprising, as the technology for making glass is ancient. The Mesopotamians were the first to fuse sand and ash together to form glass. By the year 1200 B.C., the Babylonians knew how to make objects of blown glass and the Chinese were manufacturing mirrors long before the birth of Jesus Christ.

However, no one put this technology together to make a telescope until sometime in the early 1600s. Spectacles were in use in Europe by the late 1300s, and it was probably a happy accident by an obscure spectacle-maker that resulted in the first telescope.

By chance, if one aligned two lenses, one concave and the other convex, objects far away appeared to be closer. Once the first telescope was made, word traveled quickly throughout Europe - so quickly, in fact, that it was impossible to ascertain the original inventor. Most scholars now believe that the actual inventor of the telescope was Dutch spectacle maker Jan Lippershey.

On August 25, 1609, the Italian astronomer Galileo Galilei (1564-1642) demonstrated one of his first telescopes, which had a magnification factor of nine, to officials of the Venetian government. A magnification factor of nine, or 9x, means that the object being viewed appears nine times closer than it actually is.

Although he had won over the Venetian officials, Galileo did not use this new instrument to observe the heavens right away. First he designed a more stable mount, then improved the optics to raise the magnification factor to thirty.

Perhaps more importantly, Galileo had to gain confidence in this new instrument, the "telescope". In the early 1600s, the eyes were believed to be the final authority about the truth of sizes, shapes, and colors. Lenses and mirrors were known to distort images by enlarging them, reducing them, or even inverting them. Galileo spent several months and countless experiments to convince himself that what he observed through the telescope was indeed real.

Once Galileo did turn the telescope toward the night sky, humanity's view of the Universe was changed forever. His observations of the four largest moons of the planet Jupiter and their motions demonstrated without doubt that Earth was not the center of orbital motion. This observation established empirically that one body (a moon in this case) could orbit a second (Jupiter) while the second body, in turn, orbited a third body (Earth's star, the Sun). The realization that the Milky Way Galaxy was composed of countless individual stars brought forth the idea that the Universe could be infinite in extent.

The Refracting Telescope -

The telescope that Galileo used to make these startling observations was a refractor telescope. A refractor consists of an objective lens at one end of a long tube and one or more lenses (which

form the eyepiece) at the other end. Contrary to popular belief, it is the diameter of the objective and not the magnification of the eyepiece that is important in any telescope.

The primary job of any telescope is to gather as much electro-magnetic energy (in this case, visible light) as possible. An image of a far away object, say a star, is a point of light surrounded by a diffraction disk.

The resolving power of a telescope (or how much "detail" can be revealed) is dependent on the size of the diffraction disk. The smaller the diffraction disk, the more detail can be resolved. The size of the diffraction disk is, in turn, directly related to the wavelength of the electromagnetic energy (light in this case) and the diameter of the telescope objective.

In general terms, the larger the objective the smaller the diffraction disk. If the wavelength and objective diameter are measured in the same units (for example, both measured in centi-meters), then the smallest angle alpha (Greek letter) in seconds of arc that can be resolved by a lens (or mirror) of diameter "d" is given by the relationship shown in Equation 7:

alpha = 2.1 x 10 (to the fifth power) x lambda/d (arcseconds)

The formula shown in Equation 7 is called the Dawes' Criterion. It represents the theoretical resolution for a telescope. An example for telescopes of ten-centimeter (four-inch) and twenty-centimeter (eight-inch) diameter objectives may be instructive: In the examples shown in Table 1, wavelength (lambda) will be ten to the negative five centimeters (or 5,500 Angstroms - visible light in the yellow-green portion of the spectrum).

Table 1: Maximum Resolution of Optics (Dawes' Limit)

Aperture Resolution

60 mm 1.93"
3" 1.52"
4.5" 1.02"
6" 0.75"
8" 0.58"
10" 0.46"
12.5" 0.37"
16" 0.29"

From the table, a ten-centimeter (four-inch) diameter telescope has a Dawes' Limit of 1.16 seconds of arc. This means that two celestial objects separated by 1.16 seconds of arc or greater will be resolved as two separate objects. Celestial objects separated by less than 1.16 seconds of arc will not be resolved and will appear as one object.

To give you some sense of scale, the diameter of a period appearing on this screen/page is about 180 seconds of arc when viewed from a distance of nine meters (three feet). That same period would subtend a distance of 0.023 seconds of arc when viewed from a distance of 0.8 kilometers (0.5 miles). By increasing the diameter of the telescope objective, the Dawes' Limit is correspondingly decreased. This same mathematical relationship also holds for radio telescopes, as we shall see.

Telescopes larger than twenty-five centimeters (ten inches) cannot reach the Dawes limit except under exceptional seeing conditions because of turbulence in Earth's atmosphere. To achieve their true potential, methods must be employed such as speckle interferometry, which removes atmospheric blurring by analysis of many freeze-frame snapshots of an object. At the present time, the largest refracting telescope on Earth has an objective lens of one meter (forty inches) in diameter. This refractor is at the Yerkes Observatory in Williams Bay, Wisconsin. The instrument went into operation during the 1890s.

Refractor telescopes tend to be somewhat expensive due to the high cost of the objective lens. Typically, modern refractor telescopes designed for the amateur astronomer tend to have objective diameters of ten centimeters (four inches) or less.

The Reflecting Telescope -

Most modern telescopes for short wavelength (optical) astronomy are of the reflector type. Unlike the refractor, the reflector telescope uses a parabolic mirror at the bottom of a long tube rather than a lens at the front of the tube. All of the large research telescopes are reflecting telescopes, with this type also being the most popular among amateur astronomers.

The reflecting telescope was first conceived by James Gregory, a Scottish scientist, in 1663. Sir Isaac Newton, a British physicist, is generally credited with the first practical reflector telescope, which he built in 1668.

There is a fundamental problem with using a mirror to collect and focus an image. To see the image you must place your eye at the point where the electromagnetic energy is focused (called the "prime focus"). Unfortunately, your head will get in the way and you will not see anything!

Newton got around this problem by placing a small mirror at an angle in the middle of the telescope tube. This mirror deflects focused energy from the mirror to a point outside the tube. This type of reflector is called a Newtonian, in honor of its inventor.

Another type of reflecting telescope was invented by the French mathematician Guillaume Cassegrain (c.1650-1700) in 1672. Cassegrain reflectors use a small convex mirror to intercept the energy from the primary mirror and reflect it back through a hole in the primary mirror. This type of telescope has the advantage of small physical size, as the

energy path is folded inside the tube and is sometimes called a Catadi-
optric (meaning literally "many optical surfaces") telescope.

A more recent reflecting telescope design which is very popular
with amateur astronomers is the Schmidt-Cassegrain reflector. This
is a catadioptric-type reflecting telescope using a spherical primary
mirror at the bottom of the telescope tube and a lens-like corrector
plate at the front of the tube. The corrector plate compensates for
astigmatism from the spherical reflecting surface. The Cassegrain
secondary mirror is mounted to the inside surface of the Schmidt
corrector plate. This telescope type has the advantage of lower
cost (It is cheaper to make a spherical mirror than a parabolic
mirror) and small size with excellent field of view.

The energy gathered by the telescopes described so far can be
processed by our eyes. Because we can "see" the images produced by
the telescope, astronomers use the term "magnitude" to describe the
"brightness" (the amount of short wavelength energy flux, or light
energy) received from a star or other luminous body.

The system of magnitudes currently used by astronomers to denote
the brightness of stars was invented by the ancient Greek astronomer
Hipparchus (c.180-c.125 B.C.). The brightest stars Hipparchus saw in
the sky he called first magnitude stars. Those about half as bright
he called second magnitude and so on to the sixth magnitude, which
were the dimmest stars he could see. Later, when telescopes came into
use, astronomers extended the Hipparchus magnitude scale to describe
the dimmer stars that they could see in their instruments. Over time
astronomers have refined the magnitude scale so that each magnitude
difference of one corresponds to a factor of 2.512 in light energy
flux. The apparent magnitude scale is shown below:

Sun (Sol) -27
Full Moon -12
Venus -4
Sirius -2
Unaided eye limit +5 to +6
Binocular limit +10
Pluto +14
Visual limit for
large telescopes +20
Photographic limit
for large telescopes +25

One should be careful not to confuse "apparent magnitude",
which is how bright the star looks to us from Earth, with "absolute
magnitude", which is how much light energy the star is actually
producing.

The absolute magnitude of a star is the apparent magnitude it
would have if it were moved to a distance of exactly ten parsecs from
Earth. Note: One parsec is a unit of astronomical distance equal to

3.26 light years. Therefore, ten parsecs is equal to a distance of 32.6 light years. For example: If the Sun was at a distance of ten parsecs from Earth, it would have an apparent magnitude of +4.8. The absolute magnitude range of other stars varies from -10 for the brightest to +15 for the dimmest.

Now that you know about the most common instruments for short wavelength (optical) astronomy, let us next look at instruments for long wavelength (radio) astronomy.

Long Wavelength Astronomy -

Unlike optical astronomy, we humans cannot "see" energy flux at radio wavelengths. In order to process energy flux at radio wavelengths, we must use a collection device to capture the energy flux and a conversion device to convert the received energy to a form that we can readily process. Astronomers call the radio energy flux collection device an "antenna". Conversion of the received radio energy into a form that we can process is handled by a "receiver".

In most cases, radio telescopes are categorized by the type and size of the antenna used. Most of the professional radio telescopes are categorized as Large Dish Antenna ("LDA") types.

Because we can not "see" electromagnetic energy at radio wavelengths, we must devise another way to describe the "brightness" of a radio source. Instead of the term "magnitude" to denote the brightness of an energy source, radio astronomers use the term "flux density".

The basic unit of flux density is "Watts per Square meter per Hertz". However, as most radio sources are extremely small fractions of that value, the basic unit of flux density is defined as a flux unit. One flux unit is ten to the negative twenty-sixth power watt per square meter per hertz.

To give you a sense of scale, the Sun has an average flux density of ten to the fourth power or ten thousand flux units at a frequency of about 150 MHz. Earth's Moon, in contrast, has a 150-MHz flux density of only 85 flux units.

Unlike optical astronomy, the most powerful radio source in the sky is not the Sun, but an extragalactic radio source named Cassiopeia A at a 150-MHz flux density of seventeen thousand flux units!

We can think of a radio telescope as analogous to an optical telescope in the following ways: The antenna in a radio telescope is analogous to the objective lens in an optical instrument. The Receiver is analogous to the eyepiece. Keep in mind that one does not "listen" to the output from a radio telescope in the same way that you listen to a conventional radio tuned to a typical radio station. The electromagnetic energy flux detected by the radio telescope covers a very wide band of frequencies and sounds very much like static.

A conventional radio uses a radio frequency filtering system to select a very narrow range of frequencies and reject all others (as when you "tune in" a radio station).

A radio telescope receiver, on the other hand, uses a similar radio frequency filtering system, not to select a very narrow frequency band, but rather to reject narrow band frequency interference from adjacent radio services. We want the radio telescope receiver to be as wide band as possible, in order to capture as much radio energy flux as we can.

In most cases, the output from a radio telescope is converted to digital code for computer processing or, as is the case with most amateur instruments, is converted to strip chart recorder output. In this later case, the position of a line on a sheet of graph paper represents the level of radio energy flux received by the radio telescope.

We can take our optical telescope analogy one step further in describing the types of radio telescopes. Remember, there are two fundamental types of optical telescopes, the refractor and the reflector. In like fashion, there are two basic types of radio telescopes: The Multi-Element Array (MEA)-type antenna, which is roughly analogous to the optical refractor, and the Large Dish Antenna (LDA), which is roughly analogous to the optical reflector.

Radio Telescope Refractors -

The typical MEA-type antenna is based on the Yagi-Uda multi-element antenna, usually called a "Yagi", in honor of its primary inventor. A conventional television antenna is an example of a Yagi antenna. This type of energy collector concentrates incoming radio energy flux toward a collecting element (usually called a "driven element") by using electrically isolated parasitic elements in front of and behind the collecting element.

An electrically conductive feedline (usually coaxial cable) is connected to the collecting element to convey the received radio frequency energy to the receiver. Electric currents are induced in the parasitic elements by the passing electromagnetic wave.

These induced currents in turn generate wave fronts of radio frequency energy that constructively or destructively interfere with the incoming radio energy. By adjusting the spacing between the parasitic elements and the collecting element and the length of the parasitic elements, the induced wavefronts can cause incoming radio energy flux to be concentrated at the collecting element. The parasitic elements in front of the collecting element are called "directors" and the parasitic element behind the collecting element is called a "reflector".

A multi-element antenna, such as the Yagi type just described, is said to be "directive" and has "gain". That is, the antenna is most sensitive or responds most readily to incoming radio energy flux in

the direction that the directors are pointing. The term "gain" refers to the power gain of the antenna, or put another way, how much of the radio energy is concentrated toward the collecting element and is usually expressed in decibels (dB).

Another interesting antenna used in arrays is the Helical antenna invented by Dr. John Kraus of the United States in the early 1940s. This type of antenna uses a continuous antenna element in the shape of a coil or helix working against a ground plane.

A helical antenna has two characteristics that make it especially interesting for radio astronomy applications: The helix is circularly polarized (Contrast this with the Yagi antenna, which is linearly polarized), and its combination of broad bandwidth and high gain.

Unfortunately, the cross-sectional area, or aperture, of a single, multi-element antenna is rather small. The cross-sectional area, or the "effective aperture", of an antenna is not as straightforward as it might seem, but is a function of both antenna directivity and the antenna design center wavelength.

The mathematical relationship called Dawes' Criterion also applies to radio astronomy as well as the optical branch. As we have learned earlier, an optical telescope with an aperture (objective lens diameter) of ten centimeters (four inches) can resolve an astronomical object to within about one arcsecond.

The primary difficulty with radio telescopes is that the wave-length of radio energy is much greater than that for visible light energy. For example: Radio energy at a wavelength of twenty centimeters is roughly 400,000 times longer than the wavelength of visible light. As a result, to resolve the same angle of one arcsecond at a wavelength of twenty centimeters, a radio telescope would have to be nearly forty kilometers (24.8 miles) in diameter.

Fortunately, there are ways around this problem which will be discussed later. How much detail a radio telescope can resolve is a function of its "beamwidth". The "beam" is a cone-shaped bundle of radio energy of such an angular size that within it details cannot be resolved. The beam width would correspond in optical astronomy to the angular size of the central diffraction disk of a stellar image.

For a large optical telescope, that size would be roughly a few hundredths of a second of arc, but for a typical large radio telescope, the beam width is on the order of several minutes of arc. The beam width of a typical single multi-element Yagi antenna (similar to what may be used in a small amateur radio telescope), for example, is on the order of fifteen degrees! However, by connecting a large number of multi-element antennas together electrically in phase, the beam width can be reduced to about one to two degrees - still a far cry from one to two arc seconds!

The size of the antenna beam depends to a large degree on the wavelength. In general, the shorter the wavelength (the higher the frequency) the smaller the antenna beam. One way around the problem of large beamwidth is to use a techniques called "interferometry". In this technique, two identical radio telescope antennas are placed some distance apart. Incoming radio energy flux will strike one antenna a brief instant before the other one so that the two antennas will receive the same energy at slightly different times and thus will be "out of phase" with each other. The difference in phase between the two antennas can be measured electronically.

Because this phase difference depends on the angle of the radio source relative to the antennas, positional information on the radio source can be readily obtained with this technique. One of the projects to be discussed in this series is a two-station radio interferometer.

Radio Telescope Reflectors -

In an effort to reduce antenna beamwidth and improve the sensitivity of a radio telescope to weak sources of radio energy flux, radio astronomers shorten the radio wavelength at which they will observe and employ large reflecting "dish" antennas to collect and concentrate the radio energy. The form of these reflecting radio telescopes closely follows the form of their optical counterparts. It is interesting to note that the highest gain antenna on Earth (148 dB) is the five-meter (two hundred-inch) telescope on Mount Palomar in California. The very short wavelength of light energy causes such a high gain to be realized.

One of the most common radio telescope reflectors is the "Prime Focus" arrangement In this radio telescope configuration, the receiver is located at the prime focus. Another common radio telescope reflector arrangement is the Cassegrain system. This arrangement is similar to its optical counterpart in that a primary parabolic reflector and a convex secondary reflector are used to "fold" the radio energy path. This arrangement has the advantage of slightly smaller size and placement of the receiver where it is easier to adjust and service. The Cassegrain system (and its cousin, the Gregorian system, which uses a concave rather than a convex subreflector) is usually only used in very short wavelength radio astronomy (centimeter wavelengths and shorter). As the radio wavelength gets larger, the size of the sub-reflector must also get larger. A point is soon reached where the amount of energy blockage caused by the sub-reflector negates any advantage of the system.

Summary -

Speaking in general terms, both optical and radio astronomy are observing the same thing: Electromagnetic energy. The primary difference is the wavelength of the electromagnetic energy: Optical wavelengths being very short and radio wavelengths being very long. Since we can "see" optical wavelengths as visible light, our brain can

be used in conjunction with our eyes to process information gathered by the telescope. Because we can not see in radio wavelengths, we typically use electronic devices to process the received energy collected by a radio telescope and convert it to a form that we can then "see". Astronomically speaking, the primary advantage of radio astronomy is its ability to detect energy sources hidden behind dark obscuring matter. This dark matter blocks the shorter wavelengths of visible light, but the longer wavelengths of radio energy are able to pass through the dark matter.

Another application of this characteristic of radio energy is Radar Astronomy. In this application, a high energy pulse of electromagnetic energy, at radio wavelengths, is directed toward an astronomical object. The reflected energy is then used to deduce details about that object. For example, the surface of the planet Venus is hidden from view at optical wavelengths by the planet's thick obscuring clouds. By using radar astronomy, we have been able to create computer-generated images of what the surface of cloud-covered Venus looks like. Radar astronomy has also recently been used to study the surface of the planet Saturn's largest moon, Titan, which is shrouded in thick orange clouds of nitrogen and methane.

Although radio astronomy has been a relatively late addition to the discipline of astronomy, it serves as a valuable "second eye" into the Cosmos. Because radio astronomy is a relatively young discipline, it offers the amateur radio astronomer a unique opportunity to work alongside the professional astronomical community to make valuable contributions to science. Future articles in EJASA will describe how to construct small, relatively inexpensive radio telescopes for use by amateur radio astronomers.

Editor's Note -

ASA members Bill Black and Jeff Lichtman coordinate a Radio Astronomy Interest Group for those who wish to pursue this important branch of observational astronomy. Both men operate their own radio telescopes: Bill's instrument detects meteors by reflection of distant television stations from ionized trails in the upper atmosphere. Jeff's dish measures intensities of variable sources. Low-cost availability of computers and radio components has opened the doors for amateur participation in this field. If you wish to learn more about the RAIG, please contact the ASA at one of the addresses listed in this EJASA.

Jeff is also President of the national Society of Amateur Radio Astronomers (SARA), an organization of nearly 250 radio hobbyists. For more information on SARA, please contact Jeff at the following address:

1425 Parkmont Drive
Roswell, Georgia 30076
Telephone: (404) 992-4959

Jeff is the author of "Getting Started in Amateur Radio Astronomy",
in the February 1990 issue of EJASA.

About the Author -

David J. Babulski is an amateur astronomer and professional
science writer, with particular interest in aerospace and radio
astronomy. David's science articles have been published in such
magazines as RADIO HANDBOOK and others.

David is the author of "Radio Astronomy: A Historical Perspective",
in the February 1990 issue of EJASA.

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Center for High Angular Resolution Astronomy | President, Astronomical
Georgia State University, Atlanta, GA 30303 | Society of the Atlantic

3363. June VHF QSO Party

Newsgroup: rec.ham-radio
Date: 1990-06-05 19:35:26 UTC
From: Joel_Glickman@MTS.RPI.EDU
Message-ID: <1838219@MTS.RPI.EDU>
Source record: 11165

```
**********************************************
* June VHF QSO Party *
**********************************************

W2SZ/1 will operate a multi-op station
high atop Mt. Greylock in Adams, Massachusetts.
Our location is:

Grid: FN32
Elevation: 3491 ft.
Latitude: 42.6364 degrees
Longitude: 73.1667 degrees

We will have active stations on *all* bands up
to 24 GHz. If you would like to sked a contact,
please E-mail me by 4:00pm Thursday afternoon.

We shall be on the calling frequencies of
903.100 Mhz and 1296.100 Mhz for the most part,
and you can establish contact to make a sked
for microwave contacts there if needed. We can
also be reached at * 518-864-5472 * during the
contest.

On the higher bands, we can be worked at:
2304.020 Mhz
3456.020 Mhz
5760.020 Mhz
10368.020 Mhz

We will of course be operating 6 meters, 2m,
220, and 432 stations. If you hear us on any
of these bands, give us a call and make a
sked for a higher band if you can.

*Everyone* can join in on the fun. It is,
after all, a QSO *Party*! If you have an FM
rig with 2 meters, 220, or 440 capabilities,
look for us on the following FM simplex freqs.
146.550 Mhz
223.500 Mhz
446.000 Mhz

**********************************************
See you on the air guys.......
```

Joel Glickman (KA1PRT)
2 meter op W2SZ/1
Mt Greylock, Massachusetts

3364. qsl bureau, czech is in the mail?

Newsgroup: rec.ham-radio
Date: 1990-06-05 20:03:44 UTC
From: perley@trub
Message-ID: <8215@crdgw1.crd.ge.com>
Source record: 11166

Last night I worked an OMxxx who said to "qsl via the buro". There
has been enough here about how managers work, but how about bureaus?

Do I mail my card to his bureau with IRC, or does he reply to the US bureau?

My callbook lists OL and ON as Czechoslovakia and Belgium with OM
allocated to the Czechs but none issued yet, so unless I hear
different, I will assume it is Czech.

-don perley ke2tp
perley@trub.crd.ge.com

3365. Yaesu FT-101EE questions

Newsgroup: rec.ham-radio
Date: 1990-06-05 20:14:41 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006052049.AA26601@ti.com>
Source record: 11173

In lrj@helios.tn.cornell.edu Lewis R. Jansen writes

>I put an Ohm meter across the mic terminals (with the mic disconnected
>and saw ~500 ohm impedance.

Impedance is a term that is associated with AC circuits. An ohm-meter is
a DC circuit instrument. Although the term "ohms" is used as the unit of
measurement of resistance and impedance, the two are not synonymous. An
ohm=meter cannot measure impedance *UNLESS* you are positive that what you
are calling impedance is a pure resistance.

If there is a capacitance or inductance anywhere in the circuit path you were
measuring, the impedance could be far different from the resistance you saw on
the meter. Note that the formula for impedance (Z) includes resistance,
capacitance and inductance:

/---------------
Z = sqrt (R-square + (XL - XC))

If by keying the transmitter you get a different-from-normal reading with
NO modulation, I would doubt that the input and mike impedances would be a
consideration. It would be better to know what the pin-outs of the mike are
compared to what the rig's mike connector wants to see. Sounds more like
a keying-line problem to me. I'd double check the connector wiring for the
mike against the FT-101 schematic.

Errata the formula above should have read:

Z = sqrt (R squared + (XL - XC) squared)

Regards,
73,
Dube Todd N5PDK

3366. Re: qsl bureau, czech is in the mail?

Newsgroup: rec.ham-radio
Date: 1990-06-05 22:26:00 UTC
From: lkay@ecs.umass.edu
Message-ID: <9997.266c3178@ecs.umass.edu>
Source record: 11168

In article <8215@crdgw1.crd.ge.com>, perley@trub (Donald P Perley) writes:
> Last night I worked an OMxxx who said to "qsl via the buro". There
> has been enough here about how managers work, but how about bureaus?
>
> Do I mail my card to his bureau with IRC, or does he reply to the US bureau?
>

Yes and no. You don't need the IRC; just mail the card. However, that's still
a 45c stamp. If you're a big gun and work 1000+ DX stations a month, then you
may want to speed up your replies by bundling all your Russian QSL's, etc.
and sending them to the buros yourself.

The other method, for everyone else (like you & me) is to use the ARRL's
Outgoing Buro. If you're a League member, the details are in QST every few
months or so. Basically you sort your cards by prefix, mail 'em to Newington
with $2 per pound, and *they* send the mail sacks overseas. You gotta be a
member to use it. If that doesn't seem fair, remember that most DX stations
have to be a member of their League to even get *incoming* cards.

> My callbook lists OL and ON as Czechoslovakia and Belgium with OM
> allocated to the Czechs but none issued yet, so unless I hear
> different, I will assume it is Czech.

You assume correctly. I've been hearing OM calls for a few weeks now.

Len

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3367. Re: TNC Simulation

Newsgroup: rec.ham-radio
Date: 1990-06-06 00:36:57 UTC
From: tad@ssc.UUCP
Message-ID: <808@ssc.UUCP>
Source record: 11170

In article <12183@shlump.nac.dec.com>, pompano@deaths.dec.com (Jim Pompano) writes:
>
> Is anyone aware of software that will emulate a TNC?

The only one I am aware of works on the Commodore 64.
>
> The second part of the above "project" is getting the signal amplified from
> the radio output level (mv?) to modem-input level (24-48 volts). I was
> planing on building a simple audio amp (with good freq-response).
>

Your modem requires telephone line levels of +30 to +36 dBm??!!?!? I don't
think so. You must be thinking of the ON HOOK DC from the PBX or Central
Office....not the AC signal levels on the line.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3368. Looking for a Butternut Butterfly antenna

Newsgroup: rec.ham-radio
Date: 1990-06-06 02:44:46 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9006060248.AA10829@uunet.uu.net>
Source record: 11174

I N T E R O F F I C E M E M O R A N D U M

Date: 4-Jun-1990 06:06pm HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS%UCSD.EDU@UUNET.UU.NET)

Subject: Looking for a Butternut Butterfly antenna

Would the gentleman who's looking for the butterfly beam please email me with a good return path at 1843 EIE"at"Hickam-EMH.AF.MIL? I tried email, but of course, it bounced.

73 and Aloha,

Jeff WD6CQV/KH6

3369. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-06 04:15:19 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <35994@shemp.CS.UCLA.EDU>
Source record: 11175

In article <9006032356.AA15701@ucsd.edu> TCOMGRD1@OUACCVMB.BITNET writes:
.
.
. (stuff about a particular radio station deleted)
.
.
>early) for the EBS. There were 2 carts, bright flourscent orange, marked
>something to the effect of: EBS (0:30min [30secs]) xx/xx/xx [date] Male Voice.
>"Thermonuclear Announcement". I asked what the heck they were, and was told
>that they (one male voice and one female voice) were the tapes to be played
>in event of Nuclear War. Ever curious, I asked what they said. No one knows.
>It seems only the station manager has ever heard them, and he decided that
>they are potentially too stress provoking to let anyone else hear.
>
The tapes probably say...."Duck and cover under a table....place
your head between your legs....and kiss your #@$ goodbye!!!"
:-)

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

3370. California Help Needed

Newsgroup: rec.ham-radio
Date: 1990-06-06 10:18:46 UTC
From: rockwood@kean.ucs.mun.ca
Message-ID: <93331@kean.ucs.mun.ca>
Source record: 11176

With a California trip fast approaching, and plans to be in
Sacramento, San Francisco and Los Angeles over a 3 and 1/2
week period, I hope to do some operating on 2 meters. Does
anyone have a listing of OPEN repeaters for these areas? I'm
told by some people who've been to these areas that there are
a lot of closed repeaters and that it's very difficult to find
many that are open to all users.
Also as most of my time will be spent in the Sacramento and
San Francisco areas, I plan on doing a little shopping as well.
I hope to trade in my ICOM micro 2AT on a 2SAT, and possibly
pick up a couple of other goodies (good second hand if I can
find it).
So would anyone have any recommendations on Ham Stores in
Sacramento particularly??
Please E-Mail
Thanks in advance.

Art Rockwood VO1AX

3371. Re: qsl bureau, czech is in the mail?

Newsgroup: rec.ham-radio
Date: 1990-06-06 13:07:56 UTC
From: taber...notusedbyDECnet...
Message-ID: <1698@ryn.esg.dec.com>
Source record: 11077

```
>
>> My callbook lists OL and ON as Czechoslovakia and Belgium with OM
>> allocated to the Czechs but none issued yet, so unless I hear
>> different, I will assume it is Czech.
>
>You assume correctly. I've been hearing OM calls for a few weeks now.
>

I worked OM7AN on Sunday and he gave a direct QSL address in
Czechoslovakia. He said the OM prefix was a special event thing,
but didn't say what the special event was. I've been trying to
find out, but no luck so far.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Mail address: Nahhhhh, you don't want to send me mail....
```

3372. Re: RE: EBS MESSAGES

Newsgroup: rec.ham-radio
Date: 1990-06-06 13:10:25 UTC
From: taber...notusedbyDECnet...
Message-ID: <1699@ryn.esg.dec.com>
Source record: 11078

>> Back in the late 60's? there was the famous incident I actually heard on my
>> car radio while traveling in Michigan where the a glitch occurred during on of
>> those "tests of the EBS". Apparently, some airman at Cheyenne Mountain who's
>> on the other end of the tests, played the wrong tape.

I have the honor of knowing the officer in charge of that test... what happened was that they were running a test and hooked up the input that was simulating missles coming over the pole, but someone forgot to unplug the outputs to the Early Warning System. Most of the stations on the East and West Coast ignored the war message, but middle America wet it's pants. The guy I know didn't have enough rank to get fired for the screw-up, so they fired his boss.

It's a great story -- it might even be true. You know what military stories are like...

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Mail address: Nahhhhh, you don't want to send me mail....

3373. Re: Packet radio advice

Newsgroup: rec.ham-radio
Date: 1990-06-06 13:44:35 UTC
From: joer@comm.wang.com
Message-ID: <1990Jun6.134435.28931@comm.wang.com>
Source record: 11087

brian@ucsd.Edu (Brian Kantor) writes:

>In article <266aa419-d1.1rec.ham-radio-1@vpnet.chi.il.us> ken@vpnet.chi.il.us (Ken Linder) writes:
>>I have used the MFJ 1270B TNC for a while now and find that it
>>has very few operating problems. I have heard of a few people who
>>had diodes go bad on them, but it is not the majority of the users,
>>and anyway, these were older models.... I do recomend the 1270B....
>>KA9RVK Ken Linder.....7373

>And if you install the TAPR XR2211-DCD modification, for $11, you'll be
>able to run with your radio's squelch open, which means the other guy
>can cut his TXD in half or better, which means that EVERYONE on the
>channel will enjoy increased throughput and fewer collisions.

I have been using the 1270B unmodified for two years always WITH the squelch open. In fact, I had not even heard of this mod, and have had no trouble either using plain ax.25 or KISS mode.

Joe AF2J

Joe Reinhardt, AF2J Wang Laboratories joer@comm.wang.com
508-967-3163 Lowell, MA, USA uunet!comm.wang.com!joer

3374. Re: Yaesu FT-101EE questions

Newsgroup: rec.ham-radio
Date: 1990-06-06 15:17:15 UTC
From: lrj@ishtar.cs.cornell.edu
Message-ID: <41819@cornell.UUCP>
Source record: 11079

In article <9006052049.AA26601@ti.com> dube@cpdvax.csc.ti.com writes:
>
>In lrj@helios.tn.cornell.edu Lewis R. Jansen writes
>
> >I put an Ohm meter across the mic terminals (with the mic disconnected
> >and saw ~500 ohm impedance.
>
>Impedance is a term that is associated with AC circuits. An ohm-meter is
>a DC circuit instrument. Although the term "ohms" is used as the unit of
>measurement of resistance and impedance, the two are not synonymous. An
>ohm=meter cannot measure impedance *UNLESS* you are positive that what you
>are calling impedance is a pure resistance.

The mic element had been removed from the PTT/mic assembly and the
leads had been desoldered. I put the ohm meter across the two
terminals and got the above reading. The mic element is from the
mid 1970's, and is ~3/4 inch thick and ~1 inch in diameter.
Interestingly, it's identical to the mic element in a 1976 Midland CB
radio I have (I wanted to make sure that the mic element in the Yaesu
mic wasn't bad; the Midland was known to work). There may be
something other than pure resistance in there, but I don't have the
equipment to really check for it.

>If by keying the transmitter you get a different-from-normal reading with
>NO modulation, I would doubt that the input and mike impedances would be a
>consideration. It would be better to know what the pin-outs of the mike are
>compared to what the rig's mike connector wants to see. Sounds more like
>a keying-line problem to me. I'd double check the connector wiring for the
>mike against the FT-101 schematic.

I think I stated that the readings were normal for no modulation,
but that the meters weren't reading anything signifigant when
modulation was applied.

Checking the wiring on the mic and making sure it matched what the
FT-101 wanted was the *FIRST* thing I did. Additionally, I *did* have
a local QSO with a couple people despite the meters reading no output
power (they *do* read appropriate value when tuning up into a dummy
load or doing CW). This would indicate that the mic & PTT are working
normally; for some reason the meters aren't catching it...

>Regards,
>73,
>Dube Todd N5PDK

Based on some more testing into a dummy load, and the input of a couple people on the net, I get the impression that the meters on the FT-101 and the Drake MN7 are too *SLOW* to provide accurate readings on the upper HF bands. All was working as it was supposed to be in the lower HF bands (at least to the Cantenna... :)

I'll borrow a good wattmeter (comparable to Bird) from the Cornell ARC and do some more checking tonight. Now for 10m to open up... *sigh*

Anyway thanks for the input, Dube; hope to catch you on the air sometime.

-- Lewis R. Jansen, N2KNV lrj@helios.tn.cornell.edu
LASSP/LNS Systems Manager (607) 255-6065

"You can't fight in here, this is the War Room!"

3375. time for FCC to process a license application

Newsgroup: rec.ham-radio
Date: 1990-06-06 15:36:50 UTC
From: jkf@Franz.COM
Message-ID: <9006061536.AA12961@frisky.Franz.COM>
Source record: 11085

Another data point for others waiting for the FCC:
A friend (kc6loc) just got his novice license in the mail after waiting 4
weeks and 2 days. I'm still waiting for mine.

3376. VHF/UHF/EME Dxpedition to Azores

Newsgroup: rec.ham-radio
Date: 1990-06-06 16:58:00 UTC
From: ka1gt@cbnewsm.att.com
Message-ID: <1990Jun6.165800.1752@cbnewsm.att.com>
Source record: 11089

I received a letter from F6EZV this morning. The following is a condensed version of the contents:

The F6KSX group has mounted previous Dxpeditions for 432MHz EME to C30BVA and TK4EME. This year they will be operating from CU8EME in the Azores. (Locator HM49JN). Operation will be as follows:-

July 10-17 144MHz MS/ES/Tropo 144.025MHz 17el, 1kW, 0.4dB NF
July 12-17 432MHz EME 16x21el, 1kW, 0.3dB NF
July 18-22 144MHz EME/MS/ES/Tropo 144.025MHz 4x17el, 1.2kW, 0.3dB NF
July 10-22 HF VHF net 14.345MHz for skeds

They are looking for skeds. They would like to try for the 1st EU/NA contact by other than EME (i.e. E-skip, Meteor scatter or tropo.

Contact Alain Bironneau (F6EZV), 8, imp des Perdix, 94 210 La Varenne, France

The group will be F1EHN, F6CTW, F6EZV and F6HKA

For those not familar with the Azores, they are a group of islands about 1000 miles west of Lisbon. The distance to the closest point in NA (the eastern tip of Newfoundland) is about 1500 miles. The distance to the eastern seaboard of the USA is about 2000 miles (Maine) to 3000 miles (FL).

Please pass this info on to anyone with well equiped stations, especially to anyone in Newfoundland or Nova Scotia who might have a chance for a non EME contact.

Bob Atkins KA1GT

3377. Identify old radio?

Newsgroup: rec.ham-radio
Date: 1990-06-06 17:38:00 UTC
From: MORRISTA%UCMCIC@UCBEH.SAN.UC.EDU
Message-ID: <83453C39677F20CB0D@UCBEH.SAN.UC.EDU>
Source record: 11084

University
of I N T E R O F F I C E M E M O R A N D U M
Cincinnati
Date: 06-Jun-1990 13:36 EST
From: Theodore Morris
MORRISTA
Dept: MCIC/IR&D
Tel No: 513-558-6046 (Group)

TO: Remote PMDF User (_IN%INFO-HAMS@UCSD.EDU)

Subject: Identify old radio?

My wife's great uncle is closing his home and moving into an apartment with his widowed sister; I have an opportunity to pick up a floor model Delco 3-band radio (don't know if it's currently working, but I bet the electrolytics are all shot!). Can anyone tell me anything about this from this meager discription:

DELCO R-1131, S/N 019293, "Delco Super Heterodyne Receiver," 3 bands (.55-1.610, ~1.7-~5.5, ~5.5-~18 MHz). Couldn't find a date on the S/N plaque on the back, might be one inside on the tube layout chart, but it was too dusty and we were moving other stuff that weekend, so I couldn't linger...but we're going back for a second load!

Thanks for any info.

==========
Theodore Allan Morris |231 Bethesda Avenue, ML# 574
University of Cincinnati Med. Ctr. |Cincinnati, OH 45267-0574
Med. Ctr. Information & Communications|513-558-6046 W, 731-3451 H
Information Research and Development |WB8VNV NTS, U1091 AppleLink,
==========|MORRISTA@UCMCIC.OA.UC.EDU I'net
No good deed ever goes unpunished. | - Go Bearcats! -
==========

3378. (none)

Newsgroup: rec.ham-radio
Date: 1990-06-06 17:52:03 UTC
From: TCOMGRD1@OUACCVMB.BITNET
Message-ID: <9006061754.AA09359@ucsd.edu>
Source record: 11086

Date: 6 June 1990, 13:48:19 EDT
From: TCOMGRD1 at OUACCVMB
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL at MIL

About the EBS tapes...
Thats what I was saying, I've Never heard them!!! (as the note explains). No one replied to me with what they said... so I cant tell ya either. I'm out-of-school tommrow, and am leaving... but I'll see if I cant sneak a listen this afternoon if I have time between packing and studying (Studying? Whats that!?) for finals.
If anyone DOES mail me with the actual message, I'll post it, since everyone seems to be curious...

Pete Simpson
Bitnet: TCOMGRD1@OUACCVMB.BITNET
Internet: psimpson@oucsace.cs.ohiou.edu

3379. Need pointers for literature about building satelite receivers

Newsgroup: rec.ham-radio
Date: 1990-06-06 18:08:38 UTC
From: james@roover.wrs.com
Message-ID: <1094@wrs.wrs.com>
Source record: 11080
Cross-posted to: rec.ham-radio,rec.radio.shortwave

A friend of mine is visiting from Moscow (Soviet Union, not Idaho) and would like to find literature about building and maintaining satelite receivers. They've put together one system that can pull in CNN, and they'd like to be able to get more. This is an area that I'm totally unfamiliar with, so any pointers at all would be useful. (They have limited space and limited resources, so if you know of something that talks about how to do this on a shoestring budget, so much the better.)

Thanks,

James Moore | Wind River Systems
james@wrs.com | Emeryville, California

3380. Re: WPX CW TEST

Newsgroup: rec.ham-radio
Date: 1990-06-06 18:31:56 UTC
From: sawyer@twg.com
Message-ID: <7258@gollum.twg.com>
Source record: 11081

In article <683.2661E6C2@weyr.FIDONET.ORG> katz@weyr.FIDONET.ORG (SYLVAN KATZ) writes:
>How was your WPX CW Contest? At this location things were lousy. It seemed as
>though I was in a BLACK HOLE. About 2050Z on saturday there was a complete
>blackout of everything from DC to light. For about 45 mins WWV on all
>frequencies was completely wiped out. There was not a single amateur station
>to be heard on 14/21/28. During the whole time of the contest I worked every
>european station I heard - six stations - 2 DJ's, 1 G, 2 YU's and 1 Y41. Not
>a single OK/LA/ON/OH, etc was heard. Even more dissappointing not a single JA
>was heard... Did any of the rest of you experience a similar WPX contest?
>
I knew the conditions were bad enough that I didn't even bother trying to
work this one. So I took off driving (ugh!) to Seattle to see some visiting
Russian hams I know who were visiting with the Western Washington DX Club.
It turned out that the main guy I had gone up to see--UA3ABW--had gone over
to Vancouver to work WPX as a VE7 (he could get permission to operate from
Canada, but of course in the U.S. it's not quite so simple). He went up with
KE7V, who is quite a good contester, and they did a multi-single entry. Net
for the two of them for the whole weekend was about 800 qso's. Not bad
considering the conditions, but on the grand scale of contesting that's pretty
miserable. Knowing KE7V as I do, that will probably be one of the higher
scores recorded.
AA6KX

3381. 10 GHz Weekends in FN03 country.

Newsgroup: rec.ham-radio
Date: 1990-06-06 19:44:01 UTC
From: U009@cs.cciw.ca
Message-ID: <5A06060E230500D6-MTACY830*U009@cs.cciw.ca>
Source record: 11088

There is a group of hams in the EN93/FN02/03 area who will be active
during the 10 GHz Contest weekends, August 18-19 and September 15-16.

If you are near us, drop us a line and we'll try to hook up for some
interesting travelling and QSO attempts on these weekends.
If you hear any of us on 2M SSB give us a call and we'll chat about
skeds, or drop me a line here and we'll try to coordinate something.

Look for us when the higher band activity drops at night during the
VHF contest.

73 de VE3MWM VE3SMA VE3RKS VE3WCB VE3EZP VE3LPP

3382. Re: Dual-banders

Newsgroup: rec.ham-radio
Date: 1990-06-06 21:26:59 UTC
From: jim@ghp.UUCP
Message-ID: <611@ghp.UUCP>
Source record: 11092

In article <3211@sactoh0.UUCP> jre@sactoh0.UUCP (Jim R. Earl) writes:

>The Kenwood 731 has two antenna ports.
>It is also easily modified (just clip a diode) to operate
>as a "cross-band repeater",

Which?? Any other goodies??

tnx, jim
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

3383. PRO-200[4,5] Birdies

Newsgroup: rec.ham-radio
Date: 1990-06-06 21:48:19 UTC
From: paul@hpldola.HP.COM
Message-ID: <12120037@hpldola.HP.COM>
Source record: 11098

I have a problem with birdies on my PRO-2004 and have seen this on other 2004's and 2005's but it's not listed in the birdie table.

They occur every 2MHz on the odd MHz at *.750 - that is, 453.750, 455.750 and so forth. I've checked high and low freqs and it seems to be everywhere so I guess it's getting into an internal mixer or something. Since 453.750 is a local police freqency this is a real problem.

Anyone know where this comes from and/or how to fix it? I'm not shy about minor scanner hacking.

-Paul "Spice is the Variety of Life"
paul@hpldola.hp.com N0KCL

3384. Re: TNC Simulation

Newsgroup: rec.ham-radio
Date: 1990-06-06 23:27:41 UTC
From: wwm@pmsmam.uucp
Message-ID: <1990Jun6.232741.29406@pmsmam.uucp>
Source record: 11082

>In article <12183@shlump.nac.dec.com>, pompano@deaths.dec.com (Jim Pompano) writes:
>
>> Is anyone aware of software that will emulate a TNC?
>

Actually, PE1CHL's version of the KA9Q NET program includes a full TNC-2
emulator, but it does require an 8530 board for operation.

73
--
Bill Meahan WA8TZG uunet!mailrus!umich!pmsmam!wwm
I speak only for myself - even my daughter's cat won't let me speak for her!

3385. Re: EBS Nuclear Announcement

Newsgroup: rec.ham-radio
Date: 1990-06-06 23:34:32 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <16854@ttidca.TTI.COM>
Source record: 11083

In article <1530045@hpsadpei.HP.COM> mikew@hpsadpei.HP.COM (Mike Weihman) writes:
+From: TCOMGRD1@OUACCVMB.BITNET (Pete Simpson):
+Re: EBS nuclear alert tapes...
+> Does anyone out there know what these say? If so could you email me
+> what is says, or is that illegal somehow?? WHATEVER YOU DO... Dont reply with
+> the actual message to the net!!!!!
+Why not?? Is the stuff copyrighted? Top Secret? Or is it like the
+Monty Python World's Funniest Joke, that will cause instant death to
+all listeners from overlaughter?
+Seriously, is there a good reason not to post it, or a good reason you
+should not havbe been permitted to hear the tapes in the first place?

I agree with Mike, there is NO reason why we should not be allowed to hear
what these announcements sound like. It can't be classified, the EBS system
isn't actually a part of the DoD or similar agency. I'd bet thet it's just
one of those stupid little management-policy games that these people are so
fond of playing...as if they have the wisdom to dictate anything that might
be in the best interests of the Public. Let's hear it!

-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **
(OPINIONS EXPRESSED DO NOT REFLECT THE VIEWS OF CITICORP OR IT'S MANAGEMENT!)

3386. Before the miss conception

Newsgroup: rec.ham-radio
Date: 1990-06-07 00:35:37 UTC
From: Loren_Thompson@MCTGATE.MCT.ANL.GOV
Message-ID: <9006070028.AA04973@ucsd.edu>
Source record: 11091

Before the miss conception is taken as law on field day:

Under bonus points #8 of field day rules it clearly states that for packet radio rule 7C is waived!! Rule 7C states no repeater contacts. Therefore the no repeater rule is not in effect for the packet station during field day. The same rules were in effect last year with the result being contest policemen tell you that QSO's digipeated thru them were no good so stop it.
Repeaters on other modes are not allowed, PACKET is the exception!

3387. Re: RE: EBS MESSAGES

Newsgroup: rec.ham-radio
Date: 1990-06-07 04:21:44 UTC
From: skipsand@crash.cts.com
Message-ID: <3029@crash.cts.com>
Source record: 11093

Hmm.. The story I remember from the "old days" was that a technicial at the NORAD HQ made a boo-boo, as the alert message to Radio Stations (at that time) was by TELETYPE, and there were two pre-punched tapes (remember punch-tape?) at his console, one "test", one "we're at war, let them know"... and one day, he accidentally sent the REAL war tape instead of the test, with all the right authenticators in it. As was noted before, most radio stations ignored the message (on air, anyway) (makes you real sure of the local radio stn's concern for your stress level, eh?), but a few did tell their listeners that the war was on. Supposedly, subsiquently the system was changed to avoid this happening again, thru more "human in loop" design.

3388. Re: Ford Taurus HF Mobile question

Newsgroup: rec.ham-radio
Date: 1990-06-07 11:31:43 UTC
From: eyg@hpnjld.HP.COM
Message-ID: <4140016@hpnjld.HP.COM>
Source record: 11090

I have an '89 Taurus. I haven't tried HF mobiling in it, but
I have a 2M rig in it and I've found that the car radiates a lot
of ignition noise. Does anyone have any suggestions for taming this?

- WA2SRQ

3389. Dual-banders

Newsgroup: rec.ham-radio
Date: 1990-06-07 11:32:00 UTC
From: tom@ARO-EMH1.ARMY.MIL
Message-ID: <9006071151.AA08967@ucsd.edu>
Source record: 11096

The Alinco DR-570T and the DR-590T both use a single port for VHF and UHF antenna connection. For what it's worth, I'm quite pleased with the 590T.

Tom, N9CGD

3390. Re: IRC prices

Newsgroup: rec.ham-radio
Date: 1990-06-07 11:53:01 UTC
From: dls@genrad.com
Message-ID: <37516@genrad.UUCP>
Source record: 11095

In article <1990May31.033156.12240@cbnewsk.att.com> wheatley@cbnewsk.att.com (steven.m.wheatley) writes:

>
>> I use a similar how-to-get-a-dx-QSL method, but I must be in the
>> dark about IRC's! I have been paying uncle sam $0.95 for each at
>> my local post office. How do you get them for $0.40 and where??
>>
>> Tell us about this secondary market (or e-mail direct)!
>....
>each one....they cost 95 at the post office, thus the 'secondary'
>market.

....I just asked our post office....they told me they cost 90 cents. Wouldn't they cost the same at ALL US post offices????? I'm confused....
ps, no, I've not had the occasion to use any yet....but I do have 8 of them at the moment.

->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

3391. re: EBS Recordings, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-07 12:47:24 UTC
From: judice@sulaco.enet.dec.com
Message-ID: <9006071242.AA21383@decpa.pa.dec.com>
Source record: 11094

My understanding from talking to a former radio station employee is that there are/were two classes of stations (primary and secondary - my terms).

The secondary stations, in the event of an emergency, tuned to one of the primary stations and rebroadcast it. The EBS equipment rack included tone detection, etc. and a specially packaged AM radio (not mil-spec, though, supposedly of lower quality than the cheapest auto AM radios).

Primary stations would supposedly have the tapes "telling you what to do", as well as feeds from "official sources".

I think this is why there is divergent opionion in this discussion from knowledgeable radio station people - the EBS implementation varied, depending on what kind of station it was installed in.

/ljj

3392. TMS3450

Newsgroup: rec.ham-radio
Date: 1990-06-07 14:11:07 UTC
From: mleech@bcarh342.bnr.ca
Message-ID: <1990Jun7.141107.6790@bnrgate.bnr.ca>
Source record: 11097
Cross-posted to: rec.ham-radio,sci.electronics

A couple of years ago I bought a Radio-Shack 24-hour digital clock
with a *BIG* display.
Radio-Shack stopped selling this beast, but a local discount
store is offering a remarkably similar clock that only
provides 12-hour display. It turns out that they both use
the same display, and electronics--namely the TMS3450
clock chip.
I tried to get information out of Texas Instruments on this chip,
but they steadfastly refused to acknowledge its existence.
The chips have the TI logo on them, and they use the TMS
numbering scheme characteristic of TI.
Can anybody (TI, are you listening??) give me any information on this
chip--I would like to modify the twelve-hour version of the clock
to twenty-four. I almost have it, but I need some info about the
chip.

Marcus Leech, 4Y11 Bell-Northern Research |opinions expressed
mleech@bnr.ca P.O. Box 3511, Stn. C |are my own, and not
VE3MDL@VE3JF.ON.CAN.NA Ottawa, ON, CANADA |necessarily BNRs

3393. Re: time for FCC to process a license application

Newsgroup: rec.ham-radio
Date: 1990-06-07 15:06:46 UTC
From: henryb@hpspdra.HP.COM
Message-ID: <12280007@hpspdra.HP.COM>
Source record: 11111

> Another data point for others waiting for the FCC:
And another data point for others waiting for the FCC:

My recent advanced class license took seven weeks, this was a
first (US) license, not an upgrade.

Henry Black KK6JR, G4NOC +1 415 857 6655 KK6JR @ WW6L.#NOCAL.CA.USA.NA

3394. Re: Field Day rules in re "packet QSO"

Newsgroup: rec.ham-radio
Date: 1990-06-07 15:26:49 UTC
From: tad@ssc.UUCP
Message-ID: <813@ssc.UUCP>
Source record: 11115

In article <9006041551.AA24213@ti.com>, rlwest@flopn2.csc.ti.com (Bob West, WA8YCD) writes:
>
> Unless the rules have changed from last year, NO, BBS and DIGIPEATER
> contacts DO NOT COUNT. Only direct connects.

While the FD rules don't allow voice repeater QSOs, they specifically allow DIGIPEATED QSOs. I assume that this includes THEnet and Net/ROM repeated contacts.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3395. QSL Basics

Newsgroup: rec.ham-radio
Date: 1990-06-07 15:45:55 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9006071545.AA17103@ucsd.edu>
Source record: 11099

We've been discussing this topic like we all know what we're talking about, but I know that's not true in my case... :-)

Anyway, how about some basic info? I know what a QSL card is, and understand hams exchanging them directly. But when we get into the infrastructure of all these extensions and enhancements that have been build up around this simple exchange, I really don't understand what the details are.

Just who is a "QSL Manager"? Who takes on such a job and why? Are they "appointed" by a foreign ham, and are there people clamoring to get these positions, or are they people who volunteer to experience drudgery and annoyance for the sake of a foreign ham who is a personal friend, or what? Is the usual thing that one person is a "QSL Manager" for many foreign hams, or is this a one-to-one thing normally? Are there "QSL Managers" outside the US, or is this something that is US-unique?

What is a "bureau"? Who runs it/them, and why? Does each country have one? Do they have any "official" status, like being registered with that country's FCC-equivalent?

When did this stuff start? Any history notes or comments?

Post responses, don't mail them; this should be of interest to all the people out there who post "how can I become a ham?" or similar new-guy type queries.

[Someone writing a comprehensive reply to this would have more than half the work done on the QSL article for CQ magazine that I mentioned in a posting a week or so ago... Hint, hint, nudge, nudge... :-)]

Regards, Will

3396. Re: specific 73 magazines needed--HELP!!

Newsgroup: rec.ham-radio
Date: 1990-06-07 16:51:26 UTC
From: genem@hpindda.HP.COM
Message-ID: <5120010@hpindda.HP.COM>
Source record: 11117

/ hpindda:rec.ham-radio / Justin_Randall_Padawer@cup.portal.com / 9:35 pm Jun 4, 1990 /
> I desperately need these four 73 magazines. I would be willing to
> photocopy what I need and return them at my expense, reimbursing
> any postal costs. Will someone please help me? Please email.
> The four needed 73 mags (ALL 1989, last year)... April, June, Aug., Nov.
> Thanks.
> Internet: Justin_Randall_Padawer@cup.portal.com

I will double check tonight, but am sure I must have these. Let me know
if you still need them. I don't want to pack them all up if you will already
be getting them from somewhere.

73 es ttul,
Gene - AA6IY
San Jose, CA

3397. Re: EBS Recordings, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-07 17:13:07 UTC
From: john@anasaz.UUCP
Message-ID: <2390@anasaz.UUCP>
Source record: 11108

In article <9006071242.AA21383@decpa.pa.dec.com> judice@sulaco.enet.dec.com ("Louis J. Judice") writes:
]
]The secondary stations, in the event of an emergency, tuned to one of the
]primary stations and rebroadcast it. The EBS equipment rack included
]tone detection, etc. and a specially packaged AM radio (not mil-spec, though,
]supposedly of lower quality than the cheapest auto AM radios).
]
]Primary stations would supposedly have the tapes "telling you what to do",
]as well as feeds from "official sources".

I worked at a secondary station (KANU-FM, Lawrence, Ks) in the late '60s.
We had the sealed envelopes and the authenticators. Our EBS warning was
given by detecting a carrier drop from a primary station. This would
cause our EBS receiver (an ordinary radio, that was rack mounted) to
go off. We had no standard method for rebroadcasting the primary.
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3398. Re: QSL Basics

Newsgroup: rec.ham-radio
Date: 1990-06-07 17:14:11 UTC
From: perley@galaxy
Message-ID: <8296@crdgw1.crd.ge.com>
Source record: 11101

In article <9006071545.AA17103@ucsd.edu>, wmartin@STL-06SIMA (Will Martin) writes:
>We've been discussing this topic like we all know what we're talking about,
>but I know that's not true in my case... :-)

>What is a "bureau"? Who runs it/them, and why? Does each country have
>one? Do they have any "official" status, like being registered with that
>country's FCC-equivalent?

Bureaus are set up to reduce postage costs for overseas QSL's. From looking
in the call book, most of them are run by some radio club; most likely
that countries equivalent of ARRL (who runs the US bureau). The idea
is that if you do a lot of DX, you can send a bunch of cards at once
with some money to ARRL. They put all the cards for Lower Slobovia
in one package and send it off. The Slobovian bureau then puts all the
cards for an individual ham into his SASE (or however they arrange it)
and send it to him. It is much cheaper to ship a box of cards by the
pound then to put a stamp on each one and mail it.

You have to be a member of ARRL to use their service for outgoing cards.
If you aren't in the ARRL, you should be able to mail direct to a foreign
bureau. The addresses are in the foreign callbook.

This is a bit more than I knew when I posted my question about bureaus.
The big thing I still need is the details of assuring that the return card
gets to me from ARRL. Where do I send my SASE or do they want money, etc?

don perley ke2tp

perley@trub.crd.ge.com

3399. Re: PRO-200[4,5] Birdies

Newsgroup: rec.ham-radio
Date: 1990-06-07 17:16:37 UTC
From: john@anasaz.UUCP
Message-ID: <2391@anasaz.UUCP>
Source record: 11109

In article <12120037@hpldola.HP.COM> paul@hpldola.HP.COM (Paul Bame) writes:
]
]I have a problem with birdies on my PRO-2004 and have seen this on other
]2004's and 2005's but it's not listed in the birdie table.
]
]They occur every 2MHz on the odd MHz at *.750 - that is, 453.750, 455.750
]and so forth. I've checked high and low freqs and it seems to be everywhere
]so I guess it's getting into an internal mixer or something. Since 453.750
]is a local police freqency this is a real problem.
]
]Anyone know where this comes from and/or how to fix it? I'm not shy about
]minor scanner hacking.
]
I can tell you where it comes from, but not how to fix it. You have
a strong signal coming in from a UHF station (I think channel 21). This
signal mixes with the 2nd LO. When the second LO is tuned to *.750,
the mix gets into the 2nd IF.

From memory, the frequencies involved are:
1st IF 610-612 MHz (or was it 608-610). LO about 75 MHz lower.
TV station 75 MHz lower than that (you are hearing the audio subcarrier
of the TV which is always at a *.750 frequency).

I have the same problem, and am locate 15 miles from the UHF station.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {asuvax,mcdphx}!anasaz!john john@anasaz.UUCP
Voice: (602) 951-9326 (day or eve) FAX:602-861-7642 Advice: Long palladium,
USnail: 7525 Clearwater Pkwy, Scottsdale, AZ 85253 ......: Short petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3400. RE: Before the miss conception

Newsgroup: rec.ham-radio
Date: 1990-06-07 17:21:06 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006071840.AA15854@ti.com>
Source record: 11105

> Subj: Before the miss conception
>
> Before the miss conception is taken as law on field day:
>
> Under bonus points #8 of field day rules it clearly states that for packet
> radio rule 7C is waived!! Rule 7C states no repeater contacts. Therefore the
> no repeater rule is not in effect for the packet station during field day. The
> same rules were in effect last year with the result being contest policemen
> tell you that QSO's digipeated thru them were no good so stop it.
> Repeaters on other modes are not allowed, PACKET is the exception!
>

Thanks for the clarification; I guess I fell victim to the "contest policemen"
<shouldn't that be police-persons? :-) > without following up on my own.

I guess that's a lesson to be learned. Whenever someone tells you what "th
facts" are, you should check it out anyway... no "sole sourcing"!

73 es GL in the contest! QRZ FD <stop that! it ain't time yet! :-) >

=== * * * === === * * * === === * * * === === * * * ===
73, de !
Bob West WA8YCD ! "In order to accomplish the
RLWEST@FLOPN2.CSC.TI.COM ! impossible, you must attempt
! the absurd!"
P. O. Box 863069 ! -- Miguel de Animo y Jugo
Plano Texas 75086 !
(214) 995-1908 !
=== * * * === === * * * === === * * * === === * * * ===

3401. CB in GB

Newsgroup: rec.ham-radio
Date: 1990-06-07 17:28:50 UTC
From: jim@foobar.hf.intel.com
Message-ID: <418@foobar.hf.intel.com>
Source record: 11112

I have obtained an FM CB radio at recent hamfest. It covers 26-28 Mhz
in 40 channel steps, is powered by 240v. 50hz, and outputs about 4 watts
of frequency modulated carrier. I intend to convert it to cover frequencies
on or around 29.6 Mhz. It uses the Motorola MC145106 PLL chip.
The seller said it was a CB radio from England. Is this correct? Besides
the wider band coverage, the FM aspect intrigues me. I wish it was this
way in the U.S. Instead of all the heterodynes, imagine how peaceful a
"silent pileup" might be.

--
Jim Garver Intel Corp. <tektronix!psueea | uunet!littlei>!foobar!jim
WA7LDV Hillsboro, Oregon jim@foobar<.hf.intel.com|.uucp>

3402. HSOA QSL route

Newsgroup: rec.ham-radio
Date: 1990-06-07 18:20:00 UTC
From: stan@service.West.Sun.COM
Message-ID: <835@west.West.Sun.COM>
Source record: 11102

Can anyone help with a QSL route for HS0A, the contact was in Oct 88. I have tried the 'burro' with no luck. Got a note back from HS0AC saying that he didn't have logs for '88.

Stan KB6RQZ

3403. Re: California Help Needed

Newsgroup: rec.ham-radio
Date: 1990-06-07 18:47:50 UTC
From: winter@Apple.COM
Message-ID: <41714@apple.Apple.COM>
Source record: 11103

In article <93331@kean.ucs.mun.ca> rockwood@kean.ucs.mun.ca writes:
>With a California trip fast approaching, and plans to be in
>Sacramento, San Francisco and Los Angeles over a 3 and 1/2
>week period, I hope to do some operating on 2 meters. Does
>anyone have a listing of OPEN repeaters for these areas?

There are hundreds and hundreds of them. I'd suggest you get an
ARRL Repeater Directory. If you can't buy one in your area, try to
get to a ham store as soon as you get to California.

>I'm told by some people who've been to these areas that there are
>a lot of closed repeaters and that it's very difficult to find
>many that are open to all users.

This isn't true on 2m here in Northern California! There are very few
closed 2m repeaters. And most of the "closed" 440 MHz systems only use
tone access because of intermod problems, not because of a desire to
exclude people. They mostly use a 100Hz tone.

>Also as most of my time will be spent in the Sacramento and
>San Francisco areas, I plan on doing a little shopping as well.
>I hope to trade in my ICOM micro 2AT on a 2SAT, and possibly
>pick up a couple of other goodies (good second hand if I can
>find it).
>So would anyone have any recommendations on Ham Stores in
>Sacramento particularly??

I'll leave the Sacramento answer to the folks over there, but here
in the Bay Area, you can try the Ham Radio Outlet stores in Alameda
and Burlingame and Quement Electronics in San Jose.

73,
Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3404. Re: QSL Basics

Newsgroup: rec.ham-radio
Date: 1990-06-07 18:55:46 UTC
From: winter@Apple.COM
Message-ID: <41716@apple.Apple.COM>
Source record: 11104

In article <9006071545.AA17103@ucsd.edu> wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
>Anyway, how about some basic info? I know what a QSL card is, and understand
>hams exchanging them directly. But when we get into the infrastructure of
>all these extensions and enhancements that have been build up around this
>simple exchange, I really don't understand what the details are.

The following two articles should answer most questions about
QSLing procedures:

Bill's Basics: Postal Rates, QSL Cards, and DX QSL Bureaus
_CQ_, September 1988

Novice Notes: Paper Tiger (With some basic information,
QSLing can be easy and fun)
QST, February 1989

>[Someone writing a comprehensive reply to this would have more than half the
>work done on the QSL article for CQ magazine that I mentioned in a posting
>a week or so ago... Hint, hint, nudge, nudge... :-)]

Not sure which article this refers to, but the one by Bill Welsh that I
just mentioned is rerun occasionally.

73,
Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3405. Re Battery packs

Newsgroup: rec.ham-radio
Date: 1990-06-07 18:56:24 UTC
From: Joel_Rossbach.HENR801c@XEROX.COM
Message-ID: <900607-120840-1696@Xerox>
Source record: 11106

Greetings,

I recently purchased a Yeasu FT 470, along with various accessories, at the Rochester, NY Hamfest. This HT was purchased, primarily, for my wife's use. We are quite impressed with the quality, features, and price.

Anyhow, about the battery pack, I have not had occasion to attempt to open the NiCad packs, as they are brand new. We have a pair of FNB-17 packs which may not be constructed similarly to the FNB-12. However, the FBA-17 Alkaline Cell Pack appears to be of the same external construction as the FNB-17 NiCad packs. I would expect that they probably open in the same general manner. The NiCad packs may be cemented together, but that may be a minor complication.

The FBA-17 is opened by gently prying up the tab between the rails on top of the pack then seperating the two halves from the top. There is an interlocking hinge at the bottom of the pack. Reassembly consists of mating the interlocking parts at the bottom and swinging the two halves back together until the top latch snaps.

I suspect that the FNB-17 could be opened in the same manner. There is a label between the top rails which covers what appears to be the same sort of locking tab as on the FBA-17. The FNB-17 may be cemented, hopefully not ultrasonically welded, together. If they are, a thin XActo knife may be usefull to gently seperate the seam, but be careful not to destroy the interlocking hinge at the bottom.

Hope the wordy information helps. I would recommend that the entior battery insert be replaced with one from a reputable supplier. The replacement of individual cells may appear to be financially prudent in the short term, but will probably result in the necessity to reenter the pack numerous times as the other cells die and the capacity will not be as great as with a new set of matched cells. Enough rambling!

Good Luck, 73,
Joel, N2EZV

3406. Special Event: WIARC 50th anniversary

Newsgroup: rec.ham-radio
Date: 1990-06-07 20:10:22 UTC
From: dwg@bpdsun1.uucp
Message-ID: <1990Jun7.201022.4898@bpdsun1.uucp>
Source record: 11100

Announcement for Quincy, IL, and sister city Herford, West Germany,
special event between June 25 and July 1:

To celebrate Quincy German Festival Days and the 50th anniversary of
the Western Illinois Amateur Radio Club, members of the WIARC and the
Herford ARC will operate club stations W9AWE and DK0HF (respectively)
as well as their individual stations, June 25 through July 1. SSB
operation will be on all bands 15 kHz above the bottom of the General
class segment and the bottom of the 10 m Novice segment. CW will be 35
kHz above the bottom of the CW segment. Emphasis will be on the 20,
15, and 10 meter bands when these bands are open into Germany. For a
certificate, QSL with a #10 SASE to WIARC, Box 3132, Quincy, IL 62301.
A special sister city endorsement will be added to certificates for
stations contacting both a Quincy and a Herford station.

--
David (WB9VGB)
quintro!bpdsun1!dwg@lll-winken.llnl.gov
uunet!tiamat!quintro!bpdsun1!dwg

3407. USAF MARS

Newsgroup: rec.ham-radio
Date: 1990-06-07 20:13:47 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9006072016.AA03271@uunet.uu.net>
Source record: 11107

I N T E R O F F I C E M E M O R A N D U M

Date: 7-Jun-1990 10:11am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS%UCSD.EDU@UUNET.UU.NET)
TO: Remote Addressee (_INFOHAMS@UCSD.EDU)

Subject: USAF MARS

I couldn't get this to go thru on e-mail, so I'll post it, besides,
someone else might be interested....

For N5LTL and N5NFQ:

USAF MARS Contact for Texas:

Edward P. Jones, AFF4TX
5638 Mona Lane
Dallas, TX 75236-1720

73, and thanks for your interest in the USAF MARS program,

Jeff Miller, WD6CQV/KH6 | "Just because I'm a Californian,
USAF MARS: AFA8JM | it doesn't mean I'm not an
Chief, Engineering Workload Control | American!"
1843 EIG/EIP | -- Agnes DiPesto,
Wheeler AFB, HI 96854-6348 | "Moonlighting"
Commercial: (808) 656-1226 |
AUTOVON: (315) 456-1226 |

Opinions? Me? On government time? Ya gotta be kidding!

USAF MARS: Providing the Reins of Command -- In an Emergency

3408. Undocumented features in handhelds? WAS: ICOM IC24/AT...

Newsgroup: rec.ham-radio
Date: 1990-06-07 20:27:27 UTC
From: jsm1@dukee.egr.duke.edu
Message-ID: <932@cameron.egr.duke.edu>
Source record: 11113

From article <1335@necis.UUCP>, by rbono@necis.UUCP (NM1D):
>
> Here is some of the "interesting" information. The so-called "modification"
> to enable the wide range RECEIVE ONLY frequency converage did NOT require
> any hardware changes to the unit.... (a FEW early units did require a diode
> to be removed)... simply hold down a few buttons when turning on the unit and
> keep them held until the unit is done with it's self test (Light-B-#).
>

Well, to be adventuresome, I tried the "light-B-#" on my IC-2SAT.
I didn't get wide-range receive coverage, but I did get ALL the
LCD segments to turn on right after I powered the rig up.
None of the other key combinations that NM1D noted seemed to have
any effect.

So, are the digital processors the same? Can these "software"
changes be applied to other Icom handhelds? Has anyone found
useful key combinations?

Scott
Scott McCalmont - N4YRP (919) 660-5244
Department of Electrical Engineering jsm1@dukee.egr.duke.edu
Duke University, Durham, NC 27706 ...mcnc!dukee!jsm1

3409. Re: TMS3450

Newsgroup: rec.ham-radio
Date: 1990-06-07 21:00:12 UTC
From: ken@swbatl.sbc.com
Message-ID: <1569@swbatl.sbc.com>
Source record: 11110
Cross-posted to: rec.ham-radio,sci.electronics

In article <1990Jun7.141107.6790@bnrgate.bnr.ca> mleech@bcarh342.bnr.ca (Marcus Leech) writes:
>
>A couple of years ago I bought a Radio-Shack 24-hour digital clock
> with a *BIG* display.
>Radio-Shack stopped selling this beast, but a local discount
> store is offering a remarkably similar clock that only
> provides 12-hour display. It turns out that they both use
> the same display, and electronics--namely the TMS3450
> clock chip.
>I tried to get information out of Texas Instruments on this chip,
> but they steadfastly refused to acknowledge its existence.
> The chips have the TI logo on them, and they use the TMS
> numbering scheme characteristic of TI.
>Can anybody (TI, are you listening??) give me any information on this
> chip--I would like to modify the twelve-hour version of the clock
> to twenty-four. I almost have it, but I need some info about the
> chip.
>-----------------
>Marcus Leech, 4Y11 Bell-Northern Research |opinions expressed
>mleech@bnr.ca P.O. Box 3511, Stn. C |are my own, and not
>VE3MDL@VE3JF.ON.CAN.NA Ottawa, ON, CANADA |necessarily BNRs

Here's a brief note about converting those 12 H LED clocks to 24 H. I was going to buy a Radio Shack 24Hr clock untill I noticed a local discount store had the exact same clock (less the 24/12Hr switch) for about $5. It didn't take too long to figure out the little solder pads for the options (12/24Hr and 50/60 Hz). Lo and behold, when I turned it on I discovered that the LED display had only enough segments for 18:88. They actually left the other led's off the display module! It does still work, though.

Ken -WB0QNA-

3410. Re: CB in GB

Newsgroup: rec.ham-radio
Date: 1990-06-07 21:37:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500566@ux1.cso.uiuc.edu>
Source record: 11116

> I have obtained an FM CB radio at recent hamfest. It covers 26-28 Mhz
> in 40 channel steps, is powered by 240v. 50hz, and outputs about 4 watts
> of frequency modulated carrier. I intend to convert it to cover frequencies
> on or around 29.6 Mhz. It uses the Motorola MC145106 PLL chip.
> The seller said it was a CB radio from England. Is this correct? Besides
> the wider band coverage, the FM aspect intrigues me. I wish it was this
> way in the U.S. Instead of all the heterodynes, imagine how peaceful a
> "silent pileup" might be.

As FM gets narrower and narrower, the stronger station has to be stronger
and stronger to capture the receiver. At some point it cannot be done.
While FM with the deviation we use is certainly better than AM, it also
comes from a tradeoff of bandwidth.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3411. 24 hour clocks

Newsgroup: rec.ham-radio
Date: 1990-06-07 22:26:20 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990Jun7.222620.27929@ecn.purdue.edu>
Source record: 11114

>>From: mleech@bcarh342.bnr.ca (Marcus Leech)
>A couple of years ago I bought a Radio-Shack 24-hour digital clock
>with a *BIG* display.
>Radio-Shack stopped selling this beast, but a local discount

It might interest you to know that radio shack DOES still have such a clock available - the model number is 63-805B. It has switch selectable 24 time, a battery backup (it is 110volt powered), and 1.8" red LED's. I know - I just bought one today. Cost was very reasonable, about $22.

This is not just an old one either, because the manual in the box has a 1989 date on it. I suggest that you go back to your local shack and holler....although I don't know if Canadian shacks sell different stuff. I think you said you were from Canada, right? If so, perhaps a trip across the border would be well advised.

Duane WB9OMC

3412. Re: 2M antenna ideas for Dodge caravan wanted

Newsgroup: rec.ham-radio
Date: 1990-06-07 23:51:19 UTC
From: bmp@hp-ptp.HP.COM
Message-ID: <2700010@hp-ptp.HP.COM>
Source record: 11122

I have a low door and have two glass mounts on the back window of
my Subaru wagon. The 2M element is mounted at the bottom of the back
window, which is slanted, so the element stands away from the glass,
completely vertical. The Larsen whips are pretty flexible and take
a lot of abuse. SWR is less than 2:1 although the 2 whips affect
each other. I regulary hear the tips of the whip scraping on
my garage door as I drive under it. I get about a year life
out of the whip, although I haven't worn one out yet, just
done something stupid instead.
Brian Perkin
N6RSW

3413. Phone line low voltage and poor audio problem

Newsgroup: rec.ham-radio
Date: 1990-06-08 04:36:03 UTC
From: mikey@pnet01.cts.com
Message-ID: <3043@crash.cts.com>
Source record: 11119

I been going around and around with Pacific Telephone with a nebulous "low audio level" problem and have'nt got it fixed yet in 3 attempts over the last few months.

I have a repeater autopatch and personal phone lines comming into my residence. Both lines are sitting at 17-22 volts on-hook and 4.4-4.6 volts off-hook using a Western Electric model 2500D telephone set (standard TT desk phone). My understanding of the phone system is limitted but I would expect to have 45-51 volts at the service block. I called the 611 repair to complain about this low audio problem. The rep called back and told me that I have a short on my inside wiring. So I removed the modular plug from the service block (this removes the inside wiring form the incomming service line) and took my 2500D set outside to the service block and made the following measurements:

line 1: off-hook 4.33 volts @ 23.7 mA = .1026 watts

line 2: off-hook 4.28 volts @ 23.9 mA = .1023 watts

I checked the on-hook voltage at a neighbors residence and it was 46.3 volts. I called a friend in a distant community and he had 51.2 volts/51.5 volts and 10.6 volts/10.6 volts on his 2 lines on-hook/off-hook. These 3 lines appear to be normal.

The service rep response to this voltage comparison was that "the company doesn't gaurantee the line voltage. I said that some of my jap track phones (line powered) won't dial and decode properly on my lines but work fine at other residences. She said that she would have a tech respond but that it would cost $35 min if the fault were mine. I said that the situation was unacceptable and send 'em out.

Well, a few hours later, my wife gets a call from a different person saying that the problem was a faultly splice. That everything was fine now. No one ever came to our house. As I had left for work, I heard about this later. I rechecked the 2 lines again, both were still at 22 volts. It appears that the bad splice (singular) had no effect and the audio on both lines is still poor.

The (unknown) rep called the following day and left a msg on the recorder asking if our phone was OK now. Did'nt leave a name/number. So problem is not resolved.

Any thoughts or hints on how to prod a big baby bell into some real service?

****
Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
PO Box 460 ARPA: crash!pnet03!mikey@nosc.mil
Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet03!mikey

****

3414. My own funky call

Newsgroup: rec.ham-radio
Date: 1990-06-08 05:35:28 UTC
From: richard@hpfcdc.HP.COM
Message-ID: <7880150@hpfcdc.HP.COM>
Source record: 11118

Hello all,
I had this feeling that today would be the day, so I ran home at lunch
and, sure enough, my new Tech ticket was in the mailbox. Back at work, I
showed my boss (not a ham but a comic) and he stared at it awhile and said,

"Oh, no lazier than you, huh?"

My new call is N0LZR

I guess someone will soon be a N0MAD (nomad)

Richard Artz / N0LZR (formerlly KB0GMO/KT) / richard@hpfcww.fc.hp.com
Hewlett-Packard / MS11 / 3404 E. Harmony Road / Fort Collins, CO 80525-9599

3415. California Help Needed....Thanks!!

Newsgroup: rec.ham-radio
Date: 1990-06-08 09:48:54 UTC
From: rockwood@kean.ucs.mun.ca
Message-ID: <93998@kean.ucs.mun.ca>
Source record: 11120

To all who took the time to reply to my request for information
on repeaters Northern Cal., a million thanks. I was swamped with
replys on repeaters, and advice on Ham Radio Stores in the
area. There was a lot of advice and information given which
seemed to be common to almost all who replied.
The one thing I will miss while I'm in California in the
monthly flea market. I'll be in L-A at that time. However, on
the other side of the coin I will be in the Disneyland area
during their special On-Air event commemorating the 35th
anniversary.
Again many tnx for the info, and C U on 2 in June and July.
73,
Art VO1AX

3416. Re: IRC prices

Newsgroup: rec.ham-radio
Date: 1990-06-08 13:16:39 UTC
From: zslf0a@gpss5
Message-ID: <1702@apctrc.UUCP>
Source record: 11121

In article <37516@genrad.UUCP> dls@genrad.UUCP (Diana L. Syriac) writes:
>
>....I just asked our post office....they told me they cost 90 cents. Wouldn't
>they cost the same at ALL US post offices????? I'm confused....

Well, they're 95 cents here in Tulsa, so maybe its really your post office that is confused. Unfortunately, an airmail reply from most countries takes 2, 3 or even 4 irc's. There is a table in the Callbook with this information. Since a greenstamp appears to be convertible to first class airmail postage *almost* everywhere, that's what I use. In some countries though, its illegal for the residents to have foreign currency. To be on the safe side, I check the 'Greenstamp Guide' published by DX QSL Associates first. It lists countries where greenstamps are ok. DX QSL Associates also sells 'European' airmail envelopes and foreign stamps. The prices seem a little high, but you don't need a big supply of either. I've been having very good returns on Soviet QSL's using the appropriate stamps, with some cards coming in only 30 days after the QSO. I don't stock up on stamps though - postal rates change more often in some parts of the world. I recently received a card from Cyprus and the op had added stamps beside mine. Fortunately, I had included a 'cheap' irc as well - I *really* needed a 5B card ;-) Rarely, a country is is not listed in either the Callbook irc table or the 'guide' (9Y Trinidad comes to mind). In that case, I stick to ircs.

73's - Steve WA5RPF

3417. Yaesu Model Number Needed

Newsgroup: rec.ham-radio
Date: 1990-06-08 14:19:26 UTC
From: abc@adm.BRL.MIL
Message-ID: <23576@adm.BRL.MIL>
Source record: 11124
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

Please, does someone have the model number for the mobile charger/power suply for the Yaesu FT-208/R, 2 Meter handheld transceiver? Mine was stolen from last week. I am trying to locate another one and don't even know what to ask for.

Incidentally, if you have one which you'd like to sell, please contact me.

Thanks

_Brint Cooper
K3IIS
<abc@brl.mil>
301-879-8927

--
_Brinton Cooper BRL - Where "Research" is our Middle Name.

3418. RECEIVER

Newsgroup: rec.ham-radio
Date: 1990-06-08 15:43:00 UTC
From: greg.trice@canremote.uucp
Message-ID: <79e293caa7ff266fe3a4@canremote.uucp>
Source record: 11123

I'm looking for a receiver with the following specs. If they seem a
little unusual, it's because it's not for communication, but rather used
in connection with magnetic resonance experiments.
Frequency coverage 100-1000MHz (continuous, not channelized)
Bandwidth adjustable from 500Hz to 50kHz (can be in steps)
Must have bfo (signals are akin to cw transmissions)
Sensitivity of 0.5uV
Ability to withstand 1000V pulses on input without blocking or damage.
The receiver will operate in an environment of very high EMI including
huge pulsed magnetic fields.
If nothing like this exists on the market I will design and build one,
but I'd prefer to buy.

3419. Teletype Station at 14.024 MHz

Newsgroup: rec.ham-radio
Date: 1990-06-08 16:34:42 UTC
From: katz@weyr.FIDONET.ORG
Message-ID: <693.266FE89F@weyr.FIDONET.ORG>
Source record: 11125

[NOTE: Message modified, SYLVAN KATZ, 08 Jun 90 10:35:14]
Does anyone know if the teletype station that has been continuously transmitting at 14.024 MHz is a commercial station. From this QTH the signal seems to come from over the pole (beam heading a little west of north). I can hear the transmission 24 hours a day and the signal is S9 at this location even when there are no openings to europe. My QTH is about 250 miles north of the North Dakota/Canada border.

--
Sylvan Katz Ham: VE5ZX
203 Ball Crescent UUCP: alberta!dvinci!weyr!katz
Saskatoon, Sask Internet: katz@weyr.FIDONET.ORG
Canada S7K 6E1 Ham bands: below 14.025/21.025/28.025 @ 0100-0300Z
(306) 934-3168

3420. tm 731 mods

Newsgroup: rec.ham-radio
Date: 1990-06-08 17:06:26 UTC
From: mark@HAMSTER.BUSINESS.UWO.CA
Message-ID: <9006081606.AA20745@ria.ccs.uwo.ca>
Source record: 11126

==

Someone requested TM731 info....

>Date: 16 Sep 89 11:26
>Message-ID: <7602@VE3WZL>
>From: VE3WZL@VE3WZL
>To: ALL@VE3GYQ
Subject: TM-731A RPTR & OUT-OF-BAND MODS
Path: N8HTG!VE3WZL

Thanks to the efforts of our local technical wizard, Bob VE3GVD, we now have the secret to making the new Kenwood TM-731A do the same fancy tricks that its sister rig the TM-721A did. Here is how it's done:

1) Remove the top and bottom covers, and take out the screws that will allow the front panel assembly to swing down.

2) With the rigs front facing you and the top side up, locate R 121 and R 125 which are both immediately to the left of the lithium battery.

3) Using a low wattage iron and tweezers, remove R 121 which is about the seven o'clock position with respect to the battery and reinstall it in the blank position designated for R 125 which is about the eight-thirty position with respect to the battery.

4) Now locate R 25 on the back of the circuit board that is attached vertically to the main chassis. (It's the board behind the front panel when the panel is folded up) Carefully un-solder and lift off the grounded end.

That completes the mod. Having a service manual, or at least a board layout will assist you in locating the components. It will be neccessary to do a reset on the microprocessor as described in the user manual after doing the mods described.

For those curious as to what does what, removing R 121 enables the repeater cross-band function, and the adding of R 125/removal of R 25 enables the out-of-band features.

73, Weazle, VE3EAR @ VE3WZL.ON.CAN.NA

=-=
Mark Bramwell, VE3PZR Located in sunny London, Ontario

Internet: mark@hamster.business.uwo.ca IP Address: 129.100.22.100
Packet: VE3PZR @ VE3GYQ UWO Phone: (519) 661-3714

3421. Re: Packet radio advice

Newsgroup: rec.ham-radio
Date: 1990-06-08 19:13:57 UTC
From: dana@lando.la.locus.com
Message-ID: <10449@oolong.la.locus.com>
Source record: 11028

In article <1990Jun6.134435.28931@comm.wang.com> joer@comm.wang.com (Joe Reinhardt) writes:
>brian@ucsd.Edu (Brian Kantor) writes:
>>And if you install the TAPR XR2211-DCD modification, for $11, you'll be
>>able to run with your radio's squelch open, which means the other guy
>>can cut his TXD in half or better, which means that EVERYONE on the
>>channel will enjoy increased throughput and fewer collisions.
>
>I have been using the 1270B unmodified for two years always WITH the
>squelch open. In fact, I had not even heard of this mod, and have had no
>trouble either using plain ax.25 or KISS mode.
>

I've breadboarded both the 2211 and 7910 modems. Well, well, the things you can get away with :-). The XR-2211 Carrier Detect circuit is pretty good. Essentially, it is "true" (1) when the PLL has locked onto a signal. If you use a large enough filter capacitor (Cd in the Exar app notes) the Carrier Detect will work pretty well, with a few notes:

1. It will trigger on any kind of coherent signal in the PLL lock range. A steady tone will trigger it (my TR-2600A HT makes a beep when you push a keypad button... this triggers it). This is essentially OK. I don't think the TAPR mod will affect this behavior.

2. A signal may fade briefly. This may cause CD to drop, and the otherwise good packet may be dropped. This will be more of a problem on HF. The problem is worse when running with persistance (like in KISS mode). If the TNC wants to transmit and is deferring to an active channel, the chance of him transmitting during other traffic is increased. The TAPR mod is said to improve this considerably.

The Am7910 is not as good. The CD output on that chip seems to be most sensitive to signal amplitude. Turn your squelch off, and DCD will always be on when the volume is at a good level for data. This keeps your TNC really busy receiving and throwing away bogus packets. Furthermore, the TNC may defer to an empty channel. Ughh.

I've ordered the State Machine DCD upgrade for my PK-88... this is supposed to trigger on actual valid looking data. This is probably the optimum for VHF use.

****
* Dana H. Myers KK6JQ | Views expressed here are *
* (213) 337-5136 (ex WA6ZGB) | mine and do not necessarily *
* dana@locus.com | reflect those of my employer *
****

3422. Re: Ham Tricks

Newsgroup: rec.ham-radio
Date: 1990-06-08 20:58:39 UTC
From: mdbomber@portia.Stanford.EDU
Message-ID: <1990Jun8.205839.8893@portia.Stanford.EDU>
Source record: 11029

In article <9006052251.AA14005@ucsd.edu> lwrclmr@SACEMNET.AF.MIL ("LWRCLMR") writes:
>REF ham radio and radar detectors
> [great story]
>Unfortunately most two-meter rigs don't set off the new detectors today, but
>J.C. Whitney advertises a radar gun that should do the job nicely, no license
>required!
>
>73

I love this stuff. One of my friends at home and I have done a little of this ourselves. He has a radar gun, and when the thought crosses our mind, we pull it out and play with it. The funnest thing was as you said setting off peoples' detectors. My friend, who is a commuter student there and therefore spends his life on the freeway has done this a lot more than I have. I've only seen it work one. Just not that many people have detectors.

This is one of the funniest things he's done. He saw some new slick looking car in the next lane going by, and noticed a curly wire coming down from one of it's sunvisors. Radar detector! He immediately got out the radar gun and took aim. The first thing to do is to switch it on and watch a row of LED's suddenly light up <zzzzzip!> The next thing he did was, using the "trigger switch" he switched the transmitter on and off repeatedly. The driver looked at the detector funny, adjusted knobs, smacked the thing around a little, etc and no doubt turned it off soon thereafter. Beautiful.

He got the thing mail order somewhere. It is a late model thing, that can measure speeds of other cars, even while the car it's in is moving. One guy he knows in AFROTC who he showed it to is in Explorers police division. He took a look at the thing and said, "You know, you have better equipment than the cops do?"

What is this source you mention? Also what are the deals with licensing with them? X band is just outside one of the microwave ham bands. We've never really worried about it. The most credible thing I've heard as a requirement is a Restricted Radiotelephone Operator's Permit, which we both have anyway.

--
Internet: mdbomber@portia.stanford.edu Matt Bartley
Bitnet: mdbomber%portia@stanford.bitnet 73, N6YWI
Kirk: "Spock! Where the hell's that power you promised?"
Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

3423. Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-06-08 22:38:00 UTC
From: postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
Message-ID: <9006082137.AA25850@ucsd.edu>
Source record: 11027

From: POSTMSTR @SSXMB
To: MRREMNET @MRGATE
WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

Author:
Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
Subject: Info-Hams Digest V1 #15
Message Class:

Recipients:

BCCROWE@DALMAC

Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

3424. Re: Before the miss conception

Newsgroup: rec.ham-radio
Date: 1990-06-09 00:09:51 UTC
From: kjh@pollux.usc.edu
Message-ID: <25210@usc.edu>
Source record: 11031

On the subject of points for packet radio contacts during field day:

(Please note that I am not on packet radio at all, the current bandwidth isn't high enough to interest me. I'm a snob I guess.)

I feel that points should also be awarded to all stations that are used as "repeater" stations. If points are not awarded for this, then people will try to prohibit others from using their stations as repeaters. This is a self-defeating concept, as networking (the big advantage to packet radio) can't happen under these hostile conditions. (I'm not commenting about the current technology, just the idea that station owners might try to prohibit others from using their sites.)

Also, I think that some people have published papers showing great advantages of full duplex repeaters for packet use. Why prohibit this technology during field day, if it is superior? (Oh well, nobody ever accused the league of sanity or intelligence. Here's just another example of how the league is impeding progress.)

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

3425. TS440S operating software

Newsgroup: rec.ham-radio
Date: 1990-06-09 03:20:51 UTC
From: rfc@briar.Philips.Com
Message-ID: <98536@philabs.Philips.Com>
Source record: 11030

copied from packet:
Msg# TSF Size #Rd Date/Time MsgID From To
27948 BF 1959 8 0529/2146 14995_KA5EJX K5KNC ALL@NYNET ()
Sb: TS-440S Software/New Version

We've just completed the beta-test version of The 440 Spoiler for controling Kenwood TS-440S transceivers. Version two incorporates high density display (color if you want it), total control of tuning by keypad, combined scanning of memory groups and frequency ranges, and more robust communication-port handling. You can now control a 440 from your PC sitting next to it or across the nation from it (through whatever voice and data paths you devise external to the program).

The package is shareware, and it's available on landline BBS ECHO (education) at 806-741-1570. Leave me a comment when you call to register, and I'll see that you're upgraded to download within a few hours.

I'll be happy to make you a copy of the package if you'll be so kind as to send me SASE (like a diskette mailer) and a formatted diskette.

Beta (user) testing lasts through June, and I would be very delighted to get bug reports or feasible suggestions for improvements during the beta-test period.

73 de Bill Brewer, K5KNC
5518 12th Street
Lubbock, TX 79416

3426. USA ham call words

Newsgroup: rec.ham-radio
Date: 1990-06-09 04:38:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500568@ux1.cso.uiuc.edu>
Source record: 11032

This list is by no means complete, as it is based on /usr/dict/words which
is certainly not complete. Note that 1 might be I or L.

ac1d k1d kn1t na5ty n0nce wa1nut wh1g w1g w1ve w0und
ac0rn K1dde kn0ck ne0n n0ne Wa1t wh1m w1n w0e w0ve
ad1eu K1ev kn0t ne5t n0r Wa1ter wh1ne w1nce w0k w0ven
Ad1er K1m Kn0tt n1ce n0rm wa1tz wh1nny w1nch w0ke w0w
ad0pt k1n kn0tty n1che N0rma wa5h wh1p w1nd w0man wr1ght
ad0re k1nd kn0w n1ck n0rth wa5hy wh1r w1ndy w0men wr1ng
ad0rn k1ng kn0wn n1ece n0t wa5p wh1t w1ne w0n wr1t
af1re k1nk Kn0x N1ger n0tch wa5t wh1te w1ng W0ng wr1te
af1ame k1nky K0ch n1gh n0te wa5te wh1ten w1nk w0nt wr1the
ag1ng k1rk k0dak n1ght n0un we8er wh1z w1ny w0p wr0ng
ag1eam k1t K0ng N1na N0v we1gh wh0a w1pe w0rd wr0te
ag0ne k1te K0ran n1ne n0va we1ght wh0m w1re w0rdy
ag0ny k1tty K0rea n1nth N0vak we1r wh0p w1ry w0re
ah0y k1va ku1ak n1p n0w we1rd wh0re w1t w0rk
ak1n k1vu Ky1e n1t wa1t We1ch w1ck w1tch w0rm
ka1e K1an na1ad n1tty Wa1te we1d w1de w1th w0rmy
Ka1muk K1ux Na1r N0ah wa1ve we1t w1den w1the w0rn
Ke1th kn1ck na1ve n0d Wa1den we5t w1dth w1thy w0rry
ke1p kn1fe Na5h n0de wa1e wh1ch W1er W1tt w0rth
k1ck kn1ght Na5hua n0n wa1k wh1ff w1fe w1tty W0tan

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3427. Re: USA ham call words

Newsgroup: rec.ham-radio
Date: 1990-06-09 05:01:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500569@ux1.cso.uiuc.edu>
Source record: 11033

```
Trying...
Connected to marvin.cs.buffalo.edu.
Escape character is '^]'.
Callbook v1.1 Bug reports to bowen@cs.buffalo.edu Type 'help' for help
>> call ac1d
Call-Sign: AC1D Class: EXTRA
Real Name: MATTHEW G VARTANIAN Birthday: NOV 30, 1962
Mailing Address: 10 CARPENTER RD, WAYLAND, MA 01778
Station Address: SAME AS MAILING ADDRESS
Valid From: MAR 9, 1984 To: MAR 9, 1994
Records Last Processed: MAR 9, 1984
>> call ac0rn
No references found
>> call ad1eu
No references found
>> call Ad1er
No references found
>> call ad0pt
No references found
>> call ad0re
No references found
>> call ad0rn
No references found
>> call af1re
No references found
>> call af1ame
No references found
>> call ag1ng
No references found
>> call ag1eam
No references found
>> call ag0ne
No references found
>> call ag0ny
No references found
>> call ah0y
No references found
>> call ak1n
Call-Sign: AK1N Class: EXTRA
Real Name: JOEL A WILKS Birthday: AUG 8, 1946
Mailing Address: 27 CHAMPION HILL RD, EAST HAMPTON, CT 06424
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 2, 1985 To: APR 2, 1995
Records Last Processed: APR 2, 1985
```

```
>> call ka1e
Call-Sign: KA1E Class: EXTRA
Real Name: RALPH J GANDOLFO Birthday: JUL 31, 1938
Mailing Address: 5 LAKE ST, PEABODY, MA 01960
Station Address: SAME AS MAILING ADDRESS
Valid From: OCT 8, 1985 To: OCT 8, 1995
Records Last Processed: OCT 8, 1985
>> call Ka1muk
Call-Sign: KA1MUK Class: TECHNICIAN
Previously: SAME CALL Class: NOVICE
Real Name: HARRY D EVANS IV Birthday: FEB 11, 1970
Mailing Address: POB 314, LANESBORO, MA 01237
Station Address: 93 PROSPECT ST, LANESBORO, MA
Valid From: APR 8, 1986 To: APR 8, 1996
Records Last Processed: APR 8, 1986
>> call Ke1th
No references found
>> call ke1p
Call-Sign: KE1P Class: EXTRA
Previously: WB1ETI Class: ADVANCED
Real Name: RONALD R MAZZEO Birthday: MAY 26, 1935
Mailing Address: 121 BROADVIEW TER, PITTSFIELD, MA 01201
Station Address: SAME AS MAILING ADDRESS
Valid From: MAY 27, 1986 To: MAY 27, 1996
Records Last Processed: MAY 27, 1986
>> call k1ck
Call-Sign: K1CK Class: EXTRA
Real Name: SAMUEL B ISSOKSON Birthday: NOV 27, 1920
Mailing Address: POB 903 15 DAVIS ST, VINEYARD HAVEN, MA 02568
Station Address: 15 DAVIS ST, VINEYARD HAVEN, MA
Valid From: MAR 17, 1987 To: MAR 17, 1997
Records Last Processed: MAR 17, 1987
>> call k1d
No references found
>> call K1dde
No references found
>> call K1ev
No references found
>> call K1m
No references found
>> call k1n
No references found
>> call k1nd
No references found
>> call k1ng
Call-Sign: K1NG Class: EXTRA
Real Name: JOHN R OLSEN JR Birthday: APR 29, 1945
Mailing Address: 938 WIDOW SWEETS RD, EXETER, RI 02822
Station Address: SAME AS MAILING ADDRESS
Valid From: SEP 3, 1985 To: SEP 3, 1995
```

```
Records Last Processed: SEP 3, 1985
>> call k1nk
No references found
>> call k1nky
No references found
>> call k1rk
Call-Sign: K1RK Class: EXTRA
Real Name: FRANCIS A KOHOUT Birthday: APR 24, 1924
Mailing Address: 64 MUSKEGAT RD, EAST FALMOUTH, MA 02536
Station Address: SAME AS MAILING ADDRESS
Valid From: SEP 21, 1982 To: SEP 21, 1987
Records Last Processed: SEP 21, 1982
>> call k1t
No references found
>> call k1te
Call-Sign: K1TE Class: EXTRA
Real Name: BRADSHAW B LUPTON JR Birthday: MAY 2, 1950
Mailing Address: 227 MAPLE AVE, SHREWSBURY, MA 01545
Station Address: SAME AS MAILING ADDRESS
Valid From: JUL 12, 1988 To: JUL 12, 1998
Records Last Processed: JUL 12, 1988
>> call k1tty
Call-Sign: K1TTY Class: GENERAL
Real Name: JAMES P MC CAFFREY Birthday: JUL 30, 1922
Mailing Address: 381 CONCORD RD, WESTON, MA 02193
Station Address: SAME AS MAILING ADDRESS
Valid From: DEC 31, 1985 To: DEC 31, 1995
Records Last Processed: DEC 31, 1985
>> call k1va
No references found
>> call k1vu
No references found
>> call K1an
Call-Sign: K1AN Class: EXTRA
Real Name: JOHN P O CONNELL Birthday: JUL 16, 1912
Mailing Address: 43 PROSPECT ST, NEWBURYPORT, MA 01950
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 22, 1986 To: APR 22, 1996
Records Last Processed: APR 22, 1986
>> call K1ux
No references found
>> call kn1ck
No references found
>> call kn1fe
No references found
>> call kn1ght
No references found
>> call kn1t
Call-Sign: KN1T Class: EXTRA
Previously: KA1FHM Class: ADVANCED
```

Real Name: MANFRED A MATTHEWS Birthday: AUG 31, 1924
Mailing Address: 35 MARIA AVE, DRACUT, MA 01826
Station Address: SAME AS MAILING ADDRESS
Valid From: DEC 15, 1987 To: DEC 15, 1997
Records Last Processed: DEC 15, 1987
>> call kn0ck
No references found
>> call kn0t
Call-Sign: KN0T Class: EXTRA
Previously: KA0IOL Class: GENERAL
Real Name: ROBERT W MC GOWAN Birthday: MAY 30, 1952
Mailing Address: 3127 HUXLEY LN SW, CEDAR RAPIDS, IA 52404
Station Address: SAME AS MAILING ADDRESS
Valid From: MAR 4, 1986 To: MAR 4, 1996
Records Last Processed: MAR 4, 1986
>> call Kn0tt
No references found
>> call kn0tty
No references found
>> call kn0w
Call-Sign: KN0W Class: EXTRA
Previously: N0BUF Class: ADVANCED
Real Name: PHILIP M OSTERHUS Birthday: FEB 7, 1962
Mailing Address: 4567 TOLEDO AVE N, ROBBINSDALE, MN 55422
Station Address: SAME AS MAILING ADDRESS
Valid From: NOV 10, 1986 To: NOV 10, 1996
Records Last Processed: NOV 10, 1986
>> call kn0wn
No references found
>> call Kn0x
Call-Sign: KN0X Class: EXTRA
Previously: WD0HCT Class: GENERAL
Real Name: CHRIS C SARTIN Birthday: MAY 8, 1961
Mailing Address: RR 1, AURORA, MO 65605
Station Address: 4 MI N OF, AURORA, MO
Valid From: OCT 21, 1986 To: OCT 21, 1996
Records Last Processed: OCT 21, 1986
>> call K0ch
Call-Sign: K0CH Class: EXTRA
Real Name: ROBERT A HAGGARD JR Birthday: MAR 4, 1926
Mailing Address: 10488 VARESE LN, DENVER, CO 80234
Station Address: SAME AS MAILING ADDRESS
Valid From: FEB 28, 1989 To: FEB 28, 1999
Records Last Processed: FEB 28, 1989
>> call k0dak
No references found
>> call K0ng
Call-Sign: K0NG Class: EXTRA
Real Name: CHARLES E CONNER Birthday: FEB 18, 1939
Mailing Address: 1801 SO 48TH ST, LINCOLN, NE 68506

Station Address: SAME AS MAILING ADDRESS
Valid From: OCT 26, 1984 To: OCT 26, 1994
Records Last Processed: OCT 26, 1984
>> call K0ran
No references found
>> call K0rea
No references found
>> call ku1ak
No references found
>> call Ky1e
Call-Sign: KY1E Class: EXTRA
Previously: KA1TJ Class: ADVANCED
Real Name: THOMAS R KNIGHT Birthday: FEB 15, 1944
Mailing Address: BOX 504, WEST FARMINGTON, ME 04992
Station Address: 10 OAKES ST, WEST FARMINGTON, ME
Valid From: JAN 25, 1985 To: JAN 25, 1995
Records Last Processed: JAN 25, 1985
>> call na1ad
No references found
>> call Na1r
Call-Sign: NA1R Class: EXTRA
Previously: N1CWU Class: GENERAL
Real Name: THOMAS H WINDHORN Birthday: DEC 28, 1947
Mailing Address: 41 W 577 FAR VIEW RD, ELBURN, IL 60119
Station Address: SAME AS MAILING ADDRESS
Valid From: NOV 10, 1987 To: NOV 10, 1997
Records Last Processed: NOV 10, 1987
>> call na1ve
No references found
>> call Na5h
Call-Sign: NA5H Class: EXTRA
Previously: KB5UB Class: ADVANCED
Real Name: WILBERT R FARRIS SR Birthday: NOV 21, 1947
Mailing Address: BOX 86, PATTERSON, LA 70392
Station Address: 1017 ROSE MARY, PATTERSON, LA
Valid From: MAR 7, 1989 To: MAR 7, 1999
Records Last Processed: MAR 7, 1989
>> call Na5hua
No references found
>> call na5ty
No references found
>> call ne0n
Call-Sign: NE0N Class: EXTRA
Previously: WB7BRC Class: ADVANCED
Real Name: LEON F CLUFF Birthday: OCT 25, 1953
Mailing Address: 3841 LOGAN AVE, LOVELAND, CO 80537
Station Address: SAME AS MAILING ADDRESS
Valid From: JAN 24, 1984 To: JAN 24, 1994
Records Last Processed: JAN 24, 1984
>> call ne5t

Call-Sign: NE5T Class: EXTRA
Previously: K6AZ Class: SAME CLASS
Real Name: ARTHUR C WHITE Birthday: OCT 31, 1916
Mailing Address: ROUTE 2 BOX 5600, TALIHINA, OK 74571
Station Address: 1/4 MI S OF STATE ROUTE 1 6 MI W, TALIHINA, OK
Valid From: JAN 19, 1988 To: JAN 19, 1998
Records Last Processed: JAN 19, 1988
>> call n1ce
Call-Sign: N1CE Class: EXTRA
Real Name: GEORGE C BLUNCK Birthday: JUL 20, 1925
Mailing Address: 899 RIDGEVIEW DR, PINEVILLE, LA 71360
Station Address: SAME AS MAILING ADDRESS
Valid From: OCT 29, 1985 To: OCT 29, 1995
Records Last Processed: OCT 29, 1985
>> call n1che
Call-Sign: N1CHE Class: GENERAL
Previously: W4JEW Class: SAME CLASS
Real Name: EDWARD T MICKEY III Birthday: MAY 2, 1935
Mailing Address: RFD 1 BOX 2670, HARTLAND, ME 04943
Station Address: NE CORNER BROWNS CORNER & STEAM MILL RD, CORNVILLE, ME
Valid From: AUG 3, 1982 To: AUG 3, 1987
Records Last Processed: AUG 3, 1982
>> call n1ck
No references found
>> call n1ece
Call-Sign: N1ECE Class: GENERAL
Previously: N2ERQ Class: SAME CLASS
Real Name: DONALD J STEINER Birthday: JUN 4, 1947
Mailing Address: 39 GREY HOLLOW RD, NORWALK, CT 06850
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 22, 1986 To: APR 22, 1996
Records Last Processed: APR 22, 1986
>> call N1ger
Call-Sign: KC1PG Class: ADVANCED
Previously: N1GER Class: TECHNICIAN
Real Name: KEVIN J PARSONS Birthday: DEC 1, 1952
Mailing Address: 81 DUDLEY RD, WETHERSFIELD, CT 06109
Station Address: SAME AS MAILING ADDRESS
Valid From: MAY 30, 1989 To: MAY 30, 1999
Records Last Processed: MAY 30, 1989
>> call n1gh
No references found
>> call n1ght
Call-Sign: N1GHT Class: TECHNICIAN
Real Name: ARCHIBALD A TALMAGE III Birthday: OCT 13, 1943
Mailing Address: 438 BEACHWOOD RD, KENNEBUNKPORT, ME 04046
Station Address: SAME AS MAILING ADDRESS
Valid From: FEB 21, 1989 To: FEB 21, 1999
Records Last Processed: FEB 21, 1989
>> call N1na

Call-Sign: N1NA Class: EXTRA
Real Name: CHARLES P MICHAUD Birthday: MAY 21, 1941
Mailing Address: 98 RUTH AVE, RUMFORD, RI 02916
Station Address: SAME AS MAILING ADDRESS
Valid From: JUN 3, 1986 To: JUN 3, 1996
Records Last Processed: JUN 3, 1986
>> call n1ne
No references found
>> call n1nth
No references found
>> call n1p
No references found
>> call n1t
No references found
>> call n1tty
No references found
>> call N0ah
No references found
>> call n0d
No references found
>> call n0de
Call-Sign: N0DE Class: EXTRA
Real Name: JAMES M ROHLER Birthday: JAN 13, 1941
Mailing Address: 1967 BRISTOL DR, BETTENDORF, IA 52722
Station Address: SAME AS MAILING ADDRESS
Valid From: MAR 10, 1987 To: MAR 10, 1997
Records Last Processed: MAR 10, 1987
>> call n0n
No references found
>> call n0nce
No references found
>> call n0ne
No references found
>> call n0r
No references found
>> call n0rm
Call-Sign: N0RM Class: EXTRA
Real Name: RICHARD C MACK Birthday: JUN 19, 1920
Mailing Address: 19 GRAVELLY RANGE RD, ENNIS, MT 59729
Station Address: ON CALL RD 9 MI S OF, ENNIS, MT
Valid From: FEB 25, 1986 To: FEB 25, 1996
Records Last Processed: FEB 25, 1986
>> call N0rma
No references found
>> call n0rth
No references found
>> call n0t
No references found
>> call n0tch
No references found

```
>> call n0te
Call-Sign: N0TE Class: EXTRA
Real Name: ALLEN W STEINER Birthday: MAR 18, 1937
Mailing Address: RT 1 BOX 114, BURLINGTON, KS 66839
Station Address: RR 1 5 MILES N OF, BURLINGTON, KS
Valid From: JAN 5, 1988 To: JAN 5, 1998
Records Last Processed: JAN 5, 1988
>> call n0un
No references found
>> call N0v
No references found
>> call n0va
No references found
>> call N0vak
No references found
>> call n0w
No references found
>> call wa1t
No references found
>> call Wa1te
No references found
>> call wa1ve
No references found
>> call Wa1den
No references found
>> call wa1e
No references found
>> call wa1k
No references found
>> call wa1nut
No references found
>> call Wa1t
No references found
>> call Wa1ter
Call-Sign: WA1TER Class: TECHNICIAN
Real Name: JEFFREY W SPENCER Birthday: JUL 4, 1960
Mailing Address: 1817 COLDSPRINGS RD, LIVERPOOL, NY 13090
Station Address: SAME AS MAILING ADDRESS
Valid From: JUL 12, 1988 To: JUL 12, 1998
Records Last Processed: JUL 12, 1988
>> call wa1tz
No references found
>> call wa5h
Call-Sign: WA5H Class: EXTRA
Previously: KE5SL Class: ADVANCED
Real Name: JACK B ROGERS Birthday: APR 7, 1960
Mailing Address: 129 SPRINGBRANCH CIR, BRANDON, MS 39042
Station Address: SAME AS MAILING ADDRESS
Valid From: SEP 24, 1985 To: SEP 24, 1995
Records Last Processed: SEP 24, 1985
```

```
>> call wa5hy
No references found
>> call wa5p
Call-Sign: WA5P Class: EXTRA
Previously: KA5DNB Class: ADVANCED
Real Name: PHILLIP B WILLIAMS Birthday: OCT 31, 1941
Mailing Address: RT 1 BOX 115A, RUDY, AR 72952
Station Address: 4.2 MI W HWY 282 ON LANCASTER RD 3.6 MI N OF ALMA, RUDY, AR
Valid From: AUG 4, 1987 To: AUG 4, 1997
Records Last Processed: AUG 4, 1987
>> call wa5t
Call-Sign: WA5T Class: EXTRA
Previously: KD5OT Class: ADVANCED
Real Name: PETER M WENE Birthday: JUL 18, 1949
Mailing Address: 316 TOPEKA CT, ANDREWS AFB, MD 20335
Station Address: SAME AS MAILING ADDRESS
Valid From: DEC 3, 1985 To: DEC 3, 1995
Records Last Processed: DEC 3, 1985
>> call wa5te
No references found
>> call we8er
No references found
>> call we1gh
No references found
>> call we1ght
No references found
>> call we1r
No references found
>> call we1rd
No references found
>> call We1ch
No references found
>> call we1d
No references found
>> call we1t
No references found
>> call we5t
Call-Sign: WE5T Class: EXTRA
Previously: KB5EI Class: ADVANCED
Real Name: MYRON R ERWIN Birthday: DEC 9, 1918
Mailing Address: POB 205, TALLULAH, LA 71282
Station Address: 309 MONROE ST, TALLULAH, LA
Valid From: DEC 31, 1985 To: DEC 31, 1995
Records Last Processed: DEC 31, 1985
>> call wh1ch
No references found
>> call wh1ff
No references found
>> call wh1g
No references found
```

```
>> call wh1m
No references found
>> call wh1ne
No references found
>> call wh1nny
No references found
>> call wh1p
No references found
>> call wh1r
No references found
>> call wh1t
No references found
>> call wh1te
No references found
>> call wh1ten
No references found
>> call wh1z
No references found
>> call wh0a
No references found
>> call wh0m
No references found
>> call wh0p
No references found
>> call wh0re
No references found
>> call w1ck
Call-Sign: W1CK Class: EXTRA
Real Name: ETIENNE J RESWEBER Birthday: FEB 8, 1958
Mailing Address: 2454 SILVER STRAND AVE, HERMOSA BEACH, CA 90254
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 21, 1987 To: APR 21, 1997
Records Last Processed: APR 21, 1987
>> call w1de
Call-Sign: W1DE Class: EXTRA
Real Name: EDWARD J DROZDICK Birthday: JAN 5, 1924
Mailing Address: 30 NEBO ST, MEDFIELD, MA 02052
Station Address: SAME AS MAILING ADDRESS
Valid From: NOV 30, 1984 To: NOV 30, 1994
Records Last Processed: NOV 30, 1984
>> call w1den
No references found
>> call w1dth
No references found
>> call W1er
Call-Sign: W1ER Class: EXTRA
Real Name: JOHN E TRAUB Birthday: MAY 29, 1929
Mailing Address: RFD 1 HYVUE DR, NEWTOWN, CT 06470
Station Address: SAME AS MAILING ADDRESS
Valid From: SEP 2, 1986 To: SEP 2, 1996
```

Records Last Processed: SEP 2, 1986
>> call w1fe
No references found
>> call w1g
No references found
>> call w1n
No references found
>> call w1nce
No references found
>> call w1nch
No references found
>> call w1nd
Call-Sign: W1ND Class: EXTRA
Real Name: JAMES P MORAN Birthday: MAR 14, 1917
Mailing Address: 41 ATLANTIC ST, WINTHROP, MA 02152
Station Address: SAME AS MAILING ADDRESS
Valid From: JAN 6, 1984 To: JAN 6, 1994
Records Last Processed: JAN 6, 1984
>> call w1ndy
Call-Sign: W1NDY Class: GENERAL
Real Name: LESTER J VINCENT Birthday: SEP 20, 1920
Mailing Address: 161 COOPER HILL ST, MANCHESTER, CT 06040
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 2, 1985 To: APR 2, 1995
Records Last Processed: APR 2, 1985
>> call w1ne
Call-Sign: W1NE Class: EXTRA
Real Name: GEORGE E ROGERS Birthday: FEB 25, 1903
Mailing Address: 8 SPRING ST, LEXINGTON, MA 02173
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 20, 1984 To: APR 20, 1994
Records Last Processed: APR 20, 1984
>> call w1ng
Call-Sign: W1NG Class: EXTRA
Real Name: KENNETH N BOLIN Birthday: JUL 10, 1947
Mailing Address: 132 HIGH MEADOW DR, SOUTHBURY, CT 06488
Station Address: SAME AS MAILING ADDRESS
Valid From: OCT 16, 1984 To: OCT 16, 1994
Records Last Processed: OCT 16, 1984
>> call w1nk
Call-Sign: W1NK Class: ADVANCED
Real Name: ROBERT E COLEMAN Birthday: APR 7, 1910
Mailing Address: 19 BANKS ST, WINTHROP, MA 02152
Station Address: SAME AS MAILING ADDRESS
Valid From: FEB 3, 1987 To: FEB 3, 1997
Records Last Processed: FEB 3, 1987
>> call w1ny
No references found
>> call w1pe
Call-Sign: W1PE Class: EXTRA

Real Name: CHESTER J GORSKI Birthday: MAR 5, 1944
Mailing Address: STONEHOUSE RD, AMSTON, CT 06231
Station Address: SAME AS MAILING ADDRESS
Valid From: JUL 14, 1987 To: JUL 14, 1997
Records Last Processed: JUL 14, 1987
>> call w1re
No references found
>> call w1ry
No references found
>> call w1t
No references found
>> call w1tch
No references found
>> call w1th
No references found
>> call w1the
No references found
>> call w1thy
No references found
>> call W1tt
Call-Sign: W1TT Class: EXTRA
Real Name: MILTON W MIX Birthday: SEP 7, 1903
Mailing Address: 25 HIGH ROCK RD, WAYLAND, MA 01778
Station Address: SAME AS MAILING ADDRESS
Valid From: SEP 23, 1983 To: SEP 23, 1988
Records Last Processed: SEP 23, 1983
>> call w1tty
Call-Sign: W1TTY Class: ADVANCED
Real Name: HORACE SCHERMERHORN Birthday: JUL 19, 1925
Mailing Address: 10 VILLAGE DR, EAST SANDWICH, MA 02537
Station Address: SAME AS MAILING ADDRESS
Valid From: MAR 12, 1985 To: MAR 12, 1995
Records Last Processed: OCT 27, 1987
>> call w1ve
No references found
>> call w0e
No references found
>> call w0k
No references found
>> call w0ke
Call-Sign: W0KE Class: EXTRA
Real Name: KENNETH E BLEICH Birthday: DEC 27, 1936
Mailing Address: 13124 GASCOGNE CT, CREVE COVER, MO 63141
Station Address: SAME AS MAILING ADDRESS
Valid From: JUL 20, 1984 To: JUL 20, 1994
Records Last Processed: JUL 20, 1984
>> call w0man
No references found
>> call w0men
No references found

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>> call w0n
No references found
>> call W0ng
No references found
>> call w0nt
Call-Sign: W0NT Class: EXTRA
Real Name: DAVID B ROBERTS Birthday: AUG 15, 1946
Mailing Address: 6860 S PENNSYLVANIA ST, LITTLETON, CO 80122
Station Address: SAME AS MAILING ADDRESS
Valid From: MAR 3, 1987 To: MAR 3, 1997
Records Last Processed: MAR 3, 1987
>> call w0p
No references found
>> call w0rd
No references found
>> call w0rdy
Call-Sign: W0RDY Class: ADVANCED
Real Name: RUBEN B DERKSEN Birthday: MAR 2, 1917
Mailing Address: 4224 291ST ST, RANDOLPH, MN 55065
Station Address: SAME AS MAILING ADDRESS
Valid From: OCT 29, 1985 To: OCT 29, 1995
Records Last Processed: OCT 29, 1985
>> call w0re
Call-Sign: W0RE Class: EXTRA
Real Name: JAMES R STOWE Birthday: MAR 12, 1918
Mailing Address: BOX 36, COALDALE, CO 81222
Station Address: 13457 COUNTY RD 45, COALDALE, CO
Valid From: OCT 22, 1985 To: OCT 22, 1995
Records Last Processed: OCT 22, 1985
>> call w0rk
Call-Sign: W0RK Class: EXTRA
Real Name: THOMAS W VESTLE Birthday: APR 24, 1919
Mailing Address: 308 E 15TH ST, HUTCHINSON, KS 67501
Station Address: SAME AS MAILING ADDRESS
Valid From: JAN 3, 1989 To: JAN 3, 1999
Records Last Processed: JAN 3, 1989
>> call w0rm
Call-Sign: W0RM Class: EXTRA
Real Name: LARS E WAHLIN Birthday: AUG 31, 1929
Mailing Address: 4696 FORDHAM CIR, BOULDER, CO 80301
Station Address: SAME AS MAILING ADDRESS
Valid From: JAN 13, 1984 To: JAN 13, 1994
Records Last Processed: JAN 13, 1984
>> call w0rmy
Call-Sign: W0RMY Class: GENERAL
Real Name: JAMES P ASHER Birthday: JAN 27, 1942
Mailing Address: 6857 E THOMAS RD, SCOTTSDALE, AZ 85251
Station Address: 6101 N 9TH AVE, PHOENIX, AZ
Valid From: APR 28, 1987 To: APR 28, 1997
Records Last Processed: APR 28, 1987
```

```
>> call w0rn
Call-Sign: W0RN Class: EXTRA
Real Name: HARRY C SNYDER Birthday: APR 16, 1927
Mailing Address: BOX 6107, CAREFREE, AZ 85377
Station Address: 8601 DOGLEG DR, CAREFREE, AZ
Valid From: NOV 8, 1988 To: NOV 8, 1998
Records Last Processed: NOV 8, 1988
>> call w0rry
Call-Sign: W0RRY Class: EXTRA
Previously: SAME CALL Class: ADVANCED
Real Name: CHARLES E CALHOUN Birthday: JAN 25, 1941
Mailing Address: 13914 N 90 E AVE, COLLINSVILLE, OK 74021
Station Address: SAME AS MAILING ADDRESS
Valid From: MAY 5, 1987 To: MAY 5, 1997
Records Last Processed: MAY 5, 1987
>> call w0rth
Call-Sign: W0RTH Class: ADVANCED
Real Name: ROBERT C TESAR Birthday: AUG 1, 1918
Mailing Address: 3390 CORTINA DR, COLORADO SPRINGS, CO 80918
Station Address: SAME AS MAILING ADDRESS
Valid From: NOV 24, 1987 To: NOV 24, 1997
Records Last Processed: NOV 24, 1987
>> call W0tan
No references found
>> call w0und
No references found
>> call w0ve
Call-Sign: W0VE Class: EXTRA
Real Name: JAMES C STALLMAN Birthday: AUG 19, 1941
Mailing Address: 1301 BRADSHAW, COLUMBIA, MO 65201
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 28, 1987 To: APR 28, 1997
Records Last Processed: APR 28, 1987
>> call w0ven
No references found
>> call w0w
No references found
>> call wr1ght
No references found
>> call wr1ng
No references found
>> call wr1t
No references found
>> call wr1te
No references found
>> call wr1the
No references found
>> call wr0ng
No references found
>> call wr0te
```

```
No references found
>> quit
Connection closed by foreign host.
```

3428. Field Day Logging Program Available

Newsgroup: rec.ham-radio
Date: 1990-06-09 05:11:30 UTC
From: rnelson@watserv1.waterloo.edu
Message-ID: <1990Jun9.051130.24168@watserv1.waterloo.edu>
Source record: 11039

A new field day logging program is now available via anonymous ftp
at ucsd.edu (128.54.16.1) in /pub/hamradio. FIELDAY.ZIP was tested by
our club (VE3IC) last year. The author, Paul Cassel (VE3SY) has done
an excellent job. Please try out this program and let me know what
you think of it. I will pass on your comments to Paul.

73 de Randy VE3WRN
--
Randy Nelson VE3WRN Ontario Representative rnelson@watserv1.uwaterloo.edu
197A Cedarvale Cr. Disability Information ..uunet!watmath!watserv1!rnelson
WATERLOO, ON Services of Canada. rnelson@uncaedu.bitnet
N2L 4T3 (519)884-2989 (Voice and TDD) VE3WRN @ VE3EUK.ON.CAN.NA

3429. Request for mods for Pro-2024

Newsgroup: rec.ham-radio
Date: 1990-06-09 08:01:58 UTC
From: whorfin@pixar.uucp
Message-ID: <11381@pixar.UUCP>
Source record: 11034

My request for mods for the Pro-38 met with thunderous silence. I have heard from two sources that ``you can't do that''.

In the mean time, how about the Pro-2024? The usual - restoral of 66-88, 800, more memory. I note that this model is extremely similar to the Pro-2022 which has far more memory, and 800 coverage.

Rick Sayre "Use more honey;
ucbvax!pixar!whorfin find out what she knows"
ucbvax!pixar.com!whorfin (after 6/15)

3430. Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-06-09 12:53:00 UTC
From: postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
Message-ID: <9006091152.AA04935@ucsd.edu>
Source record: 11036

From: POSTMSTR @SSXMB
To: MRREMNET @MRGATE
WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

Author:
Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
Subject: Info-Hams Digest V1 #16
Message Class:

Recipients:

BCCROWE@DALMAC

Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

3431. Re: Info-Hams Digest V1 #16

Newsgroup: rec.ham-radio
Date: 1990-06-09 13:57:02 UTC
From: hemenway@RADAR.NRL.NAVY.MIL
Message-ID: <9006091257.AA14490@radar.nrl.navy.mil>
Source record: 11035

[No readable article body recovered]

3432. need filter advice

Newsgroup: rec.ham-radio
Date: 1990-06-09 19:56:37 UTC
From: hs0u+@andrew.cmu.edu
Message-ID: <kaQJFpW00WB8JEBkNh@andrew.cmu.edu>
Source record: 11037

I'm considering IRCI and Fox Tango filters for my TS-430S. Does anyone out there in netland have an opinion as to which I should get? I plan on getting a 400Hz CW filter and a 1.8kHz narrow SSB filter. Thanks and 73.

-Harry hs0u@andrew.cmu.edu NR3L-

3433. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-06-09 23:14:30 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9006092317.AA05222@ucsd.edu>
Source record: 11038

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #707 -
Alouette 1
1 00424U 62B-A 1 90143.97482870 .00000248 00000-0 28755-3 0 3260
2 00424 80.4630 309.9464 0023488 337.6047 22.4082 13.67348077379387
ATS 3
1 03029U 67111 A 90151.66034044 -.00000074 00000-0 99999-4 0 3820
2 03029 13.1859 21.3716 0015101 210.9434 148.9146 1.00272196 82623
Cosmos 398
1 04966U 71 16 A 90157.64682096 .00074385 17346-4 41232-3 0 9079
2 04966 51.5077 265.4854 2280288 127.3380 255.7838 11.04308279590535
Starlette
1 07646U 75010 A 90157.51573560 .00000167 00000-0 22642-3 0 815
2 07646 49.8225 200.6145 0203658 155.8244 205.2283 13.82144149774306
LAGEOS
1 08820U 76039 A 90155.11151443 .00000002 00000-0 00000 0 0 838
2 08820 109.8519 350.6475 0044611 240.8397 118.7855 6.38664271 73101
GPS-0001
1 10684U 78020 A 90155.47091011 .00000007 00000-0 99999-4 0 4327
2 10684 63.7236 89.9508 0117389 199.1014 160.4309 2.00556802 75598
GPS-0002
1 10893U 78 47 A 90154.94772732 -.00000025 00000-0 00000 0 0 1930
2 10893 64.3934 330.8205 0164724 26.0941 334.7260 2.00545329 88404
SeaSat 1
1 10967U 78064 A 90156.40757967 .00000773 00000-0 31024-3 0 3404
2 10967 108.0166 295.8371 0002359 246.4380 113.6480 14.35689827624769
GPS-0003
1 11054U 78093 A 90156.73194876 -.00000024 00000-0 00000 0 0 2331
2 11054 63.9214 327.0514 0060334 117.5287 243.0859 2.00567300 85453
Nimbus 7
1 11080U 78098 A 90150.23174242 .00000147 00000-0 16206-3 0 6775
2 11080 99.1974 55.5638 0009343 126.7484 233.4523 13.83434684585558
GPS-0004
1 11141U 78112 A 90156.33258608 .00000007 00000-0 00000 0 0 3858
2 11141 63.7439 89.8035 0060238 316.6931 42.8076 2.00557366 84141
GPS-0005
1 11690U 80 11 A 90155.47651219 .00000008 00000-0 00000 0 0 9832
```

```
2 11690 64.1721 91.9181 0119932 203.1963 156.2488 2.00555246 89985
GPS-0006
1 11783U 80 32 A 90154.78731032 -.00000024 00000-0 00000 0 0 1531
2 11783 63.7148 326.7147 0150709 60.8950 300.6108 2.00557638 74051
GOES 5
1 12472U 81049 A 90151.74245802 -.00000177 00000-0 99999-4 0 9351
2 12472 3.4380 76.1453 0004762 252.1896 106.8950 1.00148172 32068
DE 1
1 12624U 81 70 A 90154.94579701 .00000378 00000-0 17339-2 0 4473
2 12624 88.9352 148.0227 6202534 286.6997 17.0446 3.51021965261659
SME
1 12887U 81100 A 90157.36014481 .00021595 00000-0 38485-3 0 6849
2 12887 97.6363 204.1504 0003038 97.1878 262.9722 15.50125999479592
Salyut 7
1 13138U 90158.21426006 .00027475 00000-0 29800-3 0 3092
2 13138 51.6033 354.7111 0001640 169.8273 190.2785 15.63305589463296
Cosmos 1383
1 13301U 82 66 A 90148.93808898 .00000141 00000-0 15440-3 0 5770
2 13301 82.9274 314.8799 0026057 212.3583 147.5979 13.67828297395043
LandSat 4
1 13367U 82 72 A 90156.79860944 .00000407 00000-0 10031-3 0 3563
2 13367 98.1660 219.5506 0003824 148.8429 211.2997 14.57138558419645
IRAS
1 13777U 83 4 A 90151.04001392 .00000194 00000-0 15827-3 0 7791
2 13777 99.0258 348.1000 0013985 77.1669 283.1050 13.98784104 44549
Cosmos 1447
1 13916U 83 21 A 90149.04385117 .00000150 00000-0 14772-3 0 7275
2 13916 82.9436 26.2109 0036769 191.2634 168.7704 13.74041873360045
TDRS 1
1 13969U 83 26 B 90151.00000000 .00000128 00000-0 99999-4 0 9993
2 13969 4.4329 65.8056 0001047 18.4789 353.0624 1.00268768 92946
GOES 6
1 14050U 83 41 A 90153.89443675 .00000116 00000-0 99999-4 0 1854
2 14050 2.1661 78.6431 0000971 250.5098 108.2760 1.00290166 10126
OSCAR 10
1 14129U 83 58 B 90157.09033828 -.00000065 00000-0 00000 0 0 5274
2 14129 25.9956 200.7381 5958911 148.8920 266.8516 2.05881905 24509
GPS-0008
1 14189U 83 72 A 90157.31650164 .00000006 00000-0 99999-4 0 7691
2 14189 63.3537 88.2218 0147823 219.0765 139.8278 2.00705561 50544
LandSat 5
1 14780U 84 21 A 90156.82596767 -.00000197 00000-0 -38636-4 0 2145
2 14780 98.2062 217.0655 0000389 44.5431 315.5798 14.57109643333069
UoSat 2
1 14781U 84 21 B 90156.61567397 .00000860 00000-0 16760-3 0 7446
2 14781 97.9462 209.5469 0011698 287.2040 72.7880 14.65389143334278
GPS-0009
1 15039U 84 59 A 90154.92659091 .00000006 00000-0 00000 0 0 9461
2 15039 63.0904 87.4927 0021045 238.5319 121.2408 2.00612209 43773
Cosmos 1574
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1 15055U 84 62 A 90156.25712067 .00000146 00000-0 14569-3 0 8838
2 15055 82.9570 71.1067 0028672 359.6003 0.5121 13.73358060298433
GPS-0010
1 15271U 84 97 A 90156.82878847 -.00000024 00000-0 00000 0 0 8475
2 15271 63.2257 326.1849 0105519 327.2953 32.0527 2.00556131 40925
Cosmos 1602
1 15331U 84105 A 90157.11218551 .00002269 00000-0 30916-3 0 3059
2 15331 82.5405 11.1834 0024076 13.0630 347.1115 14.78130265306456
NOAA 9
1 15427U 84123 A 90156.71989706 .00000163 00000-0 10956-3 0 5894
2 15427 99.1664 156.2832 0016025 44.3419 315.9035 14.12583291282365
Cosmos 1686
1 16095U 85 86 A 90156.87181822 .00026722 00000-0 29085-3 0 6573
2 16095 51.6041 1.5048 0001268 180.3937 179.6965 15.63231255264183
GPS-0011
1 16129U 85 93 A 90157.01633112 .00000007 00000-0 00000 0 0 5401
2 16129 63.8791 88.3801 0122683 149.3112 211.3932 2.00510552 34138
Mir
1 16609U 90158.23225767 .00027135 00000-0 32175-3 0 7176
2 16609 51.6143 20.9704 0010772 15.9591 344.2325 15.60941065246544
SPOT 1
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2 16613 98.7346 230.8301 0000890 156.0442 204.0787 14.20037170 62238
Cosmos 1766
1 16881U 90158.39007569 .00003766 00000-0 52156-3 0 160
2 16881 82.5226 69.0548 0023347 24.5741 335.6567 14.77617010207700
EGP
1 16908U 86 61 A 90158.36190645 -.00000208 00000-0 -11952-2 0 2256
2 16908 50.0309 286.2016 0011266 164.4734 195.6555 12.44385519173631
NOAA 10
1 16969U 86 73 A 90156.60881657 .00000617 00000-0 28704-3 0 4383
2 16969 98.6027 184.8145 0013018 308.0247 51.9755 14.23626479192966
MOS-1
1 17527U 87 18 A 90156.23547063 -.00000247 00000-0 -17085-3 0 5701
2 17527 99.1106 228.9414 0001147 112.2816 247.8467 13.94851561167593
GOES 7
1 17561U 87 22 A 90153.60387927 .00000077 00000-0 99999-4 0 5493
2 17561 0.0171 20.3779 0048741 239.7389 99.8136 0.99328507 5277
Kvant-1
1 17845U 87 30 A 90156.75987091 -.00153865 00000-0 -18695-2 0 1588
2 17845 51.6132 28.3870 0012059 6.8213 354.1225 15.60781394182366
DMSP B5D2-3
1 18123U 87 53 A 90156.80369046 .00000473 00000-0 26797-3 0 6046
2 18123 98.8200 347.5590 0015484 57.3226 302.9438 14.14046633152799
RS-10/11
1 18129U 90158.24981126 .00000138 00000-0 14059-3 0 2152
2 18129 82.9256 335.8699 0012672 141.2476 218.9588 13.72091938148086
Meteor 2-16
1 18312U 87 68 A 90156.46754170 .00000219 00000-0 18868-3 0 4349
2 18312 82.5505 299.5764 0011428 292.9706 67.0229 13.83649868141362
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Meteor 2-17
1 18820U 88 5 A 90156.99370699 .00000167 00000-0 13946-3 0 2851
2 18820 82.5449 359.3631 0017422 0.8056 359.3129 13.84345313118634
DMSP B5D2-4
1 18822U 88 6 A 90156.86905236 .00000472 00000-0 23294-3 0 5030
2 18822 98.6504 36.1357 0006386 315.8695 44.1969 14.21453543121212
AO-13
1 19216U 88 51 B 90148.23246392 .00000105 00000-0 99999-4 0 1283
2 19216 56.9522 153.1540 6957743 228.0483 47.3201 2.09698248 14984
OKEAN 1
1 19274U 88 56 A 90158.23959183 .00000326 00000-0 44547-4 0 8137
2 19274 82.5150 167.8346 0022971 151.2605 208.9749 14.76982904103454
Meteor 3-2
1 19336U 88 64 A 90157.85755550 .00000392 00000-0 99999-3 0 4975
2 19336 82.5402 284.7291 0018110 344.3398 15.7102 13.16898493 89592
NOAA 11
1 19531U 88 89 A 90157.39337851 .00000328 00000-0 20095-3 0 2886
2 19531 98.9815 105.6890 0011353 319.0808 40.9513 14.11614778 87447
TDRS 2
1 19548U 88 91 B 90152.78897618 .00000113 00000-0 99999-4 0 1349
2 19548 0.0907 87.0989 0017504 52.2280 220.4072 1.00262977 126
Cosmos 2001
1 19796U 89 11 A 90157.72677111 -.00001034 00000-0 99999-4 0 4998
2 19796 63.2130 94.1996 7091103 319.9399 5.1434 2.00673222 9595
GPS BII-01
1 19802U 89 13 A 90142.03861096 .00000016 00000-0 99999-4 0 1303
2 19802 55.0581 198.4458 0055803 164.4555 195.7971 2.00642300 9225
Akebono
1 19822U 89 16 A 90157.69625927 .00025094 00000-0 17716-2 0 6276
2 19822 75.1160 243.9668 4178937 228.5100 87.3760 7.10291187 32685
Meteor 2-18
1 19851U 89 18 A 90154.64893920 .00000243 00000-0 20864-3 0 2344
2 19851 82.5236 239.2428 0016253 45.5452 314.7035 13.83979217 63691
TDRS 3
1 19883U 89 21 B 90154.00000000 -.00000236 00000-0 99999-4 0 1340
2 19883 0.0904 72.6212 0000439 153.4348 343.7667 1.00277031 74792
GPS BII-02
1 20061U 89 44 A 90157.19570947 -.00000032 00000-0 00000 0 0 1366
2 20061 54.7550 16.2398 0086227 172.8349 187.3452 2.00485486 7278
Nadezhda 1
1 20103U 89 50 A 90156.80876097 .00000094 00000-0 94094-4 0 1337
2 20103 82.9585 293.3830 0039498 70.2655 290.2754 13.73593794 46157
GPS BII-03
1 20185U 89 64 A 90157.13918754 .00000016 00000-0 99999-4 0 1283
2 20185 54.9022 198.6985 0024309 159.3722 200.8240 2.00626333 5841
Activnyi
1 20261U 90158.29956211 .00000561 00000-0 17286-3 0 5387
2 20261 82.5964 234.8436 1257934 0.8168 359.4599 12.43728992 31365
Activnyi RB
1 20262U 89 80 C 90155.28413880 .00000309 00000-0 94910-4 0 2397
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2 20262 82.5949 236.8011 1261388 7.8075 354.0725 12.43197158 30985
Magion 2
1 20281U 90158.35106130 .00000453 00000-0 13782-3 0 5379
2 20281 82.5957 234.7406 1257603 0.5604 359.6563 12.43988275 31376
GPS BII-04
1 20302U 89 85 A 90156.43405920 -.00000028 00000-0 99999-4 0 1313
2 20302 54.6273 317.5443 0031592 318.8925 40.8724 2.00374350 4631
Meteor 3-3
1 20305U 89 86 A 90158.25758036 .00000034 00000-0 75770-4 0 1371
2 20305 82.5550 224.9950 0016118 359.3191 0.7905 13.15855924 29641
COBE
1 20322U 89 89 A 90157.06744326 .00004381 00000-0 28787-2 0 1360
2 20322 99.0196 167.3866 0009990 44.3898 315.8062 14.02273853 27936
Kvant-2
1 20335U 89 93 A 90156.82369817 -.00043141 00000-0 -50744-3 0 2617
2 20335 51.6150 28.0685 0010566 7.8203 352.0365 15.60844212 29985
GPS BII-05
1 20361U 89 97 A 90156.17029847 .00000015 00000-0 99999-4 0 800
2 20361 54.9860 140.8057 0062556 46.6808 313.9547 2.00579991 3486
SPOT 2
1 20436U 90 5 A 90158.24371357 -.00003117 00000-0 -14569-2 0 2235
2 20436 98.7345 232.8674 0001659 84.3734 275.7462 14.20033042 19333
UO-14
1 20437U 90 5 B 90157.25043101 .00000110 00000-0 51686-4 0 1611
2 20437 98.7088 233.4001 0012400 180.1294 179.9886 14.28624817 19307
UO-15
1 20438U 90 5 C 90158.25299533 .00001430 00000-0 58804-3 0 911
2 20438 98.6989 234.3758 0010733 177.3715 182.7528 14.28376096 19442
PACSAT
1 20439U 90 5 D 90158.29152781 .00000382 00000-0 16757-3 0 836
2 20439 98.7019 234.5188 0011186 180.6504 179.4668 14.28730423 19450
DO-17
1 20440U 90 5 E 90157.23747009 .00000464 00000-0 20042-3 0 860
2 20440 98.7038 233.4739 0011196 182.3300 177.7827 14.28775949 19301
WO-18
1 20441U 90 5 F 90156.24698547 .00000472 00000-0 20304-3 0 852
2 20441 98.7040 232.5010 0011787 186.8265 173.2720 14.28874390 19169
LO-19
1 20442U 90 5 G 90158.20120028 .00000224 00000-0 96556-4 0 864
2 20442 98.7038 234.4690 0012274 181.7350 178.3790 14.28941930 19442
GPS BII-06
1 20452U 90 8 A 90147.83563653 .00000001 00000-0 99999-4 0 755
2 20452 54.5567 256.8002 0028456 44.6049 315.6465 2.00875970 2439
MOS-1B
1 20478U 90 13 A 90157.84059613 .00000084 00000-0 75563-4 0 2919
2 20478 99.1903 228.1033 0001798 93.9160 266.2061 13.94842011 16694
DEBUT
1 20479U 90 13 B 90158.26403898 -.00000072 00000-0 -13252-3 0 772
2 20479 99.0392 206.6464 0541781 71.0355 294.8623 12.83156596 15478
FO-20
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1 20480U 90 13 C 90157.17501493 .00000048 00000-0 15597-3 0 802
2 20480 99.0408 205.7596 0542049 73.5802 292.4161 12.83136818 15337
MOS-1B R/B
1 20491U 90 13 D 90158.07262524 .00000056 00000-0 15088-3 0 818
2 20491 99.0380 209.8719 0471504 54.9996 309.4446 13.02718520 15089
Soyuz TM-9
1 20494U 90 14 A 90156.75950432 -.00040572 00000-0 -47667-3 0 1556
2 20494 51.6210 28.3954 0010529 7.7024 351.1921 15.60847906 17886
LACE
1 20496U 90 15 A 90158.08524949 .00002837 00000-0 18211-3 0 1628
2 20496 43.0970 18.2377 0015244 289.3117 70.6085 15.10503846 16995
RME
1 20497U 90 15 B 90157.96371997 .00007765 00000-0 22395-3 0 1632
2 20497 43.1040 355.8221 0018695 276.9709 82.8911 15.35938890 17267
Nadezhda 2
1 20508U 90 17 A 90156.27980339 .00000091 00000-0 91038-4 0 888
2 20508 82.9547 68.6881 0045708 20.9415 339.3603 13.73212551 13375
OKEAN 2
1 20510U 90 18 A 90158.27948448 .00000864 00000-0 13062-3 0 1642
2 20510 82.5260 106.8498 0018553 311.1933 48.7706 14.73128082 14612
INTELSAT-6
1 20523U 90 21 A 90157.87360466 -.00006666 00000-0 -48863-3 0 1637
2 20523 28.3467 331.2429 0015658 84.4123 275.8501 15.03104486 12895
GPS BII-07
1 20533U 90 25 A 90140.98718512 -.00000032 00000-0 00000 0 0 473
2 20533 55.0719 17.0265 0033840 99.7665 260.6670 2.00594792 1054
Offeq 2
1 20540U 90 27 A 90157.70828851 .01021835 -65614-4 18085-2 0 1364
2 20540 143.1923 92.2139 0586142 189.0492 169.9981 14.88786265 9255
PegSat
1 20546U 90 28 A 90157.55574584 .00002454 00000-0 15538-3 0 1083
2 20546 94.1208 209.4551 0150803 11.4357 349.0374 15.00214947 9245
1990 030B
1 20559U 90 30 B 90133.67279168 .00011178 00000-0 37832-2 0 528
2 20559 31.2905 11.0753 7319241 198.5461 105.1812 2.22962208 811
Cosmos 2072
1 20568U 90 33 A 90133.90710463 .00331011 56513-4 42018-3 0 1052
2 20568 64.7618 49.0650 0033867 86.1627 274.2603 16.05900007 4844
Palapa-B2R
1 20570U 90 34 A 90137.02166144 -.00000317 00000-0 99999-4 0 514
2 20570 0.0523 15.3218 0007680 110.1335 231.8008 1.00108506 295
1990 034B
1 20571U 90 34 B 90135.25637826 .00001978 00000-0 32479-3 0 554
2 20571 22.7504 176.4934 0628149 118.0040 248.5409 13.82067297 4332
1990 034C
1 20572U 90 34 C 90135.84989660 .00032231 00000-0 39037-2 0 491
2 20572 18.9297 347.9472 7375661 200.8035 96.7659 2.18270624 692
Cosmos 2074
1 20577U 90 36 A 90136.03907435 .00000094 00000-0 93615-4 0 474
2 20577 82.9451 138.3064 0025496 217.6457 142.2914 13.73710956 3463
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1990 036B
1 20578U 90 36 B 90142.63696705 .00000143 00000-0 13889-3 0 539
2 20578 82.9423 133.3810 0019220 181.1997 178.9117 13.75020736 4373
HST
1 20580U 90 37 B 90157.74572456 .00002439 00000-0 26731-3 0 829
2 20580 28.4703 316.0141 0005785 20.6795 339.3984 14.84389289 6428
Cosmos 2075
1 20581U 90 38 A 90144.24709396 -.00004275 00000-0 -17923-3 0 877
2 20581 74.0254 356.0235 0023185 277.7210 82.1092 15.23022306 4379
1990 038B
1 20582U 90 38 B 90142.57824248 .00024584 00000-0 98348-3 0 723
2 20582 74.0294 359.4297 0031040 293.1471 66.6509 15.24541833 4124
Molniya1-77
1 20583U 90 39 A 90144.15730607 .00000070 00000-0 -16867-2 0 793
2 20583 62.7982 183.9973 7353596 288.2139 9.5835 2.00619305 573
1990 039B
1 20584U 90 39 B 90144.83967752 .03903616 41472-4 10039-2 0 1048
2 20584 62.7619 78.2685 0067648 125.7776 235.2487 16.21902308 4540
1990 39D
1 20586U 90 39 D 90143.60954820 .00000419 00000-0 68663-3 0 226
2 20586 62.8248 184.0281 7395335 288.1806 9.3720 1.96420289 535
Cosmos 2076
1 20596U 90 40 A 90151.40303225 -.00001233 00000-0 79009-3 0 438
2 20596 63.0666 334.8186 7375665 318.5072 4.4103 2.00587266 669
1990 40B
1 20597U 90 40 B 90148.20589656 .39662252 43947-4 29451-3 0 822
2 20597 62.7886 226.6703 0013442 121.7004 238.9820 16.52106649 4698
1990 40D
1 20599U 90 40 D 90150.97163910 -.00000504 00000-0 -84377-3 0 296
2 20599 63.1771 334.5570 7351260 318.5828 4.4750 2.03474794 660
Cosmos 2077
1 20604U 90158.37886313 .00725924 40759-4 27080-3 0 814
2 20604 62.8257 333.1699 0060076 101.9574 258.8145 16.19247749 4933
1990 043A
1 20607U 90 43 A 90154.58485080 .00001120 00000-0 20723-3 0 192
2 20607 89.8914 194.9155 0111658 193.2628 166.5623 14.60797763 3634
1990 043B
1 20608U 90 43 B 90156.63732514 .00001208 00000-0 22219-3 0 243
2 20608 89.8880 194.8777 0113098 185.9515 174.0359 14.60976579 3936
1990 043C
1 20609U 90 43 C 90158.04272350 .00002861 00000-0 46262-3 0 259
2 20609 89.6516 194.0171 0061245 223.5827 136.0538 14.69865436 4163
Cosmos 2078
1 20615U 90158.37720371 .00197490 70517-5 14302-3 0 671
2 20615 69.9871 355.5385 0057186 63.4735 297.2329 16.11825372 3705
Cosmos 2079
1 20619U 90 45 A 90158.34964756 -.00000015 00000-0 99999-4 0 327
2 20619 64.8781 39.3223 0112084 293.8514 65.0395 2.16695999 413
Cosmos 2080
1 20620U 90 45 B 90157.95794243 -.00000015 00000-0 99999-4 0 316
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2 20620 64.8642 39.3398 0008394 35.3122 323.5262 2.13116105 415
Cosmos 2081
1 20621U 90 45 C 90158.01787985 -.00000015 00000-0 99999-4 0 275
2 20621 64.8936 39.3435 0011990 201.8322 158.1664 2.13104100 412
1990 045E
1 20623U 90 45 E 90157.58152101 -.00000015 00000-0 99999-4 0 140
2 20623 64.8887 39.3528 0010572 338.3290 21.6928 2.13414266 400
Cosmos 2082
1 20624U 90 46 A 90157.93797763 .00000192 00000-0 12640-3 0 276
2 20624 70.9987 331.8707 0004985 24.6719 335.4671 14.12167408 2229
1990 046B
1 20625U 90 46 B 90157.50064328 .00000135 00000-0 82761-4 0 127
2 20625 71.0017 332.7393 0015618 324.5381 35.4708 14.13306829 2163
RESURS-F
1 20632U 90158.33324088 .00058061 00000-0 89185-4 0 308
2 20632 82.3325 12.5786 0009662 279.1301 80.8865 16.03998167 1458
Kristall
1 20635U 90158.47684551 .00037857 00000-0 52092-3 0 283
2 20635 51.6219 19.6431 0025887 300.6576 49.2469 15.56490615 1123
1990 048B
1 20636U 90 48 B 90158.01145399 .01322133 56734-4 70784-3 0 199
2 20636 51.6289 20.9710 0047722 115.2729 246.2898 16.16274986 951
1990 049A
1 20638U 90 49 A 90157.50950153 .00001326 00000-0 13464-3 0 96
2 20638 52.9871 97.6478 0013898 313.0357 46.9464 14.97548511 687
1990 049B
1 20639U 90 49 B 90156.12811349 .00006926 00000-0 31515-3 0 51
2 20639 52.5172 97.3647 0075626 258.1541 101.0934 15.19333934 494
1989 100N
1 20640U 89100 N 90158.39260232 .00104636 00000-0 49542-2 0 98
2 20640 73.5286 114.0673 0012065 203.4022 156.5470 15.18754076 24608
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tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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3434. Re: EBS Recordings, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-09 23:22:48 UTC
From: dave@compnect.UUCP
Message-ID: <615@compnect.UUCP>
Source record: 11041

In article <9006071242.AA21383@decpa.pa.dec.com>, judice@sulaco.enet.dec.com ("Louis J. Judice") writes:
>
>
> My understanding from talking to a former radio station employee is that
> there are/were two classes of stations (primary and secondary - my terms).

Good choice of terms. They're correct.

> The secondary stations, in the event of an emergency, tuned to one of the
> primary stations and rebroadcast it. The EBS equipment rack included
> tone detection, etc. and a specially packaged AM radio (not mil-spec, though,
> supposedly of lower quality than the cheapest auto AM radios).

In the OLD days, we used 'semi-cheap' rack mount radios that operated on carrier the carrier detect idea. You tuned it to the Primary EBS station for your region and pressed a button to lock a relay to silence the receiver. As long as the primary maintained a carrier, the receiver stayed quiet. When the primary ran a test, they started by turning the plates off and on on the transmitter 3 times to trigger all the monitors at the secondary sites, then ran a cart with the old familiar tone followed by the "....If this had been an actual alert, you would have been instructed...". When a primary ran a test, the secondaries only logged it but ran their own according to a set schedule. If a REAL notification came through, secondaries were supposed to tell people where to tune (just like the old Conelrad 640/1240 stuff) then sign-off, NOT rebroadcast material. I guess the idea was to cut the clutter and make sure ONLY authorized info was disseminated.

> I think this is why there is divergent opionion in this discussion from
> knowledgeable radio station people - the EBS implementation varied, depending
> on what kind of station it was installed in.

Basically it's the same now except the old carrier latch receivers have been replaced with the dual tone decoders and there are now several more levels of alert as opposed to the old "The sky is falling! Run for your lives!" approach :-)

As to the tapes everyone is talking about, some stations still keep the scripts in a copy book for the console operator to read and others have them already canned so all the jock has to do is stuff in the cart, hit a button and run for the shelter (:-) again)

>> Dave <<

[------: Dave Ratcliffe :--------:-: 2832 Croyden Rd. Harrisburg Pa. 17104 :-]
: dave@compnect.uucp -or- : The Data Factory BBS :

```
: uunet!wa3wbu!compnect!dave -or-: Data: (717)657-4997 - (717)657-4992 :
: compnect!dave@uunet.UU.NET :.....................................]
[........use what works..........]
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3435. AMSAT Bulletins, 6/9/90

Newsgroup: rec.ham-radio
Date: 1990-06-10 03:29:11 UTC
From: tad@ssc.UUCP
Message-ID: <818@ssc.UUCP>
Source record: 11042

SB ALL @ AMSAT $ANS-160.01
STS-35/SAREX MISSION DELAYED

HR AMSAT NEWS SERVICE BULLETIN 160.01 FROM AMSAT HQ
SILVER SPRING, MD JUNE 9, 1990
TO ALL RADIO AMATEURS BT

STS-35/SAREX Mission Delayed Possibly for Two Months

This week NASA engineers and technicians found the hydrogen leak which prevented the lift-off of the shuttle Columbia (STS-35) on May 29th. Because of the danger of an explosion from a hydrogen leak in the engine compartment, NASA officials scrubbed the launch and worked up a plan to find it. The leak was located between two plates that connect the shuttle and the external tank. Since this is considered a major repair and one that cannot be performed on the launch pad, Columbia will have to be rolled back to the huge Vehicle Assembly Building (VAB). The roll-back will happen sometime next week and the repair of the leak and the return to flight readiness status of Columbia could take about a month. Complicating the repair work is the planned launch of the shuttle Atlantis (STS-38) for mid-July. Since Atlantis is carrying a secret military payload, it has national security priority over the scientific mission of STS-35. NASA officials now are saying that it could be August before Columbia and the STS-35/SAREX mission can get off the ground.

STS-35 is planned to be an all scientific shuttle mission carrying the ASTRO-1 observatory in its cargo bay. Also flying aboard as a secondary experiment is the Shuttle Amateur Radio Experiment (SAREX) payload. The SAREX station consists of a packet radio ROBOT TNC, a 2 meter FM hand-held transceiver, and a Grid laptop computer to be operated by Payload Specialist, Ron Parise (WA4SIR). The special software written for this packet station will allow amateurs to receive a QSO number after they successfully connect with the station on packet. Also, the plan is for WA4SIR to conduct 2 meter FM voice QSOs with amateurs on the ground.

Please stay tuned to AMSAT Nets and for further updates on the STS-35/SAREX mission.
/EX
SB ALL @ AMSAT $ANS-160.02
ZRO TESTS CONTINUE

HR AMSAT NEWS SERVICE BULLETIN 160.02 FROM AMSAT HQ
SILVER SPRING, MD JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Station Receiving Tests Continue

The following Mode "B" and "JL" ZRO tests remain in the current test rotation. They are scheduled for convenient operating times and favorable squint angles. The "B" tests can be heard on 145.840 MHz and the "JL" tests on 435.945 MHz.

Saturday June 16, 1990 at 2200 UTC "JL"
Saturday June 16, 1990 at 2340 UTC "B"
Saturday June 30, 1990 at 1840 UTC "JL"
Saturday June 30, 1990 at 1930 UTC "B"

Any changes will be announced as soon as possible via the AMSAT HF and AO-13 Operations Nets. Recently updated ZRO brochures are available from WA5ZIB, Andy MacAllister, AMSAT V.P. User Operations, 14714 Knightsway Drive, Houston, TX 77083 for an S.A.S.E. with two units of postage. The brochure describes test procedures and means for obtaining certificates and gives some historical background about the program.

All listener reports with date of test and numbers copied should be sent to WA5ZIB at the address above. A report will be returned verifying the level of accurate reception. Good luck!
/EX
SB ALL @ AMSAT $ANS-160.03
NOMINATIONS FOR AMSAT-NA BOD

HR AMSAT NEWS SERVICE BULLETIN 160.03 FROM AMSAT HQ
SILVER SPRING, MD JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Nominations Period for Three Seats on AMSAT-NA BOD to Close Soon

Nominations are sought for the AMSAT Board of Directors. Directors are elected by the membership for a two-year term. Any member society or group of five members may nominate someone (a member) to run for the position.

This year there are three seats to be filled. Those directors whose seats are up for election are Phil Karn, KA9Q, Tom Clark, W3IWI, and the seat vacated by the resignation of Vern Riportella, WA2LQQ.

All nominations should be sent to AMSAT BoD Nominations, 850 Sligo Ave #600, Silver Spring, MD 20910 to arrive no later than June 15, 1990.
/EX
SB ALL @ AMSAT $ANS-160.04
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 160.04 FROM AMSAT HQ
SILVER SPRING, MD JUNE 9, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

15 Jun 90 0115 104 J/L N5BF Thursday
26 Jun 90 0115 144 B N5BF Monday

For information on the amateur satellite program and how you can
participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone
(301) 589-6062, or contact your local AMSAT Area Coordinator.
/EX
SB ALL @ AMSAT $ANS-160.05
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 160.05 FROM AMSAT HQ
SILVER SPRING, MD JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Transponder Schedule for AO-13 Effective 05MAY90

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The current attitude is:

BLON = 179.2 and BLAT = -2.8 for 11 Jun 90

Cross mode B and S QSOs are possible during MA 135 to 140.

AO-10's Mode-B Transponder Now Available for Use:

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination
to support Mode-B transponder operations, therefore, the transponder is
available for general use whenever AO-10 is in view at your location.
Please DO NOT use the transponder if the signals are FMing. The current
estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

[AO-10 update received from Graham Ratcliff, VK5AGR, via AO-13 beacons.]
/EX
SB ALL @ AMSAT $ORBS-160.O
Orbital Elements 160.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90157.09033828
Element set: 527
Inclination: 25.9956 deg
RA of node: 200.7381 deg

Eccentricity: 0.5958911
Arg of perigee: 148.8920 deg
Mean anomaly: 266.8516 deg
Mean motion: 2.05881905 rev/day
Decay rate: -6.50e-07 rev/day^2
Epoch rev: 5250

Satellite: UO-11
Catalog number: 14781
Epoch time: 90156.61567397
Element set: 744
Inclination: 97.9462 deg
RA of node: 209.5469 deg
Eccentricity: 0.0011698
Arg of perigee: 287.2040 deg
Mean anomaly: 72.7880 deg
Mean motion: 14.65389143 rev/day
Decay rate: 8.60e-06 rev/day^2
Epoch rev: 33427

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90158.24981126
Element set: 215
Inclination: 82.9256 deg
RA of node: 335.8699 deg
Eccentricity: 0.0012672
Arg of perigee: 141.2476 deg
Mean anomaly: 218.9588 deg
Mean motion: 13.72091938 rev/day
Decay rate: 1.38e-06 rev/day^2
Epoch rev: 14808

Satellite: AO-13
Catalog number: 19216
Epoch time: 90148.23246392
Element set: 128
Inclination: 56.9522 deg
RA of node: 153.1540 deg
Eccentricity: 0.6957743
Arg of perigee: 228.0483 deg
Mean anomaly: 47.3201 deg
Mean motion: 2.09698248 rev/day
Decay rate: 1.05e-06 rev/day^2
Epoch rev: 1498

Satellite: FO-20
Catalog number: 20480
Epoch time: 90158.26403898
Element set: 77
Inclination: 99.0392 deg

RA of node: 206.6464 deg
Eccentricity: 0.0541781
Arg of perigee: 71.0355 deg
Mean anomaly: 294.8623 deg
Mean motion: 12.83156596 rev/day
Decay rate: -7.20e-07 rev/day^2
Epoch rev: 1547
/EX
SB ALL @ AMSAT $ORBS-160.D
Orbital Elements 160.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90157.25043101
Element set: 161
Inclination: 98.7088 deg
RA of node: 233.4001 deg
Eccentricity: 0.0012400
Arg of perigee: 180.1294 deg
Mean anomaly: 179.9886 deg
Mean motion: 14.28624817 rev/day
Decay rate: 1.10e-06 rev/day^2
Epoch rev: 1930

Satellite: AO-16
Catalog number: 20439
Epoch time: 90158.29152781
Element set: 83
Inclination: 98.7019 deg
RA of node: 234.5188 deg
Eccentricity: 0.0011186
Arg of perigee: 180.6504 deg
Mean anomaly: 179.4668 deg
Mean motion: 14.28730423 rev/day
Decay rate: 3.82e-06 rev/day^2
Epoch rev: 1945

Satellite: DO-17
Catalog number: 20440
Epoch time: 90157.23747009
Element set: 86
Inclination: 98.7038 deg
RA of node: 233.4739 deg
Eccentricity: 0.0011196
Arg of perigee: 182.3300 deg
Mean anomaly: 177.7827 deg
Mean motion: 14.28775949 rev/day

Decay rate: 4.64e-06 rev/day^2
Epoch rev: 1930

Satellite: WO-18
Catalog number: 20441
Epoch time: 90156.24698547
Element set: 85
Inclination: 98.7040 deg
RA of node: 232.5010 deg
Eccentricity: 0.0011787
Arg of perigee: 186.8265 deg
Mean anomaly: 173.2720 deg
Mean motion: 14.28874390 rev/day
Decay rate: 4.72e-06 rev/day^2
Epoch rev: 1916

Satellite: LO-19
Catalog number: 20442
Epoch time: 90158.20120028
Element set: 86
Inclination: 98.7038 deg
RA of node: 234.4690 deg
Eccentricity: 0.0012274
Arg of perigee: 181.7350 deg
Mean anomaly: 178.3790 deg
Mean motion: 14.28941930 rev/day
Decay rate: 2.24e-06 rev/day^2
Epoch rev: 1944
/EX
SB ALL @ AMSAT $ORBS-160.M
Orbital Elements 160.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90158.21426006
Element set: 309
Inclination: 51.6033 deg
RA of node: 354.7111 deg
Eccentricity: 0.0001640
Arg of perigee: 169.8273 deg
Mean anomaly: 190.2785 deg
Mean motion: 15.63305589 rev/day
Decay rate: 2.7475e-04 rev/day^2
Epoch rev: 46329

Satellite: MIR
Catalog number: 16609
Epoch time: 90158.23225767

Element set: 717
Inclination: 51.6143 deg
RA of node: 20.9704 deg
Eccentricity: 0.0010772
Arg of perigee: 15.9591 deg
Mean anomaly: 344.2325 deg
Mean motion: 15.60941065 rev/day
Decay rate: 2.7135e-04 rev/day^2
Epoch rev: 24654

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 90157.74572456
Element set: 82
Inclination: 28.4703 deg
RA of node: 316.0141 deg
Eccentricity: 0.0005785
Arg of perigee: 20.6795 deg
Mean anomaly: 339.3984 deg
Mean motion: 14.84389289 rev/day
Decay rate: 2.439e-05 rev/day^2
Epoch rev: 642
/EX
SB ALL @ AMSAT $ORBS-160.W
Orbital Elements 160.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90156.71989706
Element set: 589
Inclination: 99.1664 deg
RA of node: 156.2832 deg
Eccentricity: 0.0016025
Arg of perigee: 44.3419 deg
Mean anomaly: 315.9035 deg
Mean motion: 14.12583291 rev/day
Decay rate: 1.63e-06 rev/day^2
Epoch rev: 28236

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90156.60881657
Element set: 438
Inclination: 98.6027 deg
RA of node: 184.8145 deg
Eccentricity: 0.0013018
Arg of perigee: 308.0247 deg

Mean anomaly: 51.9755 deg
Mean motion: 14.23626479 rev/day
Decay rate: 6.17e-06 rev/day^2
Epoch rev: 19296

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90156.46754170
Element set: 434
Inclination: 82.5505 deg
RA of node: 299.5764 deg
Eccentricity: 0.0011428
Arg of perigee: 292.9706 deg
Mean anomaly: 67.0229 deg
Mean motion: 13.83649868 rev/day
Decay rate: 2.19e-06 rev/day^2
Epoch rev: 14136

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90156.99370699
Element set: 285
Inclination: 82.5449 deg
RA of node: 359.3631 deg
Eccentricity: 0.0017422
Arg of perigee: 0.8056 deg
Mean anomaly: 359.3129 deg
Mean motion: 13.84345313 rev/day
Decay rate: 1.67e-06 rev/day^2
Epoch rev: 11863

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 90157.85755550
Element set: 497
Inclination: 82.5402 deg
RA of node: 284.7291 deg
Eccentricity: 0.0018110
Arg of perigee: 344.3398 deg
Mean anomaly: 15.7102 deg
Mean motion: 13.16898493 rev/day
Decay rate: 3.92e-06 rev/day^2
Epoch rev: 8959

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90157.39337851
Element set: 288
Inclination: 98.9815 deg
RA of node: 105.6890 deg
Eccentricity: 0.0011353

Arg of perigee: 319.0808 deg
Mean anomaly: 40.9513 deg
Mean motion: 14.11614778 rev/day
Decay rate: 3.28e-06 rev/day^2
Epoch rev: 8744

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90154.64893920
Element set: 234
Inclination: 82.5236 deg
RA of node: 239.2428 deg
Eccentricity: 0.0016253
Arg of perigee: 45.5452 deg
Mean anomaly: 314.7035 deg
Mean motion: 13.83979217 rev/day
Decay rate: 2.43e-06 rev/day^2
Epoch rev: 6369

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90158.25758036
Element set: 137
Inclination: 82.5550 deg
RA of node: 224.9950 deg
Eccentricity: 0.0016118
Arg of perigee: 359.3191 deg
Mean anomaly: 0.7905 deg
Mean motion: 13.15855924 rev/day
Decay rate: 3.40e-07 rev/day^2
Epoch rev: 2964
/EX

3436. Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-06-10 07:32:00 UTC
From: postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
Message-ID: <9006100633.AA17789@ucsd.edu>
Source record: 11040

From: POSTMSTR @SSXMB
To: MRREMNET @MRGATE
WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

Author:
Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
Subject: Info-Hams Digest V1 #17
Message Class:

Recipients:

BCCROWE@DALMAC

Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

3437. Re: EBS Recordings, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-10 14:02:18 UTC
From: wb8foz@mthvax.cs.miami.edu
Message-ID: <1990Jun10.140218.14882@mthvax.cs.miami.edu>
Source record: 11054

{re: carts machines @ some stations}

It may be hard to believe, but there are stations with no cart
machines. WFMT in Chicago comes to mind. NO recorded commercials
allowed--the announcer read it, or you didn't hear it. Just
imagine, no blabber music at all. No SAVE SAVE SAVE at Ed's
Edsel of Edgewood.

Sure wish the rest of the world got WFMT.

--
A host is a host from coast to coast.....wb8foz@mthvax.cs.miami.edu
& no one will talk to a host that's close.....(305) 255-RTFM
Unless the host (that isn't close).....pob 570-335
is busy, hung or dead.....33257-0335

3438. Re: RECEIVER

Newsgroup: rec.ham-radio
Date: 1990-06-10 15:53:24 UTC
From: rld@well.sf.ca.us
Message-ID: <18423@well.sf.ca.us>
Source record: 11045

greg.trice@canremote.uucp (GREG TRICE) writes:

>I'm looking for a receiver with the following specs. If they seem a
>little unusual, it's because it's not for communication, but rather used
>in connection with magnetic resonance experiments.
> Frequency coverage 100-1000MHz (continuous, not channelized)
> Bandwidth adjustable from 500Hz to 50kHz (can be in steps)
> Must have bfo (signals are akin to cw transmissions)
> Sensitivity of 0.5uV
> Ability to withstand 1000V pulses on input without blocking or damage.
> The receiver will operate in an environment of very high EMI including
> huge pulsed magnetic fields.
>If nothing like this exists on the market I will design and build one,
>but I'd prefer to buy.

I can't help you myself but you might try to contact Rich Muller's group
at LBL in Berkely. About 5 years ago they were working on a mini cyclotron
to use for very precise mass spectrometry/Radioisotope dating. They needed
a stable, wide-band frequency source and found that one of the Kenwood
transmitters would do the job better and at a fraction of the price
of a lab-grade signal generator. Couple of his grad students ended up
getting their tickets as a result!
73 - Rick D.

3439. RE: Info-Hams Digest V1 #12

Newsgroup: rec.ham-radio
Date: 1990-06-10 16:23:00 UTC
From: RAFI@BGUVMS.BITNET
Message-ID: <9006101624.AA08919@ucsd.edu>
Source record: 11043

PLEASE DROP ME FROM THE MAILING LIST FROM PRESENT TO 7 JULY.

MANY THANKS
RAFI@BENGUS.BITNET

3440. RE: Info-Hams Digest V1 #12

Newsgroup: rec.ham-radio
Date: 1990-06-10 16:24:00 UTC
From: RAFI@BGUVMS.BITNET
Message-ID: <9006101624.AA08924@ucsd.edu>
Source record: 11044

PLEASE DROP ME FROM THE INFO HAMS MAILING LIST FROM PRESENT TO
7 JULY
THANKS
RAFI@BGUVMS.BITNET

3441. KA9Q TCP/IP Xenix Sources Wanted

Newsgroup: rec.ham-radio
Date: 1990-06-10 16:28:13 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <4389@ubbs-nh.MV.COM>
Source record: 11058
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

I, and several others, are searching for TCP/IP sources which have been
ported to SCO Xenix.

Sources, assistance and/or leads most appreciated.

Thanks!

Noel
KC1RB

--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

3442. Unix/Xenix Logging Program Wanted

Newsgroup: rec.ham-radio
Date: 1990-06-10 16:46:04 UTC
From: noel@ubbs-nh.MV.COM
Message-ID: <4391@ubbs-nh.MV.COM>
Source record: 11059

Not being a programmer is sometimes a real drag...

I'd like to find the sources for a logging program written for Unix or Xenix, or a DOS version written in C which has possibilites of being ported.

I'd even be willing to purchase such an animal if it were available.

Any help, sources, binaries, leads or other info greatly appreciated.

Thanks!

Noel
KC1RB
--
Noel B. Del More | decvax!ubbs-nh!noel
17 Meredith Drive | noel@ubbs-nh.mv.com
Nashua, New Hampshire 03063 | It's unix me son! `taint spozed tah make cents

3443. RECEIVER

Newsgroup: rec.ham-radio
Date: 1990-06-10 18:32:38 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006101850.AA02291@ti.com>
Source record: 11048

In "canremote!greg.trice", Greg Trice writes a need for a receiver with, among other things, a

>Sensitivity of 0.5 uV
>Ability to withstand 1000V pulses on input without blocking or damage.

This sounds a lot like a receiver with a Blocking Dynamic Range of over 180dB. If such a receiver is found, Greg, let us know...and let us know the price.

73,
Dube Todd N5PDK

3444. Field Day Logging Programs

Newsgroup: rec.ham-radio
Date: 1990-06-10 20:18:08 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9006102018.AA00751@tecnet1.jcte.jcs.mil>
Source record: 11046

att!watmath!watserv1!rnelson@ucbvax.Berkeley.EDU (Randy Nelson VE3WRN) writes:

>A new field day logging program is now available via anonymous ftp
>at ucsd.edu (128.54.16.1) in /pub/hamradio. FIELDAY.ZIP was tested by
>our club (VE3IC) last year. The author, Paul Cassel (VE3SY) has done
>an excellent job. Please try out this program and let me know what
>you think of it. I will pass on your comments to Paul.

>73 de Randy VE3WRN

I grabbed this program from ucsd.edu and it appears to be excellent!
(Thanks Randy!)

This brings up an interesting question which is apt at this time of year. Does anyone know of other good field-day logging programs written for older machines such as the Apple II+ (or in my case) for some of the CP/M machines? I really hate to consider taking my mega-buck 386 to field day for logging purposes.. but the old Model-4 would be absolutely perfect! Call me old and nervous... but a generator running my computer makes me a little queasy! :-)

Anything buried in the recesses of SIMTEL or any other FTP sites?

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

3445. Re: IRC prices

Newsgroup: rec.ham-radio
Date: 1990-06-10 20:39:39 UTC
From: lkay@ecs.umass.edu
Message-ID: <10038.2672b00b@ecs.umass.edu>
Source record: 11061

In article <1702@apctrc.UUCP>, zslf0a@gpss5 (Steven L. Farmer) writes:
>
> residents to have foreign currency. To be on the safe side, I check the
> 'Greenstamp Guide' published by DX QSL Associates first. It lists countries
> where greenstamps are ok. DX QSL Associates also sells 'European' airmail
> envelopes and foreign stamps. The prices seem a little high, but you don't
> need a big supply of either. I've been having very good returns on Soviet

This posting is good advice. I usually use greenstamps, but even where they're OK (which is most places) you always run the risk of the local P.O. workers filching the money. Thus foreign airmail stamps do help sometimes. I get mine from William Plum, 12 Glenn Road, Flemington, NJ 08822. An SASE will bring a price list. Generally the stamps will run you $1-$1.50 so it's reasonably priced against a greenstamp. And I agree with the above - the return is on average quicker.

P.S. - My PO charges 95c for IRCs also. You gotta watch the USPS employees, though - a lot of them don't know what they are, and even more don't know which side *they* stamp it on (if it's stamped on the wrong side it's invalid)!

Len

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3446. USA ham call words -corrected

Newsgroup: rec.ham-radio
Date: 1990-06-10 21:31:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500570@ux1.cso.uiuc.edu>
Source record: 11051

The previous posting of usa ham call words was incorrect. The following is the corrected list. Note that capitalized words are proper names. Fully upper case words are acronyms. Quite many of these have never been assigned by the FCC, so this may further encourage you to get the FCC to allow us to request vanity callsigns. DO NOT use any of these words for passwords, as they were derived from /usr/dict/words which also means some proper names are not capitalized.

ab8as Al8any Ke1ler kn0ll n1ce n0ok wa1rus wh0le w1ndy w0nt
ab8e al8eit Ke1ley kn0t n1che no0k Wa1sh wh0'll w1ne w0o
ab8ey Al8ert ke1ly Kn0tt n1ck n0on Wa1t wh0lly w1ng w0od
ab8ot al8um ke1p kn0tty n1ece no0n Wa1ter wh0m w1nk wo0d
Ab8ott al1a Ke1sey kn0w N1ger n0ose Wa1ton wh0op w1no wo0den
ab1de al1as Ke1vin kn0wn n1gh no0se wa1tz wh0osh w1ny W0ods
ab1ate al1bi ki8itz Kn0x n1ght n0r wa5h wh0p w1pe Wo0ds
ab1aze Al1ce k1ck k0ala N1H n0rm wa5hy wh0re w1re w0ody
ab1e Al1cia k1d K0ch N1kko N0rma wa5n't wh0se w1ry wo0dy
ab0ard al1en K1dde k0dak n1l n0rth wa5p w1ck wi5dom w0ol
ab0de al1ght K1ev k0la N1le n0se wa5t w1de w1se wo0l
ab0rt al1gn k1ll ko1a Ni1e no5e wa5te w1den wi5e wo0len
ab0und al1ke ki1l k0mbu N1MH n0t We8b w1dow w1sh w0p
ab0ut Al1son ki1ohm K0ng N1na n0tch we8er w1dth wi5h w0rd
ab0ve al1ve K1m K0ran n1ne n0te we1gh w1eld w1shy w0rdy
ab5ent Al1ah k1n K0rea n1nth n0un we1ght W1er wi5hy w0re
ab5orb al1ay k1nd ko5her N1obe N0v we1r w1fe w1sp w0rk
ab5urd al1ege k1ng ku1ak Ni0be n0va we1rd w1g wi5p w0rld
ac1d al1ele k1nk Ky1e n1p N0vak We1ss Wi1bur w1spy w0rm
ac1dic Al1en k1nky Ky0to n1t n0vel We1ch Wi1cox wi5py w0rmy
ac0rn al1ey k1osk na1ad n1tty n0vo we1d w1ld w1t w0rn
ad1eu al1ied ki0sk na1l N1xon n0w We1don wi1d w1tch w0rry
ad1pic Al1is K1owa Na1r N0AA N5F we1l w1le w1th w0rse
Ad1er al1ot Ki0wa na1ve N0ah NT1S We1ler wi1e w1the w0rst
ad0be al1ow K1rby Na0mi n0b Nu8ia We1les W1ley w1thy w0rth
Ad0lph al1oy k1rk NA5A N0bel nu8ile We1ls Wi1ey W1tt W0tan
Ad0nis al1ude K1rov na5al No8el nu1l we1sh wi1ful w1tty w0uld
ad0pt al1ure k1ss Na5h n0ble ny1on we1t Wi1kes w1ve w0und
ad0re al1y ki5s Na5hua no8le Wa8ash We5ley w1ll wo8ble w0ve
ad0rn al1yl k1t Na5sau no8ody wa1l we5t wi1l w0e w0ven
ad5orb Al1yn k1te na5ty n0d wa1st We5ton W1lla w0k w0w
Ae0lus al0e k1tty N8C n0dal wa1t wh1ch Wi1la w0ke wr1ght
af1eld al0ft k1va N8S n0de Wa1te wh1ff Wi1lie w0ld wr1ng
af1re al0ha k1vu ne8ula N0el wa1ve wh1g Wi1lis wo1d wr1st
af1ame al0ne K1an Ne1l n0ise Wa1den wh1le wi1low w0lf wr1t
af1oat al0ng K1aus Ne1l no1se Wa1do wh1m W1lls wo1f wr1te

af0ot al0of K1ein Ne1lie n0isy wa1e wh1ne Wi1ls W0lfe wr1the
ag1le al0ud K1ine Ne1sen no1sy wa1k wh1nny W1lma Wo1fe wr0ng
ag1ng al5o Kl1ne Ne1son N0lan wa1kie wh1p Wi1ma W0lff wr0te
ag1eam Al5op K1ux ne0n No1an wa1l wh1r Wi1son Wo1ff Wy1ie
ag0ne Ka8uki kn1ck Ne5s N0ll Wa1ler wh1rl w1lt w0lve
ag0ny Ka8ul kn1fe ne5t No1l wa1let wh1sk wi1t wo1ve
ag0uti ka1ser kn1ght ne5tle n0lo Wa1lis wh1t w1ly w0man
ah0y ka1e kn1t Ne5tor no1o wa1lop wh1te wi1y w0mb
ai1e ka1mia kn1ves n1b n0n wa1low wh1ten w1n w0men
ai5le Ka1muk kn0b ni8ble n0nce Wa1ls wh1z w1nce w0n
ak1n ka0lin kn0bby n1bs n0ne wa1ly wh0a w1nch W0ng
al8a Ke1th kn0ck ni8s no0dle wa1nut wh0'd w1nd w0n't

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3447. Re: TNC Simulation

Newsgroup: rec.ham-radio
Date: 1990-06-10 22:49:19 UTC
From: usenet@bellcore-2.bellcore.com
Message-ID: <1990Jun10.224919.229@bellcore-2.bellcore.com>
Source record: 11047

In article <12183@shlump.nac.dec.com> pompano@deaths.dec.com (Jim Pompano) write
s:
>
>Is anyone aware of software that will emulate a TNC?

It depends on what you mean by "emulate a TNC". Your typical TNC can be
broken into three major pieces:

1. AX.25 link level protocol and user interface software
2. HDLC frame encoding/decoding
3. 1200 bps modem

Software is definitely available to do #1; I've written it. It's part of
the KA9Q "NOS" package. Although it was written primarily to support TCP/IP
over amateur packet radio, it does include a full-blown AX.25 and NET/ROM
implementation (the latter thanks to W9NK and SM0RGV).

However, there is no truly practical way to do #2 except in hardware,
which does not come standard with your garden-variety PC clone. HDLC
boards are available from several vendors (DRSI, PACCOMM, HAPN) that
plug into a PC bus. In the early days of amateur packet radio there were
software packages that emulated HDLC chips, but they were extremely slow,
clumsy, and prone to losing or corrupting data. Don't bother with them.

As for #3, the type of modem most amateurs use (Bell 202) is so obsolete
that it is now quite rare in the non-amateur world. Contemporary
telephone modems do NOT support this mode of operation, so you cannot
use it and be compatible with other amateur packet users. The HDLC
boards I just mentioned all contain on-board 202 modems, since they are
specifically designed for amateur packet radio use.

I recommend the plug-in card approach if you will always use your PC to
run packet, and especially if you want to use or experiment with higher
level protocols like TCP/IP. The "TNC" was designed for an erstwhile
era, when everybody used dumb terminals. It makes much more sense to
build packet stations around computers, not terminals.

I've redirected followups to rec.ham-radio.packet.

Phil

3448. Re: USA ham call words

Newsgroup: rec.ham-radio
Date: 1990-06-11 00:13:18 UTC
From: rfc@briar.Philips.Com
Message-ID: <98632@philabs.Philips.Com>
Source record: 11053

Ah! You missed W1SE!
73 de WA2ISE

3449. Re: EBS Recordings, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-11 00:28:41 UTC
From: rfc@briar.Philips.Com
Message-ID: <98633@philabs.Philips.Com>
Source record: 11050

Back in my college days, at Steven's Tech (which I soon left, and went to and graduated from Syracuse U, a *real* college), someone at the college radio station WCPR (carrier current) found a joke version of the EBS test on some comedy album, and put it on cart. Later on, one of the jocks played it on the air! Instead of the dual freq tone, there was the sound of a flute. Good thing that we were not a *real* radio station broadcasting over real air.

3450. Re: USA ham call words -corrected

Newsgroup: rec.ham-radio
Date: 1990-06-11 01:45:42 UTC
From: charyd@silver.ucs.indiana.edu
Message-ID: <47211@iuvax.cs.indiana.edu>
Source record: 11049

In article <30500570@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>The previous posting of usa ham call words was incorrect. The following is
>the corrected list. Note that capitalized words are proper names. Fully

.
.
.

>--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society

In this age of "turtle madness" n1nja (unassigned) would be a good
'1'. :)

Some interesting letters I learned from a calculator game book:

6,9: G , 2: Z, 4 (as most people write it) Y or A

In the Russian alphabet, 3 is the character for 'Z' and would
also make for a good 'E robatne' (sp?)

When the FCC runs out of N's for Regions 4 and 6, where will they go
next? If they go to NA4AAA, think of what will happen when NA1's
are finally assigned!

Who got lucky on VHF Friday night? :)

David Chary
(charyd@jade.ucs.indiana.edu)
N9JRV

3451. Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-06-11 03:33:00 UTC
From: postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
Message-ID: <9006110232.AA25583@ucsd.edu>
Source record: 11052

From: POSTMSTR @SSXMB
To: MRREMNET @MRGATE
WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

Author:
Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
Subject: Info-Hams Digest V1 #18
Message Class:

Recipients:

BCCROWE@DALMAC

Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

3452. Question about used 2 M equipment

Newsgroup: rec.ham-radio
Date: 1990-06-11 04:38:24 UTC
From: dale@sequent.UUCP
Message-ID: <36508@sequent.UUCP>
Source record: 11057

I am interested in purchasing some used 2 Meter equipment
and wondered what I would expect to pay for 2M mobile equipment.
I know of an ICOM unit for $195, however it does not have
a touch tone microphone (TTM) which I want. I'm told it has
a standard 8 pin connection, and would accept other ICOM TTM's.
A catalog I have shows a couple close to $60, so the rig would
come out about $255. Is this a reasonable price for a 4 to 5
year old 45 watt 2M rig?

Note to hams in the Portland/Salem Or. area: Can anyone tell
me the name of the person that runs the Saturday morning swap
from 9 to 11 on 147.020? I believe his name is Doug and lives
in Salem. I evidently copied his call incorrectly and lookup
was for the wrong person. I've got a borrowed hand held, but
until license shows up (another 5 weeks or so) I can't give him
a call on the radio so would like to phone him. E-mail direct
to me if you know his name or call.

--
{ uunet pur-ee tektronix sun ogcvax cs.utexas.edu } !sequent!dale
Dale Mosby 503-626-5700 // Sequent Computer Systems, Inc.
15450 SW Koll Parkway // Beaverton, Or. 97006-6063

3453. Re: USA ham call words -corrected

Newsgroup: rec.ham-radio
Date: 1990-06-11 04:46:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500571@ux1.cso.uiuc.edu>
Source record: 11056

> When the FCC runs out of N's for Regions 4 and 6, where will they go
> next? If they go to NA4AAA, think of what will happen when NA1's
> are finally assigned!

This would be logical, but from rumors, perhaps the FCC won't do this.
I've heard they intend to just let Tech's and General's be stuck with
the novice calls out of the KC4AAA and KC6AAA and beyond groups.

They might be holding the NA1AAA group for Communicator.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3454. Re: IRC prices

Newsgroup: rec.ham-radio
Date: 1990-06-11 05:01:12 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990Jun11.050112.20383@cbnewsk.att.com>
Source record: 11055

In article <37516@genrad.UUCP>, dls@genrad.com (Diana L. Syriac) writes:
> In article <1990May31.033156.12240@cbnewsk.att.com> wheatley@cbnewsk.att.com
(steven.m.wheatley) writes:
> >
> ....I just asked our post office....they told me they cost 90 cents. Wouldn't
> they cost the same at ALL US post offices????? I'm confused....
> ps, no, I've not had the occasion to use any yet....but I do have 8 of them
> at the moment.

Diane, they may be 90 cents now, but that would be a price
decrease. I have some postmarked april 90 that are definitely 95
cents. Don't know whats going on....!
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

3455. Buying IRCs (was Re: IRC prices)

Newsgroup: rec.ham-radio
Date: 1990-06-11 12:09:03 UTC
From: lkay@ecs.umass.edu
Message-ID: <10041.267389df@ecs.umass.edu>
Source record: 11076

In article <10038.2672b00b@ecs.umass.edu>, lkay@ecs.umass.edu (Leonard Kay, KB2R (UMass/Amherst)) writes:
> P.S. - My PO charges 95c for IRCs also. You gotta watch the USPS employees,
> though - a lot of them don't know what they are, and even more don't know
> which side *they* stamp it on (if it's stamped on the wrong side it's
> invalid)!

I've gotten a couple E-mails on this, so I figured I'd post this. The side the IRC must be stamped on when you buy it is (I haven't bought one in awhile, so I hope my memory is good) is the left. To be sure, look at it. It's the side marked `imprimee de poste d'origine' or some similar phrase in French (the official language of the IPU) which stands for place of *origin*. The other side is reserved for the postmark of where it is *redeemed*. See why it matters now?

Len

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3456. QSLing

Newsgroup: rec.ham-radio
Date: 1990-06-11 12:46:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9006111248.AA22930@ucsd.edu>
Source record: 11060

Ref QSL INbound bureaus.

I never knew exactly how to use a QSL bureau either. After many years of hamming, the DX bug bit when I was on an island in the Pacific and I could work lot's of DX without pileups, what fun!

Anyhow, I started getting DX cards and asked a local ham (the only other one on the island) about DX cards. He received about a shoebox full every couple of weeks, but he was a little more ambitious than I. He said he just sent the bureau a check and they sent him his cards and let him know when the money ran out. Sounded good to me. Not knowing the going rates for this service I sent a letter to the Willamette Valley DX Club (W7 bureau per the CallBook) along with a check for $20.00. They did not hesitate to cash my check, but I never heard from them again. When I left the island a few months later and moved to Michigan, I sent them a change of address and waited for cards. I had been told by someone that cards can take a long time, so I waited patiently. During that year on the island I had worked around 1500 DX stations and sent cards to the foriegn bureaus for most of them. After a year, I figured I had waited long enough and wrote another letter asking what the deal was. I received a package of about 30 cards several months later and a note saying my funds were more than adequate. That all was three years ago. I have not received anymore cards, notes, messages, nothing.

Has anyone else had experience with the Willamette Valley DX Club? Is this standard practice? Is $20.00 the going fee for one-time pack of 30 cards? Do they ever explain what their policy is or their rates?

Before thirty-seven of you refer me to back issues of QST, please no flames, but I like many other hams, am not a member of the League, and none of the local libraries carry QST, nor is it available on the newsstands.

How about it. Any members of the WVDXC out there to answer up? Anyone willing to post how bureaus are supposed to work? (Not just post references to read that we don't have access to?)

Thanks and 73,
Michael WA7SKG

3457. Re: CB in GB

Newsgroup: rec.ham-radio
Date: 1990-06-11 15:46:55 UTC
From: hugh_davies.WGC1RX@XEROX.COM
Message-ID: <900611-084950-8056@Xerox>
Source record: 11063

In V1 #15, <usc!snorkelwacker!mintaka!ogicse!littlei!foobar!jim@ucsd.edu>
(aargh!) asks;

<...The seller said it was a CB radio from England. Is this correct?...>

I doubt it. It sounds like it might have been a UK spec machine once upon a time, and someone has hacked it. Currently, the UK has two allocations at 27MHz. One starts at 27.60125MHz, and runs up in forty 10kHz channels to 27.90125MHz. The channels are numbered sequentially from the bottom. The other allocation, which is the CEPT European allocation, is the same as the FCC allocations (complete with that curious hop, skip & a jump). Both allocations are allowed 4 watts of FM from type-approved equipment into restricted aerials (basically, no beams). The UK allocation will be withdrawn at some point in the future, leaving the CEPT one, although no-one will pay any attention, after all, there are 500,000 rigs out there. There also used to be another 40 channels at 934MHz, but I believe this has been withdrawn to make room for cellular phones. The conversation's no more intelligent, but everybody involved makes more money.

<...Besides
the wider band coverage, the FM aspect intrigues me. I wish it was this way in the U.S. Instead of all the heterodynes, imagine how peaceful a "silent pileup" might be...>

Hah! In urban areas with 500 other people on the same freq as you, you can forget capture effect, especially since half a dozen of them will be running 400 watts into big aerials (why, Ghod only knows). And you still get heterodynes.

I just wish we could keep them out of 10 meters, since the UK CB allocation finishes just below the CW segment of 10. There are enough people who can hack the PLLs to give them access to all these "silent" (they can't hear the CW, and don't care anyway) channels. Sigh.

73, Hugh.
G0CNR.

3458. Re: USA ham call words -corrected

Newsgroup: rec.ham-radio
Date: 1990-06-11 15:52:12 UTC
From: andreap@ms.uky.edu
Message-ID: <andreap.645119532@s.ms.uky.edu>
Source record: 11064

phil@ux1.cso.uiuc.edu writes:

>> When the FCC runs out of N's for Regions 4 and 6, where will they go
>> next? If they go to NA4AAA, think of what will happen when NA1's
>> are finally assigned!

>This would be logical, but from rumors, perhaps the FCC won't do this.
>I've heard they intend to just let Tech's and General's be stuck with
>the novice calls out of the KC4AAA and KC6AAA and beyond groups.

>They might be holding the NA1AAA group for Communicator.

I am at work and don't have a CFR handy but I believe the reason the
FCC will not continue the N series is due to a conflict with another
service; the navy.

Part of A, all of W & K & N are assigned to the USA by the ITU. The
USA has in turn broken down what services can use which letters and
in what combinations. So, a 2x1 N call is not just arbitrary, it has
been designated for use by the amateur radio service.

Harold Peach, N4FLZ

3459. Re: Delivery Failure Report

Newsgroup: rec.ham-radio
Date: 1990-06-11 16:03:39 UTC
From: wb8foz@mthvax.cs.miami.edu
Message-ID: <1990Jun11.160339.24910@mthvax.cs.miami.edu>
Source record: 11067

In <9006110232.AA25583@ucsd.edu> postmstr%mrgate.ssxmb.decnet@CONSRT.ROK.COM
("MRGATE::"SSXMB::POSTMSTR"") writes:

>From: POSTMSTR @SSXMB
>To: MRREMNET @MRGATE
> WINS%"INFO-HAMS @UCSD.EDU" @CONSRT @MRGATE

> Author:
> Sender: WINS%"INFO-HAMS @UCSD.EDU"@CONSRT@MRGATE@CONSRT
> Subject: Info-Hams Digest V1 #18
> Message Class:

> Recipients:

> BCCROWE@DALMAC

>Unable to deliver mail from Sender name WINS%"INFO-HAMS@UCSD.EDU"@CONSRT@MRGATE@CONSRT.
>Please contact your Soft-Switch Administrator to register this user in the Name Translate
Directory.

These are starting to be a pain...
Is anyone going to find the offender and woff-hong him/her/it ?

--
A host is a host from coast to coast.....wb8foz@mthvax.cs.miami.edu
& no one will talk to a host that's close.....(305) 255-RTFM
Unless the host (that isn't close).....pob 570-335
is busy, hung or dead.....33257-0335

3460. Gamma Match Problems

Newsgroup: rec.ham-radio
Date: 1990-06-11 16:12:13 UTC
From: U009@cs.cciw.ca
Message-ID: <5A060B0B0B1B0007-MTACY830*U009@cs.cciw.ca>
Source record: 11068

Hello net:
I have a problem trying to build a Gamma match for the driven element of a portable, knock down 2M beam.

I put together a 5 element, .8 wavelength NBS yagi as per the book (using 3/16 inch insulated elements). The frequency the antenna is designed for is 144.1 and since I want to use it on 144.2 I figure the errors aren't enough to require scaling.

The problem is in the matching of the driven element. I can't get the match down as far as I would like. (A similar driven element for 2M I built some time ago has a very good match although the construction is not exactly the same.)

```
------------+------------------------|---------------- < Driven element
| ---|--------------------
| -------------- ^ shorting block. ^match rod
+------- ^ Matching rod. extends beyond
^ ^ Capacitor. driven element.
Coax connector.
```

(The match rod bends evenly up from the cap to the shorting block.)

The shield of the coax and it's connector is connected to the center of the driven element (inside the boom, actually). The capacitor in the center conductor is formed by a piece of 3/16 inch brass tubing about 3 inches long and a 3/32 inch rod insulated with shrink wrap inside it. The rod then extends out to the shorting block where it connects to the driven element. The capacitor is parallel to the DE and approximately 1 inch away at the center but the rod bends in to about 1/2 inch separation at the shorting block. I find that the only acceptable match occurs when the rod is actually longer than the DE. There is about 8 to 10 inches of rod beyond the shorting bar in this case, and trimming it back increases the reflected power substantially. (I also had a similar problem with the match on the DEs of some K1FO 432 yagis I built a few years ago. They used a 1/2 wavelength delay to feed the T match and the match rods had to be 1/2 inch longer than the DE on both sides to get an acceptable match.)
I haven't been able to find any design "rules of thumb" for any type gamma or T match. What sort of spacing is reasonable between the match rod and the element? (The single driven element referred to above has about 1/4 inch spacing and a reasonable location for the shorting bridge. Also, the match rod is cut off just beyond the bridge.) Should I try to decrease the spacing? Should the rod be closer in diameter to that of the DE? Is this effect a characteristic of the DE being too short or long for correct resonance? The elements are all supposed to be

insulated. Would this effect occur if the outer conductor were shorted to the boom at the center if the DE?

Regards, Stu Beal, VE3MWM, (U009@CS.CCIW.CA),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

3461. ZA5DX/CW

Newsgroup: rec.ham-radio
Date: 1990-06-11 16:22:13 UTC
From: sawyer@twg.com
Message-ID: <7278@gollum.twg.com>
Source record: 11069

This past Sunday (June 10) I had a qso with a person using the call ZA5DX. Normally, I'd write this off as a slim, but there are several things that give it a faint note of credibility:
- There was an article in last week's "DX Bulletin" that Zoli, HA?PP, is now in Tirana trying to get permission to operate as a ZA;
- Zoli (aka XU?DX, XU?CW, etc.) usually gets the calls ending in "DX" (for SSB) and "CW" (for CW);
- The ZA5DX I contacted gave Zoli's call, HA?PP, as the QSL route.
- The guy was experienced at working pile-up's, and seemed to have the same style as Zoli.

On the other hand, there were some slim indicators:
- This was a CW contact, and he was using the "DX" suffix;
- Later in the day I picked him up using the call ZA5CW--on CW;
- He got some modest pile-up's going, but nothing like I would expect a real ZA would generate;
- While the signal was coming from the right beam heading, it was a little too strong for the high A index we had, and I didn't hear many other Europeans quite so strong;
- He kept taking too many breaks, but he was on for quite a few hours.

Does anybody have any more information on this one? I surely would like to believe it's for real, but I'm already well on the way to "worked all pirates" and would just as soon note add a new one to my collection. Did anybody else pick him up?
AA6KX

3462. Re: time for FCC to process a license application

Newsgroup: rec.ham-radio
Date: 1990-06-11 16:22:36 UTC
From: fel@hpcuhb.HP.COM
Message-ID: <10510009@hpcuhb.HP.COM>
Source record: 10977

/ hpcuhb:rec.ham-radio / henryb@hpspdra.HP.COM (Henry Black) / 8:06 am Jun 7, 1990 /
> > Another data point for others waiting for the FCC:
> And another data point for others waiting for the FCC:
>
> My recent advanced class license took seven weeks, this was a
> first (US) license, not an upgrade.
> Henry Black KK6JR, G4NOC +1 415 857 6655 KK6JR @ WW6L.#NOCAL.CA.USA.NA

Another data point, if people are still interested....

My first license (exam taken Feb 12th) took 5 weeks to the day to be
delivered in the mail.

My upgrade exam was passed thirty days ago today (May 12th). I'm still
waiting for my new callsign.

- Skip KK6HK (till the new call arrives)

3463. Re: Phone line low voltage and poor audio problem

Newsgroup: rec.ham-radio
Date: 1990-06-11 16:24:16 UTC
From: billt@hprnd.HP.COM
Message-ID: <1140034@hprnd.HP.COM>
Source record: 11062

At my home there is an interface box between the Pac Bell line and my house wiring. Inside the box there is a standard phone connector which connects the output of the box to the house wiring. On the Pac Bell side of this box the line voltage is 48 volts. On the house side the voltage is 20 Volts.

All of my phones work fine with this Voltage.

I called Pac Bell about the low voltage in the house before I discovered the box was cutting the voltage in half. The technician I talked to was quite surprised that the voltage was anything other than 48 Volts.

Since you are doing something which is interesting, I suggest you try to identify the person who tried to follow up on what he did for you and establish a friendly relationship, like you were trying to get him interested enough in amateur radio to get a license. Such inside help should go a long was towards getting your problem fixed and make getting future help from the phone company a lot easier.

Good luck,
Bill
WB0ALN

3464. Re: Need pointers for literature about building satelite receivers

Newsgroup: rec.ham-radio
Date: 1990-06-11 16:52:47 UTC
From: bobm@anasaz.UUCP
Message-ID: <2420@anasaz.UUCP>
Source record: 11072

In article <1094@wrs.wrs.com> james@roover.wrs.com (James Moore) writes:
}A friend of mine is visiting from Moscow (Soviet Union, not Idaho) and
}would like to find literature about building and maintaining satelite
}receivers. They've put together one system that can pull in CNN, and
}they'd like to be able to get more. This is an area that I'm totally
}unfamiliar with, so any pointers at all would be useful. (They have
}limited space and limited resources, so if you know of something that talks
}about how to do this on a shoestring budget, so much the better.)
}
}Thanks,
}
>James Moore | Wind River Systems

Please post the sources (or email me also), I'm this far --> <--- from
getting a dish after seeing the pics from the C-band sat subcarrier. Now
the problem (as usual) is getting the bucks up for the LNA, etc.

bob Maccione..

3465. Re: Dual-banders

Newsgroup: rec.ham-radio
Date: 1990-06-11 17:00:00 UTC
From: chris@hplvli.HP.COM
Message-ID: <20200001@hplvli.HP.COM>
Source record: 11065

You act too fast in eliminating the TM-701A, which does
indeed have separate antenna jacks for VHF and UHF.
With the readily available mods, it is a fine
unit for consideration of your needs.
73 de WD5IBS.....chris

3466. Re: RE: EBS MESSAGES

Newsgroup: rec.ham-radio
Date: 1990-06-11 17:16:21 UTC
From: chris@hplvli.HP.COM
Message-ID: <20200002@hplvli.HP.COM>
Source record: 11066

Indeed the real message was sent back in the early
1970's. I was a poor university student working at
KOB radio in Albuquerque at the time, and though it
did not occur on my shift, I recall the incident
clearly. I believe that it was a Saturday morning,
and the message came over the AP and/or UPI wires
to the news teletypes. These emergency messages had
a certain format (10 bells in a row?) that set off an
alarm on the newsdesk. The skeleton staff on duty
at most stations did not event notice the alarms and
messages, or else ignored them. The message contains
an authentication code, which is to be compared with
the daily codes in a sealed envelope sent to every
participating station. If no occasion exists to cause
you to open the envelope (alert) then it must be
returned, unopened, to the coordinating agency.
Each envelope had code words for 1 or more months.

Some stations, fairly consciencious about their duties,
did see and act on the message right away, and alerted
their listeners. The rate of response was dismal, something
like 1% of all stations noticed and acted on the alert.

It has often been speculated that the "accidental"
sending of the real codes was itself a test, which
indicated that in the event of a real emergency,
you would not have been instructed about anything,
and the first warning most americans would have would
be the flash.

...de WD5IBS....chris

3467. Re: USA ham call words -corrected

Newsgroup: rec.ham-radio
Date: 1990-06-11 18:24:46 UTC
From: andreap@ms.uky.edu
Message-ID: <andreap.645128686@s.ms.uky.edu>
Source record: 11070

andreap@ms.uky.edu (Andrea Peach) writes:

>phil@ux1.cso.uiuc.edu writes:

>>> When the FCC runs out of N's for Regions 4 and 6, where will they go
>>> next? If they go to NA4AAA, think of what will happen when NA1's
>>> are finally assigned!

>>This would be logical, but from rumors, perhaps the FCC won't do this.
>>I've heard they intend to just let Tech's and General's be stuck with
>>the novice calls out of the KC4AAA and KC6AAA and beyond groups.

>>They might be holding the NA1AAA group for Communicator.

>I am at work and don't have a CFR handy but I believe the reason the
>FCC will not continue the N series is due to a conflict with another
>service; the navy.

>Part of A, all of W & K & N are assigned to the USA by the ITU. The
>USA has in turn broken down what services can use which letters and
>in what combinations. So, a 2x1 N call is not just arbitrary, it has
>been designated for use by the amateur radio service.

Here is the the US assignments for each service. I was mistaken!
The other N calls are assigned to the amateur service as long as
they contain a number:

From To Service

AA0A AI9W Amateur
AA0AA AL9WZ Amateur
AA0AAA AL9WZZ Amateur
AA0Y AI9Z Amateur
AA0YA AL9ZZ Amateur
AA0YAA AL9ZZZ Amateur
AAA AEZ Department of the Army
AFA AKZ Department of the Air Force
ALA ALZ Department of the Army
K0001 K9999 Personal radio in trust territories
K02AA K83ZZ Television broadcast translator
K0A K9W Amateur
K0AA K9WZ Amateur
K0AAA K9WZZ Amateur
K0Y K9Z Amateur
K0YA K9ZZ Amateur
K0YAA K9ZZZ Amateur
KA0A KZ9W Amateur

KA0AA KZ9WZ Amateur
KA0AAA KZ9WZZ Amateur
KA0Y KZ9Z Amateur
KA0YA KZ9ZZ Amateur
KA0YAA KZ9ZZZ Amateur
KA2000 KZ9999 Land Mobile (Telephone); Marine Utility; Shipyard Mobile
KA2XAA KZ9XZZ Experimental (Letter "X" follows the digit)
KAA KZZ Coast (Class I) except Alaska; Broadcasting (Standard)
KAA00000 KZZ99999 Personal radio, temporary permit
KAA0001 KZZ9999 Personal radio
KAA2 KZZ9 Aeronautical
KAA20 KZZ99 Coast (Class I) telephone in Alaska; Fixed
KAA200 KZZ999 Coast (Cls 2 & 3) & maritime rdo; Land Mob; Marine Rcv Test
KAAA KZZZ Broadcasting (Std, FM, TV); Ship Telephone and/or Telegraph
KAAA-BT KZZZ-BT Cable-repair ship marker buoy
KAAA-FM KZZZ-FM Broadcasting with suffix "FM"
KAAA-TV KZZZ-TV Broadcasting with suffix "TV"
KAAA0001 KZZZ9999 Personal radio
KAAA2 KZZZ9 Disaster station, except US Govmt; Land Mobile (Mob Telgph)
KAAA20 KZZZ99 Ship survival craft
KAAAA KZZZZ Aircraft Telegraph and/or Telephone
KAAAA2 KZZZZ9 Aircraft survival craft
N0A N9W Amateur
N0AA N9WZ Amateur
N0AAA N9WZZ Amateur
N0Y N9Z Amateur
N0YA N9ZZ Amateur
N0YAA N9ZZZ Amateur
NA0A NZ9W Amateur
NA0AA NZ9WZ Amateur
NA0AAA NZ9WZZ Amateur
NA0Y NZ9Z Amateur
NA0YA NZ9ZZ Amateur
NA0YAA NZ9ZZZ Amateur
NAA NZZ Department of the Navy; US Coast Guard
W02AA W83ZZ Television broadcast translator
W0A W9W Amateur
W0AA W9WZ Amateur
W0AAA W9WZZ Amateur
W0Y W9Z Amateur
W0YA W9ZZ Amateur
W0YAA W9ZZZ Amateur
WA0A WZ9W Amateur
WA0AA WZ9WZ Amateur
WA0AAA WZ9WZZ Amateur
WA0Y WZ9Z Amateur
WA0YA WZ9ZZ Amateur
WA0YAA WZ9ZZZ Amateur
WA2000 WZ9999 Land mobile (telephone); Ship Radar and/or Telephone
WA2XAA WZ9XZZ Experimental (Letter "X" follows the digit)

WAA WWU Coast (Class I) except Alaska; Broadcasting (Standard)
WWW WZZ Coast (Class I) except Alaska; Broadcasting (Standard)
WAA0000 WZZ9999 Ship radar and/or Telephone
WAA0001 WPZ9999 Personal radio
WAA2 WZZ9 Aeronautical
WAA20 WZZ99 Coast telephone in Alaska; Fixed
WAA200 WZZ999 Coast (Cl 2&3) & Martim Rdo; Lnd Mob; Marine Rcv Tst; Fixed
WAAA WWUZ Broadcasting (Std, FM, TV); Ship Telephone and/or Telegraph
WWVA WWVA Broadcasting (Std, FM, TV); Ship Telephone and/or Telegraph
WWVJ WWVK Broadcasting (Std, FM, TV); Ship Telephone and/or Telegraph
WWVM WWVR Broadcasting (Std, FM, TV); Ship Telephone and/or Telegraph
WWVT WWVZ Broadcasting (Std, FM, TV); Ship Telephone and/or Telegraph
WAWA WZZZ Broadcasting (Std, FM, TV); Ship Telephone and/or Telegraph
WAAA-BT KZZZ-BT Cable-repair ship marker buoy
WAAA-FM WZZZ-FM Broadcasting with suffix "FM"
WAAA-TV WZZZ-TV Broadcasting with suffix "TV"
WAAA2 WZZZ9 Disaster station, except US Govmt; Land Mobile (Telegrph)
WAAA20 WZZZ99 Ship survival craft
WAAAA WZZZZ Aircraft Telegraph and/or Telephone
WAAAA2 WZZZZ9 Aircraft survival craft
WT2200000WT9999999 Business radio, Gen Mob Rdo Svc, & Part 90 Temp. Permits
WWV WWV Std Freq; Broadcasting (Std, FM, TV); Ship Tele ph a/o grph
WWVB WWVI Std Freq; Broadcasting (Std, FM, TV); Ship Tele ph a/o grph
WWVL WWVL Std Freq; Broadcasting (Std, FM, TV); Ship Tele ph a/o grph
WWVS WWVS Std Freq; Broadcasting (Std, FM, TV); Ship Tele ph a/o grph
WZZ200 WZZ999 Coast telephone in Alaska

Harold G. Peach, Jr., N4FLZ
hgpeach@ca.uky.edu (InterNet)

3468. RE: CB IN UK

Newsgroup: rec.ham-radio
Date: 1990-06-11 18:28:05 UTC
From: Geoffrey_C._Williams.WBST207V@XEROX.COM
Message-ID: <900611-135431-1189@Xerox>
Source record: 11071

Sorry I can't get to Jim Carver direct.
Yes the seller was correct CB in the UK is FM. I'm sure you should get a reply direct from the UK detailing the channel allocations which are also different and do not have the spaces for remote control.
But it was decided to go FM, (which does make a lot good of sense) for several rumoured reasons, To get away from the thousands of illegal US type CB's, To allow all vendors to have an opportunity to supply the CB's, and just to be different !
73's
---------- GEOFF WILLIAMS
ARPA - G4JJO.WBST207V@Xerox.COM

3469. for sale:HANDHELD TRANSCEIVERS

Newsgroup: rec.ham-radio
Date: 1990-06-11 20:49:28 UTC
From: majec@peyote.cactus.org
Message-ID: <928@peyote.cactus.org>
Source record: 11073
Cross-posted to: rec.aviation,rec.ham-radio.swap,rec.ham-radio,rec.radio.shortwave

I am listing two transceiver radios for a friend who wishes to sell them. They are as follows.
1) STS model AV7600VOR handheld 118.000 to 135.975 mhz
vor freq 108.000 to 117.975
manual included

2) Ten Tec TT920 Aviation band handheld good condition
no manual but manufacturer can provide one.

Please e_mail your offers. These are both excellent tools for emergency air to ground communications as well as navigation backups incase of nav equipment failure. Scanner fans will enjoy the programming features of both radios.

Thanks e Guinn

"nothing funny to say"

3470. TH75 Mods

Newsgroup: rec.ham-radio
Date: 1990-06-11 21:44:19 UTC
From: ben@val.com
Message-ID: <1990Jun11.214419.11607@val.com>
Source record: 10982

Does anyone know of any mods for the TH-75A talkie for extended
coverage?

Please E-Mail responses.

Thanks in advance.
--

Ben Thornton packet: WD5HLS @ KB5PM Internet: ben@val.com
Video Associates Labs uucp: ...!cs.utexas.edu!val!ben
Austin, TX fidonet: 1:382/40 - The Antenna Farm BBS

3471. Re: EBS Recordings, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-11 22:00:15 UTC
From: dana@lando.la.locus.com
Message-ID: <10607@oolong.la.locus.com>
Source record: 11075

In article <615@compnect.UUCP> dave@compnect.UUCP (Dave Ratcliffe) writes:
>In article <9006071242.AA21383@decpa.pa.dec.com>, judice@sulaco.enet.dec.com ("Louis J. Judice") writes:
>
>logged it but ran their own according to a set schedule. If a REAL
>notification came through, secondaries were supposed to tell people
>where to tune (just like the old Conelrad 640/1240 stuff) then sign-off,
>NOT rebroadcast material. I guess the idea was to cut the clutter and
>make sure ONLY authorized info was disseminated.
>

This doesn't really belong on rec.ham-radio, but the idea was not to
reduce clutter. The idea was to reduce the number of radio sources the
enemy could use for radio direction finding, to get a bearing on targets.
Remember this stuff was all pre-satellite navigation, etc.

****
* Dana H. Myers KK6JQ | Views expressed here are *
* (213) 337-5136 (ex WA6ZGB) | mine and do not necessarily *
* dana@locus.com | reflect those of my employer *
****

3472. unsubscribe

Newsgroup: rec.ham-radio
Date: 1990-06-11 23:14:00 UTC
From: ACS_BLOOM@uwrf.BITNET
Message-ID: <9006112324.AA26626@ucsd.edu>
Source record: 11074

```
unsubscribe
Please unsubscribe me from the list.

Thanks,
Harlan...
```

3473. Re: ZA5DX/CW

Newsgroup: rec.ham-radio
Date: 1990-06-12 00:01:34 UTC
From: k2ph@cbnewsj.att.com
Message-ID: <1990Jun12.000134.25251@cbnewsj.att.com>
Source record: 10981

From article <7278@gollum.twg.com>, by sawyer@twg.com (Bruce B. Sawyer):
> This past Sunday (June 10) I had a qso with a person using the call ZA5DX.
> [Lots of stuff deleted...]
> - While the signal was coming from the right beam heading, it was a little
> too strong for the high A index we had, and I didn't hear many other
> Europeans quite so strong;
> [Lots of other stuff deleted...]

Interesting that the beam heading was correct from 6-land. In New
Jersey, he was peaking at 315 degrees! I've never heard Europe come
in from that direction on any band! :-)

I know we should WFWL, but that beam heading was just too ridiculous
for words!

By the way, our local packet reported XU1SS/ZA and ZA2PL today.
The saga continues...

Now watch, it will turn out to be real...

--
==========
Bob Schreibmaier K2PH | UUCP: att!oblivion!k2ph or k2ph@oblivion.att.com
AT&T Bell Laboratories | ARPA: k2ph%oblivion@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

3474. IRCs

Newsgroup: rec.ham-radio
Date: 1990-06-12 04:23:33 UTC
From: oo7@ut-emx.UUCP
Message-ID: <31439@ut-emx.UUCP>
Source record: 10978

Has anyone actually tried cashing an IRC? Are the USPO staff as clueless about cashing them as they sometimes are when you buy them? Some of those folks seem to have a hard job reading English, so the French on the front must be a real challenge for some of them.

One thing that's useful to know is that if the IRC originated in the USA you can cash it for 1 cent less than the face value. The others get you the equivalent of an overseas stamp for surface mail - so in principle you cover the return postage for a QSL card with one IRC, if you don't mind it coming back via surface mail. In my limited experience as a QSL manager, I always reply airmail if I am sent one IRC - the IRC is worth 45c to me, which is the overseas air postage rate, and although you may lose out by the cost of the card, that happens anyway when you reply to a USA card with an SASE. But then I'm just a Good Guy... (and I didn't buy the cards :-)).

I have this, er, friend, that has a number of IRCs that are incorrectly stamped (no stamp, or it's on the wrong side). This friend would feel happier cashing them in for 40c than sending them to DXers who might regard them as worthless. Are the USPO guys clued in? Of course, IRCs are rarely cashed, they get sold or traded for QSL cards, but when a new issue comes out someone must be left holding the baby. How much notice do we get when a new issue is imminent?

Happy QSLing -

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

3475. KENWOOD R-5000 FOR SALE

Newsgroup: rec.ham-radio
Date: 1990-06-12 04:26:17 UTC
From: sami@quiche.cs.mcgill.ca
Message-ID: <3544@quiche.cs.mcgill.ca>
Source record: 10979
Cross-posted to: rec.radio.shortwave,rec.ham-radio.swap,rec.ham-radio

For Sale:
Kenwood R-5000. Bought new in late 1988. Has no modifications, rarely used, and is in excellent condition. Reason for selling: acquiring transceiver. Contact Sami Boulos at (514) 656-8345 (night) or (514) 398-7084 (ext. 5928) (day) or at address below.
Make me an offer.

--
Sami Boulos sami@quiche.cs.mcgill.ca
McGill University, School of Computer Science, 3480 University, Montreal, Quebec H3A 2A7

3476. Re: Need pointers for literature about building satelite receivers

Newsgroup: rec.ham-radio
Date: 1990-06-12 07:18:38 UTC
From: georgep@vice.ICO.TEK.COM
Message-ID: <5188@vice.ICO.TEK.COM>
Source record: 10980

In article <2420@anasaz.UUCP> bobm@anasaz.UUCP (Bob Maccione) writes:
+In article <1094@wrs.wrs.com> james@roover.wrs.com (James Moore) writes:
+}A friend of mine is visiting from Moscow (Soviet Union, not Idaho) and
+}would like to find literature about building and maintaining satelite
+}receivers.
+
+Please post the sources (or email me also), I'm this far --> <--- from
+getting a dish after seeing the pics from the C-band sat subcarrier. Now
+the problem (as usual) is getting the bucks up for the LNA, etc.
+
+bob Maccione..

There are lots and lots of used sat receivers out there. Since the
advent of scrambling, anything that doesn't have a built in descrambler
goes for cheeeeeep. You should be able to pick up the whole kit for
two hundred, minus the dish itself (receiver, down converter, lna, feedhorn).

I've even got one on the shelf.

geo

3477. Re: ZA5DX/CW

Newsgroup: rec.ham-radio
Date: 1990-06-12 12:43:15 UTC
From: jdn@casux4.uucp
Message-ID: <24113@bellcore.bellcore.com>
Source record: 10984

In article <7278@gollum.twg.com> sawyer@twg.com (Bruce B. Sawyer) writes:
>This past Sunday (June 10) I had a qso with a person using the call ZA5DX.
>Normally, I'd write this off as a slim, but there are several things that
>give it a faint note of credibility:
> - There was an article in last week's "DX Bulletin" that Zoli, HA?PP, is
> now in Tirana trying to get permission to operate as a ZA;
> - Zoli (aka XU?DX, XU?CW, etc.) usually gets the calls ending in "DX" (for
> SSB) and "CW" (for CW);
> - The ZA5DX I contacted gave Zoli's call, HA?PP, as the QSL route.
> - The guy was experienced at working pile-up's, and seemed to have the same
> style as Zoli.
>
>
>Does anybody have any more information on this one? I surely would like to
> AA6KX
Here is an interesting piece of information. On Monday, I was discussing
the slim with Guy, KE2CG. Guy told me that at the moment the ZA was
posted on the packet cluster, he (KE2CG) happened to be in qso with Zoli, HA5PP!
He told Zoli about it who got all excited-" Yeah? where is the guy, I
want to go work him!"

According to most sources (including Guy, which is only third hand)
Zoli's trip was purely exploratory, he brought no radios with him,
and was a big success. He obtained official permission to operate
from Albania, and should be on the air within 2 to 3 weeks.

Then you can work the real thing!

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3478. Re: time for FCC to process a license application

Newsgroup: rec.ham-radio
Date: 1990-06-12 17:10:49 UTC
From: perley@galaxy
Message-ID: <8490@crdgw1.crd.ge.com>
Source record: 10990

In article <10510009@hpcuhb.HP.COM>, fel@hpcuhb (Skip La Fetra) writes:
> My first license (exam taken Feb 12th) took 5 weeks to the day to be
> delivered in the mail.

I recently renewed (lapsed license, so a new call was involved).

After 3 weeks I got a letter saying they were processing my application.

The license arrived at about 7 weeks.

-don perley ke2tp. at least its shorter.

perley@trub.crd.ge.com

3479. Butternut Butterfly for sale

Newsgroup: rec.ham-radio
Date: 1990-06-12 17:14:02 UTC
From: anderson@skvax1.csc.ti.com
Message-ID: <9006121722.AA17077@ti.com>
Source record: 10988

I have a Butternut 10m Butterfly that I would like to sell,
or trade for an older 2m ht or TNC2 clone.

Am asking $75.

--
John H. Anderson, N5OPY
anderson@skvax1.csc.ti.com

3480. Items for sale

Newsgroup: rec.ham-radio
Date: 1990-06-12 17:28:09 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9006121728.AA26402@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 10987

Once again the number of for sale message has started to rise. Now that Arpanet is gone, does that mean that this is a commercial media for any commercial use I might desire?

-- Doug WA6VVV

3481. "X" callsigns (was: Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-12 17:28:14 UTC
From: hoffman@speedy.cs.pitt.edu
Message-ID: <7856@pitt.UUCP>
Source record: 10991

In article <andreap.645128686@s.ms.uky.edu> andreap@ms.uky.edu (Stephen McNatton) writes:

[slightly rearranged and edited]

>From To Service

>K0AA K9WZ Amateur
>K0YA K9ZZ Amateur

>K0AAA K9WZZ Amateur
>K0YAA K9ZZZ Amateur

>KA0A KZ9W Amateur
>KA0Y KZ9Z Amateur

>KA0AA KZ9WZ Amateur
>KA0YA KZ9ZZ Amateur

>KA0AAA KZ9WZZ Amateur
>KA0YAA KZ9ZZZ Amateur

And similarly for the As, Ns, and Ws. While it seems to be the case
that 1x3 and 2x3 "X" calls are reserved for experimental licenses,
this is certainly not the case for the 1x2, 2x1, and 2x2 calls.
I know W2XO and KE8X myself, and a quick persual of the callbook
shows KB3XC and KB4XA.

---Bob.
--
Bob Hoffman, N3CVL {allegra, bellcore, cadre, idis, psuvax1}!pitt!hoffman
Pitt Computer Science hoffman@cs.pitt.edu

3482. Re: Items for sale

Newsgroup: rec.ham-radio
Date: 1990-06-12 19:25:47 UTC
From: brian@ucsd.Edu
Message-ID: <14304@ucsd.Edu>
Source record: 10992

Doug Hardie writes:
>Once again the number of for sale message has started to rise. Now that
>Arpanet is gone, does that mean that this is a commercial media for any
>commercial use I might desire? -- Doug WA6VVV

You know better than that. If that was an attempt to be sarcastic, you
missed.

It's an iffy question: ham radio itself cannot be used for commercial
advantage, but the FCC has stated that buying and selling your own
personal ham equipment isn't a commercial enterprise and so mentioning
items in your shack that you'll trade for dollars (:-)) isn't against
the regs. That might be relevant to how we treat the info-hams mailing
list and rec.ham-radio newsgroup.

The newsgroup is a Usenet newsgroup, and as you know, anything goes on
usenet. There is a ham swap newsgroup that is probably more appropriate.

The info-hams list isn't hosted on a Milnet site anymore, but at UCSD, a
non-profit organization. We allow people here to put used equipment
notices up on the various paper tack-boards around campus, and there is
a swap column in the campus paper, so I'd suspect there's no rabid
anti-money feeling by the administration as a whole on the subject of
personal items for sale. I don't have an official policy decision on
that and I'm loathe to ask. The various networks over which the
articles travel undoubtedly have some sort of policies of their own.
A few months ago someone (Dave ?) resigned from the mailing list
in a flaming Pyrrhic stroke claiming that it was illegal for his site to
carry for-sale ads. So I've no solid feeling to go by.

I suspect that no reasonable person will mind an occasional mention
that you have something that you'd like to part with by trading it for
happy little bits of green paper, but I really don't want to encourage
that because for some reason it really upsets the less stable element,
particularly those at MILNET sites (although at the rate that mail is
failing to hosts on the MILNET, they may never notice!).

So I'd like to encourage people to advertise ham radio items for sale
elsewhere, and if you do see a message from someone ignorant of that
guideline, please just GENTLY mention in a COURTEOUS way that it would
be better for all concerned if they didn't do it again here.

Is this a reasonable policy that all can deal with?
- Brian (ayatollah of info-hams)

3483. Re: Phone line low voltage and poor audio problem

Newsgroup: rec.ham-radio
Date: 1990-06-12 20:23:00 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <12405@shlump.nac.dec.com>
Source record: 10994

In article <3043@crash.cts.com>, mikey@pnet01.cts.com (Mike Shirley) writes...
>I have a repeater autopatch and personal phone lines comming into my
>residence. Both lines are sitting at 17-22 volts on-hook and 4.4-4.6 volts
>off-hook using a Western Electric model 2500D telephone set (standard TT desk
>phone). My understanding of the phone system is limitted but I would expect
>to have 45-51 volts at the service block. ...
>I checked the on-hook voltage at a neighbors residence and it was 46.3 volts.
>I called a friend in a distant community and he had 51.2 volts/51.5 volts and
>10.6 volts/10.6 volts on his 2 lines on-hook/off-hook. These 3 lines appear
>to be normal.
>The service rep response to this voltage comparison was that "the company
>doesn't gaurantee the line voltage.

Telco tolerances have a fair amount of leeway.

In general, a telephone line can have well below 48 volts and still be
within what the telco deems acceptable. If you live more than a few
cable-miles from the central office, you should expect it! In some
cases the telco will have a mux out somewhere, so you're not fed
power directly from the CO but from someplace closer, at whatever
voltage you end up with (usually okay). That can account for
differences among different lines in a neighborhood.

The audio level is what counts. If you dial the milliwatt test number
(usually nxx-0010 in CA), you'll get exactlly 1 mw. at 600 ohms (or is
it really 900?). It's "normal" to have 3-9 dB loss in the wire, so
if you get less than -10 dBm or something, using a properly calibrated
test set, you may have a problem. Low voltage per se does not mean low
level; it could just be the nature of your battery feed and wire
combination.

It's also possible you are just on too thin a wire pair (maybe part of
the way), or they're using a really bogus mux (like the "AML") which
normally delivers inadequate levels. Have fun getting telco to own up.

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

3484. DOVE query

Newsgroup: rec.ham-radio
Date: 1990-06-12 20:44:02 UTC
From: lrj@ishtar.cs.cornell.edu
Message-ID: <42092@cornell.UUCP>
Source record: 10993

I recall a question posted here some time ago as to the current fate of DOVE, but never saw any replies. Does anyone know what's up with it? I also remember hearing that someone was uploading new software after the transmitter problem. What's the story?

Also, many thanks to all who helped out with the problem with my FT-101EE rig, especially Mark Bitterlich and Dube Todd. The problem is apparently a "classic" case of bad finals. When I get some time, I'll replace them, neutralize 'em, and see how it goes.

-- Lewis R. Jansen, N2KNV lrj@helios.tn.cornell.edu
LASSP/LNS Systems Manager (607) 255-6065

"You can't fight in here, this is the War Room!"

3485. Re: DOVE query

Newsgroup: rec.ham-radio
Date: 1990-06-12 21:34:55 UTC
From: cduncan@jato.Jpl.Nasa.Gov
Message-ID: <4011@jato.Jpl.Nasa.Gov>
Source record: 11000

There was no transmitter problem with DOVE, a software problem caused the two meter transmitter to lock on making it nearly impossible to command.

Once control was regained, it was left executing from the onboard ROM loader (MBL) with the S-band transmitter only turned on. It has been reasonably healthy and safe ever since. The S-band transmitter is on 2401.2205 MHz.

At the moment, DOVE is top priority for microsat software development. A software reload (using the under-modulated S-band transmitter for return acks and nacks) was to have started last weekend. As soon as we're absolutely sure everything is right, the two meter transmitter will be re-activated. Shortly thereafter, some digitalker messages will be tested.

We are aware of the tremendous popularity and potential for DOVE with its two meter FM transmitter, therefore we have to be incredibly careful in developing, and later managing its operation.

73, Courtney, AMSAT-NA VP Operations

3486. ZA On The Air??

Newsgroup: rec.ham-radio
Date: 1990-06-12 21:40:12 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9006122140.AA16395@bunny.gte.com>
Source record: 10996

A freind of mine, G4PDQ, called a local ham to tell him that a ZA was on, coming from the right direction. The ZA worked a bunch of EU stations and some Ws. Might be for real. I'm not sure I care, when ZA opens up it will be about as rare as Bulgaria or Romania.

3487. Re: CB in GB/11 meter bandits on 10 meters

Newsgroup: rec.ham-radio
Date: 1990-06-12 22:12:27 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <17838@ttidca.TTI.COM>
Source record: 10983

In article <900611-084950-8056@Xerox> "hugh_davies.WGC1RX"@XEROX.COM writes:
+
+I just wish we could keep them out of 10 meters, since the UK CB allocation
+finishes just below the CW segment of 10. There are enough people who can
+hack the PLLs to give them access to all these "silent" (they can't hear
+the CW, and don't care anyway) channels. Sigh.
+73, Hugh.
+G0CNR.

Soooo...it's happening in the UK too! Well Hugh, it *could* be worse...
..I mean at least the bootleggers over there all speak English, here they
all speak SPANISH! ;-) Heheheh! Time for t-hunts, time to write down some
addresses..start harrassing 'em back!

-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **
(OPINIONS EXPRESSED DO NOT REFLECT THE VIEWS OF CITICORP OR IT'S MANAGEMENT!)

3488. Atari ST ham software needed

Newsgroup: rec.ham-radio
Date: 1990-06-12 23:54:53 UTC
From: mn@atari.UUCP
Message-ID: <2215@atari.UUCP>
Source record: 10995
Cross-posted to: comp.sys.atari.st,rec.radio.shortwave,rec.ham-radio

I'm looking for a ham radio group called ASTUR (or something similar to
that) which is supposed to have PD disks with various ham radio programs for
the Atari ST.

The address which I have used before doesn't get a reply even with an SASE.
Does anyone know if they still exist, or of a site I could download from?

In particular I need a graphics oriented great circle program and any new
WEFAX stuff that might be out there.

Thanks in advance.

| Michael Nowicki N6LUU Atari Corp,Sunnyvale CA /TT/UNIX/X team |
|.....|
| char *disclaimer=" Views expressed are my own, not my employer's"; |

3489. The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-13 01:51:47 UTC
From: flash@lopez.UUCP
Message-ID: <1990Jun13.015147.4993@lopez.UUCP>
Source record: 10985
Cross-posted to: rec.radio.shortwave,rec.ham-radio

The title says it all. I just sat down for a nice peaceful evening of a little SWL'ing and Hamming (I do both)... AND the bands are dead, at least up here in the aroural zone (Marquette, Michigan, the land that time forgot)... When I say DEAD, I mean Dead. I can not get WWV anywhere. 75 meters is totally gone. SHORTWAVE stations sound like they are under water, and nobody is higher than S-2. Surprisingly, W1AW was there at 0130 with their bulletin on 21329.8 (announced 21390, they can not get closer to the freq than good old Glen Baxter can)...

Is it just ME, or is this the WORST solar peak you can remember. I mean dismal dismal dismal. Sunspots are supposed to being exciting stuff to the HF bands, but what the sunspot giveth, the solar flare taketh away.

Previous solar cycles brought me some great SWL reception, and wonderful memorable ham contacts with coathanger antennas all over the world.

Not so this time. This cycle has been a bust IMHO. The bands have been literally DEAD for days on end. No communication in or out. This is my THIRD solar cycle as an active radio nut. This time I have much more sophisiticated equipment, AND more time to play with it than the last two... (Well I used to skip school to play TV DXer when the e's came alive back when I was a kid...)

I have had very few memorable days playing with DX this time around. What I remember the most from this cycle is the total trashing of the bands many many many times. Some of it is the black hole effect (as posted previously) but I am sure that this dismal reception must be affecting others as well. Days when the band is "broken" seem to happen far more regularly than I can ever recall.

Thank goodness that usenet is not affected by solar flares (to a GREAT degree, though I blame a big one for bring lopez down... gotta blame something...)

Hello, CQ CQ CQ USENET. CQ CQ CQ CQ USENET. THIS IS WB8EOH. WIND BAG NUMBER EIGHT ECCENTRIC OLD HERMIT, WB8EOH, WHITE BREAD 8 EXTRA OILY HAMBURGERS.... CALLING AND STANDING BY....

click

crackle crackle hisssssssssssssss

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==

=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

3490. Computer Control of PRO-2004/5/6

Newsgroup: rec.ham-radio
Date: 1990-06-13 03:29:46 UTC
From: daveh@compnect.UUCP
Message-ID: <622@compnect.UUCP>
Source record: 10986
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Not too long ago several articles were posted by individuals who had successfully modifed their PRO-2004 or 2005 so that a computer could input frequencies into memory. I attempted to email questions to whoever posted the articles, but my site's outgoing mail got hosed up and dumped instead of being sent. I would really like to modify my PRO-2004 for as much computer control as possible. Would anyone who has done this please post or email directions on how you did it. 73

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

3491. Re: IRCs

Newsgroup: rec.ham-radio
Date: 1990-06-13 03:58:44 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990Jun13.035844.7924@cbnewsk.att.com>
Source record: 11004

In article <31439@ut-emx.UUCP>, oo7@ut-emx.UUCP (Constructive Frivolling) writes:
> Has anyone actually tried cashing an IRC? Are the USPO staff as
> clueless about cashing them as they sometimes are when you buy them?
> Some of those folks seem to have a hard job reading English, so the
> French on the front must be a real challenge for some of them.

You hit the nail on the head here! The Post office is usually not
fully aware of IRCs' unless you go to a big one, and catch the right
clerk at the right time. Usually, they are more than willing to
resort to a huge manual, and after a few minutes, determine that it
is 40 cents per each dx IRC (which is why I usually sell them to
other hams .....)

>
> One thing that's useful to know is that if the IRC originated in the
> USA you can cash it for 1 cent less than the face value. The others
> get you the equivalent of an overseas stamp for surface mail - so in
> principle you cover the return postage for a QSL card with one IRC,
> if you don't mind it coming back via surface mail. In my limited
> experience as a QSL manager, I always reply airmail if I am sent one
> IRC - the IRC is worth 45c to me, which is the overseas air postage

SOMETIMES! If you read the fine print, you can only get 1cent under
face value if you are the purchaser of the irc! I recently returned
from Singapore with a few hundred of these type of IRCs...and it
took several trips to the post office before I was able to get 94
cents for each one. Usually, they tried to give me 40
cents...only once did the 'fine print' come into play. Face it,
IRCs are a darn hassle!

> I have this, er, friend, that has a number of IRCs that are incorrectly
> stamped (no stamp, or it's on the wrong side). This friend would feel
> happier cashing them in for 40c than sending them to DXers who might
> regard them as worthless. Are the USPO guys clued in? Of course, IRCs
> are rarely cashed, they get sold or traded for QSL cards, but when a new
> issue comes out someone must be left holding the baby. How much notice
> do we get when a new issue is imminent?

I think the last time the issue was changed, there was a few year
redemption period...this was about 10 years ago, i recall.
Sometimes a post office will redeem 'improper' stamped IRCS. I know
that some QSL managers sell this kind of IRC for the normal 50
cents....which has led to a bunch of moaning about 'salting' the
good IRCs they sell with bad ones. I personally pitch them, or
return them with the QSL card with a stock note saying...these ain't
worth the paper they are printed on. In almost every case, I

usually get a note with either 2 (or sometimes more?!) IRCS in return that are GOOD, or a Green Stamp, or whatever. Most hams (and post offices) are uninformed of the proper method of issuing a IRC. It MUST be stamped on the left side (which says "Empreinte de controle du pays d'origine (date facultative).

cheers
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

3492. Re: specific 73 magazines needed--HELP!!

Newsgroup: rec.ham-radio
Date: 1990-06-13 04:53:54 UTC
From: Justin_Randall_Padawer@cup.portal.com
Message-ID: <30736@cup.portal.com>
Source record: 11003

Thanks to everyone for offers of help. I now have the magazines I needed. Thank you again. --Randy, WA4FJF

3493. Re: California Help Needed

Newsgroup: rec.ham-radio
Date: 1990-06-13 05:11:00 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490014@hprmokg.HP.COM>
Source record: 10989

rockwood@kean.ucs.mun.ca writes:

>With a California trip fast approaching, and plans to be in
>Sacramento, San Francisco and Los Angeles over a 3 and 1/2
>week period, I hope to do some operating on 2 meters. Does
>anyone have a listing of OPEN repeaters for these areas? I'm

This one is of general interest so I'll reply over the net.
Check below for a repeater listing. It is a couple of years old
but all of the repeaters I use are current.

>So would anyone have any recommendations on Ham Stores in
>Sacramento particularly??
>Please E-Mail

I'll send you this info via e-mail.

>Thanks in advance.
>
>Art Rockwood VO1AX

'Welcome,
Barry WB6JZL

output input offset location call

4505 5105 600 Hollywood Hills w6ord
4945 6475 1530 #Oat Mt. wd6fab
4950 4950 0 Sacramento w6ti
4970 7410 2440 #Johnstone Peak ka6ncr
4985 6475 1490 Irvine ka6eek
5035 6505 1470 #Venice n6jlr
5110 4510 -600 Lompoc wb6qev
5110 4510 -600 San Pablo/San Pablo wd6ezc
5120 4520 -600 Running Springs wb6zir
5130 4530 -600 #Willits/Laughlin Ri wd6fgx
5130 4530 -600 Vacaville nc6x
5130 4530 -600 #Hayward k6eag
5130 4530 -600 Meadow Lakes/Bald Mt wb6tia
5140 4540 -600 Santiago Peak w6cnl
5150 4550 -600 #Bakersfield/Brecken wa6qfj
5150 4550 -600 #San Francisco/San B w6pw
5160 4560 -600 Santiago Peak ka6eek
5160 4560 -600 Heaps Peak y
5170 4570 -600 #Manteca wb6mfv
5170 4570 -600 #Jenner wb6rhp
5170 4570 -600 #Atascadero n6ahw

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5180 4580 -600 Pasadena w6mph
5180 4580 -600 #Hanford k6rgz
5180 4580 -600 Santa Ynez Peak wb6rdv
5190 4590 -600 Alum Rock wa2ibm
5190 4590 -600 Sacramento k6is
5200 4600 -600 Monterey Park n6bwe
5200 4600 -600 Juniper Hills w9ttt
5210 4610 -600 Stockton/mt. Delux wa6sek
5220 4620 -600 Santiago Peak wb6dnu
5230 4630 -600 Palo Alto w6apz
5230 4630 -600 Sacramento w6jyq
5240 4640 -600 #Hanford n6dtz
5240 4640 -600 Van Nuys nk6s
5240 4640 -600 #Monterey n6ahw
5250 4650 -600 #Sonoma Mt. wa6ygd
5250 4650 -600 #Sonora wb6lsc
5250 4650 -600 Stockton/Mt. Delux wa6fbf
5260 4660 -600 Corona wa6yec
5260 4660 -600 Santiago Peak w6krw
5260 4660 -600 Malibu k6aze
5270 4670 -600 #Auburn wb6gwz
5270 4670 -600 Mountain View w6ash
5280 4680 -600 Camarillo wa6vbu
5280 4680 -600 Vista wd6fcg
5280 4680 -600 Table Mt. wb6tzs
5290 4690 -600 Mt. Tamalpais wa6twx
5290 4690 -600 Grizzley Peak wa6twx
5300 4700 -600 Mt. disappointment k6cpt
5310 4710 -600 Cohasset Ridge wd6cpm
5310 4710 -600 #Portervill/Bule Rid wa6cyn
5310 4710 -600 Mt. Diablo k6pou
5310 4710 -600 #Fowler Peak k6lhr
5310 4710 -600 #Vallejo wa6yxv
5320 4720 -600 San Diego wd6app
5320 4720 -600 Redondo Beach w6trw
5340 4740 -600 Santa Barbara ke6ki
5340 4740 -600 Orange wa6lur
5350 4750 -600 #Breckenridge wa6qfj
5350 4750 -600 #Shasta Bally w6qwn
5370 4770 -600 Belmont kb6wr
5370 4770 -600 Livermore wa6odp
5380 4780 -600 Palmdale ca6twt
5380 4780 -600 Palos Verdes wa6tmj
5380 4780 -600 Garden Grove w6tas
5380 4780 -600 Pt. Loma n6gwy
5380 4780 -600 Snow Summit wb6riw
5390 4790 -600 Stockton/Mt. Oso wd6ejf
5400 4800 -600 Fullerton n6me
5410 4810 -600 Ojai n6fl
5410 4810 -600 #Mt. Diablo wa6euz
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5420 4820 -600 Idyllwild w6nbj
5420 4820 -600 Beverly Hills wa6olx
5420 4820 -600 Newport Beach wb6sfx
5430 4830 -600 #Huckleberry Hill n6ahw
5430 4830 -600 #San Martin k6thr
5430 4830 -600 Livermore wa6odp
5430 4830 -600 Auburn k6arr
5440 4840 -600 Lemon Grove aa1z
5450 4850 -600 #Los Gatos k6fb
5460 4860 -600 Buzzard Peak w6fxn
5470 4870 -600 Salinas k6je
5470 4870 -600 Quincy/Mt. Hough k6bjf
5480 4880 -600 Mt. Lukens ad6p
5490 4890 -600 #Beacon Hill wa6euz
5490 4890 -600 #Williams Hill ka6azi
6025 6625 600 Cactus City/Indio k6eo
6025 6625 600 Pomona w6elz
6025 6625 600 La Canada wb6zty
6055 6655 600 #Porterville/ Blue R y
6070 5470 -600 #San Jose wa6tkt
6085 6685 600 Anza k6vds
6085 6685 600 #Palo Escrito n6ahw
6085 6685 600 San Diego k6opy
6085 6685 600 Duarte ka6amr
6115 6715 600 Beverly Hills k6cjx
6145 6745 600 #Donner Beacon wa6fwu
6145 6745 600 Foresthill wa6znm
6160 6760 600 San Diego w6ss
6160 6760 600 Box Springs w6skf
6160 6760 600 Blythe w6skf
6160 6760 600 sunland w6jam
6160 6760 600 #Foothill Glen w6oth
6175 6775 600 Whittier w6gns
6190 6790 600 Santee wa6bgs
6235 6835 600 Pine Grove wa6wiy
6235 6835 600 Palos Verdes wa6rja
6265 6865 600 Van Nuys k6qyb
6265 6865 600 Lyons Peak w6ss
6355 6955 600 Monterey Park k6dlg
6355 6955 600 #Mt. Diablo wb6biu
6385 6985 600 #San Jose w6uu
6385 6985 600 Hall Mt. wa6kbd
6610 6010 -600 #Casa Roblo Peak k6pxf
6610 6010 -600 Los Angeles wb6aam
6610 6010 -600 #Eureka w6rnl
6610 6010 -600 #Woodside w6ede
6610 6010 -600 #Meadow Lakes wa6sbm
6610 6010 -600 #Cambria wb6iiy
6610 6010 -600 El Cajion ka6eeg
6625 6025 -600 #Pleasanton wa6odp
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6625 6025 -600 #Rocklin wb6cun
6640 6040 -600 South Fork Mt. wa6ieo
6640 6040 -600 #Donner Beacon wa6fwu
6640 6040 -600 Mt. Otay wb6wlv
6640 6040 -600 Loma Prieta w6wsh
6655 6055 -600 Whittier wa6gev
6655 6055 -600 #Richmond wa6khg
6655 6055 -600 #Santa Barbara wa6ruj
6655 6055 -600 #Livermore wa6odp
6670 6070 -600 Lancaster wb6rsm
6670 6070 -600 Inperial Beach nf6b
6670 6070 -600 #Mt. Shasta wa6wtt
6670 6070 -600 Thousand Oaks n6jmi
6670 6070 -600 #Shingle Springs w6jyb
6670 6070 -600 #Mt. Adelaide wa6cls
6670 6070 -600 Mt. Lopse w6biiy
6670 6070 -600 #Skyline Ridge wb6shu
6670 6070 -600 Table top Mt. wb6pmf
6670 6070 -600 Bel Air wa6piv
6685 6085 -600 Marysville/Sutter Bu wd6axm
6700 6100 -600 Fresno wb6itm
6700 6100 -600 #Eureka w6rnl
6700 6100 -600 Desert Hot Springs w6bby
6700 6100 -600 Borrego Springs wa6mdd
6700 6100 -600 Excondido w6mno
6700 6100 -600 Mt. Tamalpais k6gwe
6700 6100 -600 os angeles w6iwo
6715 6115 -600 #San Jose/Mt. Hamilt wb6adz
6730 6130 -600 #Weaverville wd6fhx
6730 6130 -600 Hauser Peak k6gxo
6730 6130 -600 Oxanrd wb6ztx
6730 6130 -600 Industrial Hills k0jpk
6730 6130 -600 #Williams Hill w6lio
6730 6130 -600 #Santa Rosa/Sonoma M wb6pvs
6730 6130 -600 Mt. Palomar w6nwg
6745 6145 -600 Garden Grove no6b
6745 6145 -600 El Cajon ka6kta
6760 6160 -600 Lake Elsinore w6wpp
6760 6160 -600 #San Luis Obispo w6bhz
6760 6160 -600 #San Jose/Mt. Chual wb6oqs
6760 6160 -600 Barstow w6zgc
6760 6160 -600 Shasta Bally w6qwn
6760 6160 -600 Point Mugu wd6bzs
6760 6160 -600 #Mt. Pierce w6rnl
6760 6160 -600 Mazourka Peak w6td
6775 6175 -600 #Livermore wa6odp
6790 6190 -600 #Fort Bragg na6t
6790 6190 -600 #Meadow Lakes wb6jit
6790 6190 -600 #Yreka k6zza
6790 6190 -600 Yucca Valley ks6t
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6790 6190 -600 Lake Hughes wb6nrl
6790 6190 -600 #Garberville ke6wc
6790 6190 -600 #Santa Cruz k6bj
6790 6190 -600 Santa Barbara k6tz
6790 6190 -600 San Francisco wb6fdt
6790 6190 -600 Anaheim kc6k
6805 6205 -600 Saddel Peak w6tez
6805 6205 -600 signal Hill w6thp
6805 6205 -600 #Mt. Hamilton wr6lpz
6805 6205 -600 #Pollock Pines ka6gwy
6805 6205 -600 #Cuesta Park wb6fmc
6820 6220 -600 Johnstone Peak w6fno
6820 6220 -600 Clovis/Fresno k6kdm
6820 6220 -600 Onyx Peak w6fno
6820 6220 -600 Dunsmuir w6omr
6820 6220 -600 3fort Bragg wa6fbl
6820 6220 -600 #Roundtop Mt. wb6aee
6820 6220 -600 #San Diego wa6eeh
6835 6235 -600 Big Sur wb6ggy
6850 6250 -600 #Mt. San Bruno wa6qfr
6850 6250 -600 Crestline w6jbt
6850 6250 -600 #Bear Mt. k6kdm
6850 6250 -600 Thousand Oaks wa6iyz
6850 6250 -600 Chico w6rch
6850 6250 -600 #South Lake Tahoe w6csp
6865 6265 -600 #Woodside wb6jkv
6865 6265 -600 #Rolph Mt. wb6rhc
6880 6280 -600 #Susanville/Hamilton w6fxp
6880 6280 -600 #Oakland Hills wb6cts
6880 6280 -600 Riverside w6tj
6880 6280 -600 #Crescent City w6hnl
6880 6280 -600 Ukiah/Sanel Mt. wa6qxv
6880 6280 -600 #Visalia/Bule Ridge wa6bai
6880 6280 -600 #Paso Robles w6ydz
6880 6280 -600 Stockton/Mt. Oso wa6tcg
6880 6280 -600 Escondido w6mnh
6880 6280 -600 Bishop w6cpy
6880 6280 -600 Sulphur Mt. wa6ztt
6895 6295 -600 Orange w6krw
6895 6295 -600 Crystal Peak w1pw
6895 6295 -600 Pleasant Hill k6ih
6910 6310 -600 Running Springs kj6b
6910 6310 -600 Sacramento w6ak
6910 6310 -600 Mt. Otay w6lnb
6910 6310 -600 #Mt. McKittrick wb6vgz
6910 6310 -600 #Salinas wb6can
6910 6310 -600 #Sonoma Mt. wb6sxc
6925 6325 -600 Pacifica wa6tow
6925 6325 -600 #Modesto wa6oyf
6925 6325 -600 Los Angeles kb6gy
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6925 6325 -600 Baldwin Hills wa6tfd
6925 6325 -600 San Clemente w6pmj
6940 6340 -600 Victorville/Quartzit wa6efw
6940 6340 -600 Pomona wb6rsk
6940 6340 -600 Disneyland wa6biz
6940 6340 -600 Palm Springs k6an
6940 6340 -600 Santa Maria wb6iiy
6940 6340 -600 Silver Peak n6bvi
6940 6340 -600 #Pacific Grove n6ahw
6940 6340 -600 Meadow Lakes w6to
6940 6340 -600 Chico w6ece
6940 6340 -600 Ridgecrest wa6ybn
6940 6340 -600 Los Angeles k0jpk
6940 6340 -600 #Mt. Pratt w6rnl
6940 6340 -600 Fremont w6jka
6970 6370 -600 Oxnard wa6oys
6970 6370 -600 Trona wb6lyb
6970 6370 -600 Vista k6yuh
6970 6370 -600 #Exeter wa6rlw
6970 6370 -600 Berryessa Peak w6hir
6970 6370 -600 Saugus wa6nis
6970 6370 -600 Fullerton k6qeh
6970 6370 -600 #monterey k6ly
6970 6370 -600 #San Leandro wb6hmd
6970 6370 -600 Barstorw wa6qod
6985 6385 -600 #Lake Tahoe w6csp
6985 6385 -600 Keller Peak wb6rsd
6985 6385 -600 #Coalinga kb6air
7000 7600 600 #Eureka/Horse Mt. w6rnl
7000 7600 600 Hollywood Hills cb6bjm
7000 7600 600 #Hanford k6rgz
7000 6400 -600 #Salinas wb6huk
7000 7600 600 #Saddle Peak wb6bjm
7000 6400 -600 Mt. Vaca wa6ugy
7000 7600 600 Santa Barbara n6zf
7015 7615 600 santiago Peak Wa6mpv
7015 7615 600 Signal Hill wa6mpv
7015 7615 600 Mt. Wilsom ku6l
7015 7615 600 Niles District w6skm
7030 7630 600 #Redding n6icz
7030 7630 600 Bel Air w6njy
7030 7630 600 #Bakersfield wa6gml
7030 7630 600 #San Leandro n6dod
7030 7630 600 Poway wa6ilh
7030 7630 600 #Gualala ae6u
7030 7630 600 #Mt. Bullion w6bxn
7045 7645 600 #Sunol wa6sbj
7060 7660 600 #Tehachapi k6rl
7060 7660 600 Bishop w6iwy
7060 7660 600 Costa Mesa n6fm
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7060 7660 600 El Paso Peak w6iwy
7060 7660 600 Chula Vista w6tie
7060 7660 600 #San Ramon/Mt. Diabl w6cx
7060 7660 600 Twentynine Palms wa6aty
7060 7660 600 #Visalia wa6blb
7060 7660 600 #Eureka/Horse Mt. wa6jwb
7075 7675 600 #Mt. Hamilton wd6fxk
7075 7675 600 Lancaster wb6fiu
7075 7675 600 fullerton n6joq
7090 7690 600 Belmont wb6ckt
7090 7690 600 Catalina Island aa6dp
7090 7690 600 #Bakersfield n6ur
7090 7690 600 #Mt. Patricia k6kzt
7090 7690 600 #Delano ka6bzp
7105 7705 600 #Sampson Peak w7por
7105 7705 600 #Fresno w7por
7105 7705 600 San Francisco k6tw
7120 7720 600 Brawley wb6pmf
7120 7720 600 #Santa Rosa kd6lc
7120 7720 600 #Bakersfield k6ape
7120 7720 600 Livermore wa6odp
7120 7720 600 #Los Gatos n6rz
7120 7720 600 Lompoc w6eko
7120 7720 600 #Grass Valley n6aub
7120 7720 600 Glendale wa6nrb
7120 7720 600 Victorville wa6efw
7150 7750 600 Tujunga wa6yvx
7150 7750 600 Barstow w6pvr
7150 7750 600 #Fresno wb6qdn
7150 7750 600 Mt. Umunhum wa6ycz
7150 7750 600 Mt. laguna wa6yvx
7165 7765 600 Pine Grove w6sf
7180 7780 600 Contractors Point wa6bsc
7180 7780 600 #Crescent City k6hy
7180 7780 600 Palos Verdes w6loo
7180 7780 600 Mt. St Helena wa6zqh
7180 7780 600 Coronado kg6lf
7180 7780 600 San Bernardino wa6caw
7180 7780 600 Madera/Deadwood Peak w6wgz
7195 7795 600 Cuyamaca Peak wb6sfj
7195 7795 600 El Cajon wd6app
7195 7795 600 Santa Susanna n6yn
7195 7795 600 Sacramento n6icw
7195 7795 600 #Berkeley wb6ixh
7210 7810 600 #Stockton w6bwk
7210 7810 600 Sunset Ricge wb6ggl
7210 7810 600 #Gilroy k6thr
7210 7810 600 #Nipomo wb6iiy
7210 7810 600 Covelo wb6kfa
7225 7825 600 Lake Elsinore k6jhx

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7225 7825 600 Castro Peak k6jhx
7240 7840 600 #Coalinga w6dcp
7240 7840 600 Mt. Wilsom w6mep
7240 7840 600 Lancaster wa6twt
7240 7840 600 #San Leandro w6rgg
7240 7840 600 Big Bear Valley w6zju
7270 7870 600 #Vacaville/Mt. Vaca w6aex
7270 7870 600 #Shandon wb6rhr
7270 7870 600 #June Mt. wa6tyu
7270 7870 600 Mt. disappointment wa6ztr
7285 7885 600 #Half Moon Bay wb6asd
7285 7885 600 #Grass Valley w6zuz
7300 7900 600 Poway n6aam
7300 7900 600 Upland wb6qhb
7300 7900 600 Hesperia ka6mna
7300 7900 600 Oat Mt. wa6pps
7300 7900 600 #Bakersfield k6acr
7300 7900 600 #San Mateo n6ine
7300 7900 600 Chico k6np
7315 7915 600 #Palo Alto w6zyh
7330 7930 600 Big Bear w6zju
7330 7930 600 #Coalinga w6iyy
7330 7930 600 $choasset Ridge wa6gnk
7330 7930 600 San Rafael/San Pedro k6gwe
7360 7960 600 Mt. Laguna ka6dac
7360 7960 600 Black Mt. w6ti
7360 7960 600 Mt. Disappointment k6vgp
7360 7960 600 Verdugo Peak k6vgp
7360 7960 600 Palos Verdes k6vgp
7360 7960 600 Mt. Wilson k6vgp
7360 7960 600 Beverly Hills k6vgp
7360 7960 600 Malibu k6vgp
7375 7975 600 Palo Escrito wb6sat
7390 7990 600 #Paradise w6ece
7390 7990 600 #San Jose ku6u
7390 7990 600 #Sacramento wa6mnm
7390 7900 510 Sacramento k6np
7420 6475 -945 ? #San Diego wb6fzc
7435 6400 -1035 ? Sierra Peak wb6jpi
7450 6595 -855 ? #Oat Mt. wa6uzs
7465 6505 -960 ? #Running Springs kb5zk
7645 7045 -600 Laguna Beach wd6awp
7705 7105 -600 Victorville/Quartzit wa6wwb
7705 7105 -600 Paradise/Red Mt. k6biq
7705 7015 -690 flint Peak k6qqn
7735 7135 -600 Clayton/Kregor Peak wa6wvh
7735 7135 -600 Magic Mountain kb6c
7735 7135 -600 Oceanside w6fox
7735 7135 -600 Loma Linda w6fzv
7765 7165 -600 #Simi Valley k3hzp
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7765 7165 -600 San Diego k6jey
7765 7165 -600 Arcadia w6qfk
7825 7225 -600 Camino w6hbh
7825 7225 -600 #Anchor Bay nx6g
7825 7225 -600 San Martin k6thr
7825 7225 -600 San Martin k6thr
7855 7255 -600 #Mt. Bullion wb6inm
7855 7255 -600 San Diego wa6zmz
7855 7255 -600 Anaheim wa6ynt
7885 7285 -600 #Campbell k6iln
7885 7285 -600 San Diego wa6ail
7885 7285 -600 Thousand Oaks n6jmi
7885 7285 -600 Pomona wb6iuk
7915 7315 -600 Anaheim wb6ypx
7915 7315 -600 San Diego k6ghm
7945 7345 -600 3Monterey n6ahw
7945 7345 -600 Del Rey Oaks n6hrx
7945 7345 -600 Canoga Park wd6ezi
7945 7345 -600 #San Francisco n6fjs
7945 7345 -600 Santa Barbara ke6ki
7945 7345 -600 Skyland Peak w6cv
7975 7375 -600 Forrest Ranch wb6sat
7975 7375 -600 Watsonville/Loma Pri w6ojo
7975 7375 -600 Yucaipa n6atf
7975 7375 -600 Oxnard n6ahi
7975 7375 -600 San Marcos wb0vsr
7975 7375 -600 fullerton wd6dpy
7990 7390 -600 Mt. Otay w6jam
7990 7390 -600 Mt. Woodson w6jam
7990 7390 -600 Tujunga w6jam
7990 7390 -600 Running Springs w6jam
7990 7390 -600 Smokey Peak w6jam
7990 7390 -600 Borrego Springs w6jam
7990 7390 -600 Pt. Loma w6jam
7990 7390 -600 Hauser Peak wb7usy
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3494. Packet Radio in The Middle East

Newsgroup: rec.ham-radio
Date: 1990-06-13 08:17:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9006131506.AA25225@ucsd.edu>
Source record: 11008

How's your digital communications system doing these days ???
I'd be happy to hear about your system's capabilities/developments.
please direct your responses to the net or via E-mail.

Some info about Packet radio here in the middle east...

- The main frequency on VHF is 144.675.
- There are 3 active BBS's on this frequency in Israel and one in Cyprus.
4Z4SV - JERUSALEM
4X4HF - HAIFA
4X1RU - HERZELIA (VHF-HF Gateway)
5B4TX-6 - CYPRUS

- TCP/IP is used extensively by about 30 percent of the 200 or so active
Packet stations.
- There are 10 active NETROM digipeaters scattered throughout the country.
- The BBS's use RLI or MBL software at 1200 baud. Each BBS has an additional
port for TCP/IP
- Visitors are welcome to use the system to pass traffic back home.(Overnight
delivery most of the time !) A laptop, HT and small TNC will get you
country-wide coverage - from your mobile.
- Work is being done presently to have links done on UHF at 9600 baud.

Anyone using Full Duplex BBS's (with a dualbander-this sounds possible) ???

73,
Richard Harel
4X1DA

3495. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-13 12:22:58 UTC
From: LANG@UNB.CA
Message-ID: <ID7079.D900613.T092259.LANG@UNB.CA>
Source record: 11010

On Tue, 12 Jun 90 21:30:04 PDT Info-Hams Mailing List and Newsgroup
</dev/null@UCSD.EDU> writes:

> Date: 13 Jun 90 01:51:47 GMT
> From: usc!cs.utexas.edu!mailrus!sharkey!lopez!flash@ucsd.edu (Gary

> The title says it all. I just sat down for a nice peaceful evening of
> a little SWL'ing and Hamming (I do both)... AND the bands are dead, at
> least up here in the aroural zone (Marquette, Michigan, the land that
> time forgot)... When I say DEAD, I mean Dead. I can not get WWV
> anywhere. 75 meters is totally gone. SHORTWAVE stations sound like
> they are under water, and nobody is higher than S-2. Surprisingly,
> W1AW was there at 0130 with their bulletin on 21329.8 (announced
> 21390, they can not get closer to the freq than good old Glen Baxter
> can)...
> Is it just ME, or is this the WORST solar peak you can remember. I

A major flare occurred at 0541 UT, 12 June
A major geomagnetic storm began at 0820 UT, 12 June
A satellite proton event began at 1140 UT, 12 June
A polar cap absorption event began at 1545 UT, 12 June.

Last night (around 0300 UT), I couldn't hear WWV on any frequency, but
there was still a lot of other SW activity on the bands at regular
strengths.

Beautiful very pale green aurora seen from Fredericton. Quite
extensive; some patches directly overhead.

==
Richard B. Langley BITnet: LANG@UNB.CA or SE@UNB.CA
Geodetic Research Laboratory Phone: (506) 453-5142
Dept. of Surveying Engineering Telex: 014-46202
University of New Brunswick FAX: (506) 453-4943
Fredericton, N.B., Canada E3B 5A3
==

3496. Re: "X" callsigns (was: Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-13 12:35:20 UTC
From: darrel@bigburd.PRC.Unisys.COM
Message-ID: <14104@burdvax.PRC.Unisys.COM>
Source record: 11006

Also, the X experimental call reservation does NOT seem to apply to N series calls, since here in California, I started hearing a number of tech/general N6X** calls (by September, all the N6*** calls will be used!)

Darrel Van Buer, KI6VY

3497. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-13 13:03:46 UTC
From: perley@trub
Message-ID: <8507@crdgw1.crd.ge.com>
Source record: 11011

In article <1990Jun13.015147.4993@lopez.UUCP>, flash@lopez (Gary Bourgois) writes:
>The title says it all.
> When I say DEAD, I mean Dead. I can not get WWV
>anywhere. 75 meters is totally gone. SHORTWAVE stations sound like
>they are under water, and nobody is higher than S-2.

>Not so this time. This cycle has been a bust IMHO. The bands have been
>literally DEAD for days on end. No communication in or out.

I tuned through 20 meters this morning at ~5:30 just to see if it was
worth getting up and heading for the shack. I drew a complete blank.
Many mornings over the last week or 2 it has been wall to wall with
Australia and New Zealand, some of them running 20-30 watts. You
can't get much more DX than that from the east coast.

Last week I picked up a British station working mobile (mid afternoon our time)

It has been boom or bust, but the booms have seemed pretty good to me.
Now I just have to get my antenna outdoors so I can get out a little better.

-don perley ke2tp
perley@trub.crd.ge.com

3498. Re: Undocumented features in handhelds? WAS: ICOM IC24/AT...

Newsgroup: rec.ham-radio
Date: 1990-06-13 13:07:26 UTC
From: rbono@necis.UUCP
Message-ID: <1341@necis.UUCP>
Source record: 11015

In article <932@cameron.egr.duke.edu>, jsm1@dukee.egr.duke.edu (J Scott McCalmont) writes:
> From article <1335@necis.UUCP>, by rbono@necis.UUCP (NM1D):
> >
> > Here is some of the "interesting" information. The so-called "modification"
> > to enable the wide range RECEIVE ONLY frequency converage did NOT require
> > any hardware changes to the unit.... (a FEW early units did require a diode
> > to be removed)... simply hold down a few buttons when turning on the unit and
> > keep them held until the unit is done with it's self test (Light-B-#).
> >
>
> Well, to be adventuresome, I tried the "light-B-#" on my IC-2SAT.
> I didn't get wide-range receive coverage, but I did get ALL the
> LCD segments to turn on right after I powered the rig up.
> None of the other key combinations that NM1D noted seemed to have
> any effect.
>
> So, are the digital processors the same? Can these "software"
> changes be applied to other Icom handhelds? Has anyone found
> useful key combinations?
>

Maybe I wasn't clear enough... I made this mistake also...

Turn off the radio..
Hold down the Light, B and # keys (it isn't easy)
While holding down these keys, turn on the radio (even harder for two
handed people!!!)

THIS IS THE IMPORTANT STEP

**** DO NOT RELEASE THE Light-B-# KEYS UNTIL THE SELF TEST IS OVER AND
THE RADIO IS DISPLAYING A FREQUENCY ****

If you release the keys before the display has settled down, you won't
enable the wide-range receive.

Or maybe you have a very early unit that requires the removal of a diode.
My unit has a serial number in the 1900's, I am told (by a good source)
that the 'first' batch of IC24A's required the diode to be removed.
All other batches (from Japan) don't require the diode to be removed (of
course, they could change this at any time!).

Also, keep in mind.... this was done on the IC24A... The dual band 144/440MHz
handheld.... I have not tried this on a IC2SA/T, IC3SA/T, or IC4SA/T.

The combinations that change the number of digit-frequency-entry did work on
an IC3SAT, but I beleive that unit had a diode removed to enable some

'extended' frequencies. If I had an IC2SAT, I might try removing the 'programming' diodes (they are very obvious), and 'see' what happens... One could always replace them (I hope) if the effect was not desired.

Good luck... My wife (WG1G), still won't let me near 'her' radio... she loves it.... I guess I will have to get one of my own!

Hope this helps,

Rich

--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

3499. Re: time for FCC to process a license application

Newsgroup: rec.ham-radio
Date: 1990-06-13 13:20:51 UTC
From: rbono@necis.UUCP
Message-ID: <1342@necis.UUCP>
Source record: 11018

My wife recently (June 4th) received her Extra ticket (WG1G)... this was done through a VE upgrade... She received the ticket in 6 weeks (almost to the day).

Another local Amateur (WF1W), received his license in exactly 3 weeks, this was a call-sign change only (610 form sent directly to the FCC).

Local Novices have been receiving their ticket in 5-6 weeks.

Gee, how come when I was upgrading, I had to wait about 8 weeks!! Looks like I missed about 2 weeks of Amateur Radio activity :-)!!!

Rich

--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

3500. Bounced mail

Newsgroup: rec.ham-radio
Date: 1990-06-13 13:40:59 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006131341.AA08368@ti.com>
Source record: 11005

I tried to reply to Chris piggot's note Re: concerns over TCP/IP but it bounced. My Mailer-daemon gave me this:
>554 ccird7!cep... No local host called ccird7 in cep @ ccird7

Is this a problem on my end? I've been trying to reach Chris for months with no luck.

Dube

3501. tm731 European vs American versions

Newsgroup: rec.ham-radio
Date: 1990-06-13 14:07:09 UTC
From: tadams@tadams.austin.ibm.COM
Message-ID: <9006131407.AA00412@tadams.austin.ibm.com>
Source record: 10997

Does anyone have any experience converting the American version to the European version? The 450 band changes as do the steps. This is for an Italian friend who is in the us on assignment. Tom WA5QZM

3502. tm731 European vs American versions

Newsgroup: rec.ham-radio
Date: 1990-06-13 14:11:47 UTC
From: tadams@tadams.austin.ibm.COM
Message-ID: <9006131411.AA00418@tadams.austin.ibm.com>
Source record: 10998

Does anyone have any experience converting the American version to the European version? The 450 band changes as do the steps. This is for an Italian friend who is in the US on assignment. Tom WA5QZM

3503. Electronic callsign database question

Newsgroup: rec.ham-radio
Date: 1990-06-13 14:44:08 UTC
From: cep@cci632.UUCP
Message-ID: <38031@cci632.UUCP>
Source record: 11013

In the callsign database, is it really necessary to have both the issuance date and the expiration date? With universal 10-year licenses, I have only kept the expiration dates and have stripped out the issuance date. This _seems_ pretty safe to me, and that if I want to know when the guy got his license, subtract 10 years from expiration. I want to know if there are any caveats or glitches that I am missing in this assumption.

Chris

3504. Re: QSLing

Newsgroup: rec.ham-radio
Date: 1990-06-13 14:56:22 UTC
From: daveh@compnect.UUCP
Message-ID: <623@compnect.UUCP>
Source record: 10999

In article <9006111248.AA22930@ucsd.edu>, lwrclmr@SACEMNET.AF.MIL ("LWRCLMR") writes:
> Ref QSL INbound bureaus.
stuff deleted
> How about it. Any members of the WVDXC out there to answer up? Anyone
> willing to post how bureaus are supposed to work? (Not just post references
> to read that we don't have access to?)
Each Incoming QSL has its own rules, so what I am about do post is only guaranteed to represent 3rd call area policy. First, to get a copy of our rules, all we ask for is an SASE. We operate strictly on an SASE basis. You send us SASEs (5x7 clasp envelopes) with at least one unit of postage. If you expect larger volumes of cards, you can put extra postage on the envelopes. As soon as the weight of cards on file at the bureau matches up with the postage on your envelopes, we drop it in the mail to you. We stamp or write last envelope on your last envelope when we mail it to remind you to send more SASEs. As a courtesy, we send a onetime postcard to hams who have cards on file at the bureau, but no envelopes. If they don't send the SASEs within 45 days of notification, the cards are discarded and a note is made in the file to discard all future cards. Believe it or not I have over 6 pounds of cards for one very active DXer that will soon be pitched if he doesn't get his act together. Hope this explanation helps. BTW, I would send your bureau a letter with an enclosed SASE and ask for an accounting of your funds. 73

--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

3505. Re: Info-Hams Digest V1 #21

Newsgroup: rec.ham-radio
Date: 1990-06-13 15:06:11 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9006131506.AA01433@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 11007

Subject: Re: Items for sale
While the host is on Usenet, there is a considerable distribution via the internet. I don't know who administers and pays for the internet, but I suspect that the government is somehow involved. We knew who administered the Arpanet and what their tollerance limits were. I, for one would hate to lose that distribution mechanism.

-- Doug WA6VVV

3506. YAESU 73R MOD

Newsgroup: rec.ham-radio
Date: 1990-06-13 15:11:54 UTC
From: PPDDC@UWOCC1.UWO.CA
Message-ID: <19900613.111155.PPDDC@UWOCC1.UWO.CA>
Source record: 11009

I had the opportunity to purchase a Yaesu FT73R UHF handheld.

This radio had been modified BY SOMEONE ELSE to operate as the commercial version FTH-7005. We have tried tuning it back to the ham band but can only make it transmit there, not receive. We could not see a jumper anywhere.

What we need to know is what do we have to do to REVERSE THE MOD and get it OUT OF THE COMMERCIAL BAND. The Canadian distributor couldn't help.

Anyone out there have any info?

Dave Colvin
VE3ZDC
PPDDC@UWOCC1.UWO.CA
(519)661-3301

3507. stamp?????

Newsgroup: rec.ham-radio
Date: 1990-06-13 15:27:00 UTC
From: UCSBPM@UWPLATT.EDU
Message-ID: <7DDFB7CBF8FFE0069C@uwplatt.edu>
Source record: 11012

You mean the post office has to STAMP the IRC for it to be valid?
OOOPS. (They knew what they were here, but they took 10 minutes to
find any, and they only had 12, I bought them out.
Funny, because I sent 1 unstamped IRC to 2 people (Estonia and Austrailia)
and they came back very quickly with cards. The VK station even said
"Yes, the IRC will cover postage OK" (I know 1 IRC isn't enough for air mail,
but I figured it would help) [hey-I'm a poor, starving colledge student,
I can't afford IRC's :)]
Maybe I just talked to nice people :)

This message nominated for the worst use of netspace,

Brian P. McCarty, N9IWP
internet:UCSBPM@UWPLATT
oops UCSBPM@UWPLATT.EDU
bitnet:UCSBPM@UWPLATT

3508. Re: "X" callsigns (was: Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-13 16:05:29 UTC
From: washer@unisoft.UUCP
Message-ID: <3030@unisoft.UUCP>
Source record: 11016

In article <7856@pitt.UUCP> hoffman@cs.pitt.edu (Bob Hoffman) writes:
>In article <andreap.645128686@s.ms.uky.edu> andreap@ms.uky.edu (Stephen McNatton) writes:
>
>[slightly rearranged and edited]
>
>>From To Service
>
>>K0AA K9WZ Amateur
>>K0YA K9ZZ Amateur
>
>>K0AAA K9WZZ Amateur
>>K0YAA K9ZZZ Amateur
>
>>KA0A KZ9W Amateur
>>KA0Y KZ9Z Amateur
>
>>KA0AA KZ9WZ Amateur
>>KA0YA KZ9ZZ Amateur
>
>>KA0AAA KZ9WZZ Amateur
>>KA0YAA KZ9ZZZ Amateur
>
>And similarly for the As, Ns, and Ws. While it seems to be the case
>that 1x3 and 2x3 "X" calls are reserved for experimental licenses,
>this is certainly not the case for the 1x2, 2x1, and 2x2 calls.
>I know W2XO and KE8X myself, and a quick persual of the callbook
>shows KB3XC and KB4XA.
>
> ---Bob.

Nope, not even the 1x3's are reserved!

I know, I had one.

Jim Washer KK6GQ (ex N6XHK)

3509. Re: QSL Basics

Newsgroup: rec.ham-radio
Date: 1990-06-13 16:49:59 UTC
From: tad@ssc.UUCP
Message-ID: <826@ssc.UUCP>
Source record: 11001

In article <9006071545.AA17103@ucsd.edu>, wmartin@STL-06SIMA.ARMY.MIL (Will Martin) writes:
> We've been discussing this topic like we all know what we're talking about,
> but I know that's not true in my case... :-)

Don't feel bad....it can be fairly complicated to the uninitiated!
>
> Anyway, how about some basic info? I know what a QSL card is, and understand
> hams exchanging them directly. But when we get into the infrastructure of
> all these extensions and enhancements that have been build up around this
> simple exchange, I really don't understand what the details are.
>
> Just who is a "QSL Manager"?
He is someone who handles cards for another ham. Many times it is someone in the USA who handles QSLs for a DX ham. The foreign ham says "QSL VIA W6XYZ", and then sends W6XYZ copies of his log. If you want the DX QSL, you send an SASE to W6XYZ along with your QSL, and he sends a card back for the foreign ham.

Who takes on such a job and why? Are they
> "appointed" by a foreign ham,

YES.

and are there people clamoring to get
> these positions,

NO.

or are they people who volunteer to experience drudgery
> and annoyance for the sake of a foreign ham who is a personal friend, or
> what?

YES.

Is the usual thing that one person is a "QSL Manager" for many
> foreign hams, or is this a one-to-one thing normally?

It can be either. Some QSL managers do it for many stations.

Are there "QSL
> Managers" outside the US, or is this something that is US-unique?

Yes, there are QSL managers outside the USA. I think that most of them are here, just because there are so many U.S. hams who are in the pileup collecting cards. But a QSL manager can be anywhere. Going through a manager in a foreign country is not as easy, because you need to send a donation rather than an SASE (unless you have a

collection of foreign postage).

>
> What is a "bureau"? Who runs it/them, and why? Does each country have
> one? Do they have any "official" status, like being registered with that
> country's FCC-equivalent?

Here is how a bureau (or BURO) works. They are not registered or regulated,
but are generally run by the national ham radio organization in the country
that they are in.

In the USA we have a bureau for each call area. You send a 5x7inch
envelope to the bureau with several ounces of postage on it, your
return address on the front, and your callsign in block letters in
the upper left corner. Actually, send several. The addresses are
printed in QST a couple of times per year, are also in the ARRL
Operating Manual, and are in the DX Callbook. They file it in
alphanumeric order, and when they fill up an envelope (or a long
time has passed with no more cards) they seal it and drop it in the
mail to you.

Overseas hams send bunches of cards directly to the ARRL HQ, and they
are then distributed to the regional bureaus. Every month or so the
volunteers at the bureaus sort the cards and mail them.

For outgoing cards, you can send these direct, send them to the
incoming bureau for the country, or use the ARRL outgoing bureau
(if you are an ARRL member). The outgoing bureau is great. You
pay $2/pound, sort your cards alphanumerically, and send them
off to ARRL HQ with your QST mailing label. At HQ they sort
them by country, and ship huge boxes of cards to the incoming
bureaus of each country. This is the cheapest way to go, and
will work for most run-of-the-mill overseas contacts, EXCEPT
when the recipient is not using the bureau in his country,
or only uses a QSL manager.

Note that the outgoing bureau is in Newington, and you incoming
bureau is somewhere in your call area. When you move to another
call area but don't change calls, you still use the bureau in
your old call area.

.>
> When did this stuff start? Any history notes or comments?

It just sort of evolved.

>
> Post responses, don't mail them; this should be of interest to all the
> people out there who post "how can I become a ham?" or similar new-guy
> type queries.

OK. I hope this helps.

Ask the ARRL for copies of their sheets on the OUTGOING QSL BUREAU and the INCOMING QSL BUREAU. Their address is ARRL, 225 Main St, Newington, CT 06111.

You can also reach them via e-mail from usent at:

....mcimail.com!2155052

>
Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3510. Re: My own funky call

Newsgroup: rec.ham-radio
Date: 1990-06-13 17:54:30 UTC
From: kthompso@entec.Wichita.NCR.COM
Message-ID: <564@entec.Wichita.NCR.COM>
Source record: 11025

Has the upcoming call N0PAY been overlooked?

--
Ken Thompson N0ITL
NCR Corp. 3718 N. Rock Road
Wichita,Ks. 67226 (316)636-8783
Ken.Thompson@wichita.ncr.com

3511. VHF Transverters

Newsgroup: rec.ham-radio
Date: 1990-06-13 18:38:02 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9006131842.AA07748@ucsd.edu>
Source record: 11017

A local ham friend of mine is seeking to purchase a used transverter for 6m and one for 432/435, both with 28 MHz IFs. For 6, he's particularly interested in the Kenwood TV506, and for 432/435, he's looking for a Micro-wave Modules unit.

If you have one of these transverters, or know someone who does, could you please drop me a note via BitNet: MROWEN @ STLAWU and I'll pass the information to him.

Thanks -

3512. Morrow MBR-5 receiver

Newsgroup: rec.ham-radio
Date: 1990-06-13 19:19:15 UTC
From: bobh@unicorn.WWU.EDU
Message-ID: <1110@unicorn.WWU.EDU>
Source record: 11014

I have received a donation of a Morrow MBR-5 receiver. No docs,
no specs. It has an octal power connector, with no voltage/function
indications on it.
Does anyone have the power pinout for this ancient piece of gear?
I would love to get it fired up!
Any pointers to a source for the schematics/docs etc, for this
beast would be appreaciated.
Thanks,

--
Bob Hayes < bob@arthur.wwu.edu | bobh@unicorn.wwu.edu > USnail follows:
Western Washington University
Computer Science Dept. Bond Hall 302, Bellingham, Washington 98225
Obbligato Disclaimers: All; Std Joke: 4 nickels for a used paradigm??;

3513. Battery Charge Info Wanted

Newsgroup: rec.ham-radio
Date: 1990-06-13 20:54:40 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120126@hpcupt1.HP.COM>
Source record: 11002

I would like to get the charge verus voltage figures for a lead-acid
wet cell. Five points, 0%, 25%, 50%, 75%, and 100% will be adequate.
Thanks and 73's
Jim, WA6SDM
jholly@hpcupt1.hp.com

3514. Re: "X" callsigns (was: Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-13 21:56:00 UTC
From: wille@hpccc.HP.COM
Message-ID: <5540036@hpccc.HP.COM>
Source record: 11021

/ hpccc:rec.ham-radio / hoffman@speedy.cs.pitt.edu (Bob Hoffman) / 10:28 am Jun 12, 1990 /
> In article <andreap.645128686@s.ms.uky.edu> andreap@ms.uky.edu (Stephen McNatton)
writes:
>
> [greatly rearranged and edited]
>
> >From To Service
>
> >K0AA K9WZ Amateur
> >K0YA K9ZZ Amateur
>
> >KA0YAA KZ9ZZZ Amateur
>
> And similarly for the As, Ns, and Ws. While it seems to be the case
> that 1x3 and 2x3 "X" calls are reserved for experimental licenses,
^^^
> this is certainly not the case for the 1x2, 2x1, and 2x2 calls.
> I know W2XO and KE8X myself, and a quick persual of the callbook
> shows KB3XC and KB4XA.
>
> ---Bob.
> --
> Bob Hoffman, N3CVL {allegra, bellcore, cadre, idis, psuvax1}!pitt!hoffman
> Pitt Computer Science hoffman@cs.pitt.edu

This was an issue in California now that the N6aaa calls are nearly exhausted.
It was unclear whether or not the FCC would issue N6Xaa calls. But, my YL
recently got her Tech and it has an X suffix. So, it appears that there are
no 1x3 N calls reserved for experimental use.

-Ross N6SJD
wille@hpda.hp.com

3515. DOVE

Newsgroup: rec.ham-radio
Date: 1990-06-13 22:36:01 UTC
From: limey@tc.fluke.COM
Message-ID: <1990Jun13.223601.17459@tc.fluke.COM>
Source record: 11020

Has anybody head DOVE on 2m lately?

Paul
KW7Y

3516. EBS, This is NOT a test (I was there)

Newsgroup: rec.ham-radio
Date: 1990-06-13 22:45:46 UTC
From: flash@lopez.UUCP
Message-ID: <1990Jun13.224546.15798@lopez.UUCP>
Source record: 11023
Cross-posted to: rec.ham-radio,rec.radio.shortwave,rec.radio.noncomm

First we had CONELRAD. If you have a radio made in the 1950's, you will still find the little circle with a triangle in the middle of it at 640 and 1240khz.

In the late 1960's, I worked at a station that happened to broadcast on 1240 KHZ. Though EBS had taken over, and conelrad was no longer used, I still used to say "Where Listening is HOT on the CONELRAD DOT" as a funny one liner.

Anyway, Back in the 1960's EVERY SATURDAY MORNING, at exactly the same time (10:30 or so I do not recall the time, except that it was EXACTLY the same time every week) the UPI machine (In those days a klunking thumping mechanical TTY) would go into spasms. There would be 10 bells: BINGBINGBINGBINGBINGBINGBINGBINGBINGBINGBING and a row of

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

and ten more bing bing bing bells....

And then:

EMERGENCY BROADCAST SYSTEM TEST...

THIS IS A TEST OF THE EMERGENCY BROADCAST SYSTEM

And a test message would follow.

We were required by the FCC to save these tests, and staple them to the station logs.

There was a "hook" (nail on the wall) where news was sorted, and the first hook was for EBBS tests.

They came during our local top 20 program, where I played the station's most popular songs as tabulated by requests of the past week. It was a busy shift, and "Tearing the wire" was mixed in with answering the phone, being the station's engineer, and drinking lots of coffee. At that small station in Ishpeming Michigan, I was the only employee there on saturdays.

Pegging the EBBS test was part of the routine.

So when I heard the bells go off, and the RED LIGHT above the console go on (Stepper relay wired to a BIG TRUCK TAIL LIGHT whenever the bell rang more than 8 times within a 30 sec period), I would go out and rip off the test, and stick it on the wall, and go back to playing the hits.

Well, to my surprise a half hour later, when we joined the NBC network, I was informed that a mistake had been made, and AN ACTUAL EBBS ALERT had gone out.

I ran to the hook and saw:

UPI

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

EMERGENCY BROADCAST NETWORK ALERT *** THIS IS NOT A TEST *****

THIS IS NOT A TEST. THIS IS AN ACTUAL ALERT. THE UNITED STATES

IS NOW UNDER ATTACK. ALL STATIONS ARE REQUESTED TO BROADCAST

THE EBBS WARNING MESSAGE. STATIONS NOT AUTHORIZED TO TRANSMIT

DURING A NATIONAL EMERGENCY ARE ORDERED TO LEAVE THE AIR. ONLY

AUTHORIZED EBBS STATIONS WILL TRANSMIT. FURTHER INFORMATION

WILL BE FORTHCOMMING

THIS IS NOT A TEST

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

I was absolutely flabberghasted. We did not have a xerox machine back in those days, or I would have a copy of the exact message in my files here (the above is only a very rough reconstruction of what I read.

Of course NBC mentioned that hardly ANYONE complied with the message as most people either figured it was a mistake, or did not even notice it (like me) because it came at 10:22 PM EST which was the standard test time.

This got me to speculating that if the RUSKIES (back then THEY were bad guys, not our huggy pals like in modern times) wanted to blow up the country, all they would have to do is plan the "big one" for just after 10pm on a saturday morning.

This incident caused a total revamp of the WIRE EBBS system, and I imagine someone lost his job over it.

Was anyone else working in broadcasting back then (It was 67 or 68 I think) on that fateful Saturday Morning? Does anyone have the text of the actual message that so many of us pinned on the wall without reading it because we saw the row of XXXXXXXXX's and went back to our business?

Radio. It was a wonderful Job. God, I'm glad I got out of it....

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==

=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

3517. Yaesu FT101B sick

Newsgroup: rec.ham-radio
Date: 1990-06-13 22:56:00 UTC
From: MULTI@TRIUMFER.BITNET
Message-ID: <90Jun13.180940edt.57942@ugw.utcs.utoronto.ca>
Source record: 11019

While tuning into an antenna with high SWR, my Yaesu FT-101B suddenly delevoped the following bug. The plate current refuses to dip on all bands except 10 meters, where it dips over in the 20 meter position. Output power is similarly low (10 watts or so) on all bands except 10 meters, where it peaks at 70 watts. ALC, drive, and plate current appear adequate, so I am somewhat reluctant to blame the final 6JS6C tubes. Ideas/Suggestions?

Y.N. Miles, VE7-ALQ,
<Multi@TRIUMFcl.bitnet>

3518. Re: CB in GB/11 meter bandits on 10 meters

Newsgroup: rec.ham-radio
Date: 1990-06-14 02:41:26 UTC
From: mdbomber@portia.Stanford.EDU
Message-ID: <1990Jun14.024126.4826@portia.Stanford.EDU>
Source record: 11022

In article <17838@ttidca.TTI.COM> sorgatz@ttidca.TTI.COM (Avatar) writes:
>In article <900611-084950-8056@Xerox> "hugh_davies.WGC1RX"@XEROX.COM writes:
>+finishes just below the CW segment of 10. There are enough people who can
>+hack the PLLs to give them access to all these "silent" (they can't hear
>+the CW, and don't care anyway) channels. Sigh.

> Soooo...it's happening in the UK too! Well Hugh, it *could* be worse...
>..I mean at least the bootleggers over there all speak English, here they
>all speak SPANISH! ;-) Heheheh! Time for t-hunts, time to write down some
>addresses..start harrassing 'em back!

I've heard of CB bootlegging for a while. I've heard things that have
me a little confused though. It it people with CB radios modifying
them to work on the 10m band or the other way around? I really don't
see why a 10m operator would want to try to move onto CB...

Also, if a CB radio is on 10m, it's going to be in fullwave AM right?
If you are tuning around on your receiver in SSB mode, will you
receive it? Certainly you will hear something, but will you be able
to dial it in so that it becomes clear? I believe I heard a fullwave
AM signal once, I forget where (it was in a ham band). Does this
always mean trouble?

Is it really possible to DF these things? Especially if there is a
lot of skip propagation going on.

--
Internet: mdbomber@portia.stanford.edu Matt Bartley
Bitnet: mdbomber%portia@stanford.bitnet 73, N6YWI
Kirk: "Spock! Where the hell's that power you promised?"
Spock: "One damn minute, Admiral." -- Star Trek IV : The Voyage Home

3519. Re: "X" callsigns (was: Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-14 05:03:46 UTC
From: Bill_A_Morgan@cup.portal.com
Message-ID: <30772@cup.portal.com>
Source record: 11024

I have one of those *X* calls - and I'm still trying to think of some mnemonics for X*G*X - but it sounds kinda neat on a key.....

Bill N6XGX

3520. AZDEN - PCS-5000 manual

Newsgroup: rec.ham-radio
Date: 1990-06-14 12:21:23 UTC
From: DFAH100@BGUNOS.BitNet
Message-ID: <9006141330.AA09328@ucsd.edu>
Source record: 11026

I own the PCS-5000 xcvr. Unfortunately, I don't have its operator manual, and don't know how to use the PL tones, the Touch-Tones, and Repeater programming shifts.

I would appreciate it very much if anyone could either get me the Operator's Manual, or give me instructions.

73 - Emanuel

BITNET: DFAH100@BGUNOS
PACKET: 4X1GV @4Z4SV

3521. Pro-2010 VHF-UHF scanner service manual needed (France or UK)

Newsgroup: rec.ham-radio
Date: 1990-06-14 12:45:17 UTC
From: esf100@cck.cov.ac.uk
Message-ID: <1990Jun14.124517.19064@cck.cov.ac.uk>
Source record: 10933

Would you be kind enough to let me know
if you own a copy of the above document ?

Thanks in anticipation.

--
**** EAN/X.400 : esf100@cck.cov.ac.uk (Pierre BESSON) (G0/FD1NMR) ****
**** Room G14.4 Priory Halls of residence Priory street COVENTRY CV1 5FB ****
**** Adress in France : 05 av Ed Herriot 38500 VOIRON tel : +33 76658003 ****

3522. YAESU FT-411 MOD, please help!

Newsgroup: rec.ham-radio
Date: 1990-06-14 15:16:29 UTC
From: jle@hpfcdc.HP.COM
Message-ID: <7880152@hpfcdc.HP.COM>
Source record: 10939

Announcing new HAM!! WB0GPX

My friend bought the Yaesu FT-411 handheld.

I confess, I haven't been following the posts about how to access the
MODS database. The current set of information on my system doesn't
contain any info on the MODS database.

Please post how to get to MODS, or how to mod the FT-411.

Thanks,

Jer/ Eberhard, (SLASH), HAM = N0FZD | Hewlett-Packard - MS99, 1UP10, 15' East
CAP SAR Pilot, COMM,INST,CFI-GLIDER | 3404 East Harmony Road (303) 229-2861
UUCP:hplabs!hpfcla!jle | Fort Collins, Colorado 80525-9599
ARPA:jle%hpfcla@hplabs.HP.COM

3523. CB in GB/11 meter bandits on 10 meters (again)

Newsgroup: rec.ham-radio
Date: 1990-06-14 15:22:32 UTC
From: hugh_davies.WGC1RX@XEROX.COM
Message-ID: <900614-084047-7042@Xerox>
Source record: 10932

In Vol 1 #22, philmtl!philabs!ttidca!sorgatz@uunet.uu.net (Avatar) writes;

<... Soooo...it's happening in the UK too! Well Hugh, it *could* be worse...
..I mean at least the bootleggers over there all speak English, here they
all speak SPANISH! ;-) Heheheh! Time for t-hunts, time to write down some
addresses..start harrassing 'em back!...>

Nice idea. Unfortunately most of the "bootleggers" actually speak Italian, not
because the UK has a large Italian bootlegger population, but because Italy
has a *HUGE* CB community, and with 10 meter propagation the way it is,
they are usually 50 over 9 here. Most of them are running about 5kW erp to
talk to their friends 2 miles away. Why do you think most of the CB "linears"
available are made in Italy?

73, Hugh, G0CNR.

3524. Where the 2 callsigns are

Newsgroup: rec.ham-radio
Date: 1990-06-14 17:08:47 UTC
From: cep@cci632.UUCP
Message-ID: <38062@cci632.UUCP>
Source record: 10937

With the perpetual discussion about where the callsigns are, I should
throw in that I just got my new call, and it is WZ2B, and it took
6 weeks (upgrade). Also, I have learned that N2KKK was skipped, so
the FCC list of 'exceptions' (callsigns not to give out) apparently
works :-)

--Chris

3525. Re: "X" callsigns (was: Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-14 17:18:48 UTC
From: gp15@cunixf.cc.columbia.edu
Message-ID: <1990Jun14.171848.24941@cunixf.cc.columbia.edu>
Source record: 10929

In article <30772@cup.portal.com> Bill_A_Morgan@cup.portal.com writes:
> I have one of those *X* calls - and I'm still trying to think of some
>mnemonics for X*G*X - but it sounds kinda neat on a key.....
>Bill N6XGX

XeroGraphic Xylophones ?

3526. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-14 17:33:32 UTC
From: msjohnso@ensub.Wichita.NCR.COM
Message-ID: <351@ensub.Wichita.NCR.COM>
Source record: 10931

My limited experience this cycle indicates that the bands are not really dead...in fact this is a much better peak than the last one, which was a real bust (smoothed max sunspot count of only 90 or so, monthly average; this one came out to about 150, as I recall reading somewhere). Solar flares do cause trouble, as you note, and we may well be past the peak. We can only hope it's going to be a bimodal this time...

BTW, my experience has been that except for disturbances, the bands always have some life to them...I've heard 10m openings during sunspot valleys that would surprise anybody. It seems that what really happens is that everybody says "cycle peak is over, p*ss on hamming", and doesn't even try.

--
Mark Johnson WB9QLR/0 NCR Peripheral Products Division
Mark.Johnson@Wichita.NCR.COM 3718 N. Rock Rd.
(316) 636-8189 NAR #14025 Wichita, KS 67226

3527. Re: DOVE

Newsgroup: rec.ham-radio
Date: 1990-06-14 18:34:57 UTC
From: cduncan@jato.Jpl.Nasa.Gov
Message-ID: <4066@jato.Jpl.Nasa.Gov>
Source record: 10930

>Has anybody head DOVE on 2m lately?

Dove has not been transmitting on two meters since late March. It is currently the top priority of the microsat software development team and may be back on two meter FM as early as sometime next week. Meanwhile, listen for it on 2401.2205 MHz (+/- 100 KHz doppler shift). It has been transmitting there for weeks with no known problems.

73, Courtney, N5BF

3528. Re: YAESU FT-411 MOD, please help!

Newsgroup: rec.ham-radio
Date: 1990-06-14 18:43:07 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880153@hpfcdc.HP.COM>
Source record: 10940

> Announcing new HAM!! WB0GPX

Thanks, Jer/. As you are the mentor who said "never let 'em get your
call wrong", I must correct you, it's: KB0GPX/KT

> My friend bought the Yaesu FT-411 handheld.

...for which I have been sufficiently berated by ICOM-owning friends. ;-)

> Please post how to get to MODS, or how to mod the FT-411.

My question exactly. :-) Thanks, Jer/.

3529. IC 751A Mods

Newsgroup: rec.ham-radio
Date: 1990-06-14 23:39:41 UTC
From: polo@cbnewsd.att.com
Message-ID: <1990Jun14.233941.21457@cbnewsd.att.com>
Source record: 10927

I am interested in any modifications for the ICOM 751A hf-transceiver.
If you know of any, I would appreciate any suggestions that you may have.

thanks in advance.

Mark Colosia at&t bell labs, naperville, IL, usa
UUCP: att!iceland!polo work: 708-713-4955;

3530. Re: Battery Charge Info Wanted

Newsgroup: rec.ham-radio
Date: 1990-06-15 00:35:10 UTC
From: dblake@hprnd.HP.COM
Message-ID: <1140035@hprnd.HP.COM>
Source record: 10928

jholly@hpcupt1.HP.COM (Jim Hollenback) writes:

> I would like to get the charge verus voltage figures for a lead-acid
> wet cell. Five points, 0%, 25%, 50%, 75%, and 100% will be adequate.
> Thanks and 73's
> Jim, WA6SDM

I'm sorry to be the bearer of bad news, Jim, but the data you are looking for doesn't exist. To be sure, a lead-acid battery does exhibit a *slight* decrease in cell voltage as it discharges, but the specific values depend on battery age, cycle history, maintenance history, etc. Your only hope would be to characterize each individual battery of interest to you. And then, those numbers would only be valid while the battery was at chemical equilibrium with no load.

The best (and sometime only) way to determine the state of charge of a lead-acid wet cell is to measure the specific gravity of the electrolyte.

Best regards,
Dan Blake
<dblake@hprnd.hp.com>

3531. Re: Call for Comment, CB "Traffic Advis

Newsgroup: rec.ham-radio
Date: 1990-06-15 03:35:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500572@ux1.cso.uiuc.edu>
Source record: 10934

> You have this backwards. UPS already stole the 220 Mhz band. A
> Portland, Ore. HAM proposed PELTS, which was approved, and he 'STOLE'
> one of the 220 Mhz frequencies back from UPS.

Nope...

Aerotron stole the 220 Mhz band and SOLD it to the first buyer willing to
help them do it, then a ham proposed PELTS which is TEN channels.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3532. XYZ suffix callsigns (was: Re: "X" callsigns)

Newsgroup: rec.ham-radio
Date: 1990-06-15 03:40:35 UTC
From: sorgatz@ttidca.TTI.COM
Message-ID: <17882@ttidca.TTI.COM>
Source record: 10944

In many articles (Ross Wille and others) writes:
{a bunch of stuff about x series calls}

Funny, I noticed a strange anomoly...no XYZ calls! Anywhere..my call book is on "oldie"..1989..? Someone said that the reason was that those calls were reserved for advertising...?? Anyone else?

-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **
(OPINIONS EXPRESSED DO NOT REFLECT THE VIEWS OF CITICORP OR IT'S MANAGEMENT!)

3533. ...

Newsgroup: rec.ham-radio
Date: 1990-06-15 07:03:00 UTC
From: RDW2030@TAMVENUS.BITNET
Message-ID: <9006150703.AA02478@ucsd.edu>
Source record: 10935

Ok... last time... this is your brain on info-hams...

ASDGLKJ#$^()*ERGIOGEGHPOIW$%IPO^&R}{P}{|}{O^%Y#PIOJ@W#%$PYOJW$P%OYJ$W%Y
@$OK@%TOPJK@#$T%JOP#Q$OTJPOJP:OJ|POJ}PO|J|POJP:_&^(OJ$%W^OPJ@#Q$%POJ$#%

etc. etc. for 50K...

Please please PLEASE don't post programs as mail messages to info-hams!!
It's just a machine! It doesn't have the sense to put it at the end of the
mailing, or even in a separate mailing! It sticks it in there like ANY OTHER
MAIL MESSAGE... and then you have to scroll through 20 screens at 2400 (or
faster if you're at work) before you realize that it's not going to end any
time soon. Then you have to extract it to a file and jump to the end to read
the messages that come after the program!

ACK!

Logger12 could have been uploaded via FTP to some site. If you don't have
FTP, I'm sure something else could have been arranged. I hope I'm not the
only one that thinks this was a bit uncalled for. On the VAX you read
things ONE SCREEN AT A TIME... and it costs a lot more than a dime!

KB5III

3534. Yaesu Sigmasizer 200R

Newsgroup: rec.ham-radio
Date: 1990-06-15 08:40:00 UTC
From: RDW2030@TAMVENUS.BITNET
Message-ID: <9006150840.AA05867@ucsd.edu>
Source record: 10936

I have this old mobile rig from the good ol' days of crystals. It's the Yaesu Sigmasizer 200R. A 2m rig with about 50 crystals in it! Looking back in some old QSTs, it seems to be from about 1975. This rig was thrown in with the deal a couple o' years ago when I bought my Drake TR-4C.

The radio works excellently, with the exception of a couple frequencies. This may just be bad crystals, but I would like to ask if anyone has the manual and/or schematic for one of these. It's a great rig, and I plan on using it until I can afford something better (and after that I'll still use it for SOMETHING!).

Also... you Drake owners out there... how about letting me know if you have any mods for the Drake TR-4C. Also, I would like to know what the optional 34PNB noise blanker was made of (ie-could I make one myself or will I have to find this at a swap fest?). There is simply a jumpered tube-socket where this blanker goes.

Thanks for the help and please post to the list, because I am in the middle of account switching!

Mark Lowe - KB5III

3535. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-15 08:59:38 UTC
From: bernerus@utc.chalmers.se
Message-ID: <1990Jun15.085938.23633@afs-news.utc.chalmers.se>
Source record: 10942

Must have been another flare on June 14, at least we had a good aurora opening here in Europe (well, that's on 2m). The band was, from here, wide open down to northern F and OK at least until about 18UT.

Btw, not all hams swear about solar flares. HI. If you get tired of those dead HF bands, get yourself 100 watts, 10 elements and CW on 2m and have some fun! (Apology to all of you that live too near the equator)

Chris.

Christer Bernerus (SM6FBQ) ! E-mail: bernerus@{cs,utc}.chalmers.se
Chalmers University of Technology ! Phone: +46 31 721000
Department of Computer Science ! LOC: JO67BQ
S-412 96 Gothenburg, SWEDEN

3536. Gel-CELL recovery

Newsgroup: rec.ham-radio
Date: 1990-06-15 13:28:00 UTC
From: U009@cs.cciw.ca
Message-ID: <5A060F0811360201-MTACY830*U009@cs.cciw.ca>
Source record: 10938

Larry was asking about the possibility of recovering Gel-Cells. I have not had much luck with totally discharged cells. The Gates application book I have indicates cells should be re-charged if the cell voltage drops to 1.8 or 1.6 volts(I can't remember exactly) after sitting on the shelf. During actual discharge, the voltage can be permitted to fall to lower values as long as the cells get re-charged reasonably quickly.
Some cells will pass current with very high voltages (40 or more) and can be partially recovered, but not completely. The cause is apparently insoluble lead salts forming a high resistance in the cell if it remains in a discharged condition for too long. This is probably irreversable.

All that said, I am looking for a couple of BC cells in reasonable condition (2 volts, 25 AH) and reasonable price to complete a 14 volt battery. If you have a lead for me (or a lead cell- hi hi), please write.

Regards, Stu Beal, VE3MWM, (U009@CS.CCIW.CA),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

3537. INFO-HAMS

Newsgroup: rec.ham-radio
Date: 1990-06-15 13:46:52 UTC
From: buckij@thor.acc.stolaf.edu
Message-ID: <671@nic.stolaf.edu>
Source record: 10951
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Hello,
I'm not yet a ham, but I have a friend who is and he asked me to post and find out something about info-hams for him. Unfortunately he is unable to read news, but he can send/receive mail. Could someone please send us information on info-hams, so this poor young lad can indulge in newsfeed on a regular basis? All input is appreciated.

Thank you,
Jonathan S. Bucki
(for Eric Bartsch, bartsch@pnet51.CTS.COM)

3538. RECEIVER

Newsgroup: rec.ham-radio
Date: 1990-06-15 15:17:00 UTC
From: greg.trice@canremote.uucp
Message-ID: <79e293ca92ee2679180c@canremote.uucp>
Source record: 10941

-> >Sensitivity of 0.5 uV
-> >Ability to withstand 1000V pulses on input without blocking or
-> damage.
->
-> This sounds a lot like a receiver with a Blocking Dynamic Range of
-> over 180dB. If such a receiver is found, Greg, let us know...and let
-> us know the price.
->
-> 73, Dube Todd N5PDK
Perhaps I phrased this badly. The receiver does not have to FUNCTION with 1000 volt input, merely not be damaged by it, and to recover immediately (in a few microseconds) as soon as the overload is removed. Most commercial receivers I have tried either suffer damage or block for several seconds following a gross overload. The signal I am looking for occurs in the few milliseconds following the overload. I think a tube front-end is probably essential - probably related to the electronic t/r switches used by some CW operators to achieve instant break-in.

3539. Re: Battery Charge Info Wanted

Newsgroup: rec.ham-radio
Date: 1990-06-15 16:15:37 UTC
From: <>
Message-ID: <15780004@.HP.COM>
Source record: 10943

My Gates manual shows the following voltages. The line is linear, so
any other points are easy to calculate. Gates notes that the actual state of
charge will be within 5% of the chart if the battery has not been charged or
discharged for 24 hours.

Charge 0 25% 50% 75% 100%

Cell
voltage 1.975 2.025 2.075 2.125 2.175

Note that this is open circuit voltage. The actual discharge characteristics
are also relatively linear (except at the end!), but both of these voltages
are temperature dependent. The Gates data sheet shows that the capacity varies
from 50% of nominal at -40 deg C to 103% of nominal at 60 deg. C (nominal is
at 25 deg. C). Most of my experience has been with the Gates batteries, so
other batteries may have different characteristics. You might try writing to
to the manufacturer of your battery for a data sheet.

stan

~~~~~~
~ Stan Witherspoon ~ Disclaimer ~
~ Systems Technology Division ~~~~~~~~~~~~~~~~~~~~~~~~
~ Hewlett Packard Company ~ These are my ~
~ 8010 Foothills Blvd. ~ personal opinions ~
~ Roseville Ca. 95678 ~ and do not represent ~
~ Phone: (916) 785-5071 ~ the views of anyone ~
~ RF: N6SCE ~ or anything else ~
~ Email: ucbvax!hplabs!hprpcd!stan ~
~~~~~~

3540. Re: ...

Newsgroup: rec.ham-radio
Date: 1990-06-15 16:53:39 UTC
From: mason@cg-atla.agfa.com
Message-ID: <8960@cg-atla.agfa.com>
Source record: 10949

In article <9006150703.AA02478@ucsd.edu> RDW2030@TAMVENUS.BITNET writes:
>
>Ok... last time... this is your brain on info-hams...
>
If you didn't use a brain dead news.reader this would not be a problem.

>
>KB5III
I knew K1III back in the 60's. He ran an ice cream stand.

de K1JTP

--
__ Anger is just love having a bad day
/) /
/--< _ /_ Suffering is the sole origin of consciousness - Dostoyevski
/___/_<_/_<__/ {decvax, samsung}!cg-atla!mason

3541. Are there Weather Radar Feeds?

Newsgroup: rec.ham-radio
Date: 1990-06-15 17:44:33 UTC
From: mwester@waveguide.central.sun.com
Message-ID: <244@texsun.Central.Sun.COM>
Source record: 10948

Our local cable company dropped the weather radar. I found that channel to be incredibly useful during (of course) bad weather, but also useful to alert me to band openings.

Does anyone know how the information from these radar sites is distributed? Has anyone have information on construction of equipment to receive this information?

Mike Westerhof KA9WSB
Mike.Westerhof@Central.Sun.COM

#include <standard.disclaimer>

3542. 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-06-15 17:52:51 UTC
From: fnddr@acad3.fai.alaska.edu
Message-ID: <1990Jun15.175251.4080@hayes.fai.alaska.edu>
Source record: 10945

We need a filter for a low-noise preamp in the 440 MHz range. Mostly it needs to have a flat passband about 5 MHz wide, and steep rolloff, especially on the low end. Can anybody suggest a solution that is more clever than your standard LC configurations? Sharper cutoff, less insertion loss?

I'd like to find some good books dealing with VHF/UHF design techniques... my library covers HF and microwaves but has quite a hole in between. Suggestions are welcome.

Thanks,
Don Rice KL7JIQ Internet: fnddr@acad3.fai.alaska.edu
Geophysical Institute E-mail: fnddr@alaska.bitnet
University of Alaska Phone: (907) 474-7569
Fairbanks, AK 99775 Loran: 64.86N 212.16E

3543. Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-06-15 18:46:59 UTC
From: cduncan@jato.Jpl.Nasa.Gov
Message-ID: <4078@jato.Jpl.Nasa.Gov>
Source record: 10947

In article <1990Jun15.175251.4080@hayes.fai.alaska.edu> fnddr@acad3.fai.alaska.edu writes:
>We need a filter for a low-noise preamp in the 440 MHz range. Mostly it
>needs to have a flat passband about 5 MHz wide, and steep rolloff, especially
>on the low end. Can anybody suggest a solution that is more clever than
>your standard LC configurations? Sharper cutoff, less insertion loss?

In metropolitan areas (like L. A.) weak signal VHF and UHF users (satellite
operators) often use cans. There are cans (duplexers, single filters, etc.)
for 440 MHz. Have you considered these? They are very sharp.

Courtney, N5BF

3544. Re: Items for sale

Newsgroup: rec.ham-radio
Date: 1990-06-15 21:10:48 UTC
From: tech@cs.AthabascaU.CA
Message-ID: <1942@aurora.cs.athabascau.ca>
Source record: 10950

doug@NISD.CAM.UNISYS.COM (Doug Hardie) writes:

>Once again the number of for sale message has started to rise. Now that
>Arpanet is gone, does that mean that this is a commercial media for any
>commercial use I might desire?

>-- Doug WA6VVV

This brings up an interesting caprice of the net. In the past when a for sale item showed up in the ham-radio group there were angry comments from the arpanet side and threats to close the gateway. Meanwhile on comp.os.cpm there are for sale articles on a daily basis but if a long source code file appeared there were angry comments from the Arpanet side and threats to close the gateway.

I have noticed the occasional long ham-radio posting in the past (yes even the occasional source listing) but they are greeted with nary a whimper.

What is the Arpanet policy? Is there a policy? Is this all dependant on the perspective of the gateway manager? So it appears out here in the land of little sticks.

--
Richard Loken VE6BSV : "If it doesn't copy Campy
Athabasca University : then its just a marketing
Athabasca, Alberta Canada : gimmick." - M. S. Lueke
tech@cs.AthabascaU.CA {alberta|decwrl}!atha!tech :

3545. Re: Call for Comment, CB "Traffic Advisory Channel" petition

Newsgroup: rec.ham-radio
Date: 1990-06-15 22:07:51 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880154@hpfcdc.HP.COM>
Source record: 10946

Rather than petitioning the FCC for new regulations that cannot be enforced, the users of CB need to arrive at a "gentlemen's agreement" about an advisory channel. I would think 19 (or 9 if it is life-threatening) are already for this purpose.

This presupposes that a traffic advisory channel is effective. I suggest attempting to hold a "traffic net" on a particular channel, plus advertisements on other channels. It may be that nobody has their CBs turned on !

Frankly, I'd be surprised if the anarchists on CB would allow such a useful service.

Perry Scott
KF0CA

3546. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-15 22:56:21 UTC
From: jeh@dcs.simpact.com
Message-ID: <1362.26790525@dcs.simpact.com>
Source record: 10953

In article <1990Jun13.015147.4993@lopez.UUCP>, flash@lopez.UUCP (Gary Bourgois) writes:
> The title says it all. I just sat down for a nice peaceful evening of a
> little SWL'ing and Hamming (I do both)... AND the bands are dead...at
> least up here in the aroural zone (Marquette, Michigan

I've been noticing this too for the past week or two. I'm in San Diego,
about 30 deg. north latitude. If I'm lucky I can hear WWV on 15 MHz...

I'm surprised that no one else has commented.

--- Jamie Hanrahan, Simpact Associates, San Diego CA
Internet: jeh@dcs.simpact.com, or if that fails, jeh@crash.cts.com
Uucp: ...{crash,scubed,decwrl}!simpact!jeh

3547. Re: QSLing

Newsgroup: rec.ham-radio
Date: 1990-06-16 02:48:54 UTC
From: tad@ssc.UUCP
Message-ID: <829@ssc.UUCP>
Source record: 10957

In article <9006111248.AA22930@ucsd.edu>, lwrclmr@SACEMNET.AF.MIL ("LWRCLMR") writes:
> Ref QSL INbound bureaus.
>
Not knowing the going rates for this
> service I sent a letter to the Willamette Valley DX Club (W7 bureau per the
> CallBook) along with a check for $20.00. They did not hesitate to cash my
> check, but I never heard from them again.

This was a mistake on your part. They probably thought it was a donation
to the club. They need 5x7.5 inch SASEs with your call in block letters
in the upper left hand corner. They also apreciate donations.

When I left the island a few
> months later and moved to Michigan, I sent them a change of address and
> waited for cards. I had been told by someone that cards can take a long
> time, so I waited patiently. During that year on the island I had worked
> around 1500 DX stations and sent cards to the foriegn bureaus for most of
> them. After a year, I figured I had waited long enough and wrote another
> letter asking what the deal was. I received a package of about 30 cards
> several months later and a note saying my funds were more than adequate.

Some bureaus will take money, and furnish envelopes with your address on
them, but you have to check first.

Remember that you are dealing with a bunch of volunteers. The Willamette
club does not sell credits for envelopes.

> That all was three years ago. I have not received anymore cards, notes,
> messages, nothing.
>
> Has anyone else had experience with the Willamette Valley DX Club? Is this
> standard practice? Is $20.00 the going fee for one-time pack of 30 cards? Do
> they ever explain what their policy is or their rates?

I have used the 7 area bureau for years, and never had any problems. But
they handle the cards with SASEs (they HAVE to be 5 inch by 7 1/2 inch)
just like all the other bureaus. The ones that take money and do every
thing for you are the exception, rather than the rule.

According to The ARRL Operating Manual, only the 2nd, 5th, 6th, 9th,
0, Puerto Rico, KH6 and KL7 bureaus will "sell" envelopes and postage.
>
> Before thirty-seven of you refer me to back issues of QST, please no flames,
> but I like many other hams, am not a member of the League, and none of the
> local libraries carry QST, nor is it available on the newsstands.

I thought about posting the list, but it is too long. Write to the
ARRL, 225 Main St, Newington, CT, 06111 and ask for their sheets on
both the incoming and outgoing bureaus.

Anyone
> willing to post how bureaus are supposed to work? (Not just post references
> to read that we don't have access to?)

I already posted a long article the other day on how it all works.

Good luck!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3548. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-06-16 03:44:51 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9006160351.AA05853@ucsd.edu>
Source record: 10952

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #708 -
Alouette 1
1 00424U 62B-A 1 90160.80442551 .00000193 00000-0 22226-3 0 3270
2 00424 80.4633 293.3522 0022606 294.0886 65.7886 13.67354373381683
ATS 3
1 03029U 67111 A 90161.63289382 -.00000074 00000-0 99999-4 0 3892
2 03029 13.1931 21.2785 0014019 209.6558 150.2526 1.00272612 82720
Cosmos 398
1 04966U 71 16 A 90165.33442527 .00093799 17460-4 52204-3 0 9211
2 04966 51.5118 246.1985 2273302 141.8257 236.7789 11.05692616591385
Starlette
1 07646U 75010 A 90159.46787825 -.00000035 00000-0 19740-4 0 835
2 07646 49.8222 192.8871 0206607 162.4566 198.2721 13.82138831774577
LAGEOS
1 08820U 76039 A 90155.11151443 .00000002 00000-0 00000 0 0 838
2 08820 109.8519 350.6475 0044611 240.8397 118.7855 6.38664271 73101
GPS-0001
1 10684U 78020 A 90162.45149942 .00000007 00000-0 99999-4 0 4331
2 10684 63.7300 89.7340 0117197 199.0955 160.4761 2.00557255 75733
GPS-0002
1 10893U 78 47 A 90161.92879515 -.00000025 00000-0 00000 0 0 1955
2 10893 64.3732 330.5959 0165447 25.8417 334.9873 2.00544988 88548
SeaSat 1
1 10967U 78064 A 90161.42428572 .00000604 00000-0 25192-3 0 3423
2 10967 108.0190 306.1985 0002644 260.7742 99.3104 14.35693858625483
GPS-0003
1 11054U 78093 A 90161.21922426 -.00000024 00000-0 00000 0 0 2341
2 11054 63.9140 326.9061 0060347 117.8957 242.7029 2.00567038 85540
Nimbus 7
1 11080U 78098 A 90158.25955896 .00000052 00000-0 63508-4 0 6781
2 11080 99.1944 63.4117 0009658 106.5035 253.7182 13.83435322586661
GPS-0004
1 11141U 78112 A 90163.31316602 .00000007 00000-0 00000 0 0 3864
2 11141 63.7118 89.5841 0060039 316.8576 42.6782 2.00557373 84288
GPS-0005
1 11690U 80 11 A 90156.47372252 .00000008 00000-0 00000 0 0 9863
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2 11690 64.1661 91.8933 0117900 202.5365 156.8890 2.00555864 90008
GPS-0006
1 11783U 80 32 A 90161.26923246 -.00000024 00000-0 00000 0 0 1554
2 11783 63.7272 326.4784 0151631 60.6534 300.8459 2.00557947 74182
GOES 5
1 12472U 81049 A 90160.72993055 -.00000191 00000-0 99999-4 0 9366
2 12472 3.4597 76.0223 0002486 336.0928 27.8711 1.00221381 32152
DE 1
1 12624U 81 70 A 90161.78364331 -.00000094 00000-0 -80886-3 0 4514
2 12624 88.9709 147.9656 6202078 284.4373 17.7865 3.51015932261891
SME
1 12887U 81100 A 90163.10463564 .00037049 00000-0 64841-3 0 6934
2 12887 97.6349 210.2445 0002855 80.4771 279.6818 15.50530386480482
Salyut 7
1 13138U 82 33 A 90163.45529334 .00043115 00000-0 45538-3 0 3194
2 13138 51.6027 328.1900 0001226 204.4803 155.6220 15.63752866464110
Cosmos 1383
1 13301U 82 66 A 90161.44668413 .00000104 00000-0 11065-3 0 5787
2 13301 82.9289 305.7125 0026721 176.3506 183.7839 13.67830238396757
LandSat 4
1 13367U 82 72 A 90163.87147063 .00000079 00000-0 22470-4 0 3601
2 13367 98.1655 226.4835 0004140 129.5549 230.6045 14.57135348420670
IRAS
1 13777U 83 4 A 90160.33885088 .00000458 00000-0 34160-3 0 7812
2 13777 99.0271 357.2570 0014267 51.0510 309.1917 13.98793391 45840
Cosmos 1447
1 13916U 83 21 A 90160.11237820 .00000100 00000-0 99512-4 0 7285
2 13916 82.9439 18.0290 0037819 159.7342 200.5330 13.74043399361563
TDRS 1
1 13969U 83 26 B 90161.93672056 .00000125 00000-0 99999-4 0 57
2 13969 4.6242 61.9790 0001428 240.6775 122.7368 1.00255821 93056
GOES 6
1 14050U 83 41 A 90161.87190339 .00000114 00000-0 99999-4 0 1888
2 14050 2.2090 78.3061 0001743 252.5770 106.7532 1.00288493 10205
OSCAR 10
1 14129U 83 58 B 90160.48774259 -.00000027 00000-0 00000 0 0 5280
2 14129 25.9994 200.1859 5961905 149.8173 264.9419 2.05881257 24571
GPS-0008
1 14189U 83 72 A 90161.80068102 .00000006 00000-0 99999-4 0 7741
2 14189 63.3585 88.0793 0147997 219.1468 139.7646 2.00705354 50634
LandSat 5
1 14780U 84 21 A 90163.89892208 .00000135 00000-0 35075-4 0 2187
2 14780 98.2058 224.0346 0000356 121.4485 238.6750 14.57114212334092
UoSat 2
1 14781U 84 21 B 90156.61567397 .00000860 00000-0 16760-3 0 7446
2 14781 97.9462 209.5469 0011698 287.2040 72.7880 14.65389143334278
GPS-0009
1 15039U 84 59 A 90164.39762319 .00000006 00000-0 00000 0 0 9551
2 15039 63.0490 87.2221 0019918 239.3571 120.4585 2.00612562 43963
Cosmos 1574
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1 15055U 84 62 A 90163.76118841 .00000109 00000-0 10506-3 0 8850
2 15055 82.9576 65.5772 0028074 339.3600 20.6407 13.73358668299461
GPS-0010
1 15271U 84 97 A 90164.30787364 -.00000024 00000-0 00000 0 0 8537
2 15271 63.1913 325.9335 0105573 327.1119 32.2652 2.00559758 41079
Cosmos 1602
1 15331U 84105 A 90164.55853605 .00002066 00000-0 28085-3 0 3093
2 15331 82.5389 4.2808 0023770 349.3484 10.7277 14.78155559307550
NOAA 9
1 15427U 84123 A 90165.21961954 .00000390 00000-0 23132-3 0 5920
2 15427 99.1671 164.9793 0015642 21.1307 339.0508 14.12591755283567
Cosmos 1686
1 16095U 85 86 A 90164.86116037 .00079578 00000-0 82557-3 0 6645
2 16095 51.6075 321.0789 0000750 284.5003 75.7349 15.63950524265436
GPS-0011
1 16129U 85 93 A 90164.49727841 .00000007 00000-0 00000 0 0 5482
2 16129 63.8809 88.1563 0122799 149.2266 211.5151 2.00510674 34284
Mir
1 16609U 86 17 A 90164.82563862 .00050055 00000-0 57642-3 0 7332
2 16609 51.6137 347.7347 0011372 34.2360 325.9585 15.61392351247572
SPOT 1
1 16613U 86 19 A 90165.04304367 .00001085 00000-0 52746-3 0 9811
2 16613 98.7337 239.5250 0001530 147.6443 212.4888 14.20048561 63485
Cosmos 1766
1 16881U 86 55 A 90165.02638854 .00003770 00000-0 52156-3 0 276
2 16881 82.5210 62.8981 0023977 2.4069 357.7249 14.77652013208684
EGP
1 16908U 86 61 A 90160.04851916 -.00000075 00000-0 -25510-3 0 2268
2 16908 50.0248 281.0160 0011516 166.9805 193.1359 12.44387361173845
NOAA 10
1 16969U 86 73 A 90165.32390073 .00000475 00000-0 22492-3 0 4413
2 16969 98.6019 193.3341 0012478 281.4238 78.5544 14.23632416194201
MOS-1
1 17527U 87 18 A 90164.98667280 .00001038 00000-0 79865-3 0 5763
2 17527 99.1088 237.5802 0001471 114.3622 245.7797 13.94857755168817
GOES 7
1 17561U 87 22 A 90161.65641300 .00000079 00000-0 99999-4 0 5521
2 17561 0.0121 301.7081 0063038 358.7262 59.0452 0.99317656 5353
Kvant-1
1 17845U 87 30 A 90164.82560628 .00080923 00000-0 92401-3 0 1656
2 17845 51.6134 347.7332 0010815 32.8654 327.1643 15.61417386183627
DMSP B5D2-3
1 18123U 87 53 A 90165.22393486 .00000419 00000-0 23989-3 0 6092
2 18123 98.8195 355.8658 0015375 34.8046 325.4134 14.14053019153989
RS-10/11
1 18129U 87 54 A 90164.95867299 -.00000090 00000-0 -10583-3 0 2219
2 18129 82.9268 330.9120 0013025 124.3978 235.8400 13.72092852149006
Meteor 2-16
1 18312U 87 68 A 90163.84350850 .00000219 00000-0 18868-3 0 4368
2 18312 82.5504 293.7260 0011310 270.3251 89.6614 13.83651108142384
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Meteor 2-17
1 18820U 88 5 A 90164.07684249 .00000113 00000-0 95443-4 0 2885
2 18820 82.5443 353.7293 0016652 341.5232 18.5270 13.84346044119617
DMSP B5D2-4
1 18822U 88 6 A 90165.31587192 .00000730 00000-0 35093-3 0 5102
2 18822 98.6458 44.4099 0005591 285.1078 74.9465 14.21462531122418
AO-13
1 19216U 88 51 B 90159.67587371 .00000063 00000-0 99999-4 0 1315
2 19216 56.9863 151.4377 6966655 228.8202 46.2038 2.09700013 15228
OKEAN 1
1 19274U 88 56 A 90165.01426603 .00001948 00000-0 27212-3 0 8227
2 19274 82.5154 161.5509 0023541 130.4716 229.8584 14.77008186104458
Meteor 3-2
1 19336U 88 64 A 90163.78370784 .00000391 00000-0 99999-3 0 5011
2 19336 82.5382 280.5406 0016914 328.9130 31.0929 13.16897489 90373
NOAA 11
1 19531U 88 89 A 90165.33192995 .00000888 00000-0 50939-3 0 2912
2 19531 98.9821 113.6372 0011113 295.3133 64.6886 14.11625036 88568
TDRS 2
1 19548U 88 91 B 90161.76543195 .00000114 00000-0 99999-4 0 1357
2 19548 0.0907 88.8162 0003705 26.8285 244.3580 1.00274699 211
Cosmos 2001
1 19796U 89 11 A 90164.20517070 -.00001023 00000-0 99999-4 0 5108
2 19796 63.2356 93.3785 7088505 319.9242 5.2057 2.00659456 9721
GPS BII-01
1 19802U 89 13 A 90157.48846768 .00000016 00000-0 99999-4 0 1318
2 19802 55.0571 197.8390 0055238 165.2883 194.9589 2.00642175 9537
Akebono
1 19822U 89 16 A 90164.59502005 .00035668 00000-0 24134-2 0 6397
2 19822 75.1144 240.6024 4178242 224.1230 93.9058 7.10780779 33170
Meteor 2-18
1 19851U 89 18 A 90164.04741426 .00000243 00000-0 20864-3 0 2364
2 19851 82.5207 231.7537 0016300 19.7446 340.4341 13.83982445 64993
TDRS 3
1 19883U 89 21 B 90162.00000000 -.00000234 00000-0 99999-4 0 1369
2 19883 0.1193 71.3863 0000120 162.1134 344.5358 1.00279466 74877
GPS BII-02
1 20061U 89 44 A 90157.19570991 -.00000032 00000-0 00000 0 0 1376
2 20061 54.7543 16.2374 0086335 172.7547 187.4207 2.00485469 7273
Nadezhda 1
1 20103U 89 50 A 90163.80164745 .00000065 00000-0 62504-4 0 1378
2 20103 82.9597 288.2281 0039206 52.4232 308.0475 13.73594406 47119
GPS BII-03
1 20185U 89 64 A 90157.13918754 .00000016 00000-0 99999-4 0 1283
2 20185 54.9022 198.6985 0024309 159.3722 200.8240 2.00626333 5841
Activnyi
1 20261U 89 80 A 90164.81469156 .00000077 00000-0 22144-4 0 5500
2 20261 82.5956 230.7082 1257932 346.0856 10.8308 12.43750588 32177
Activnyi RB
1 20262U 89 80 C 90164.37712902 .00000495 00000-0 15177-3 0 2421
```

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2 20262 82.5960 231.0353 1260979 347.2890 9.8964 12.43203967 32118
Magion 2
1 20281U 89 80 B 90164.86486638 .00003265 00000-0 10235-2 0 5497
2 20281 82.5941 230.6036 1257395 345.8324 11.0379 12.44011096 32188
GPS BII-04
1 20302U 89 85 A 90158.92932112 -.00000028 00000-0 99999-4 0 1328
2 20302 54.6414 317.4514 0032318 318.4744 41.2700 2.00374314 4682
Meteor 3-3
1 20305U 89 86 A 90163.65612208 .00000042 00000-0 97929-4 0 1426
2 20305 82.5530 221.1891 0015743 346.3592 13.7110 13.15859810 30356
COBE
1 20322U 89 89 A 90161.06310505 .00004304 00000-0 28270-2 0 1387
2 20322 99.0199 171.3415 0010224 34.0829 326.0985 14.02306878 28490
Kvant-2
1 20335U 89 93 A 90164.82562947 .00080620 00000-0 92037-3 0 2684
2 20335 51.6150 347.7357 0011347 33.6587 326.4943 15.61417433 31232
GPS BII-05
1 20361U 89 97 A 90156.17029847 .00000015 00000-0 99999-4 0 800
2 20361 54.9860 140.8057 0062556 46.6808 313.9547 2.00579991 3486
SPOT 2
1 20436U 90 5 A 90165.00802140 .00000928 00000-0 45418-3 0 2329
2 20436 98.7345 239.5452 0001354 80.0836 280.0523 14.20018653 20294
UO-14
1 20437U 90 5 B 90164.18410863 .00000610 00000-0 25872-3 0 1650
2 20437 98.6975 240.3067 0011625 161.6770 198.4834 14.28632237 20295
UO-15
1 20438U 90 5 C 90160.07428719 .00000165 00000-0 74071-4 0 935
2 20438 98.7055 236.1924 0010564 172.3979 187.7399 14.28373664 19709
PACSAT
1 20439U 90 5 D 90158.29152781 .00000382 00000-0 16757-3 0 836
2 20439 98.7019 234.5188 0011186 180.6504 179.4668 14.28730423 19450
DO-17
1 20440U 90 5 E 90160.38881602 .00000545 00000-0 23233-3 0 885
2 20440 98.7040 236.6199 0011891 172.3905 187.7455 14.28777289 19757
WO-18
1 20441U 90 5 F 90165.14016211 .00000409 00000-0 17744-3 0 891
2 20441 98.7035 241.3797 0012933 160.5777 199.5931 14.28879685 20433
LO-19
1 20442U 90 5 G 90164.50314377 .00000371 00000-0 16268-3 0 871
2 20442 98.7034 240.7589 0013232 162.1532 198.0118 14.28947935 20340
GPS BII-06
1 20452U 90 8 A 90147.83563653 .00000001 00000-0 99999-4 0 755
2 20452 54.5567 256.8002 0028456 44.6049 315.6465 2.00875970 2439
MOS-1B
1 20478U 90 13 A 90164.87027449 -.00002269 00000-0 -16782-2 0 3019
2 20478 99.1889 235.1042 0001454 95.4969 264.6356 13.94844418 17679
DEBUT
1 20479U 90 13 B 90162.16250383 .00000004 00000-0 37772-4 0 794
2 20479 99.0403 209.8098 0541470 62.2494 303.2469 12.83156814 15971
FO-20
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1 20480U 90 13 C 90160.13790314 .00000109 00000-0 29439-3 0 824
2 20480 99.0396 208.1632 0541985 66.8667 298.8596 12.83136875 15710
MOS-1B R/B
1 20491U 90 13 D 90164.52368062 .00000167 00000-0 36082-3 0 831
2 20491 99.0407 215.2885 0470880 40.0146 323.4696 13.02722910 15927
Soyuz TM-9
1 20494U 90 14 A 90164.88952142 .00069993 00000-0 80130-3 0 1647
2 20494 51.6162 347.4088 0010817 40.0527 319.4758 15.61412264 19156
LACE
1 20496U 90 15 A 90164.56551367 .00005696 00000-0 35137-3 0 1680
2 20496 43.0950 342.6319 0014753 323.5758 36.4141 15.10586208 17974
RME
1 20497U 90 15 B 90164.46645691 .00012752 00000-0 36094-3 0 1688
2 20497 43.1079 318.6900 0016631 315.3355 44.6296 15.36096706 18268
Nadezhda 2
1 20508U 90 17 A 90164.07609737 .00000092 00000-0 92991-4 0 919
2 20508 82.9544 62.9408 0045298 359.5898 0.5248 13.73213737 14442
OKEAN 2
1 20510U 90 18 A 90165.00390927 .00004097 00000-0 63065-3 0 1712
2 20510 82.5273 100.6598 0018094 287.4460 72.5074 14.73166675 15602
INTELSAT-6
1 20523U 90 21 A 90164.51322042 .00004611 00000-0 31926-3 0 1744
2 20523 28.3481 287.7142 0016174 148.6335 211.5287 15.03164905 13891
GPS BII-07
1 20533U 90 25 A 90161.92445237 -.00000032 00000-0 00000 0 0 482
2 20533 55.0522 16.1760 0013220 57.8524 302.0320 2.00566529 1471
Offeq 2
1 20540U 90 27 A 90164.57844551 .01265902 -68061-4 20085-2 0 1471
2 20540 143.1901 132.9928 0519627 245.2621 110.1231 15.05054592 10284
PegSat
1 20546U 90 28 A 90163.55857894 .00001389 00000-0 87912-4 0 1158
2 20546 94.1200 212.6440 0149726 349.9018 9.9725 15.00313125 10146
Palapa-B2R
1 20570U 90 34 A 90137.02166144 -.00000317 00000-0 99999-4 0 514
2 20570 0.0523 15.3218 0007680 110.1335 231.8008 1.00108506 295
1990 034B
1 20571U 90 34 B 90135.25637826 .00001978 00000-0 32479-3 0 554
2 20571 22.7504 176.4934 0628149 118.0040 248.5409 13.82067297 4332
1990 034C
1 20572U 90 34 C 90135.84989660 .00032231 00000-0 39037-2 0 491
2 20572 18.9297 347.9472 7375661 200.8035 96.7659 2.18270624 692
Cosmos 2074
1 20577U 90 36 A 90136.03907435 .00000094 00000-0 93615-4 0 474
2 20577 82.9451 138.3064 0025496 217.6457 142.2914 13.73710956 3463
1990 036B
1 20578U 90 36 B 90142.63696705 .00000143 00000-0 13889-3 0 539
2 20578 82.9423 133.3810 0019220 181.1997 178.9117 13.75020736 4373
HST
1 20580U 90 37 B 90164.46937243 .00005409 00000-0 61247-3 0 916
2 20580 28.4698 273.2428 0005745 91.9520 268.1794 14.84442420 7422
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Cosmos 2075
1 20581U 90 38 A 90144.24709396 -.00004275 00000-0 -17923-3 0 877
2 20581 74.0254 356.0235 0023185 277.7210 82.1092 15.23022306 4379
1990 038B
1 20582U 90 38 B 90142.57824248 .00024584 00000-0 98348-3 0 723
2 20582 74.0294 359.4297 0031040 293.1471 66.6509 15.24541833 4124
Molniya1-77
1 20583U 90 39 A 90144.15730607 .00000070 00000-0 -16867-2 0 793
2 20583 62.7982 183.9973 7353596 288.2139 9.5835 2.00619305 573
1990 039B
1 20584U 90 39 B 90144.83967752 .03903616 41472-4 10039-2 0 1048
2 20584 62.7619 78.2685 0067648 125.7776 235.2487 16.21902308 4540
1990 39D
1 20586U 90 39 D 90143.60954820 .00000419 00000-0 68663-3 0 226
2 20586 62.8248 184.0281 7395335 288.1806 9.3720 1.96420289 535
Cosmos 2076
1 20596U 90 40 A 90151.40303225 -.00001233 00000-0 79009-3 0 438
2 20596 63.0666 334.8186 7375665 318.5072 4.4103 2.00587266 669
1990 40B
1 20597U 90 40 B 90148.20589656 .39662252 43947-4 29451-3 0 822
2 20597 62.7886 226.6703 0013442 121.7004 238.9820 16.52106649 4698
1990 40D
1 20599U 90 40 D 90150.97163910 -.00000504 00000-0 -84377-3 0 296
2 20599 63.1771 334.5570 7351260 318.5828 4.4750 2.03474794 660
Cosmos 2077
1 20604U 90159.11959646 0.00895918 40743-4 30538-3 0 857
2 20604 62.8254 330.1747 0057360 101.0778 259.6824 16.20610237 5055
1990 043A
1 20607U 90 43 A 90154.58485080 .00001120 00000-0 20723-3 0 192
2 20607 89.8914 194.9155 0111658 193.2628 166.5623 14.60797763 3634
1990 043B
1 20608U 90 43 B 90163.07909590 .00000913 00000-0 16762-3 0 270
2 20608 89.8877 194.8050 0113706 163.3438 197.1583 14.60807011 4879
1990 043C
1 20609U 90 43 C 90163.07566110 .00002672 00000-0 49376-3 0 279
2 20609 89.8839 194.7899 0114374 163.6330 196.8641 14.61008848 4901
Cosmos 2078
1 20615U 90 44 A 90164.83377734 .00289155 69501-5 20522-3 0 837
2 20615 69.9860 336.2405 0058425 98.8162 262.0862 16.11896690 4743
Cosmos 2079
1 20619U 90 45 A 90164.41121750 -.00000015 00000-0 99999-4 0 444
2 20619 64.8778 39.1129 0021338 213.1652 146.7515 2.13111725 543
Cosmos 2080
1 20620U 90 45 B 90163.59060821 -.00000015 00000-0 99999-4 0 423
2 20620 64.8735 39.1499 0008428 36.0537 324.0642 2.13106645 533
Cosmos 2081
1 20621U 90 45 C 90163.17974895 -.00000015 00000-0 99999-4 0 344
2 20621 64.8958 39.1669 0011949 201.4501 158.5673 2.13103691 522
1990 045E
1 20623U 90 45 E 90163.20436945 -.00000015 00000-0 99999-4 0 259
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2 20623 64.8823 39.1778 0014747 338.6120 21.3945 2.13414211 527
Cosmos 2082
1 20624U 90 46 A 90164.87971482 .00000396 00000-0 23694-3 0 355
2 20624 71.0013 317.3590 0004905 11.4611 348.6705 14.12173283 3208
1990 046B
1 20625U 90 46 B 90165.28612832 .00000008 00000-0 14867-4 0 143
2 20625 70.9992 316.4299 0016110 313.0544 46.9234 14.13305988 3267
RESURS-F
1 20632U 90 47 A 90164.82233651 .00093889 29426-5 14473-3 0 407
2 20632 82.3338 5.1094 0009706 271.1520 88.9515 16.04091927 2491
Kristall
1 20635U 90 48 A 90164.82563094 .00045885 00000-0 52924-3 0 406
2 20635 51.6140 347.7359 0011213 34.9887 325.1690 15.61390323 2113
1990 048B
1 20636U 90 48 B 90162.55779398 .18051505 61541-4 17570-3 0 359
2 20636 51.6162 355.7655 0006513 187.5550 172.8813 16.50721119 1691
ROSAT
1 20638U 90 49 A 90164.38348357 .00003862 00000-0 34852-3 0 133
2 20638 52.9885 67.1587 0014051 336.0685 23.9650 14.97606281 1712
1990 049B
1 20639U 90 49 B 90165.20499030 .00015469 00000-0 68022-3 0 122
2 20639 52.5173 55.2560 0074371 288.0161 71.2795 15.19593664 1872
1989 100N
1 20640U 89100 N 90164.84157702 .00302012 00000-0 12684-1 0 287
2 20640 73.5282 100.1213 0015575 186.1766 174.0874 15.21911966 25589
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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3549. ... revisited

Newsgroup: rec.ham-radio
Date: 1990-06-16 05:26:00 UTC
From: RDW2030@TAMVENUS.BITNET
Message-ID: <9006160526.AA08376@ucsd.edu>
Source record: 10954

As I expected, I got some strong replies to my bitch about the uuencoded program stuck in the middle of info-hams digests... everyone seems to think I can just hit N and skip to the next entry... MY problem is that I wasnt to read what comes AFTER the program in the SAME digest! We have no means to undigestify, in other words.

Why can't we create a separate list for binaries? I know that is fairly standard practice. As one person said, posting them directly is a good way to see that more people can get them. I agree. But not in the middle of a digest.

What do you say, INFO-HAMS admin?? How about a separate list for programs? I'm all for the idea. I agree that it's a great way to distribute the programs! I would gladly subscribe. We have ftp, but others do not and I want everyone to have a shot at the software.

Mark Lowe - KB5III

3550. Oh yeah...

Newsgroup: rec.ham-radio
Date: 1990-06-16 05:27:00 UTC
From: RDW2030@TAMVENUS.BITNET
Message-ID: <9006160527.AA08402@ucsd.edu>
Source record: 10955

If you have a undigestify utility for VAX... DO please send it my way!!

MCL - KB5III

3551. 6JB6 worries false alarm in actuality

Newsgroup: rec.ham-radio
Date: 1990-06-16 05:59:00 UTC
From: RDW2030@TAMVENUS.BITNET
Message-ID: <9006160559.AA09192@ucsd.edu>
Source record: 10956

A couple weeks ago, I requested info on sources for 6JB6s, since Drake wants $26 apiece for them. This was before I even bothered to look at the RF Parts ads in QST. They want a whopping...

$15 each. Not bad. And I was all worried!

Mark Lowe - KB5III

3552. Funky Callsigns

Newsgroup: rec.ham-radio
Date: 1990-06-16 18:23:24 UTC
From: faunt@CISCO.COM
Message-ID: <9006161823.AA09810@ucsd.edu>
Source record: 10958

K6SEX is active, and gets mail @W6PW.

3553. California Help Needed

Newsgroup: rec.ham-radio
Date: 1990-06-16 19:15:01 UTC
From: faunt@CISCO.COM
Message-ID: <9006161915.AA11466@ucsd.edu>
Source record: 10959

```
> 6880 6280 -600 #Oakland Hills wb6cts

This is WD6NDJ, and has a PL of 77Hz, to minimize interference from
the Sacramento and Ukiah repeaters on the same frequency.
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3554. Radio Shack Pro-200x series Mods

Newsgroup: rec.ham-radio
Date: 1990-06-16 21:41:20 UTC
From: mpe@shamash.cdc.com
Message-ID: <22542@shamash.cdc.com>
Source record: 10960

I am interested in any modifications for the Radio Shack Pro-200x series hand-held receivers.

If you know of any, I would appreciate any suggestions that you may have.

Thank you for any effort that you might be able to lend,

mpe@shamash.cdc.com

3555. PRO-AM ANTENNA HELP NEEDED

Newsgroup: rec.ham-radio
Date: 1990-06-16 22:52:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9006162302.AA18821@ucsd.edu>
Source record: 10961

I am need of information regarding PRO-AM mobile antennas.

I have two HF PRO-AM whip antennas, one for 40 and one for 75 meters.
When I got these whips, the instructions said to insert a capacitor in
the mount from the whip to ground for proper operation. I have since lost
the instructions and the capacitor somehow fell off the mounting and is
gone. I need the information as to what size capacitor this needs to be.

As I recall, I used the cap specified for the 80 meter antenna, even though
I frequently switched antennas as required. Without the cap I can't seem
to get the SWR down on the antennas.

Please E-mail me the information as to the required values if you have them.
I am leaving on a cross-country trip on the 25th and can't imagine going
without mobile HF.

Thanks for any help anyone can provide.

73,
Michael
WA7SKG

INTERNET: LWRCLMR@SACEMNET.AF.MIL
INTERNET: LMR@TINCAN.SAWYER.AF.MIL
UUCP: sharkey!lopez!mabarnes
BELLNET: 906-346-6646
DSNET: 472-2811

3556. Re: ... revisited

Newsgroup: rec.ham-radio
Date: 1990-06-17 05:00:37 UTC
From: brian@ucsd.Edu
Message-ID: <14415@ucsd.Edu>
Source record: 10962

I suspect that the person posting the program didn't know about the gateway to the mailing list or he wouldn't have posted it; those flaming you are demonstrating their ignorance.

I was out of town. If I'd been around to catch it, the program wouldn't have appeared in the mailing list digest.

But really, folks, the chances of any significant number of people wanting any specific program on this newsgroup/mailing list is probably quite small; it would much more courteous to let people know that it's available and mail it to those specifically requesting it.
- Brian (ayatolah of info-hams)

3557. AMSAT News, 6/16/90

Newsgroup: rec.ham-radio
Date: 1990-06-17 07:44:58 UTC
From: tad@ssc.UUCP
Message-ID: <832@ssc.UUCP>
Source record: 10963

SB SAT @ AMSAT $ANS-167.01
FD OSCAR OPERATIONS, PART I

HR AMSAT NEWS SERVICE BULLETIN 167.01 FROM AMSAT HQ
SILVER SPRING, MD JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Field Day An Excellent Opportunity To Demonstrate Emergency OSCAR Operations

This year the annual ARRL sponsored Field Day (FD) event will take place on the weekend of June 23-24, starting Saturday at 18:00 UTC and ending Sunday at 21:00 UTC. FD is a simulated emergency preparedness exercise which challenges all of its participants to set up and operate an amateur radio station under "less-than-optimum conditions." This year OSCAR stations will find their way into many FD sites for good reasons. First, there is the pure excitement of making satellite QSOs at remote QTHs. Also, there are the satellite bonus points which can be earned for making just one satellite QSO. More importantly, with the current availability of packet radio store-and-forward message capability on FO-20 and the advent of BBS operations on AO-16, LO-19, UO-14, emergency traffic handling will soon be possible from anywhere in the world. Using the current flock of packet radio message satellites, there will be no place in the world which will not see several passes of these satellites per day. If a natural disaster should befall a certain geographical region, it will be possible for the PACSATs to provide additional capability to move "health-and-welfare" traffic in and out of the disaster area. With the current flock of PACSATs, small stations consisting of small, non-tracking antennas, small radios, and a laptop computer can make a simple PACSAT station in remote locations. Already, many PACSAT users are finding that a simple dual-band J-Pole antenna (see AMSAT Journal, March '90) will work quite well.
/EX
SB SAT @ AMSAT $ANS-167.02
FD OSCAR OPERATIONS, PART II

HR AMSAT NEWS SERVICE BULLETIN 167.02 FROM AMSAT HQ
SILVER SPRING, MD JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Field Day An Excellent Opportunity To Demonstrate Emergency OSCAR Operations

FD will provide an excellent opportunity to not only test a simple station for PACSAT operations, it will also challenge those who want to use the other OSCARs such as AO-10, AO-13, and RS-10/11. With AO-10/AO-13, reliable emergency communications will be possible for a large portion of the northern hemisphere for many hours each day. For those who do not think it is possible to operate an AO-10/AO-13 station during FD, see the account of

K8OCL in ASR #189. John describes the station that he and N8DUY set up for AO-13 during FD '89. Their simple station netted them 60 FD contacts and convinced them even more that it is possible to have fun with OSCARs on FD.

Still another reason to set up a FD OSCAR station is to expose and introduce other hams and non-hams to OSCAR operations. Many amateurs participating at an OSCAR equipped FD site will have an excellent opportunity to work PACSATs and OSCARs for the first time. Many non-hams who are invited to the FD site will not only have a chance to see HF operations, but will also experience what radio amateurs do with satellites. Today's non-hams are almost completely unaware that hams use their own satellites every day. Demonstrating an OSCAR FD station will certainly provide a surprise to both hams and non-hams alike.

AMSAT encourages all hams who will be participating in FD '90 to consider setting up an OSCAR FD station. Look for many new stations this year sending "CQ FD" on AO-10, AO-13, AO-16, FO-20, LO-19, RS-10/11, and UO-14. "GOOD LUCK and QRZ FD."
/EX
SB SAT @ AMSAT $ANS-167.03
AMSAT SPACE SYM & ANNUAL MTG

HR AMSAT NEWS SERVICE BULLETIN 167.03 FROM AMSAT HQ
SILVER SPRING, MD JUNE 16, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Symposium to be held at Johnson Space Center

AMSAT has announced that the 1990 AMSAT Space Symposium will be held at NASA's Johnson Space Center Visitor's Center near Houston, Texas. The date for the weekend meeting will be October 19, 20 and 21 and it will be hosted by the Johnson Space Center Amateur Radio Club (W5RRR).

Registration will open on Friday afternoon, and tours of the Center will be made available not only on Friday but throughout the entire weekend. The tour includes areas such as Mission Control, the Shuttle Mock-up facility as well as the "Zero-G" Tank, a massive swimming pool used to train mission specialists for Shuttle EVAs (rubber rafts and water wings are not allowed).

The Symposium will take place on Saturday in the Visitor Center's Main Auditorium. It will feature talks on many aspects of amateur space communication and related subjects. There are sure to be a number of talks on Microsat operations. There will also be a talk on the results of the SAREX STS-35 Shuttle Mission as well as details of planned SAREX operations on STS-37.

The day will conclude with the now legendary "AMSAT attitude-adjustment hour", a Texas-style Bar-B-Que and the AMSAT annual meeting. Sunday's program will consist of a series of talks emphasizing how the average ham' can use the various amateur satellites - especially the newer Microsats.

Accommodations at a low-priced "convention rate" has been secured at the King's Inn adjacent to JSC. For more information on this year's symposium,

send an SASE to: AMSAT, 850 Sligo Ave., Silver Spring MD 20910 or call the AMSAT office at (301) 589-6062.
/EX
SB SAT @ AMSAT $ANS-167.04
CALL FOR PAPERS

HR AMSAT NEWS SERVICE BULLETIN 167.04 FROM AMSAT HQ
SILVER SPRING, MD JUNE 16, 1990
TO ALL RADIO AMATEURS BT

First Call For Papers For the AMSAT-NA Space Symposium For Oct. 10-12th

The AMSAT-NA Space Symposium and Annual Meeting will be held October 10, 11 and 12 at the Johnson Space Center (JSC) in Houston, Texas. Coming, as it does, during a year in which two Shuttle missions are scheduled to carry licensed amateurs, this should be an exciting site for the meeting. With the added attraction of the Center's extensive museum and fascinating tours available, attendance could easily break all records.

However, in order to have a successful meeting, quality papers must be presented. This announcement is to solicit appropriate papers. The AMSAT-NA Space Symposium, to be held in the JSC Visitors' Center Auditorium, is intended to feature talks on the latest in technology in both the manned and unmanned aspects of the Amateur Space Program. Talks on MICROSAT utilization are particularly invited. The session Sunday morning at the Ramada Kings Inn will feature presentations aimed at the beginning satellite users and those wishing to try their hand with the RS birds, AO-13 and the MICROSATs.

Those wanting to present papers are requested to send summaries to the AMSAT-NA office 850 Sligo Ave., Suite #600 Silver Spring, MD, 20910 by July 15, 1990. Those selected for presentation will be notified by August 1, 1990.

Final texts will be due in electronic form, either E-mail or floppy disc, by September 1, 1990. Reproducible figures and photographs will be due at the same time.

Let's make this the best AMSAT-MA meeting ever. Get your summaries in right away.

[A LATE BREAKING NEWS ITEM: According to Rich Ensign, at the Dallas HamCom 3 convention last week four more NASA Shuttle astronauts became Technicians and Ken Cameron upgraded to General class license. The AMSAT News Service (ANS) will get more details on names and calls soon but suffice it to say that both the Mission commander and the YL astronaut on board have now joined the ranks of amateur radio operators. STS-37 should be a real experience!

Congratulations to the crew of STS-37 for making it a foursome.]
/EX
SB SAT @ AMSAT $ANS-167.05
AO-13 ORBIT UNDER STUDY

HR AMSAT NEWS SERVICE BULLETIN 167.05 FROM AMSAT HQ
SILVER SPRING, MD JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Many attentive satellite operators have noticed that the AO-13 orbit perigee has been decreasing steadily since the final orbit change maneuver was completed in mid 1988. This effect is not one of orbital decay but is a symptom of deep space perturbations, most notably from the sun and moon, which cause the eccentricity of an elliptical orbit to increase and decrease over a long term cycle. If the perigee at some point in the cycle is low enough, AO-13 will begin to enter the earth's atmosphere, decay will begin to dominate, and eventually AO-13 may re-enter catastrophically and be lost.

Several amateurs, OE1VKW, N4HY, N6NKF, G3RUH, KA9Q, and WA5NOM among them, have undertaken to learn as much as possible about these effects and to attempt to numerically model the AO-13 orbit as far into the future as possible in order to determine, if possible, what will happen. While most of these models project a re-entry for AO-13 sometime within this decade, it must be emphasized at this point that all results thus far are thought to be incomplete and therefore inconclusive. Formal errors resulting from projections months or years into the future still leave open the question of whether or when AO-13 will in fact re-enter prematurely.

AMSAT has contacted various institutions, including Millstone Hill (the radar complex that provided early orbital data during AO-10 and AO-13 burns), NASA's Goddard Spaceflight Center, and other NASA Centers in order to have the most complete possible analysis of the problem performed by experienced professionals. Any decisions or plans on the part of AMSAT must wait until after these results are obtained and fully understood. Bob McGwier (N4HY) expects to report as fully as possible in the upcoming AMSAT-NA Journal and in a presentation at the AMSAT-UK meeting in July.

[This statement was provided for ANS by N5BF.]
/EX
SB SAT @ AMSAT $ANS-167.06
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 167.06 FROM AMSAT HQ
SILVER SPRING, MD JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Station Receiving Tests Schedule Announced
You have one more chance to test out your receive station on AO-13 during the latest round of The ZRO Memorial Technical Achievement Award Program. The "ZRO Test", which is a test of operating skill and equipment performance, has been running over the past few weeks and will continue through the end of June.

During a typical ZRO run, a control station will send numeric code groups using CW at 10 words-per-minute. At the beginning of the run, uplink power from the control station is set to match the general beacon downlink strength. This is level "zero". The control operator will send and repeat a random five-digit number, then lower their uplink power by 3 dB (half

power) and repeat the procedure with a new random number. This will continue to a level 27 dB below the beacon (level "nine").

The following schedule of Mode "B" and "JL" ZRO tests were chosen for convenient operating times and favorable squint angles. The "B" tests can be heard on 145.840 MHz and the "JL" tests on 435.945 MHz.

Saturday June 30, 1990 at 1840 UTC "JL"
Saturday June 30, 1990 at 1930 UTC "B"

Any changes will be announced as soon as possible via the AMSAT HF and AO-13 Operations Nets. Recently updated ZRO brochures are available from WA5ZIB, Andy MacAllister, AMSAT V.P. User Operations, 14714 Knightsway Drive, Houston, TX 77083 for an S.A.S.E. with two units of postage. The brochure describes test procedures, means for obtaining certificates and gives some historical background about the program.

All listener reports with date of test and numbers copied should be sent to WA5ZIB at the address above. A report will be returned verifying the level of accurate reception. Good luck!
/EX
SB SAT @ AMSAT $ANS-167.07
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 167.07 FROM AMSAT HQ
SILVER SPRING, MD JUNE 16, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

26 Jun 90 0115 144 B N5BF Monday

Orientation Change to 210/0

09 Jul 90 0000 184 B N5BF Sunday
16 Jul 90 0115 130 B N5BF Sunday
27 Jul 90 0030 130 B N5BF Thursday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your local AMSAT Area Coordinator.
/EX
SB SAT @ AMSAT $ANS-160.08
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 160.08 FROM AMSAT HQ
SILVER SPRING, MD JUNE 9, 1990
TO ALL RADIO AMATEURS BT

Transponder Schedule for AO-13 Effective 05MAY90

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The current attitude is:

BLON = 179.4 and BLAT = -4.1 for 25 Jun 90

Cross mode B and S QSOs are possible during MA 135 to 140.

AO-10's Mode-B Transponder Now Available for Use:

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination
to support Mode-B transponder operations, therefore, the transponder is
available for general use whenever AO-10 is in view at your location.
Please DO NOT use the transponder if the signals are FMing. The current
estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

[AO-10 update received from Graham Ratcliff, VK5AGR, via AO-13 beacons.]
/EX
SB SAT @ AMSAT $ORBS-167.O
Orbital Elements 167.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90160.48774259
Element set: 528
Inclination: 25.9994 deg
RA of node: 200.1859 deg
Eccentricity: 0.5961905
Arg of perigee: 149.8173 deg
Mean anomaly: 264.9419 deg
Mean motion: 2.05881257 rev/day
Decay rate: -2.70e-07 rev/day^2
Epoch rev: 5257

Satellite: UO-11
Catalog number: 14781
Epoch time: 90156.61567397
Element set: 744
Inclination: 97.9462 deg
RA of node: 209.5469 deg
Eccentricity: 0.0011698

Arg of perigee: 287.2040 deg
Mean anomaly: 72.7880 deg
Mean motion: 14.65389143 rev/day
Decay rate: 8.60e-06 rev/day^2
Epoch rev: 33427

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90164.95867299
Element set: 221
Inclination: 82.9268 deg
RA of node: 330.9120 deg
Eccentricity: 0.0013025
Arg of perigee: 124.3978 deg
Mean anomaly: 235.8400 deg
Mean motion: 13.72092852 rev/day
Decay rate: -9.00e-07 rev/day^2
Epoch rev: 14900

Satellite: AO-13
Catalog number: 19216
Epoch time: 90159.67587371
Element set: 131
Inclination: 56.9863 deg
RA of node: 151.4377 deg
Eccentricity: 0.6966655
Arg of perigee: 228.8202 deg
Mean anomaly: 46.2038 deg
Mean motion: 2.09700013 rev/day
Decay rate: 6.30e-07 rev/day^2
Epoch rev: 1522

Satellite: FO-20
Catalog number: 20480
Epoch time: 90162.16250383
Element set: 79
Inclination: 99.0403 deg
RA of node: 209.8098 deg
Eccentricity: 0.0541470
Arg of perigee: 62.2494 deg
Mean anomaly: 303.2469 deg
Mean motion: 12.83156814 rev/day
Decay rate: 4.00e-08 rev/day^2
Epoch rev: 1597
/EX
SB SAT @ AMSAT $ORBS-167.D
Orbital Elements 167.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90164.18410863
Element set: 165
Inclination: 98.6975 deg
RA of node: 240.3067 deg
Eccentricity: 0.0011625
Arg of perigee: 161.6770 deg
Mean anomaly: 198.4834 deg
Mean motion: 14.28632237 rev/day
Decay rate: 6.10e-06 rev/day^2
Epoch rev: 2029

Satellite: AO-16
Catalog number: 20439
Epoch time: 90158.29152781
Element set: 83
Inclination: 98.7019 deg
RA of node: 234.5188 deg
Eccentricity: 0.0011186
Arg of perigee: 180.6504 deg
Mean anomaly: 179.4668 deg
Mean motion: 14.28730423 rev/day
Decay rate: 3.82e-06 rev/day^2
Epoch rev: 1945

Satellite: DO-17
Catalog number: 20440
Epoch time: 90160.38881602
Element set: 88
Inclination: 98.7040 deg
RA of node: 236.6199 deg
Eccentricity: 0.0011891
Arg of perigee: 172.3905 deg
Mean anomaly: 187.7455 deg
Mean motion: 14.28777289 rev/day
Decay rate: 5.45e-06 rev/day^2
Epoch rev: 1975

Satellite: WO-18
Catalog number: 20441
Epoch time: 90165.14016211
Element set: 89
Inclination: 98.7035 deg
RA of node: 241.3797 deg
Eccentricity: 0.0012933
Arg of perigee: 160.5777 deg
Mean anomaly: 199.5931 deg
Mean motion: 14.28879685 rev/day
Decay rate: 4.09e-06 rev/day^2
Epoch rev: 2043

Satellite: LO-19
Catalog number: 20442
Epoch time: 90164.50314377
Element set: 87
Inclination: 98.7034 deg
RA of node: 240.7589 deg
Eccentricity: 0.0013232
Arg of perigee: 162.1532 deg
Mean anomaly: 198.0118 deg
Mean motion: 14.28947935 rev/day
Decay rate: 3.71e-06 rev/day^2
Epoch rev: 2034
/EX
SB SAT @ AMSAT $ORBS-167.M
Orbital Elements 167.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90163.45529334
Element set: 319
Inclination: 51.6027 deg
RA of node: 328.1900 deg
Eccentricity: 0.0001226
Arg of perigee: 204.4803 deg
Mean anomaly: 155.6220 deg
Mean motion: 15.63752866 rev/day
Decay rate: 4.3115e-04 rev/day^2
Epoch rev: 46411

Satellite: MIR
Catalog number: 16609
Epoch time: 90164.82563862
Element set: 733
Inclination: 51.6137 deg
RA of node: 347.7347 deg
Eccentricity: 0.0011372
Arg of perigee: 34.2360 deg
Mean anomaly: 325.9585 deg
Mean motion: 15.61392351 rev/day
Decay rate: 5.0055e-04 rev/day^2
Epoch rev: 24757

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 90164.46937243
Element set: 91
Inclination: 28.4698 deg
RA of node: 273.2428 deg

Eccentricity: 0.0005745
Arg of perigee: 91.9520 deg
Mean anomaly: 268.1794 deg
Mean motion: 14.84442420 rev/day
Decay rate: 5.409e-05 rev/day^2
Epoch rev: 742
/EX
SB SAT @ AMSAT $ORBS-167.W
Orbital Elements 167.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JUNE 16, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90165.21961954
Element set: 592
Inclination: 99.1671 deg
RA of node: 164.9793 deg
Eccentricity: 0.0015642
Arg of perigee: 21.1307 deg
Mean anomaly: 339.0508 deg
Mean motion: 14.12591755 rev/day
Decay rate: 3.90e-06 rev/day^2
Epoch rev: 28356

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90165.32390073
Element set: 441
Inclination: 98.6019 deg
RA of node: 193.3341 deg
Eccentricity: 0.0012478
Arg of perigee: 281.4238 deg
Mean anomaly: 78.5544 deg
Mean motion: 14.23632416 rev/day
Decay rate: 4.75e-06 rev/day^2
Epoch rev: 19420

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90163.84350850
Element set: 436
Inclination: 82.5504 deg
RA of node: 293.7260 deg
Eccentricity: 0.0011310
Arg of perigee: 270.3251 deg
Mean anomaly: 89.6614 deg
Mean motion: 13.83651108 rev/day
Decay rate: 2.19e-06 rev/day^2

Epoch rev: 14238

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90164.07684249
Element set: 288
Inclination: 82.5443 deg
RA of node: 353.7293 deg
Eccentricity: 0.0016652
Arg of perigee: 341.5232 deg
Mean anomaly: 18.5270 deg
Mean motion: 13.84346044 rev/day
Decay rate: 1.13e-06 rev/day^2
Epoch rev: 11961

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 90163.78370784
Element set: 501
Inclination: 82.5382 deg
RA of node: 280.5406 deg
Eccentricity: 0.0016914
Arg of perigee: 328.9130 deg
Mean anomaly: 31.0929 deg
Mean motion: 13.16897489 rev/day
Decay rate: 3.91e-06 rev/day^2
Epoch rev: 9037

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90165.33192995
Element set: 291
Inclination: 98.9821 deg
RA of node: 113.6372 deg
Eccentricity: 0.0011113
Arg of perigee: 295.3133 deg
Mean anomaly: 64.6886 deg
Mean motion: 14.11625036 rev/day
Decay rate: 8.88e-06 rev/day^2
Epoch rev: 8856

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90164.04741426
Element set: 236
Inclination: 82.5207 deg
RA of node: 231.7537 deg
Eccentricity: 0.0016300
Arg of perigee: 19.7446 deg
Mean anomaly: 340.4341 deg
Mean motion: 13.83982445 rev/day

Decay rate: 2.43e-06 rev/day^2
Epoch rev: 6499

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90163.65612208
Element set: 142
Inclination: 82.5530 deg
RA of node: 221.1891 deg
Eccentricity: 0.0015743
Arg of perigee: 346.3592 deg
Mean anomaly: 13.7110 deg
Mean motion: 13.15859810 rev/day
Decay rate: 4.20e-07 rev/day^2
Epoch rev: 3035
/EX

Upload these to your local packet BBS!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3558. RTTY DX Notes, 6/15/90

Newsgroup: rec.ham-radio
Date: 1990-06-17 13:56:31 UTC
From: gws@n8emr.UUCP
Message-ID: <1540@n8emr.UUCP>
Source record: 10969

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ ALLUSA $RTDX0615
RTTY DX Notes, 1of3, 6/15/90

RTTY DX Notes for Weekending 15th June 1990.
Part 1 of 3.
BID: $RTDX0615

Well, band conditions for the contest were not as good as one would
have wished, but we cannot always get what we have wished for. But
it could be said that they were fair, and from reports received it
would appear that there will be some good scores showing up. At least
we hope so. Now is the time for you to get to work and send your logs
to 55 Prince Charles Road, Frenches Forest, Sydney 2086. If you do
not know how to score, send them in anyway. We have a couple of good
calculators that know how to do that.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, JG1NBD, N2HOS, OD5NG,
TG9VT and VK2EG. Thank you all for your efforts, and hope that you
all enjoyed the contest.

Bandpass:

Friday 8:
FY4FR 14089 at 0155Z
EA9MY 14084 at 0210Z
UQ2HO 14086 at 0237Z
VK9LI 14075 at 0421Z QSL
FO5EM 14088 at 0436Z
UZ3AYR 21086 at 1402Z

Continued in part 2.
/EX
SB RTTYDX @ ALLUSA $RTDX0616
RTTY DX Notes, 2of3, 6/15/90

RTTY DX Notes for Weekending 15th June 1990.
Part 2 of 3.
BID: $RTDX0616

Saturday 9:
HV3SJ 14091 at 0040Z
OM2BXW 14087 at 0114Z Note
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PP8BW 14087 at 0459Z Note
VK9LI 14090 at 0601Z
EA9MY 14093 at 0647Z
7J6CAS 21090 at 0654Z
7Q7LI 14092 at 0944Z
TJ1MW 21088 at 1108Z
LY1BZB 14088 at 1730Z
A45ZO 14083 at 1748Z
VU2SJV 14086 at 1822Z
BV4VB 21090 at 1837Z
TU2BB 14074 at 2130Z ARQ

Sunday 10:
KP4OP 14088 at 0300Z
EA9MY 14083 at 0300Z
ES7FU 14087 at 0523Z
RA3DX 14084 at 0552Z
RB5MT 14084 at 0557Z
TA3D 14085 at 0602Z
VR6WH 14082 at 0725Z
TL8GM 28089 at 0854Z
FO5MA 14067 at 0855Z ARQ
BZ4RDX 21088 at 0922Z
7J6CAS 21082 at 1017Z
TJ1MW 21082 at 1107Z
VU2JSV 14085 at 1656Z
VK9LI 14087 at 2305Z

Monday 11:
LY1BYL 14090 at 0150Z
UQ2HO 14091 at 0310Z
RF6FC 14086 at 0320Z
VK9LI 21088 at 0421Z
UG7GWY 14082 at 0508Z QSL
FO5EM 14088 at 0726Z
TJ1MW 14076 at 1853Z ARQ
A45ZO 14079 at 1904Z ARQ

Tuesday 12:
RA3AG/A 14089 at 0156Z
FY4FS 14091 at 0158Z
IZ0MR/90 14085 at 0430Z QSL
SV2WT 14089 at 0435Z
UQ2HO 14084 at 0453Z
VK9LI 14075 at 0537Z ARQ
YI1BGD 21085 at 1555Z

Continued in part 3.
/EX
SB RTTYDX @ ALLUSA $RTDX0617
RTTY DX Notes, 3of3, 6/15/90

RTTY DX Notes for Weekending 15th June 1990.
Part 3 of 3.
BID: $RTDX0617

Wednesday 13:
KR6N/KP4 14090 at 0025Z QSL
HC1BV 14083 at 0200Z
CE0ZIG 14073 at 0400Z ARQ

Thursday 14:
8P9AT 14087 at 0410Z QSL

QSL Information:

VK9LI will QSL via VK2SG as soon as the cards are printed.

IZ0MR/90 will QSL via I0IA.

UG7GWY asks for cards to be sent via Armenia Verevan Indeks 5, Padio Club, 375007 Armenia, Verevan, USSR.

KP6N/KP4 is via KP4USA.

8P9AT, Wolf Wagner, 12230 St James Road, Potomac, MD 20854, or via DL8KY.

Information Of Interest:

OM2BXW is a special call for OK land.

PP8BW is a special call for PY land.
And just to confuse you all, KJ is the stateside call, not Johnston Island, which is KH3.

ZD9BV has informed that the equipment that was sent to him has disappeared enroute. A search party has been dispatched, but so far they have not reported back that they have found the gear.

H44RW has informed that his RTTY gear will not work, so maybe we can forget the Solomon Islands for the moment.

ED9CI, Chafartnas Island should be active now by EA9JV. This will count for IOTA and prefix hunters awards, but unfortunately, not as a new country.

GL DE DX 1 (VK2SG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

3559. Re: Call for Comment, CB "Traffic Advisory Channel" petition

Newsgroup: rec.ham-radio
Date: 1990-06-17 17:06:29 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <36303@shemp.CS.UCLA.EDU>
Source record: 10964

In article <7880154@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Rather than petitioning the FCC for new regulations that cannot be
>enforced, the users of CB need to arrive at a "gentlemen's agreement"

>about an advisory channel. I would think 19 (or 9 if it is life-

GENTLEMEN? Where! Where! Damned few I've heard on CB lately.
(There are exceptions, but they are few and far between)

But for the most part, "CB gentlemen's agreements" sounds like
"military intelligence" to me.

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

3560. California Help Needed

Newsgroup: rec.ham-radio
Date: 1990-06-17 19:11:40 UTC
From: faunt@CISCO.COM
Message-ID: <9006171911.AA27671@ucsd.edu>
Source record: 10965

Correction to correction: that's WB6NDJ.

3561. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-17 22:03:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500573@ux1.cso.uiuc.edu>
Source record: 10968

> anywhere. 75 meters is totally gone. SHORTWAVE stations sound like
> they are under water, and nobody is higher than S-2. Surprisingly, W1AW
> was there at 0130 with their bulletin on 21329.8 (announced 21390, they
> can not get closer to the freq than good old Glen Baxter can)...

Keep tuning higher and higher.

> Is it just ME, or is this the WORST solar peak you can remember. I mean
> dismal dismal dismal. Sunspots are supposed to being exciting stuff to
> the HF bands, but what the sunspot giveth, the solar flare taketh away.

And why do you not try VHF?

> Previous solar cycles brought me some great SWL reception, and wonderful
> memorable ham contacts with coathanger antennas all over the world.
>
> Not so this time. This cycle has been a bust IMHO. The bands have been
> literally DEAD for days on end. No communication in or out. This is my
> THIRD solar cycle as an active radio nut. This time I have much more
> sophisiticated equipment, AND more time to play with it than the last
> two... (Well I used to skip school to play TV DXer when the e's came
> alive back when I was a kid...)

Well turn on the TV again. Geez, you STARTED on VHF, so why not come
back to VHF.

> I have had very few memorable days playing with DX this time around.
> What I remember the most from this cycle is the total trashing of the
> bands many many many times. Some of it is the black hole effect (as
> posted previously) but I am sure that this dismal reception must be
> affecting others as well. Days when the band is "broken" seem to happen
> far more regularly than I can ever recall.

A higher MUF does not mean the lower frequencies remain usable.

> Hello, CQ CQ CQ USENET. CQ CQ CQ CQ USENET. THIS IS WB8EOH. WIND BAG
> NUMBER EIGHT ECCENTRIC OLD HERMIT, WB8EOH, WHITE BREAD 8 EXTRA OILY
> HAMBURGERS.... CALLING AND STANDING BY....

.__. ... . __._ ... _.__ ___ __ ..._ .... .._. ..._ .... .._.
..._ .... .._. _.. . _._ ._ ____. .__ __. _.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3562. Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-17 22:25:00 UTC
From: RDW2030@TAMVENUS.BITNET
Message-ID: <9006172224.AA03527@ucsd.edu>
Source record: 10966

It's really funny just how many people have never heard of ham radio. They don't understand "ham" or "amateur" radio. I usually have to mention shortwave (such a misnomer!) and "talking to people all over the world" to ring a bell in most people's minds.

The question is... what good ideas can you guys come up with to really get people to know about ham radio and what it does for them as well as what a great hobby it could be for many.

This goes above and beyond the Radiogram service and the occasional passer-by that says "What's that radio for?" We hear this a lot at RDF hunts.

What unusual methods have you used yourself or seen other hams use to really get people interested in what was going on? We are in serious need of more grass-roots exposure, I think. If we can get some good ideas going, then we can possibly carry them out. I am a big ham radio evangelist, looking for more ways to let people know about it!

Mark Lowe - KB5III

73 and let's hear those ideas!

3563. Heathkit information needed

Newsgroup: rec.ham-radio
Date: 1990-06-17 23:30:09 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006172336.AA18141@ti.com>
Source record: 10967

I need the instructions/schematics, etc. for the Heathkit HD-15 "Hybrid Phone Patch".

Also, I have a 2-meter power amp by Heathkit, but there's no ID number or model number on the unit. It uses two transistors, type 2N6084. If any one has information, schematics, etc. Please let me know.

73,
Dube Todd N5PDK

3564. Re: QSLing

Newsgroup: rec.ham-radio
Date: 1990-06-18 11:56:11 UTC
From: dls@genrad.UUCP
Message-ID: <37631@genrad.UUCP>
Source record: 10971

In article <623@compnect.UUCP> daveh@compnect.UUCP (Dave Hultberg) writes:
>In article <9006111248.AA22930@ucsd.edu>, lwrclmr@SACEMNET.AF.MIL ("LWRCLMR") writes:
>> Ref QSL INbound bureaus.
>Each Incoming QSL has its own rules, so what I am about do post is only
>guaranteed to represent 3rd call area policy. First, to get a copy of our
^^^^^^^^

Rules for 1st call area are similar, but not same. Money is accepted in lieu of envelopes, and we will buy envelopes on an as needed basis, if money is there to buy them (generally 10 cents an envelope or 25 cents for three, but this figure may differ from sorter to sorter). I ask that you do NOT put more than 25 cents on each envelope, but supply separate postage if you figure it may be more than 1 ounce. I do NOT hold onto cards for more cards to come in, although occasionally I will hold cards from one month to the next....for example, when I've already sent out one envelope and then find a few more cards missorted, rather than sending out another envelope, I'll just hold them for the next month. Please send envelopes NO SMALLER than 5 x 7"; they are difficult to find and tend to get lost... plus many QSL cards won't fit in smaller envelopes. As a courtesy, I will send out a postcard for hams who are in the callbook (HINT, is your name and address up to date in the callbook? If not, WHY NOT?), but have no envelopes on file, generally asking for $2.00 or $3.00 in postage/envelopes/cash, to open his account (and keep it going for awhile). This is NOT expected, and it DOES come out of my pocket, although we do request that the ham send 15 cents to cover the cost of the postcard, not all do (I guess they figure it's their right to receive a postcard). No response to requests for envelopes within 45 days results in cards being disposed and a big red "NO INTEREST DISPOSE" being placed on the ham's file card. When the last envelope, or low postage or money occurs, I send out an index card with the last batch, informing the ham of his status.

There are many cards that come in that are IMPOSSIBLE to determine who they go to. Foreign stations very often do not write clearly...I try to match up the cards as best I can using all available data. For example, if the QSL card has the receiver's first name on it, then I can start playing guessing names using the callbook: let's see, is it K1JTL, K1YTL, K1UTL, K1GTL, or K1TTL, Ah, K1JTL has the same first name, must be his, send it back to Call 1 bureau to be forwarded to the next sorter (this is only an example, but it gives you an idea of my thinking). If you get cards that don't belong to you, 'twould be nice if you returned them to the bureau next time you send in money or envelopes.....but not required...remember, that other ham may really NEED that QSL card, and sorters aren't perfect (at least I'm not :-).

To all Hams: DO YOU HAVE AN ENVELOPE ON FILE? IF NOT, WHY NOT?

CHEERS!
Diana

--
->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

3565. Re: QSLing

Newsgroup: rec.ham-radio
Date: 1990-06-18 11:57:22 UTC
From: dls@genrad.UUCP
Message-ID: <37632@genrad.UUCP>
Source record: 10972

In article <829@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>In article <9006111248.AA22930@ucsd.edu>, lwrclmr@SACEMNET.AF.MIL ("LWRCLMR") writes:
>> Ref QSL INbound bureaus.
>>
>Not knowing the going rates for this
>> service I sent a letter to the Willamette Valley DX Club (W7 bureau per the
>> CallBook) along with a check for $20.00. They did not hesitate to cash my
>> check, but I never heard from them again.
>
>This was a mistake on your part. They probably thought it was a donation
>to the club. They need 5x7.5 inch SASEs with your call in block letters
>in the upper left hand corner. They also apreciate donations.

This is NOT necessarily true. A few weeks ago, I received a $10 check for
one of my "customers". Since this ham was a friend of mine and I had told
him earlier that his account was just fine, I decided to call and tell him
don't send the QSL bureau anymore money. He replied, "gee, I had sent in
a DONATION, not money for my QSL cards." Anyway, money to the bureau is
not necessarily assumed to be donations. You must specify that it is, else
it would be assumed that it is for future QSL cards.

By the way, I do have a few large customers....20-30 dollars....but most
just send 2-3 envelopes and/or 2-3 dollars.

>> Has anyone else had experience with the Willamette Valley DX Club? Is this
>> standard practice? Is $20.00 the going fee for one-time pack of 30 cards? Do
>> they ever explain what their policy is or their rates?

$20 would go a long way with me.....And yes, if you ask for information, we
have a page of data that we send, if you send a SASE requesting it.

--
->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

3566. Blue Angels info'

Newsgroup: rec.ham-radio
Date: 1990-06-18 13:43:48 UTC
From: rcollier@rosie.hf.intel.com.ogc.edu
Message-ID: <1101@gandalf.littlei.UUCP>
Source record: 10885
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Well, the Blue Angels have finished their performance at the annual Rose Festival Airshow in Hillsboro, Oregon. Using the information provided in previous postings, I was able to capture a lot of interesting stuff on the scanner.

The preset frequencies in the planes included 251.6 MHz (preset 8) and 307.7 MHz (preset 16), both AM. The soloists were on 251.6 MHz while the four-ship formation was on 307.7 MHz. According to what I heard, 307.7 MHz applies to the west coast.

The team this year includes:

#1 Cmdr. Pat Moneymaker (flight leader = "Boss")
#2 Maj. Chase Moseley ("Ace")
#3 Lt. Cmdr. Dave Inman ("Moe")
#4 Lt. Cmdr. Doug McClain ("Mad Dog")
#5 Lt. Lee Grawn ("Bush") (?)
#6 Lt. Matt Seamon ("Spurt") (?)

Note that I'm not completely sure of the tactical callsigns, as they're used *VERY* briefly during transmissions. It got real interesting during the last practice sessions before the show when #6 lost an engine. Fortunately these are F-18's, not F-16's!

Oh yes, Team America was here too, using 123.475 MHz AM.

Collier Chun
NM7B
Intel Corporation
Hillsboro, Oregon

3567. Blue Angels info'

Newsgroup: rec.ham-radio
Date: 1990-06-18 13:43:48 UTC
From: rcollier@rosie.hf.intel.com.ofc.edu
Message-ID: <1100@gandalf.littleh.UUCP>
Source record: 10970
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Well, the Blue Angels have finished their performance at the annual Rose Fdstival Airshow in Hillsboro, Oregon. Using the infnrmation provided in previour postinfs, H was able to capturd a lot nf interesting stuff nn the scanner.

The prdset frequencies in the planes included 251.6 MHz (preset 8) and 307.7 MHz (presdt 16), bnth AM. The soloists were on 251.6 LHz while the four-ship formatinn was on 307.7 LHz. Acbordhng to what I heard, 307.7 MHz applies tn the wert cnast.

The tdam this year includds:

#1 Cmdr. Pat Moneymaker (flight leader = "Boss"(
#2 Maj. Chase Loseley ("Ace")
"3 Lt. Cmdr. Davd Inlan ("Moe")
"4 Lt. Cldr. Douf McBlain ("Mad Dog")
#5 Lt. Lee Gravn ("Bush") (?)
#6 Lt. Matt Rdamnn ("Spurt") (?)

Note that I'm not completely sure of the tactical callsigns, as they'rd used *VERY* brieflx during transmirsions. It got real interesting during the last practicd sessions before the shnw when #6 lost an engine. Forttnately these ard F-18's, not F-06's!

Oh yes, Tdam America was here too, ushng 023.475 LHz AM.

Collier Chun
NM7B
Intel Corporation
Hillsboro, Oregon

3568. Re: ... revisited

Newsgroup: rec.ham-radio
Date: 1990-06-18 14:57:41 UTC
From: cep@cci632.UUCP
Message-ID: <38130@cci632.UUCP>
Source record: 10897

In article <9006160526.AA08376@ucsd.edu> RDW2030@TAMVENUS.BITNET writes:

[all kinds of stuff about INFO-HAMS hating uuencoded binaries in digest]

Question: should rec.ham-radio readers be concerned about this, i.e.
does what I type get digested (??) and shipped on to the mailing list,
even though I'm not on that list?

Chris WZ2B
cs.rochester.edu!cci632!ccird7!cep

3569. Vote for info-hams-binaries

Newsgroup: rec.ham-radio
Date: 1990-06-18 15:00:40 UTC
From: MEHARP01@ULKYVM.BITNET
Message-ID: <9006181503.AA09129@ucsd.edu>
Source record: 10884

I think that would be a terrific idea!

de N4PLE

3570. WWV time board for PC

Newsgroup: rec.ham-radio
Date: 1990-06-18 15:22:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9006181425.AA07800@ucsd.edu>
Source record: 10975

A couple of weeks ago someone was asking about accurate time keeping,etc
for an astronomical purpose. I just saw a half-card board for a pc that
contains a wwv receiver and interface for a PC/XT or PC/AT type computer.
It claims an accuracy of +- 20ms. It updates the system clock. It
operates on the 10MHz signal. Cost is $225.00. The company is:
Coordinated Time Link
Santa Clara, CA
408-980-1305
408-980-1468 (fax)
I know absolutely nothing about this company. The above is what I read
in a short magazine article.

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

3571. Re: ... revisited

Newsgroup: rec.ham-radio
Date: 1990-06-18 15:34:23 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <56@thoreau.nsc.com>
Source record: 10894

In article <9006160526.AA08376@ucsd.edu>, RDW2030@TAMVENUS.BITNET writes:
>
> Why can't we create a separate list for binaries?
>
> What do you say, INFO-HAMS admin?? How about a separate list for programs?
>
> Mark Lowe - KB5III

Great idea Mark, I know the flow of programs here on rec.ham-radio is not that high but it would sure be a nice adder to have a place to exchange programs. I'll contribute "PATHFINDER" since I wrote the program and am still getting a reasonable flow of mail on it. I don't have the time but there is a prescribed format for kicking off a new discussion group which this is what we are probably talking about. Can some one pick up the ball and run with it?

Ron Todd, K3FR

3572. STOLEN KENWOOD TM-701 Dual Bander

Newsgroup: rec.ham-radio
Date: 1990-06-18 15:47:09 UTC
From: chris@hplvli.HP.COM
Message-ID: <20200003@hplvli.HP.COM>
Source record: 10973

Stolen in auto burglary June 16, 1990:

Kenwood TM-701A Dual Band (144/440) Transceiver

Serial Number 0021709

notes: also contains optional CTCSS Decoder

If found, contact Loveland (CO) Police Dept:
1-303-667-2151 ref case number 90-10428

Thanks.....Chris Kelly, alias WD5IBS

3573. RE: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-18 16:48:30 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006181707.AA03323@ti.com>
Source record: 10893

From: TILDE::"RDW2030@TAMVENUS.BITNET" 17-JUN-1990 22:55:13.72
Subj: Making ham radio known

Mark & all...

Your remarks reminded me of some cards a club back home had. It was about the size of a QSL, and had printing about like a weeding or graduation invitation might.

It essentially commented about amateur radio in general, something about the local club, and the ARRL (it was, after all, an affiliated club!).

We all had a couple hundred of these, and kept them in the glove compartment (now called a map compartment, and barely big enough to hold maps!) and when we encountered a person who asked, we all had descriptions and pitches we practiced, then gave them one of those cards.

Gee, that was back in the early 70's.

Now, unless you carry a video or can do it in 'rap' you might not hold anyone's attention too long. :-)

But maybe a handout brochure is *-not-* that bad an idea, with addresses of the local clubs, description paragraphs (with pictures?) of packet, oscar, atv, etc., and of course, the emergency preparedness and dx stuff.

As a minimum, I went to one of those quick print places and for $10 or so got some cards made up with my name and address and phone number. In the center where the copmany name might be is my call.

Some QSL printers were selling those years ago as "eyeball QSLs". But in addition to giving them to fellow hams at conventions, they can be useful to give to non-hams. It at least says to that person, if you want to find out more, give me a call... On one occasion, I had an individual call me using the number on the card. They weren't too interested at first, but thought about it and called later.

%MSG5107-W-SBMON, SOAPBOX MODE ON

I think a first step is to THINK about what would you say to someone if they asked you about ham radio? The way we represent ham radio will be what we think about ham radio, or maybe what we think ham radio should be.

But a good idea would be to know what you want to say and even practice it a few times. Grab a friend who doesn't care and practice on them. (You might have to buy them a pizza to get the opportunity!)

The point is, if someone asks you and you just shrug and mumble something about dx and morse code, that leaves a pretty fuzzy impression.

Think about what you do in ham radio. Do you yak with your friends on the way to work on the 2-meter repeater? Well, what do you talk about? Do you exchange cookie recipes and talk about what was on TV last night, or do you discuss the merits of antennas and propagation conditions the past week? I suspect you hear a little of both on some repeaters.

Do you go on transmitter hunts? Why? Do you work contests? Why? Realize my asking why is not a challenge to anyone personally. It is a challenge to the group at large to be ready to enthuse (is that a real verb?) others in what they do.

Ham radio's greatest resource isn't the hardware or the technology itself, it is the people that develop and use that hardware, that understand the need and the enjoyment of it. And even more so if they are ready to share that understanding and enjoyment with others.

%MSG5108-S-SBMOFF, SOAPBOX MODE OFF

Mark, good luck. I hope you can get a real movement going.

-73, Bob

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3574. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-18 17:37:37 UTC
From: cy5@cunixa.cc.columbia.edu
Message-ID: <1990Jun18.173737.20882@cunixf.cc.columbia.edu>
Source record: 10899

In article <9006172224.AA03527@ucsd.edu> RDW2030@TAMVENUS.BITNET writes:
>What unusual methods have you used yourself or seen other hams use to really
>get people interested in what was going on? We are in serious need of more
>grass-roots exposure, I think. If we can get some good ideas going, then we
>can possibly carry them out. I am a big ham radio evangelist, looking for more
>ways to let people know about it!

I sign my posts to all newsgroups,

Conway Yee, N2JWQ

I have gotten at least a half a dozen requests by e-mail asking what N2JWQ
meant. I explain and then offer to give them more information if they want.
At the very least, this increases the number of people who know about ham
radio.

Conway Yee, N2JWQ

P.S. Nobody has yet requested any additional info about ham radio.

3575. Re: Vote for info-hams-binaries

Newsgroup: rec.ham-radio
Date: 1990-06-18 17:40:22 UTC
From: cy5@cunixa.cc.columbia.edu
Message-ID: <1990Jun18.174022.26049@cunixf.cc.columbia.edu>
Source record: 10895

In article <9006181503.AA09129@ucsd.edu> MEHARP01@ULKYVM.BITNET (Michael Harpe) writes:
>
>I think that would be a terrific idea!
>

I am not so sure such a group would be a good idea? There can't be that
many binaries that could use such a newsgroups.

Conway Yee, N2JWQ

3576. US calls starting with N (was Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-18 18:26:00 UTC
From: wales@valeria.cs.ucla.edu
Message-ID: <36324@shemp.CS.UCLA.EDU>
Source record: 10896

In article <andreap.645128686@s.ms.uky.edu> andreap@ms.uky.edu (Stephen McNatton) gave a list of US call letter assignments.

This list didn't say anything about four-letter calls starting with N. Are these calls assigned to any service?

--
-- Rich Wales <wales@CS.UCLA.EDU> // UCLA Computer Science Department
3531 Boelter Hall // Los Angeles, CA 90024-1596 // +1 (213) 825-5683
"This is yet another example of how our actions have random results."

3577. Re: YAESU FT-411 MOD, please help!

Newsgroup: rec.ham-radio
Date: 1990-06-18 18:32:35 UTC
From: rfc@briar.Philips.Com
Message-ID: <99533@philabs.Philips.Com>
Source record: 10974

someone wanted this info posted, so...
from my files:
>From: stan@hprpcd.HP.COM (Stan Witherspoon)
Newsgroups: rec.ham-radio
Subject: Re: Yaesu FT-411 mods?

To allow the FT-411 to recieve from 130 MHz to 174MHz and to transmit
from 140 MHz to 151 MHz, turn off the radio and hold down both of the arrow
keys and turn on the radio. Be sure to write down all of the contents of
your memories first as this will erase them ! This is the MARS modification.
Repeating this procedure will turn the FT-411 back into a HAM only transciever.
Refer to the mods server for a more involved mod that will allow you to
set the transmit and recieve frequency limits at will within the capability
of the rf deck.

WARNING: Do not transmit over the air outside of the ham bands unless you have
the appropriate MARS license! For other frequencies, don't transmit at all
because the FT-411 is not a FCC-Type-Accepted radio for the public service
bands! Also make sure that your radio can't accidently transmit on a public
service repeater (in case you are all thumbs, or your radio gets stolen!)

Stan Witherspoon
RF: N6SCE

Note: I haven't tried any of this, proceed at your own risk. WA2ISE

more stuff:
Newsgroups: rec.ham-radio
Subject: FT-470 neat whizzy stuff
Keywords: mods, crossband repeater

Well, since there's a lot of mod' req's floating around, I thought I'd
mention something I discovered while attempting to perform a clone data
dump on the Yaesu FT-470.

The Yaesu Customer Service Rep' that I called today claimed that the
FT-470 *does* have a cloning capability despite the lack of instructions
in the manual. Supposedly, the way to get into Clone Mode is to turn on
the radio with the F/M key depressed.

HOWEVER! If you turn on the radio with the RPT key depressed, the radio
becomes a crossband repeater. Try it! Dial up two frequencies you want
to crosslink (be sure to pay attention to transmit offsets, if any), turn
the radio off, depress the RPT key, and turn it back on. The tone
encode/decode flags and the -+ flags will be flashing. When either
band's squelch opens, the other band is moved into the primary frequency
display and the transmitter keys. Note that the power output is

decreased to Low power. One note: the crossband audio isn't great, probably because it's whatever comes out the speaker and gets fed back into the mike. I suppose if you got serious, you could create a short interface cable to plug into the top of the radio.

73's & happy dual/crossbanding!

Collier Chun
NM7B @ WA7ARI
Intel Corporation, OEM Platforms Operation
Hillsboro, Oregon

3578. Wanted, pointer to manufacturer or power supply schematic

Newsgroup: rec.ham-radio
Date: 1990-06-18 18:39:46 UTC
From: faunt@dustbin.cisco.com
Message-ID: <FAUNT.90Jun18113945@dustbin.cisco.com>
Source record: 10901
Cross-posted to: sci.electronics,rec.ham-radio

I have a Standard Power Inc, SPS120-15 power supply for which I would like
to get a schematic. In the 1988 Thomas Register they are listed
in Santa Ana, but the number given just rings, and directory
assistance has no listing there. I am looking for a schematic for
this power supply, or a pointer to the manufacturer, who may have
moved,
thanks, and 73, doug
--
faunt@cisco.com 415-688-8269

3579. Re: ... revisited

Newsgroup: rec.ham-radio
Date: 1990-06-18 18:45:25 UTC
From: brian@ucsd.Edu
Message-ID: <14433@ucsd.Edu>
Source record: 10898

In article <38130@cci632.UUCP> cep@ccird7.UUCP (Christopher Piggott - co-op) writes:
>does what I type get digested (??) and shipped on to the mailing list,
>even though I'm not on that list?

Yes, all articles posted to the newsgroup go to the mailing list digest,
and all articles mailed to the digest get posted to the newsgroup.
- Brian

3580. Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-06-18 19:22:48 UTC
From: paul@hpldola.HP.COM
Message-ID: <12120038@hpldola.HP.COM>
Source record: 10976

> >We need a filter for a low-noise preamp in the 440 MHz range. Mostly it
> >needs to have a flat passband about 5 MHz wide, and steep rolloff, especially
> >on the low end. Can anybody suggest a solution that is more clever than
> >your standard LC configurations? Sharper cutoff, less insertion loss?

> In metropolitan areas (like L. A.) weak signal VHF and UHF users (satellite
> operators) often use cans. There are cans (duplexers, single filters, etc.)
> for 440 MHz. Have you considered these? They are very sharp.

"cans" are probably usually 1/4 wave coaxial filters - typically used in
repeater duplexors. Since it's for a receiver you don't need the high
power capability and should consider helical resonators - much smaller
for one thing. I haven't any idea of a good reference for building
or designing them but you can get ready-mades from Digi-Key (Toko?)
tho' they're not real cheap. You might check out the recent ARRL
VHF/UHF book too.

-Paul "Spice is the Variety of Life"
paul@hpldola.hp.com N0KCL

3581. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-18 19:52:38 UTC
From: driver8@stb.info.com
Message-ID: <1990Jun18.195238.8246@stb.info.com>
Source record: 10877

In article <1990Jun13.015147.4993@lopez.UUCP> flash@lopez.UUCP (Gary Bourgois) writes:
>
>Is it just ME, or is this the WORST solar peak you can remember. I mean
>dismal dismal dismal. Sunspots are supposed to being exciting stuff to
>the HF bands, but what the sunspot giveth, the solar flare taketh away.
>
>Previous solar cycles brought me some great SWL reception, and wonderful
>memorable ham contacts with coathanger antennas all over the world.
>
Yeah, you have to go back to '58 to find a year like '89. There have been
a lot more of the really big flares (the ones that register so high that
they saturate the x-ray detectors on the satellites and the strength has to
be estimated...) this time around than in the past couple of cycles.

But there has been REAL good DX on 10 meters. Novices are making DXCC all
over the place. Stations in Germany have been taking standbys for mobiles
in rare U.S. counties and people have been coming back with 10 watts and a
trunk-mounted whip. And 50 MHz has become a real DX band, at least in the
fall and spring. I worked some rare stuff on 10 from a location I have
decided is a total RF sink (a dummy load without coax) until the pileups
got too intense.

Except for the spring of '89, which I rate a total washout here, it's been
fun hereabouts.

--
++
Hugh Stegman NV6H driver8@stb.info.com
RCMA Below 30 MHz denwa!stb!driver8
++

3582. Re: My own funky call

Newsgroup: rec.ham-radio
Date: 1990-06-18 20:17:53 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880155@hpfcdc.HP.COM>
Source record: 10878

> Has the upcoming call N0PAY been overlooked?

It's a ways off. Sometime in the last week or two, some lucky ham got
N0MAD. I'd love to have that, but alas, I don't expect my new call for
about four weeks, probably something icky like N0CVE...

3583. Field day software bugs

Newsgroup: rec.ham-radio
Date: 1990-06-18 20:27:28 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12588864092.8.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 10879

I have tried the field day program (FIELDAY.ZIP) by Paul Cassel, VE3SY.
It works well until I run the program to print the results. It hangs up
all the machines I have tried it on. I would love to use this program for
field day, but it is useless if it cannot print the results!

Paul, if you are out there, send me a response to

POPYACK@TOPS20.RADC.AF.MIL

I have been unable to get mail to ynu. 73 Len WF2V

3584. Field day software bugs

Newsgroup: rec.ham-radio
Date: 1990-06-18 20:27:28 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12598864092.8.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 10900

I have tried the field day program (FIELDAY.ZIP) by Paul Cassel, VE3SY.
It works well until I run the program to print the results. It hangs up
all the machines I have tried it on. I would love to use this program for
field day, but it is useless if it cannot print the results!

Paul, if you are out there, send me a response to

POPYACK@TOPS20.RADC.AF.MIL

I have been unable to get mail to you. 73 Len WF2V

3585. W2SEX

Newsgroup: rec.ham-radio
Date: 1990-06-18 20:36:40 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12598865767.8.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 10904

I thought W2SEX Belongs to BARA (Buffalo Amateur Radio Club) -- not
Adirondack ARC....

3586. Ham calls seen in horrible movie

Newsgroup: rec.ham-radio
Date: 1990-06-18 23:03:52 UTC
From: davet@tsdiag.ccur.com
Message-ID: <1014@tsdiag.ccur.com>
Source record: 10880

On the late, late, way-late movie the other night on NY channel 7 there was shown a movie starring Larry Hagman as a chivalrous helicopter pilot in Mexico. Early on in the film he was complaining to his partner that he could only talk to him via CB or Ham Radio. Interested by the mention of Ham Radio, I watched on (it was a _bad_ movie, but hey, I like _bad_ movies!). Sure enough, he started calling his buddy with real live Mexican calls (XE12L this is XE2YGH...the YGH stood for Yankee Go Home, which was his partnership's name as well, YGH aviation.) As the camera panned thru his shack, I noticed several QSL cards tacked to the shelf. I could make out for sure WD9ARK, and K5VNJ, and the others looked like WB8VCM and WD6NJY. Anyone know these Hams in person? The calls come back to:

Call-Sign: WB8VCM Class: ADVANCED
Real Name: BRUCE M SPACER Birthday: OCT 2, 1958
Mailing Address: 5829 TREE MOSS LN, NORTH RIDGEVILLE, OH 44039
Station Address: SAME AS MAILING ADDRESS
Valid From: MAR 10, 1987 To: MAR 10, 1997
Records Last Processed: MAR 10, 1987

Call-Sign: K5VNJ Class: EXTRA
Previously: SAME CALL Class: ADVANCED
Real Name: ALAN L BONNER Birthday: JAN 5, 1947
Mailing Address: 5754 LONGVIEW ST, PAPILLION, NE 68133
Station Address: SAME AS MAILING ADDRESS
Valid From: MAR 15, 1988 To: MAR 15, 1998
Records Last Processed: MAR 15, 1988

Call-Sign: WD9ARK Class: ADVANCED
Real Name: DALE A CARLSON Birthday: APR 13, 1946
Mailing Address: 1411 EUNICE AVE, JOLIET, IL 60433
Station Address: SAME AS MAILING ADDRESS
Valid From: APR 7, 1987 To: APR 7, 1997
Records Last Processed: APR 7, 1987

If you know these Hams, tell 'em they're celebrities since their cards are stars in a movie!
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

3587. Strange interference

Newsgroup: rec.ham-radio
Date: 1990-06-18 23:19:17 UTC
From: davet@tsdiag.ccur.com
Message-ID: <1015@tsdiag.ccur.com>
Source record: 10881

As an avid fan of 10m, I seem to be besieged by a most annoying bit of RF interference. It occurs in my apartment, but only in certain chunks of the band. It sounds kind of growly, and appears at approximately 210KHz intervals and lasts for about 140KHz. If it helps, here are the places I measured the noise one day:

28.040 - 28.195
28.250 - 28.390
28.460 - 28.600
28.675 - 28.810
28.885 - 29.020
29.095 - 29.230

This racket is very loud, most of the time S7 or so on my meter. The higher frequency edge is very well defined, accompanied by an increase in noise strength just before it drops to nil over the range of only a couple of KHz. Here's the kicker: If I apply RF to the antenna within the noise bands, even a few watts, the noise goes away for ~5-10 seconds, then slowly returns. I know it's not the AGC of the receiver - it's a TEN-TEC 580D and is capable of semi-QSK. (Read _reel_ fast recovery). Could it be a static buildup on the antenna that is shunted to ground by my finals when I transmit? Could it be a piece of hardware on a nearby phone pole oscillating? Could it be ... Satan? If any OM out there has had experience dealing with strange interference, I'd certainly be in your debt if you'd shed a little light on this strange beasty, so that I can enjoy what's left on this sunspot cycle in peace! Thank you in advance from the twisted mind of:

--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

3588. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-18 23:28:35 UTC
From: winter@Apple.COM
Message-ID: <42091@apple.Apple.CNM>
Source record: 10882

In article <9006172224.AA03527@ucsd.edu> RDW2030@TAMVENUS.BITNET writes:
>The question is... what good ideas can you guys come up with to really get
>people to know about ham radio and what it does for them as well as what a
>great hobby it could be for many.

Here are a couple of ideas I've implemented.

A few years ago our ARRL Section Manager here in the Santa Clara Valley
section started a speakers bureau. We found hams who were outgoing and
could speak enthusiastically and *with a minimum of technical jargon*
to service clubs (such as the Lions and Rotary) and other organizations.
(Don't forget your county and city supervisors.)

To support this effort, I came up with a slide show and script illustrating
the variety of ham activites in the area. I purposely only used photos
of hams in this section, so that it would be more personal instead of just
"hams somewhere are doing this." I did, however, show them hamming in
other locations, such as for DXpeditions and emergency communications.
I'd be happy to send the ASCII file of the script to anyone who wanted
to use it as a template.

When the SM became Division Director, he asked me to write up guidelines
for the speakers bureau, and he distributed them to other SMs and PIOs
(public information officers, now public information coordinators) in
the division. I don't think any of them ever implemented a speakers bureau,
and his successor as SM didn't keep ours going. As far as I know, the
slide shows are currently sitting on shelves somewhere. With only
minor modifications (we can replace the Coalinga earthquake pictures
with our own :-)), it would still be a fine show. Perhaps our incoming
SM (I know you're out there, Steve!) can resuscitate these ideas.

More recently, in my capacity as an Assistant Director for the Pacific
Division, I wrote up guidelines for hams who wished to write articles
about amateur radio for *non-ham* publications. There are lots of hnbby
and professional magazines out there that would be great for ham stories,
gang!! Rod publicized the guidelines in his newsletter, and I got about
a dozen requests for them. Excerpts also appeared in "Field Forum", a
newsletter from HQ for ARRL field appointees. I don't know whether anyone
has actually produced any articles based on my suggestions.

That should give everyone a few ideas to chew on!

Patty

-,
****
Patty Winter N6BIS INTERNET: winter@apple.com

AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3589. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-18 23:28:35 UTC
From: winter@Apple.COM
Message-ID: <42091@apple.Apple.COM>
Source record: 10908

In article <9006172224.AA03527@ucsd.edu> RDW2030@TAMVENUS.BITNET writes:
>The question is... what good ideas can you guys come up with to really get
>people to know about ham radio and what it does for them as well as what a
>great hobby it could be for many.

Here are a couple of ideas I've implemented.

A few years ago our ARRL Section Manager here in the Santa Clara Valley
section started a speakers bureau. We found hams who were outgoing and
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to service clubs (such as the Lions and Rotary) and other organizations.
(Don't forget your county and city supervisors.)

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and his successor as SM didn't keep ours going. As far as I know, the
slide shows are currently sitting on shelves somewhere. With only
minor modifications (we can replace the Coalinga earthquake pictures
with our own :-)), it would still be a fine show. Perhaps our incoming
SM (I know you're out there, Steve!) can resuscitate these ideas.

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about amateur radio for *non-ham* publications. There are lots of hobby
and professional magazines out there that would be great for ham stories,
gang!! Rod publicized the guidelines in his newsletter, and I got about
a dozen requests for them. Excerpts also appeared in "Field Forum", a
newsletter from HQ for ARRL field appointees. I don't know whether anyone
has actually produced any articles based on my suggestions.

That should give everyone a few ideas to chew on!

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com

AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3590. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-18 23:40:50 UTC
From: winter@Apple.COM
Message-ID: <42094@apple.Apple.COM>
Source record: 10909

In article <9006181707.AA03323@ti.com> rlwest@flopn2.csc.ti.com (Bob West, WA8YCD) writes:
>Your remarks reminded me of some cards a club back home had. It was about
>the size of a QSL, and had printing about like a weeding or graduation
>invitation might.
>
>It essentially commented about amateur radio in general, something about
>the local club, and the ARRL (it was, after all, an affiliated club!).
>
>But maybe a handout brochure is *-not-* that bad an idea, with addresses of
>the local clubs, description paragraphs (with pictures?) of packet, oscar,
>atv, etc., and of course, the emergency preparedness and dx stuff.

Ah, right, this reminds me of a couple other PR projects I've done.

One was a brochure for civic officials about ARES. Yes, stuff like that
is available from the League, but I figured it would be more effective
to show local examples of how we've helped in emergencies. I had it all
written and ready for the Section Emergency Coordinator to review. He
never did anything with it. Scratch that project.

Another was a flyer (actually, a series of flyers) for handing out
at Field Day and other public events. It's just on both sides of a regular
sheet of paper, and explains what we're doing and why. They came in
very handy the times we had groups up at a 9,000-foot elevation parking
lot running VHF contests and the California QSO party. The parking lot
is right on the way to a national monument, so quite a few people came by.

Again, I'd be happy to send ASCII files to anyone who wants them.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3591. Re: US calls starting with N (was Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-19 00:49:32 UTC
From: jay@splut.conmicro.com
Message-ID: <7HY-HGA@splut.conmicro.com>
Source record: 10883

In article <36324@shemp.CS.UCLA.EDU> wales@CS.UCLA.EDU (Rich Wales) writes:
>In article <andreap.645128686@s.ms.uky.edu> andreap@ms.uky.edu (Stephen
>McNatton) gave a list of US call letter assignments.

>This list didn't say anything about four-letter calls starting with N.
>Are these calls assigned to any service?

Four-letter calls as in:
1) N5KV? Those are ham calls, and, coincidentally, aircraft calls as well.
(US-registered aircraft are assigned calls that match their registration
number, and N#xx are legal airplane registrations.)
2) NAEF? I believe this block is assigned to ships of the US Navy.
3) N5KVXX? I don't believe four-letter suffixes are assigned anywhere.
4) NF5QX? Those are amateur calls, to be assigned when the KX5XX calls
are all gone.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"I don't usually do vicious; +--
I try to stick to depressing." -- Janis Ian, in concert, 6/6/90

3592. ARRL Letter 01-Jun-90

Newsgroup: rec.ham-radio
Date: 1990-06-19 01:35:07 UTC
From: gws@n8emr.UUCP
Message-ID: <1543@n8emr.UUCP>
Source record: 10886

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More bad news for the Shuttle

Space Shuttle flight STS-35 was postponed again just hours from launch on Tuesday, May 29. A reported hydrogen leak caused the launch to be scrubbed and no new launch date had been set at presstime. This flight is scheduled to carry astronaut Ron Parise, WA4SIR, and the robot packet "SAREX" (Shuttle Amateur Radio Experiment).

Techs Get Relief From Michigan "Scanner Law"

Technician class licensees now are included in an exemption to Michigan's "scanner law," thanks to the efforts of a number of state amateurs. Gov. James J. Blanchard on Wednesday, May 23, signed House Bill 4750, making the change official.

Although a law had been on Michigan's books for many years excluding "Conditional, General, Advanced, and Extra class" licensees, it apparently had never been prosecuted. The general feeling among hams was that they were excluded from laws pertaining to the monitoring of police radio frequencies, but in fact Technician class hams fell under the existing law.

Among the many hams who worked behind the scenes for passage of the bill were Don Spillman, WZ8O, an international representative for the United Auto Workers, and Dave Norris, N8HKV, a former police officer.

The signing ceremony was carried live via Amateur Radio, on 440 MHz to an in-car repeater parked outside the statehouse, then to a Lansing repeater and on to some 14 repeaters around the state.

Gov. Blanchard, upon seeing the bill before him, remarked, "When I was a young boy a friend's father had a ham station in his basement. I remember going there to 'tune in the world.'" Blanchard was carried live on the repeater hook-up.

Lobbying for an amendment to the law began in 1986, and in 1987 a bill identical to No. 4750 died in session.

On a related note, ARRL on May 16 filed additional comments with the FCC, citing its earlier petition and asking once again for federal exemption for Amateur Radio operations of all such restrictive local and state "scanner laws."

FIVE PARTICIPATE IN IARU SEMINAR

Another session of the US Telecommunications Training Institute concluded May 11, under the direction of IARU president Dick Baldwin, W1RU.

Participants in the course in Amateur Radio administration, held in Newington, included communications officials from Jamaica (6Y5EE), St. Vincent, Thailand (HS1KPR), Hong Kong, and Aruba.

Baldwin was assisted by IARU Region 2 president Al Shaio, HK3DEU, and by members of the Headquarters staff. In addition to the bookwork, the students participated in a 10 GHz demonstration using Gunnplexers, set a new class record for constructing code practice oscillators in the lab, and got a taste of PacketCluster.

PacketCluster, under the guidance of ARRL Technical Manager Chuck Hutchinson, K8CH, settled the traditional question of which student had traveled the farthest to attend the seminar. Connecting with a local node of the Yankee Clipper Contest Club's network, the "Show Heading" (and distance) command revealed that Mr. Aran Promata, from Thailand, nosed out Chak-lum Ng of Hong Kong for the "DX award"!

FCC EASES 902 MHZ RESTRICTIONS

Amateurs in Colorado and Wyoming have gained some privileges in the 902-928 MHz range thanks to an initiative by the Colorado Council of Amateur Radio Clubs and ARRL.

FCC, while noting that "various governmental agencies" still have fixed services in the 902 MHz band, polled those agencies and found that amateur operations in certain portions of the band would not be detrimental. Thus, effective July 2, 1990, FCC has waived Section 2.106 Footnote US267 and Section 97.303(g)(1) of its Rules to permit amateurs in the restricted area to transmit in the following segments: 902.0-902.4, 902.6-904.3, 904.7-925.3, 925.7-927.3, and 927.7-928.0 MHz.

The order stipulates that amateurs "must not cause harmful interference to, and will receive no protection from, any interference due to the operation of industrial, scientific and medical devices (ISM), automatic vehicle monitoring systems or Government stations authorized to operate in this band."

Government users of 902-928 MHz will, according to the FCC Order, eventually move to new fixed service bands, at which time the Commission will "consider removing the area restriction on amateur stations entirely."

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"YOUNG HAM OF THE YEAR" NAMED

Mary F. Alestra, KB2IGG, 12, of Staten Island, NY, has been selected as the 1990 *Westlink Report* Young Ham of the Year, according to *Westlink*.

Mary, a seventh grade student at Rocco Laurie School, holds a Technician class license. She was selected from a field of candidates based on her work at IS-72 relating to the 10 meter "CQ All Schools Net" and dedication to recruiting new young hams through speeches, personal appearances, cable television appearances, and similar activities.

The award will be presented at the grand banquet of the ARRL National Convention in Kansas City, Mo., on June 9.

FORMER HAM ARRESTED

Richard A. Burton, formerly WB6JAC, was arrested May 17 for allegedly operating a radio transmitter without a license, following an investigation by Los Angeles area FCC engineers acting on complaints from amateurs. Burton was charged with three felony counts of violating sections 301 and 501 of the U.S. Code.

In the early 1980s Burton's license was revoked for various Part 97 violations. After his appeals were turned down he was ordered off the air but continued to operate using his rescinded WB6JAC call sign. On Jan. 15, 1984, U.S. District Court Judge Manuel Real sentenced Burton on four misdemeanor counts of operating a transmitter without a license. Following appeals Burton served seven months in jail and five years on probation.

On Monday, May 21, Burton pleaded not guilty on all counts, and was bound over for trial in early July. He could face up to six years in federal prison and substantial fines. (Thanks WA6ITF, N6AHU).

OTHER FCC ENFORCEMENT ACTIONS

* On April 26, the FCC seized four illegal CB linear amplifiers valued at over $1000 from R. H. Electronics of Magalia, Calif. The store is owned by Ray Hanson, W7KMM. The marketing, manufacture and use of illegal radio equipment violates Section 302(b) of the Communications Act of 1934, As amended, and carries potential criminal penalties. (FCC Public Notice, May 14, 1990.)

* Sue Swanson of Lago Vista, Texas has been fined $1000 for illegally operating on 27.970 MHz, a frequency allocated to the US Government for fixed and mobile operation. (FCC Public Notice, May 11, 1990.)

* On April 24, US Marshals, with assistance from the FCC's New York office, seized 27 pieces of radio equipment belonging to Dwayne Mayo of Jamaica, New York, after he did not respond to FCC directives to stop operating his CB equipment until television interference could be eliminated. The FCC's New York office told ARRL that "the seizure took place under Federal civil forfeiture provisions which were initiated by the US Attorney for the Eastern District of New York."

The FCC received letters from 30 area residents who complained that Mayo's illegal CB transmissions caused interference to their televisions and telephones. After several FCC letters to Mayo went unheeded, the FCC fined him $1600 for unauthorized CB operation. (FCC News Release, May 11, 1990.)

CAJUNS SUPPORT WARC FUND

The Acadiana Amateur Radio Association, of Lafayette, Louisiana, has donated $250 to the ARRL "WARC Fund" for the defense of amateur frequencies. The funds were derived from a club hamfest.

"The membership of this association," said club president Carolyn Oubre, KA5IJU, "acknowledges the importance of WARC and understands that if amateur radio is to continue to develop and grow, both technically and numerically, our frequencies must be defended. We also acknowledge the outstanding accomplishments of the 1979 WARC ARRL team. To duplicate that effort will require the support of every Amateur Radio operator in the US, together with other societies of the IARU."

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BARBARA P. PRICE

Barbara P. Price, 55, died May 17 at Bulloch Memorial Hospital in Statesboro, Ga., after a long illness. She was the wife of Larry E. Price, President of the American Radio Relay League.

She was born in Waterbury, Conn., and lived in Statesboro the past 27 years. She was a member of Trinity Episcopal Church in Statesboro.

"Barbara was a frequent companion of President Price on his trips for ARRL and IARU," ARRL Executive Vice President Dave Sumner said, "and she supported him in the countless other ways that made it possible for Larry to devote so much of himself to Amateur Radio, while at the same time raising a fine family.

"We feel a great sense of personal loss," Sumner said.

Besides her husband, she leaves two daughters, Jane P. Brunner of Indianapolis and Carol P. Faircloth of Statesboro; a son, Steven R. Price of Savannah, Ga.; and two grandchildren.

The funeral and burial were May 19 in Statesboro.

Memorial contributions may be made to the Bulloch County Chapter of the American Cancer Society, PO Box 2027, Statesboro, GA 30458.

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AMATEUR CALL SIGN UPDATE

The following is a list of the FCC's most recently issued call signs as of May 1.

Group "A" "B" "C" "D"
DIST Extra Advan Tech/Gen Novice

0 AA0AZ KF0KC N0LVA KB0GPB
1 WF1J KC1UO N1HOA KA1VOO
2 WY2C KE2TJ N2KPW KB2JYY
3 NZ3I KD3SC N3IAV KA3WET
4 AB4VB KN4ID N4YWA KC4QGP
5 AA5RQ KI5FA N5QJH KB5MNR
6 AA6VL KK6JU N6YRK KC6KPM
7 AA7EM KG7DG N7OQX KB7KPA
8 AA8BA KF8GC N8MEX KB8JTR
9 WR9N KE9WJ N9JOA KB9EQI

Guam KH2M AH2CG KH2EJ WH2AMM
Hawaii ** AH6KJ NH6WL WH6CHT
Alaska ** AL7LZ NL7TW WL7BYC
USVI NP2F KP2BT NP2DT WP2AHB
PR ** KP4QQ WP4XS WP4IYE

* All 2 X 1 call signs have been assigned in these districts.
* Note: N-prefixed Group C calls for the fourth and sixth districts have nearly been exhausted. After N4ZZZ and N6ZZZ have been assigned, the FCC will assign Technicians and Generals Group D (2 X 3) call signs.

ARRL INSURANCE PAYS OFF

At a sales meeting in early May, the Albert H. Wohlers & Co. insurers, carriers of the ARRL Ham Radio Equipment Insurance Program, released figures for claims paid relating to Hurricane Hugo and to the northern California earthquake, both of which took place in the autumn of 1989.

Holders of the League's plan were paid $48,104 for Hugo claims and $14,815 for earthquake damage. 13 Hugo claims were made, primarily from Puerto Rico and the US Virgin Islands; three earthquake claims were paid.

SECTION MANAGER ELECTION RESULTS

In elections just concluded, the following ARRL section managers were elected:

Alaska: Harley Steward, KL7IZZ;
Indiana: Peggy Coulter, W9JUJ;
Maine: Jeff Weinstein, K1JW;
Oregon: Randy Stimson, KZ7T;
Vermont: Mitch Stern, WB2JSJ;

Four races were uncontested and the following were declared elected:

Delaware: Bob Pegritz, KC3TI
llinois: Sharon Harlan, WB9SFT
Santa Clara Valley: Steve Wilson, KA6S
Wisconsin: Richard Regent, K9GDF

For details see "Happenings" in July *QST*.

SECTION MANAGER ELECTION NOTICE

July *QST* solicits nominations for section manager in the following ARRL sections: Eastern Massachusetts, Missouri, Nebraska, New York City-Long Island, South Carolina, Southern New Jersey and Western Pennsylvania sections. Incumbents are listed in every issue of *QST*, on page 8.

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ISRAEL SHORTENS "BANNED LIST"

On March 25, 1990, the Israel Ministry of Communications rescinded its prohibition on contacting neighboring countries with whom peace treaties

have not been conducted. Consequently, Israeli amateurs now may legally contact amateurs in Algeria, United Arab Emirates, Bahrain, Tunisia, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Sudan, Syria, Oman, Iraq, Saudi Arabia, Qatar, and both North and South Yemen.

Correction: Vol. 9, Number 9, referred to "CW subbands," which was inaccurate. The correct term is "non-voice subbands."

ARRL DX CONTEST PRELIMINARIES

The contest branch at Headquarters has released domestic high claimed scores for the ARRL International DX Contest, held last February and March, and while the Northeast continued its domination of single-operator scores on both modes, other areas of the country made serious inroads in other categories.

Exceptions to the single operator domination by stations in the first and second call areas include W9RE (second place CW, third on voice); N5RZ (number 10 CW); and NA8V and K0RF (both in the top ten on SSB).

On CW, WO0G, K4VX/0, and WN4KKN/5 all lead single band listings, while W0ZV and W7WA top single band 20 and 15, respectively, on SSB.

Official results are scheduled for October *QST*.

COMMISSION OFFICE MOVES

Effective May 17 the FCC Denver Office has moved to 165 S. Union Blvd., Suite 860, Lakewood, CO 80228 (303-969-6497/8).

QSL ETIQUETTE FOR SOVIET HAMS

In late 1988 a new world opened for Soviet Amateur Radio operators, when they received permission to send and receive QSL cards direct. In the February issue of their *Radio* magazine, G. Chilyants, UY5XE implores Soviet hams not to request International Reply Coupons from overseas (IRCs are neither sold nor negotiable in the USSR).

"...letters are beginning to come in," Chilyants writes, "to the [RadioSports Federation], the Central Radio Club, and to individual radio amateurs from foreign shortwavers, surprised by such behavior on the air by Soviet stations."

Chilyants offers the following advice on "how to make use of the right to give one's personal address over the air":

* "Give your address only when asked to do so by the other station, or after he has given you his;

* "Avoid giving your address when working DX stations and expeditions; your information won't be noted in the log anyhow;

* "It's not ethical to indicate the need for IRCs, much less the number of IRCs needed. These things will be determined by the other station. If there are no enclosures in the envelope sent to you, send your QSL via the

bureau;

* "If one IRC is enclosed, send your QSL by direct surface mail; if two IRCs are enclosed, send your QSL by direct air mail." (Translation from *Radio* by Dexter Anderson, W4KM).

3593. Re: Uniden and Education

Newsgroup: rec.ham-radio
Date: 1990-06-19 02:42:36 UTC
From: brian@towers.UUCP
Message-ID: <68@towers.UUCP>
Source record: 10887

Subj: Uniden for Education

The following is straight out of the July issue of 73, in the QRX area... Uniden America is offering a quantity of their HR-2510 transceivers to schools who have a licensed radio amateur on staff authorized to operate on 10 meters. The school must agree to install the equipment. When it is no longer in use, for whatever reason, the equipment must be returned for redistribution to another user. The radio cannot be sold or re-donated. The HR-2510 operates between 28.0 and 29.7, for information on how to apply for an HR 2510, contact Paul Davis at (817)858-3300. TNX Uniden

3594. Field Day Logging Program

Newsgroup: rec.ham-radio
Date: 1990-06-19 03:16:32 UTC
From: Joel_Glickman@MTS.RPI.EDU
Message-ID: <1851901@MTS.RPI.EDU>
Source record: 10888

Could someone please post the FTP site where the Field Day Logging
program is? I would like to download it and use it for field day....
Thanks,
Joel Glickman
W2SZ - RPI Amateur Radio Club
Rensselaer Polytechnic Institute
Troy, NY

3595. Re: Field day software bugs

Newsgroup: rec.ham-radio
Date: 1990-06-19 03:18:13 UTC
From: k2ph@cbnewsj.att.com
Message-ID: <1990Jun19.031813.8618@cbnewsj.att.com>
Source record: 10889

From article <12598864092.8.POPYACK@TOPS20.RADC.AF.MIL>, by POPYACK@TOPS20.RADC.AF.MIL:
> I have tried the field day program (FIELDAY.ZIP) by Paul Cassel, VE3SY.
> It works well until I run the program to print the results. It hangs up
> all the machines I have tried it on. I would love to use this program for
> field day, but it is useless if it cannot print the results!

And here I thought it was something I was doing wrong! I tried
to run fielday on a Philips P3105 (XT compatible) and noticed a
couple of undocumented features (hate to say "bugs"). It seems
that the running total of contacts always lists 1 contact on
each of the other bands, so the contact total is always wrong.

The other problem is when the contest is over and it's time to
print things out. I tried running sortfd from inside the fielday
program and tried running sort-fd from outside fielday. Either
way made no difference--the computer hangs and has to be rebooted.
Interestingly enough, I tried it again using different data and
got "divide overflow" when I tried to sort.

I'd love to see these features ironed out. The program runs considerably
faster than some other Field Day loggers I've seen (one of them also
called "fielday"). But, as was pointed out, if you can't print the
results it doesn't have a lot of usefulness.

And I was all set to ask for CW keying of the DTR lead on the COM1
port (a la K1EA and K8CC). :-)

--
==
Bob Schreibmaier K2PH | UUCP: att!oblivion!k2ph or k2ph@oblivion.att.com
AT&T Bell Laboratories | ARPA: k2ph%oblivion@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

3596. !!

Newsgroup: rec.ham-radio
Date: 1990-06-19 06:26:00 UTC
From: RDW2030@TAMVENUS.BITNET
Message-ID: <9006191517.AA14425@ucsd.edu>
Source record: 10890

Guess what guys! I found a news server!! I can be selective now! Yea!! I don't believe it. There are a couple hundred different lists available, too.

What a great way to waste away the hours, eh?

Mark Lowe - KB5III

Wish I could get my old account working!!

3597. Re: US calls starting with N (was Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-19 08:04:08 UTC
From: kjh@pollux.usc.edu
Message-ID: <25397@usc.edu>
Source record: 10891

I'm sure that most hams have noticed, but for those who haven't:

Aircraft always have license numbers painted on them that follow the
same scheme as radio transmitter callsigns, for international prefixes.

Why aircraft, and not land vehicles? I don't know about watercraft.
Does anybody else?

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

3598. QSLs

Newsgroup: rec.ham-radio
Date: 1990-06-19 08:28:24 UTC
From: oo7@ut-emx.UUCP
Message-ID: <31933@ut-emx.UUCP>
Source record: 10892

Someone mentioned writing calls clearly on QSL cards to ensure that they reach the right person. I have been a manager in a small way for Usenet personality Trey WN4KKN, who was WN4KKN/KP2 for a day or two before and after operating KP2A multi-single in last year's WPX (which he won worldwide, yay...). Anyway, the cards that I have received for Trey, direct or via the bureau, now include *eighteen* different wrong versions of his call. And these represent just the cards that are correctly routed to me. A couple of cards went to AA5B who sent them on, some were made out "via AA4BT" but reached me through the bureau, and so on. Whereas many hams make up wall displays of their most exotic QSL cards, Trey is planning an exhibit of the cards with the wrong calls on them. I emphasize that it's not just 18 cards that had the wrong call, it's 18 different wrong calls among a much larger number of incorrect cards. OK, so it's quite a long call (and was only used on CW), but sheesh...

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

3599. HELP

Newsgroup: rec.ham-radio
Date: 1990-06-19 11:54:18 UTC
From: cfishman@PICA.ARMY.MIL
Message-ID: <9006190754.aa15153@FSAC1.PICA.ARMY.MIL>
Source record: 10902

I just got a KLM ECHO II TWO METER SSB TRANCEIVER AT
A LOCAL HAMFEST....AS USUAL NO DOCUMENTATION.....
I AM LOOKING FOR ANY AND ALL INFO ON THIS RIG...
COPYING COST WILL BE GLADLY PAID.....

TNX IN ADVANCE

CLARK FISHMAN WA2UNN
P O BOX 150 ANDOVER,NJ 07821

PHONE DAY: 201-724-6041
NIGHT: 201-852-7416 (ANSWERING MACHINE ALWAYS ANSWERS)

3600. Re: QSLing

Newsgroup: rec.ham-radio
Date: 1990-06-19 12:38:52 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <57@thoreau.nsc.com>
Source record: 10903

In article <37631@genrad.UUCP>, dls@genrad.UUCP (Diana L. Syriac) writes:
> As a courtesy, I will send out a postcard for hams who are in the callbook
> (HINT, is your name and address up to date in the callbook? If not, WHY NOT?)

Barring typos in the callbook (notify the callbook people) your call and address should be up to date both there and with the FCC. The callbook gets most of its info from the FCC which brings me to the point I want to note. I should like to remind ALL that the FCC requires us to keep them up to date with our current address. This is necessary, not only from an enforcement standpoint but to enable easier written communications. It use to be adaquate to mail a hand written letter informing them of a new address but not any more; now one is required to file on an FCC-610 form (a valid one). This is also to your advantage, as Diana kindly notes.

(Not ranting, just a friendly reminder from one who cares.)

73,
Ron Todd, K3FR

3601. mods wanted for ts140s

Newsgroup: rec.ham-radio
Date: 1990-06-19 13:07:57 UTC
From: fysy@vax5.cit.cornell.edu
Message-ID: <4282.267deb6e@vax5.cit.cornell.edu>
Source record: 10905

I am a new ham (waiting on the FCC for a callsign), and have recently
purchased a kenwood ts140s. I am interested in knowing any and all mods
for this radio. Please email directly, and I will post a summary.
Thanks, Donald Drinkwater
fysy@crnlvax5.bitnet fysy@vax5.cit.cornell.edu

3602. Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-06-19 13:08:20 UTC
From: ewb@raybed2.msd.ray.com
Message-ID: <1639@raybed2.msd.ray.com>
Source record: 10906

In article <1990Jun15.175251.4080@hayes.fai.alaska.edu>, fnddr@acad3.fai.alaska.edu writes:
> We need a filter for a low-noise preamp in the 440 MHz range. Mostly it
> needs to have a flat passband about 5 MHz wide, and steep rolloff, especially
> on the low end. Can anybody suggest a solution that is more clever than
> your standard LC configurations? Sharper cutoff, less insertion loss?

The type of filtering you are looking for can probably be accomplished
using Helical Resonator Filters. See the ARRL Hand Book or the RSGB VHF handbook
for design criteria.

> I'd like to find some good books dealing with VHF/UHF design techniques...
> my library covers HF and microwaves but has quite a hole in between.
> Suggestions are welcome.
>
The RSGB VHF Handbook may be what you are looking for. Also give the
Ham Radio Book Store (Greenville New Hampshire) a call and ask for their
catalogue. It is quite good.
73
WA1UXA

"59 New Hampshire FN-42 QRZ ??""

3603. Re: W2SEX

Newsgroup: rec.ham-radio
Date: 1990-06-19 14:27:49 UTC
From: gerwitz@hpcore.Kodak.Com
Message-ID: <1238@eastman.UUCP>
Source record: 10907

In article <12598865767.8.POPYACK@TOPS20.RADC.AF.MIL>,
POPYACK@TOPS20.RADC.AF.MIL writes:
|> I thought W2SEX Belongs to BARA (Buffalo Amateur Radio Club) -- not
|> Adirondack ARC....
|> -------

Wrong Again.... W2SEX belongs to ARATS, Amateur Radio Association of the
Tonawanda's (Suburb of Buffalo)

+---+
| Paul F Gerwitz WA2WPI | SMTP: gerwitz@kodak.com |
| Eastman Kodak Co | UUCP: ..rutgers!rochester!kodak!eastman!gerwitz |
+---+

3604. AMSAT presentations available on USENET ?

Newsgroup: rec.ham-radio
Date: 1990-06-19 15:49:05 UTC
From: wim@hlis07.dec.com
Message-ID: <12644@shlump.nac.dec.com>
Source record: 10910

Are AMSAT presentations available on USENET ?

As I can't attend AMSAT meetings in the USA. (Too expensive for me personally..)

Wim Beekman PA3AGZ wim@hlis07.dec.com
Digital Equipment B.V. -- or -- !decwrl!hlis07.dec.com!wim
Utrecht, The Netherlands -- or -- wim%hlis07.dec@decwrl.dec.com

"The opinions expressed here are my own and in no way represents the views
of Digital Equipment Corporation "

3605. Re: US calls starting with N (was Re: USA ham call words -corrected)

Newsgroup: rec.ham-radio
Date: 1990-06-19 15:58:23 UTC
From: cep@cci632.UUCP
Message-ID: <38174@cci632.UUCP>
Source record: 10911

In article <25397@usc.edu> kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
>Aircraft always have license numbers painted on them that follow the
>same scheme as radio transmitter callsigns, for international prefixes.
>Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

This probably isn't worth a giant discussion, but there is a 2m weekly
net out on Long Island with the topic "Aviation" ... once, when I was
listening, someone pointed out that private pilots who were hams lucky
enough to have NA[0-9][other_stuff] callsigns could request the call as
their airplane license/registration ID, also (from the FAA).

Again, the letter X might come into play, because I seem to remember
X being reserved for experimental aircraft.

I am *NOT* a pilot and I am operating from memory here...just an interesting
note. Made me wish I had one of those calls ... and a pilots license ...
and an airplane ... and ... :-)

Chris WZ2B

3606. Re: The bands are dead!

Newsgroup: rec.ham-radio
Date: 1990-06-19 16:02:52 UTC
From: cep@cci632.UUCP
Message-ID: <38175@cci632.UUCP>
Source record: 10912

In article <1990Jun18.195238.8246@stb.info.com> driver8@stb.info.com (Hugh Whats-his-name) writes:
>There have been
>a lot more of the really big flares (the ones that register so high that
>they saturate the x-ray detectors on the satellites and the strength has to
>be estimated...) this time around than in the past couple of cycles.

I wonder if this could you out of a speeding ticket :-) :-) :-)

(OH NO, NOT THAT TOPIC AGAIN! Shhh, I didn't bring up RADAR. :-))

WZ2B

3607. Repeater Technical survey

Newsgroup: rec.ham-radio
Date: 1990-06-19 16:06:46 UTC
From: rbono@necis.UUCP
Message-ID: <1343@necis.UUCP>
Source record: 10913
Cross-posted to: rec.ham-radio,sci.electronics

I am looking to the net for some information concerning VHF/UHF repeaters.
I hope to gain some FACTUAL data, I am NOT looking for quotes from the data
sheets, so please consider this when replying.

A couple of us are responsible for four VHF/UHF Amateur NBFM repeaters in
our area. Two machines are on 2 meters, one on 1.25 and the other on 70cm.
With such a small sample (and each machine has different equipment), we want
to be sure that our systems are operating within a 'normal' performance range.

The main question concerns the use of band-pass/band-reject duplexers. If you
are using another type of duplexer, please describe:

Optional, manufacturer of the duplexer (with model number):

When operating into bp/br duplexers (when the output of such is connected
to a single feed-line/antenna system). Please answer (as you have experience)
the following questions separately for the 146/220/440 MHz bands
(600KHz, 1.6MHz, and 5MHz tx/rx offsets):

1) How much "measured" loss do you experience through your duplexer?

2) What is the VSWR (or reflected power) into your duplexer?

3) How much tx/rx isolation have you actually measured (i.e.: 100db?) ?

4) What is your duplexer configuration (i.e.: 3 rx and 3 tx cans) ?

5) Are you using a circulator or an isolator?

6) Are you using a "Z-match" device between your transmitter & duplexer?

7) How much output power are you running (power into the duplexers)?

8) Are the final output devices (last stage into the duplexer) tube(s) or
solid state?

9) Are you using a "Z-match" device between your transmitter & duplexer?

10) Have you experienced a need for using coax of higher quality than RG-214
between the TX/RX and the duplexers (and interconnecting the cans) with
respect to shielding/desense problems ?

Also, noting that we are an Amateur group (in other words, we don't have very much money to
spend), we would like to build "Z-match" devices for our
equipment (A.K.A. narrow-range transmatch). Does anyone have any design data,
schematics, or other information on these devices FOR USE IN A REPEATER SYSTEM?

We would love to use a circulator/isolator, but the cost of these devices are severely limiting (to us). Does anyone have any suggestions on these devices (construction, alternatives, etc.)?

If you are not directly responsible for a repeater, but know someone who is, please foward these questions to the person who can best answer the questions.

If you desired not to 'clutter' the net you mail email any response to me at "rbono@necis.nec.com" or, if you think the net would be interested in this technical "dribble", post it!! Packet: NM1D@WB1DSW.NH.USA

Thank you in advance,

Rich (NM1D)

--

/***\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
***/

3608. club stations and the callbook

Newsgroup: rec.ham-radio
Date: 1990-06-19 16:07:09 UTC
From: cep@cci632.UUCP
Message-ID: <38176@cci632.UUCP>
Source record: 10914

I have noticed that most of the club calls listed in the callbook
state the name and address of the trustee (except for clubs which
have purchased special listings).

This year, I will conquer this by applying for a special listing
for K2GXT, but I wonder if it occurs to the publishers that our
club license reflects the CLUB'S address, not the trustee's,
and that this is a particularly annoying facet of club QSL'ing.

% /usr/local/bin/stop_complaining :-)

Chris WZ2B

3609. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-19 16:53:50 UTC
From: stevew@wyse.wyse.com
Message-ID: <2753@wyse.wyse.com>
Source record: 10915

In article <42091@apple.Apple.COM> winter@Apple.COM (Patty Winter) writes:
> stuff deleted...
>
>When the SM became Division Director, he asked me to write up guidelines
>for the speakers bureau, and he distributed them to other SMs and PIOs
>(public information officers, now public information coordinators) in
>the division. I don't think any of them ever implemented a speakers bureau,
>and his successor as SM didn't keep ours going. As far as I know, the
>slide shows are currently sitting on shelves somewhere. With only
>minor modifications (we can replace the Coalinga earthquake pictures
>with our own :-)), it would still be a fine show. Perhaps our incoming
>SM (I know you're out there, Steve!) can resuscitate these ideas.

Ok Ok.....Geesh, I get the point....OUCH ;-)

Actually I have an idea VERY similar to this which had its' roots
in trying to improve the support to affiliated clubs in our section.

Each of the field organization heads, i.e. the OO Co-Ordinator, Section
Emergency Co-Ordinator, etc is required to come up with a 30-45 minute
presentation about their respective areas. The idea is that any club
can request one of these people to come down and speak at the club
meeting. This has the two fold effect of providing the clubs with
programs(which always seem hard to find) and getting the word out
about services provided by the ARRL field organization.

There is nothing that says these presentations can't be aimed at a
slightly more general audience like the Kawanas, etc. Or that we
can't collect/encourage other presentations and make them available.

Gee Patty....did I see a volunteer to co-ordinate all this ;-)

We do have other programs running in the section (which I'm
sure Patty is aware of) that are helping some to get the word
out about Ham Radio. Most of these are spear headed by our
PIC(Public Information Co-Ordinator) Randy, KK6BO.

The most recent addition to our efforts is the Childrens Discovery
Museum in San Jose. There is a permanent ham station at the Museum
which was donated by Kenwood. A club was formed around the Museum's
exhibit to staff the exhibit during Museum operating hours.
Randy has been actively involved in getting this club and exhibit
off the ground(there are several others who have put in a great
deal of effort also!)

The section has also purchased a large banner which is available
for any club holding a public event to advertise the hobby. This

is another item co-ordinated by Randy.

These exhibits turn up a lot of names of people who are interested
in finding out more about ham radio. Our latest effort is aimed
at channeling the names of interested people to local clubs who
are holding classes(another of Randy's ideas).

I know of at least 3 articles in local Newspapers about ham radio
in recent months(one of which was in the San Jose Mecury News) and
two spots on TV. So we have been getting some exposure in the
local news media but they came to us as oppossed to the other
way around. We still haven't figured out a way to guarantee
an editor is going to print our news releases ;-)

Point to all this is that we are working on the problem on
different fronts. (And all of this was under the current
SM, Glen WB6W. I wish I could take credit for it all but can't ;-)
What it really takes is finding some people who are interested
in the problem AND have the energy to try new things. We
got lucky and found Randy.

>More recently, in my capacity as an Assistant Director for the Pacific
>Division, I wrote up guidelines for hams who wished to write articles
>about amateur radio for *non-ham* publications. There are lots of hobby
>and professional magazines out there that would be great for ham stories,
>gang!! Rod publicized the guidelines in his newsletter, and I got about
>a dozen requests for them. Excerpts also appeared in "Field Forum", a
>newsletter from HQ for ARRL field appointees. I don't know whether anyone
>has actually produced any articles based on my suggestions.

Patty, did you make this available to ARRL HQ? They should be
giving this out too!

73's de Steve KA6S
SCV Section Manager Elect

3610. 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-19 18:18:52 UTC
From: brewer@anarky.enet.dec.com
Message-ID: <329@e2big.enet.dec.com>
Source record: 10916

I have had the misfortune to listen to 14.300 and 14.313
for the past few days, and wonder what *we* or the FCC can do to
stop this mess.

I am not sure of the absolute legality of the MM traffic
net, but I am certain that intentional jamming, obscenities,
transmitting of CW passaages from nursery rhymes etc is certainly
not permitted by the rules.

Two stations were most blantantly jamming. Both had Extra
class calls.

It's tough seeing a nice hobby "circle the drain". Is the
FCC considering any action against any of the participants in this
childish dispute? Is the FCC totally useless as far as taking
punative actions?

/john

+---+
John Brewer WB5OAU	Brewer@ace.enet.dec.com
Digital Equipment Corporation	Brewer@cup.portal.com
Albuquerque NM	WB5OAU@KN5D
+---+

3611. Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-06-19 18:59:38 UTC
From: gary@ke4zv.UUCP
Message-ID: <614@ke4zv.UUCP>
Source record: 10917

In article <12120038@hpldola.HP.COM> paul@hpldola.HP.COM (Paul Bame) writes:
>> >We need a filter for a low-noise preamp in the 440 MHz range. Mostly it
>> >needs to have a flat passband about 5 MHz wide, and steep rolloff, especially
>> >on the low end. Can anybody suggest a solution that is more clever than
>> >your standard LC configurations? Sharper cutoff, less insertion loss?
>
>> In metropolitan areas (like L. A.) weak signal VHF and UHF users (satellite
>> operators) often use cans. There are cans (duplexers, single filters, etc.)
>> for 440 MHz. Have you considered these? They are very sharp.
>

Since he says he needs a flat bandpass of 5Mhz (fast scan tv?), cans would
be too sharp. Coaxial cavity filters (cans) with any reasonable Q at all
will have a 3db point at about plus and minus 30khz. A better choice would
be a stagger tuned interdigital filter. A seven section filter could be
designed to have a plus or minus 2.5Mhz 3db passband. Trying to make it
phase linear could be tough though.

Gary KE4ZV

3612. Re: Strange Call Signs

Newsgroup: rec.ham-radio
Date: 1990-06-19 19:31:04 UTC
From: stankus@portia.Stanford.EDU
Message-ID: <1990Jun19.193104.19410@portia.Stanford.EDU>
Source record: 10918

Newsgroups: rec.ham-radio
Subject: Re: Strange Call Signs
Summary:
Expires:
References: <6282@gollum.twg.com> <30500549@ux1.cso.uiuc.edu>
Sender:
Followup-To:
Distribution:
Organization: AIR, Stanford Universit
Keywords:

>In article <30500549@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>>
><<>> One of my favorites is the shortest CW call in the US, N5EE, whom I've
>>> worked in contests (no, he doesn't send RST 555), although since the cal>l
>>> sign restructuring, this call is of course matched by NE5E.
>>
>>And AE5E.

On this line my brother holds the call N5EHE. We always used to kid
him about his call sounding like a dah followed by machine gun fire.

My call on the other hand trades two dits for two dahs --> N5PEE
Great call eh?

John J. Stankus N5PEE Dept. of Chemistry
stankus@portia.stanford.edu Stanford University

3613. QRV 4 FD / Satellite info wanted

Newsgroup: rec.ham-radio
Date: 1990-06-19 19:59:42 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9006191959.AA24156@uunet.uu.net>
Source record: 10919

I N T E R O F F I C E M E M O R A N D U M

Date: 19-Jun-1990 09:52am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS%UCSD.EDU@UUNET.UU.NET)

Subject: QRV 4 FD / Satellite info wanted

In case anyone's interested....

The USAF MARS Affiliates, Hawaii, will be QRV for Field Day from sunny Bellows Field Beach, Waimanalo, Oahu, Hawaii, working most modes/bands using the call KH6CTQ. Pete was pictured in the Handbook a couple of years back with his windmill he built especially for Field Day. It (and Pete :-)) will be doing yeoman duty again this year.

And now, a request....

I was intrigued with the possibility of actually making a satellite QSO this FD, thanks to the AMSAT bulletins that were posted yesterday. Now the question: Could some kind soul out in netland explain to a totally uninitiated user how to configure my equipment to make some satellite packet QSO's, as well as tell me where to find the birds?

Thanks in advance....and yes, I know it's kind of late, but isn't adaptability part of what FD is all about? :-)

73,

Jeff WD6CQV/KH6 AFA8JM
1843eie"at"hickam-emh.af.mil

3614. Re: W2SEX

Newsgroup: rec.ham-radio
Date: 1990-06-19 20:16:24 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250176@hpnmdla.HP.COM>
Source record: 10920

/ hpnmdla:rec.ham-radio / POPYACK@TOPS20.RADC.AF.MIL / 1:36 pm Jun 18, 1990 /
I thought W2SEX Belongs to BARA (Buffalo Amateur Radio Club) -- not
Adirondack ARC....

I thought it stood for Amateur Radio Society of the Tonawandas.

Al N1AL

3615. Thanks for 60khz info

Newsgroup: rec.ham-radio
Date: 1990-06-19 20:46:05 UTC
From: jc@suprtek
Message-ID: <190@suprtek>
Source record: 10921
Cross-posted to: sci.astro,rec.ham-radio,sci.electronics

Thanks to all of you who sent me mail or called on the phone
with information about time standards. We were able to use this
to try and figure out where we have to go.

THANKS AGAIN

John Cincotta N6PLR

3616. ANS: Field day software bugs

Newsgroup: rec.ham-radio
Date: 1990-06-19 21:27:37 UTC
From: mgb@tecnet1.jcte.jcs.mil
Message-ID: <9006192127.AA20355@tecnet1.jcte.jcs.mil>
Source record: 10922

Let me know PLEASE if you get an answer! I have the same problem and
have written him email on it. Also ftp'ed the file again just to make
100% sure that it didn't get damaged in transit... unlikely but I wanted
to make absolutely sure. Same thing.

I am considering calling on the phone... I have no other replacement for
the program and we now are counting on it.

Last ditch effort would be to take the data files after field day and
write a routine to comma delimit them, or in some other way make them
readable for DBASE or one of its many cousins.

What a bummer :-(

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil
>The following is the message that was responded to.
>
>To: tecnet@tecnet-clemson.arpa
>From: POPYACK@TOPS20.RADC.AF.MIL
>Posted: Jun 18 15:27
>Cc:
>Subject: Field day software bugs
>
>I have tried the field day program (FIELDAY.ZIP) by Paul Cassel, VE3SY.
>It works well until I run the program to print the results. It hangs up
>all the machines I have tried it on. I would love to use this program for
>field day, but it is useless if it cannot print the results!
>
>Paul, if you are out there, send me a response to
>
>POPYACK@TOPS20.RADC.AF.MIL
>
>I have been unable to get mail to you. 73 Len WF2V
>-------
>

3617. Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-19 22:08:25 UTC
From: gary@midway.uchicago.edu
Message-ID: <1990Jun19.220825.2911@midway.uchicago.edu>
Source record: 10923

Just read the review of the AEA IsoLoop in the July CQ. Being interested in purchasing one the these antennas it was the first thing I read. . . but was pretty much disappointed with the "quality" of the review. The review seemed to me to be more of an advertisement for the IsoLoop than any kind of comparative critical analysis. Further, the "performance" characteristics of the IsoLoop were given as subjective judgements when in fact a quantitative comparison could have been used.

Here are some specifics...

A minor nit with AEA. . .

From the review it seems that to use the AEA IsoLoop you need "four-conductor control cable" that is not included in the package. It would seem that AEA could include such a trivial item without the buyer having to make another trip / phone-call / order to get this. What length to ship might be a problem. But, since the antenna is advertised to be "portable" (campsites, RVs, condos, etc) - some appropriate length consistent with these uses should be shipped.

X is better than Y - but whats Y ? . . .

The author compared the IsoLoop with his "old 20 meter" antenna and found a 2 to 4 S-unit difference between them on 14.105 - but he didn't say what kind of antenna he was comparing the IsoLoop to other than "old 20 meter". I think that when you say "X" is better than "Y" then you should tell us what "Y" is.

Propagation conditions or antenna - "It doesn't matter". . .

On transmit, the author seems to do a very unscientific comparison. Using the IsoLoop the author attempts a contact with a friend that he normally contacts through a node in southeast Arizona... he writes.. "There was a difference in the incoming signals that day, and the difference I was seeing Zip direct [not through the node]".

The author seems to confound the performance of the IsoLoop with propagation conditions. He didn't again try the contact with an antenna other than the IsoLoop. In fact, he writes this
"Was it the conditions, or was it the antenna. IT DIDN'T MATTER.
We were having fun batting it back and forth, discussing Hamcation
at Orlando." (Emphasis mine)

What kind of review is this - "It didn't matter" ?

Where's the hard numbers...

The author seems to make an uncontested virtue out of the very narrow/sharp bandpass. It seems to me that for receive and transmit one has to constantly adjust the antenna with the stepper motor. Depending how sharp this is, and how much deviation there is in S units across the tuning range and what kind of SWRs you can expect across the tuning range for different bands ... all this "tuning" could be a real bummer. The author never mentions any of this nor are there any hard numbers reported - like S unit ranges/comparison or any SWR performance data across bands.

So, I'm real disappointed with this review. Despite the review, I'm still interested in the IsoLoop and was wondering if anyone out there can do any better than this CQ "kid review" of the IsoLoop.

I'd like to know...

A S-unit comparison with a "known" other antenna. I just have a very simple 45ft dipole with traps. IsoLoop better than this ? What's the IsoLoop better than ?
Typical SWRs as a function of frequency. And maybe expected high/low SWR values across stepper motor tuning ranges within bands.
IsoLoop covers 14MHz-30MHz. Any possibility using this on outside this range (say 7Mhz) with an Antenna Tuner ?

The AEA IsoLoop is $319. I have a $100 dipole with 3 sets of traps. Is the IsoLoop better than what I already have ?

(I would of expected to derive the answer to this question from the CQ review - but I didn't. . .)

Thanks,
Gary

3618. QSL'ing

Newsgroup: rec.ham-radio
Date: 1990-06-19 22:27:03 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006192353.AA08869@ti.com>
Source record: 10924

I agree with Ron Todd (no relation) that you should keep your address current.
I recently received one of my cards back from an address that had an irate note
to the postmaster that the individual had not lived at the address for YEARS, and
she kept receiving the cards and other mail. I got the address from the 1989
callbook. So the individual is either still alive, or I QSO's with a bandit
who is just using the guy's call.

73,
Dube Todd N5PDK

3619. Re: New Canadian Satellite Repeater?

Newsgroup: rec.ham-radio
Date: 1990-06-19 22:29:34 UTC
From: lyndon@cs.AthabascaU.CA
Message-ID: <1948@aurora.cs.athabascau.ca>
Source record: 10925

In article <1324@nyx.UUCP> whester@nyx.UUCP (William R. Hester) writes:
>Stop the press! Just heard today on Newline (old Westlink Report) that
>the hams in Canada now have a satellite repeater that covers the entire
>country. Is this correct? How does it work in practice? Please
>post more info ASAP.

Geez, you Americans get so HYPER ... :-)

What you're hearing about is IPARN - a group of people working on
building a voice (and digital, someday) repeater network that will
cover most of the populated areas of the country.

The first step was completed last week when repeaters in British
Columbia (VE7) were linked with a repeater network in southern
Alberta (VE6) via the Anik D3 (?) satellite and a series of UHF
point-to-point relays. Unfortunately, they were a bit optimistic
about the UHF link budgets. On one of the links an increase in
air temperature over the path introduces enough attenuation to make
the link unusable. When the temperature drops, the UHF link improves,
but the Ku band satellite link degrades. (I might have this backwards
but you get the idea). Right now the link only works within a fairly
narrow temperature range.

I was in Victoria/Vancouver last week and had a chance to try it
out. As per usual Murphy was traveling with me so nothing worked.
The Vancouver end of the link is on 147.06+. Give a call there
for more information. The Alberta contact is VE6AMC. You might catch
him on the Alberta Public Service Net at 1830MDT on 3770 (or there abouts)
weeknights. Or try the Trans Canada net Saturdays at 1800Z on 14140 (W's
dust off your keyers :-)

--
Lyndon Nerenberg VE6BBM / Computing Services / Athabasca University
{alberta,cbmvax,mips}!atha!lyndon || lyndon@cs.athabascau.ca
Practice Good Government
Use A Kingdom

3620. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-19 22:35:26 UTC
From: djf@nfinit.enet.dec.com
Message-ID: <1367@shodha.dec.com>
Source record: 10926

If the FCC is really doing anything, I doubt they would be talking about it publically. As participants in this hobby, there is nothing that we really have legal power to do, other than complain to the FCC, or to the operator who is misbehaving (assuming someone else is not using their call).

I do however agree that the garbage heard on the Nets and DXpeditions on all of our heavily used bands is getting way out of hand, and will probably cost us some of our precious frequency allocations in the future. I even avoid tuning across 20 or 80 with a prospective new ham in the shack listening because of the illegal activities that are quite often taking place.

We are supposed to be "self policing" in many of these matters. I however feel helpless when I hear this kind of stuff going on. As any on the air response to these activities is only an acknowlegement to their (the jammers, etc.) effectiveness in having disrupted the Net or DXpedition.

Anyone have any ideas, or know what is proper procedure in these kinds of matters?

/dale

+---+
Dale J. Frederick -- KB5IY	djf@nfinit.enet.dec.com
Digital Equipment Corporation	
Albuquerque NM	
+---+

3621. Re: YAESU FT-411 MOD, please help!

Newsgroup: rec.ham-radio
Date: 1990-06-20 00:38:56 UTC
From: keithm@wicat.UUCP
Message-ID: <464@wicat.UUCP>
Source record: 10827

In article <99533@philabs.Philips.Com> rfc@briar.philips.com.UUCP (Robert Casey) writes:
.
.
.
[stuff about ft-411 & ft-470]

[About the '470]...
>
>HOWEVER! If you turn on the radio with the RPT key depressed, the radio
>becomes a crossband repeater. Try it! ...
[Stuff about the audio not being great]

You can fix this audio problem easily by building a Audio pass-through
cable. Very simply build a cable that connects the tip of the earphone
jack to the tip of the microphone jack. Like this:

-------- 100K ohms ---------
<----------------------/\/\/\/\/\/\/-------------------->
-------- ---------
mini-plug sub-mini plug

Connect only the tips. Do not connect the grounds. This results in
very good audio, the level of which is controlable by the volume
control.

>
>73's & happy dual/crossbanding!
>
>Collier Chun
>NM7B @ WA7ARI
>Intel Corporation, OEM Platforms Operation
>Hillsboro, Oregon

--
Keith McQueen, Wicat Systems Inc. , (801)224-6400 | My opinions are |
N7HMF @ NV7V.UT.USA.NA (84058), 147.34+, 449.675- | all mine... |

3622. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-20 01:06:53 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <12680@shlump.nac.dec.com>
Source record: 10828

In article <1990Jun19.220825.2911@midway.uchicago.edu>, gary@midway.uchicago.edu (gary buchholz) writes...
>
>was pretty much disappointed with the "quality" of the review. The review
>seemed to me to be more of an advertisement for the IsoLoop than any kind
>of comparative critical analysis.

This isn't about the review, but I noticed at least two errors in K2EEK's editorial, "Zero Bias". First, he used J. Craig Clark's old call, N1ACH, instead of his current call, NX1G. Second, they printed the word "peaked" when the really meant "piqued". I'm starting to miss _ham radio_ already!

jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

3623. RE: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-20 02:29:56 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006200239.AA12505@ti.com>
Source record: 10847

I go to a lot of movies. Several of the local theatres (particularly those franchised under Loew's and AMC) show slides between the features. As I sat there waiting for some film to begin, it occurred to me that we could do nicely to have one or two frames in that tray to show various aspects of hamateur radio. With a local club or contact address/phone number.

I called the National Cinema Network rep who informed me of the price. It was really high--more than *-I-* could afford, but maybe a club could manage it...? ((I mean a really BIG club!))

If these folks could be cajoled into running it as a Public Service Announcement (PSA) it might be cheaper.

The main thing the rep told me was how many people, statistically, see those frames. They're only on-screen for a few seconds (Kodak Carousel on 5-sec??) but they come back around. Two or three frames in each tray would almost guarantee that each audience would see one of them.

If the slides were well done... professional media whiz needed!... it just might be worthwhile if it gets some folks aware of (1) what amateur radio is, and (2) who to contact for more information.

Comments/suggestions, anyone?

Anyone who goes to a movie this weekend, notice if your theatre does the slides (usually local adverts, coming attractions, and the ones down here in the Dallas area all have Movie Trivia questions.) Also please, try to notice who runs it, whether it's N.C.N. or someone else.

Just a thought...

73, all!

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3624. Oops! This weekend is Field Day!

Newsgroup: rec.ham-radio
Date: 1990-06-20 02:41:48 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006200255.AA12695@ti.com>
Source record: 10846

Oops!

I didn;t think about what I was saying...

OF COURSE, EVERYONE IS GOING OUT TO FIELD DAY THIS WEEKEND.

If you go to a movie *-NEXT-* weekend, please note what you find and
let me know, if you would, via e-mail...

AS AN AFTERTHOUGHT,

maybe if the NCN folk could be convinced this was to be a nation-wide
campaign, a "quantity" discount could be arranged for smaller clubs that
could not afford the normally exorbitant rates...

I doubt if the rates are too bad as advertising rates go, it's just a lot
of money for a rubber-band & paper-clip budget...

Cheers, all!

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3625. Re: Radio Shack Pro-200x series Mods

Newsgroup: rec.ham-radio
Date: 1990-06-20 03:28:06 UTC
From: daveh@compnect.UUCP
Message-ID: <643@compnect.UUCP>
Source record: 10845

In article <22542@shamash.cdc.com>, mpe@shamash.cdc.com (2375) writes:
> I am interested in any modifications for the Radio Shack Pro-200x series
> hand-held receivers.
I am unaware of any handhelds in the RS PRO-200x series. There are mods for the PRO-34 handheld. The best collection of mods for the RS-200x series of scanners, IMHO is Bill Cheek's Scanner Modification Handbook. It is available from CRB Research Books, P.O. Box 56, Commack, NY 11725. I have no connection with the company, but I am a satisfied customer. 73
--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

3626. Strange RFI

Newsgroup: rec.ham-radio
Date: 1990-06-20 04:27:45 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <54550@lanl.gov>
Source record: 10829

David Tiller talks of some mysterious and growly interference on 10M. If that is the only place you hear this, you are lucky!

I have them on all bands. They come in intervals just like yours! They seem to be about 20-30KHz wide and occur every 50-60KHz. They are EXTREMELY annoying, I agree. I just always assumed that they are from noisy power lines in the area, but have never really tried to verify this theory.

I was thrilled to see you mention this! As I read, I was amazed at how similar to my problem yours is and how well you described it.

Anyone got any ideas? I'm sure someone SOMEWHERE knows what it is! But like I said, I have a sneaky suspicion that it's power line noise.

Mark Lowe - KB5III

3627. Amateur Auxiliary

Newsgroup: rec.ham-radio
Date: 1990-06-20 04:38:09 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <54551@lanl.gov>
Source record: 10830

Are there any members of the Amateur Auxiliary here? What ability does the (ahem) AA :-) have to help control this sort of crap that's going on on 20M and elsewhere? I would love to get in on such an activity. Just tuning around, I hear so much garbage and feel helpless to do anything about it, as many others have stated here.

How does the Auxiliary work? I guess I can whip out the Handbook. Hmmm... precious little. It refers to an article in QST of Aug '84.

But hey, if we all write to our section managers (the guys that control the Auxiliary for their area) and find out about this, maybe we CAN do something!

I'm not one to advocate "tattling" on a fellow ham, but if he is deliberately abusing the privilege, than screw it! Let the FCC know and hope that $1000 fine does the trick!

What do you all say? I have not heard of ANYONE being in the Aux., nor have I heard any mention of it in all my many years of hamming. (1.5, to be precise!) :-)

I really get steamed hearing it, though... and I'm ready to DO something about it, dammit!

Mark C. Lowe - KB5III

The C is for CILL!! C-I-L-L!

3628. bad movie, ham calls

Newsgroup: rec.ham-radio
Date: 1990-06-20 07:33:22 UTC
From: oo7@ut-emx.UUCP
Message-ID: <32035@ut-emx.UUCP>
Source record: 10850

>>davet@tsdiag.ccur.com (Dave Tiller N2KAU)

>>his partnership's name as well, YGH aviation.) As the camera panned thru
>>his shack, I noticed several QSL cards tacked to the shelf. I could make
>>out for sure WD9ARK, and K5VNJ, and the others looked like WB8VCM and
>>WD6NJY. Anyone know these Hams in person? The calls come back to:

>>If you know these Hams, tell 'em they're celebrities since their cards
are stars in a movie!
--

WD6NJY might be WD6DJY - the Kenwood Employees' club. I heard them
on the air the other day, first thought "what a mouthful of a call",
then realized it rang a bell from those Kenwood ads I've seen in QST
and Other Fine Mags, I guess that says something about the power oif
advertising. They have that ad showing a typical ham station with
about a million $ worth of gear, and some QSL cards from faraway
places like Puerto Rico on the wall. Their card with this call is
featured somewhere in the ad, you could try and match it up with what
you saw if you can be bothered - anything rather than spending your
time watching bad xenophobic movies.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

3629. Kenwood TS440 Remote control program

Newsgroup: rec.ham-radio
Date: 1990-06-20 10:23:32 UTC
From: sunesen@iesd.auc.dk
Message-ID: <1990Jun20.102332.21047@iesd.auc.dk>
Source record: 10831

I have made a program that can control a TS440 via the seriel command set.
The program is called TSRem and runs on a IBM or compatible computer.
It requires the interface IF232 from Kenwood or a self made that can
concert 0/5V logic to standard RS232 +/-12V.

All seriel available functions can be controlled, and there is a menu for
controlling the 100 memories. You can save or load memory files, and
write a comment to every memory channel.

You can write to me at E-mail:
sunesen@iesd.auc.dk

Att: Lars Rasmussen

or write to me on my home BBS: OZ1HMN @OZ9BBS

3630. CQ Magazine reviews

Newsgroup: rec.ham-radio
Date: 1990-06-20 11:20:37 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9006201126.AA19141@ucsd.edu>
Source record: 10832

A recent poster complained about the quality of the "review"
of the AEA Isopole antenna in the most recent CQ. He asked
whether this is a normal review for CQ ...

Well, it is. CQ has been notorious for years regarding its so-called
equipment reviews. They are almost never more than "gee, I liked
it and it fit in my Porsche." I would never, ever, make a buying
decision based on anything I read in CQ. The only reviews with
any credibility at all are those in QST. They have the lab equipment
to evaluate gear, the smarts to conduct the tests correctly, the
wisdom to refrain from testing stuff they can't evaluate properly, and
the cojones to point out shortcomings. They aren't perfect, but they're
a long shot better than the drivel that CQ passes off as "reviews."

There.

3631. QRP Notebook

Newsgroup: rec.ham-radio
Date: 1990-06-20 12:22:23 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <54597@lanl.gov>
Source record: 10833

Well, I finally got my backordered QRP Notebook today! I'm glad it went backorder, because it's the brand-new 1990 edition!

From what I've already seen, it's a GREAT reference.

I got this plus the three QST's I missed for rejoining the ARRL last month. That's over $10 of goodies, there... FREE!

If your membership expires... wait a little bit to renew! :-)
It's worth it!

Mark C. Lowe - KB5III

3632. The Saturday REAL EBS test

Newsgroup: rec.ham-radio
Date: 1990-06-20 13:12:00 UTC
From: SPADGETT@AUDUCVAX.BITNET
Message-ID: <9006201317.AA21484@ucsd.edu>
Source record: 10834

Several people have mentioned about the Saturday in 1971 the news wire services transmitted the EBS message that said an attack on the United States had been detected. I was working on the air at WMMB in Melbourne, Florida when that message rolled down the wire.

What I remember most about that day was immediately after the message that in effect announced the start of World War III, the AP followed with the Chicago hog prices. It was hard to take the message seriously when the wire is giving more coverage to hogs than the attack.

Every radio station was susposed to have a red envelope containing the "authenticator list" for EBS tests. The authenticator list was a series of words for each day of the month. The word in the envelope must match the authenticator word on the message before you can consider the message as real. The word for that day was HATEFULNESS. The EBS message had the correct authenticator word. I had to consider the message as real and read the "red card" EBS message over the air then took the station off the air. (We were not the primary EBS station.)

It took the AP 40 minutes to properly terminate the EBS message. During that time, I remember taking many phone calls from irate listeners and very upset station manager. The station manager cooled down when the FCC investigated and found that very few broadcast stations around the country actually did what they were susposed to during the alert.

Steve Padgett
KK4NM

Assistant Professor of Mass Communication
Department of Communication
6030 Haley Center
Auburn University
Auburn, AL 36849-5211

Bitnet: SPADGETT@AUDUCVAX

Phone: (205) 844-2750

3633. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-20 13:22:33 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <58@thoreau.nsc.com>
Source record: 10835

In article <1990Jun19.220825.2911@midway.uchicago.edu>, gary@midway.uchicago.edu (gary buchholz) writes:
>
> Just read the review of the AEA IsoLoop in the July CQ.
>
> What kind of review is this - "It didn't matter" ?
>
> Where's the hard numbers...
>
> (I would of expected to derive the answer to this question from the CQ
> review - but I didn't. . .)

While most hams don't possess the type of equipment to make detailed measurements on review antennas you are correct to indicate that there are a few parameters which every ham could benefit knowing before rushing out to buy one of these wallet smashers.

I guess this is how CQ can manage to run several reviews of the same item (they have done it in the past). All the more reason to join ARRL and read QST, this is the type of review they will have a ball with. Several years ago QST did a review on a broad band dipole; after running all the usual tests they even X-RAYed! the matching network and discovered several components in the potting that were not even connected!!! And they even FLAMED the product in the report. That is QUALITY in editorial policy, it's a shame that this is being diluted by the need to mantain a broad base of readership.

So we'll all have to wait for the QST review of the AEA IsoLoop.

73,
Ron Todd, K3FR

3634. [mgb@tecnet1.jcte.jcs.mil: ANS: Field day software bugs]

Newsgroup: rec.ham-radio
Date: 1990-06-20 14:54:06 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12599327694.14.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 10836

Return-Path: <mgb@tecnet1.jcte.jcs.mil>
Received: from tecnet1.jcte.jcs.mil by TOPS20.RADC.AF.MIL with TCP; Tue 19 Jun 90 17:35:29-EST
Received: by tecnet1.jcte.jcs.mil (5.54/SMI-4.0)
id AA20355; Tue, 19 Jun 90 17:27:37 EDT
Date: Tue, 19 Jun 90 17:27:37 EDT
From: mgb@tecnet1.jcte.jcs.mil
Message-Id: <9006192127.AA20355@tecnet1.jcte.jcs.mil>
To: popyack@tops20.radc.af.mil
Posted: Jun 19 17:24 EDT
Subject: ANS: Field day software bugs

Let me know PLEASE if you get an answer! I have the same problem and
have written him email on it. Also ftp'ed the file again just to make
100% sure that it didn't get damaged in transit... unlikely but I wanted
to make absolutely sure. Same thing.

I am considering calling on the phone... I have no other replacement for
the program and we now are counting on it.

Last ditch effort would be to take the data files after field day and
write a routine to comma delimit them, or in some other way make them
readable for DBASE or one of its many cousins.

What a bummer :-(

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil
>The following is the message that was responded to.
>
>To: tecnet@tecnet-clemson.arpa
>From: POPYACK@TOPS20.RADC.AF.MIL
>Posted: Jun 18 15:27
>Cc:
>Subject: Field day software bugs
>
>I have tried the field day program (FIELDAY.ZIP) by Paul Cassel, VE3SY.
>It works well until I run the program to print the results. It hangs up
>all the machines I have tried it on. I would love to use this program for
>field day, but it is useless if it cannot print the results!
>
>Paul, if you are out there, send me a response to
>
>POPYACK@TOPS20.RADC.AF.MIL
>

>I have been unable to get mail to you. 73 Len WF2V
>-------
>

3635. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-20 15:24:30 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720070@hplsla.HP.COM>
Source record: 10837

/ rec.ham-radio / gary@midway.uchicago.edu (gary buchholz) 3:08 pm Jun 19, 1990
>
>Just read the review of the AEA IsoLoop in the July CQ. Being interested in
>review - but I didn't. . .)
>
Well, for a "review" of the Iso-Loop that isn't an advertisement, check
out the May issue of WorldRadio News. The antenna column, written
under the pseudonym "Kurt N. Sterba" contained some fairly critical
text. I threw that issue away, unfortunately, but that column in the July
issue is interesting. Seems that the publisher gave "Kurt" a phone
call, and demanded to know what was the deal (Apparently Mike Lamb of AEA had
given Armond a call) Anyway, "Kurt" isn't backing down, but they did give
Lamb space for a "rebuttal", where he says just about what Gary did in his
note. (i.e. no hard numbers, the advantages of narrow bandwidth, etc.)
In any even, AEA has sent "Kurt" an IsoLoop to play with, and he says
he will report his results in a month or two.

You know, I've never taken WorldRadio very seriously (I got a life
subscription to it when I was a teenager (thanks Dad!)), But the fact
that they even printed an article critical of one of their advertisers
bumps up my estimation of them a notch or two. Would even the ARRL, which
is a membership organization, not just a magazine, be this openly critical?
Probably not. Ham radio sorely needs a Consumer Reports type of organization,
to give impartial reviews, but alas, who would/could fund such a thing?

OK, OK, I'll get off my soapbox.

Charlie
KX7L

3636. Re: My own funky call

Newsgroup: rec.ham-radio
Date: 1990-06-20 16:29:00 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880156@hpfcdc.HP.COM>
Source record: 10838

> In addition to n0pay and n0mad, n0ise would be interesting.

They're issuing faster than I would'a guessed. A friend just got N0MCR
-- they whizzed through N0MA and MB in a hurry. (I wonder if they
skipped a lot of the word-like calls in that range.)

3637. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-20 16:42:54 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880159@hpfcdc.HP.COM>
Source record: 10839

> Think about what you do in ham radio. Do you yak with your friends on
> the way to work on the 2-meter repeater?

Well I've only been Tech-licensed a week and a half, but one thing I do is help people make phone calls to friends from the top of 14000' mountains. If that doesn't stimulate interest, I dunno what will.

-- Last Sunday I had a chat with someone in Greeley from the top of Mount Lincoln, 14286', through the Horsetooth Mountain repeater, 95.5 miles distant, using 2.5 watts on a 2m handheld with a Hot Rod antenna.

Right after that I raised someone in Colorado Springs through line-of-sight (and what a pretty sight) to Pikes Peak, 68 miles away.

And within minutes I contacted N0UA air mobile on his way into Centennial Airport at 8500', on simplex.

3638. Re: YAESU FT-411 MOD, please help!

Newsgroup: rec.ham-radio
Date: 1990-06-20 16:47:04 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880160@hpfcdc.HP.COM>
Source record: 10840

> To allow the FT-411 to recieve from 130 MHz to 174MHz and to transmit
> from 140 MHz to 151 MHz...

Thanks but, as it came from the factory, it already receives on 130.0 - 174.0 (inclusive) and transmits on 140.0 - 150.0 (inclusive). (The latter surprised me, considering the ham band is 144.0-148.0, right?)

Is there anything interesting in 150.0 - 151.0?

And how do I access the mods server? (I know, "groan", there's that question again. Please bear with the new guy on the frequency.)

3639. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-20 17:09:25 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250177@hpnmdla.HP.COM>
Source record: 10841

>
> I do however agree that the garbage heard on the Nets and
> DXpeditions on all of our heavily used bands is getting way out of
> hand, and will probably cost us some of our precious frequency
> allocations in the future. I even avoid tuning across 20 or 80 with
> a prospective new ham in the shack listening because of the illegal
> activities that are quite often taking place.
>
> Anyone have any ideas ...

I have an idea. Eliminate voice as a legal mode in Amateur radio.

Al N1AL

3640. From: uc!shamash!mpe@tut.cis.ohio-state.edu (2375)

Newsgroup: rec.ham-radio
Date: 1990-06-20 18:23:30 UTC
From: wayne_a._lightsey.RochXRC@XEROX.COM
Message-ID: <900620-112418-5507@Xerox>
Source record: 10842

I may have seen your questions, but do not recall. If they were posed in a manner that would require a tome to answer, I probably skipped over them - I plead guilty. I all too often assume that dozens of others will bury you with answers - which apparently didn't happen in this case.

If you will pose the questions once again (directly to me if you do not wish to bore the net again), I will certainly attempt to answer them to the best of my ability. Understand though, that you will obtain opinion only - based upon 25 years of professional engineering/sales/marketing/consulting and 36 years of amateur radio experience - not necessarily expert nor in total agreement with what others will tell you. Just what I think. The net result is that the advice you get is worth exactly what you pay for it -- meaning you will still have to decide for yourself after I and others share with and probably confuse moreso than enlighten you.

Just in case you didn't indicate before, it would be helpful to know the intended use(s) (SW listening, two-way communications, fixed frequency monitoring, weather satellite monitoring, RTTY, Packet, AMTOR, etc.), frequency ranges and types of modulation (AM, FM, SSB, CW, etc.) desired, whether to be used in conjunction with a transmitter now or later, portability and/or power requirements, age of the operator(s), any physical disabilities (sight, hearing ,etc.) and other pertinent requirements.

Listening is a big part of ham radio. It starts with receiving. What is it you want hear? Best regards, Wayne, KB6CSP

3641. Call for Comment, CB "Traffic Advisory Channel" petition

Newsgroup: rec.ham-radio
Date: 1990-06-20 18:33:00 UTC
From: Ed@ALDERAAN.SCRC.SYMBOLICS.COM
Message-ID: <19900620183321.7.ED@PEREGRINE.SCRC.Symbolics.COM>
Source record: 10843

Date: 14 Jun 90 19:06:15 GMT
From: usc!cs.utexas.edu!texbell!uudell!bigtex!natinst!sequoia!attdso!ssc!markz@ucsd.edu (Mark Zenier)

In article <25212@usc.edu>, kjh@pollux.usc.edu (Kenneth J. Hendrickson) writes:
> A few hams on here are old
> enough to remember when the band was _stolen_ from us.

Your bad attitude in unpardonable. 33 years is a long time for a stupid grudge.

I think his bad attitude is especially unpardonable because he's only 27.
He is falsely attempting to don the mantle of an old-timer, when in fact
he's just a premature old fart.

3642. Re: Info-Hams Digest V1 #32

Newsgroup: rec.ham-radio
Date: 1990-06-20 20:46:00 UTC
From: JOHNSTON@NKUVAX.BITNET
Message-ID: <782A9ADDA73F005DBE@NKUVAX.BITNET>
Source record: 10844

RE: From: att!tsdiag!davet@ucbvax.Berkeley.EDU (Dave Tiller N2KAU)
Subject: Ham calls seen in horrible movie
Subject: Ham calls seen in horrible movie

Interesting! I heard a ham call used by the Higgins character in the
Magnum series. It was N6DBZ. Anybody know who it belongs to - a
TV producer or tech or friend of one of the writers, etc etc??

Gary Johnston, KI4LA
JOHNSTON@NKUVAX.BITNET
Covington, Ky

3643. Re: QRV 4 FD / Satellite info wanted

Newsgroup: rec.ham-radio
Date: 1990-06-20 23:22:50 UTC
From: cduncan@jato.Jpl.Nasa.Gov
Message-ID: <4119@jato.Jpl.Nasa.Gov>
Source record: 10848

To make QSOs via the current pacsats requires more than just a TNC and radio. A 1200 baud PSK modem (kits are available from TAPR, AMSAT, and RadioKit, among others) must be constructed and interfaced with a TNC-2 or equivalent. Packcom has units already assembled that will also work. These take audio from an SSB receiver on 435 or 437 MHz pacsat frequencies and input data to the TNC. For uplinking, a 2 meter FM transmitter is used. Uplink data is "manchesterized" within the same PSK modem box, as a convenience. Satellites using this mode (known as "Mode JD, or FO-12 mode in deference to the first satellite utilizing it, the now defunct FO-12) are AO-16, LO-19 and FO-20. UO-14 uses 9600 baud packet and may also be available on FD.

If you are not already pacsat capable, getting ready in the two days remaining before set-up starts will be difficult. Of course, analog (SSB or CW) satellite contacts will be possible via RS-10/11 (which uses 2 meters up and 10 meters down) and/or AO-13 (which uses 435 MHz up and 2 meters down, among other modes). If you are interested in attempting contacts of any of these types, I can provide times of passes for your location and frequencies of operation. Of course, programs which provide the former and literature providing the latter are available from AMSAT-NA, POB 27, Washington, DC 20044; 301-589-6062.

73, Courtney, N5BF

3644. Need Kenwood TS 430S manual

Newsgroup: rec.ham-radio
Date: 1990-06-21 00:06:37 UTC
From: dale@sequent.UUCP
Message-ID: <37167@sequent.UUCP>
Source record: 10849

Well, I bought a used radio, a Kenwood TS 430S. It lacks
a manual. Since it is a first radio other than 2 meter handheld,
I would *really* benefit having a manual for it. So if you
have one and can make a copy, please send me e-mail, or give
me a call. I'll be happy to pay copying and postage. Might
want to contact me first in case I've alread received an offer.
(Could I be so lucky as to have multiple responses?)

A good e-mail path is uunet!sequent!dale.
Work phone is (503) 627-9842, home (503) 640-0217.
Thanks!
--
{ uunet pur-ee tektronix sun ogcvax cs.utexas.edu } !sequent!dale
Dale Mosby 503-626-5700 // Sequent Computer Systems, Inc.
15450 SW Koll Parkway // Beaverton, Or. 97006-6063

3645. While Yaesu FT101 has the speech processor?

Newsgroup: rec.ham-radio
Date: 1990-06-21 02:09:00 UTC
From: MULTI@TRIUMFER.BITNET
Message-ID: <90Jun20.212848edt.57975@ugw.utcs.utoronto.ca>
Source record: 10851

Can anyone tell me the difference between a Yaesu FT101, an FT101B, and FT101E, and FT101EE, and an FT101EX. I would prefer a unit with a speech clipper and an integral 12 volt power supply as well as the 120 volt ac power supply. 600 hZ CW filter is a necessity.

Y.N. Miles,
<MULTI@TRIUMFcl.bitnet>

3646. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-21 03:14:48 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <192@ultrix.uhasun.hartford.edu>
Source record: 10859

In article <1250177@hpnmdla.HP.COM>, alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>
> I have an idea. Eliminate voice as a legal mode in Amateur radio.
>
> Al N1AL

Something about babies and bath water springs to mind :-)

Jon

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3647. Denmark & Holland

Newsgroup: rec.ham-radio
Date: 1990-06-21 04:43:45 UTC
From: mea1@cbnewsj.att.com
Message-ID: <1990Jun21.044345.21793@cbnewsj.att.com>
Source record: 10852

We are planning a vacation to Denmark and the Netherlands this summer.

My wife and I are both licensed hams and we would like to bring our HT
and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)

We would like to use them to meet local hams, as well as for travel advice.

Are there repeaters on 2M and 440 MHz around those countries as there are here,
and will our current equipment be fine for accessing them, or do they have
different requirements for access, such as special tones, or different offsets?

Are the operating procedures on VHF/UHF repeaters similar to in the USA?

Can we obtain directories of repeaters, before we leave home.

What is the required procedure for reciprocal operating privileges?

Please reply via email, if possible.
Thank you very much.

--
Mike Alterman, N2KIC
uucp: att!mtfmi!mea or mea@mtfmi@att.com

3648. Re: making ham radio known (ARRL seems disinterested)

Newsgroup: rec.ham-radio
Date: 1990-06-21 13:55:14 UTC
From: albers@ka3ovk.uucp
Message-ID: <1990Jun21.135514.2691@ka3ovk.uucp>
Source record: 10853

Well, this message thread brings up sour memories of a meeting I was involved in planning back in March. Our club, MADRAS, invited Hugh Turnbull, W3ABC, and Kay Cragie, KC3LM, the ARRL Mid Atlantic Director/assitant Director, to speak before an open house at the Montgomery County Office building. The audience consisted of representatives of local ARRL member clubs, and we pretty well filled the cafeteria of the building. Anyhow, I was very impressed by Kay Cragie, who is the new kid on the block, and was very enthusistic about ham radio and had some very interesting ideas about expanding the hobby. However, I was very dissappointed in Hugh Turnbull, whom I voted for in the previous election. Several times during his time as the podium, questions were asked of him about what the ARRL was doing to advertize ham radio and as I worded it , "Put ham radio back on the kitchen table of America "(very patriotic, huh?). Anyhow, the answer was basically, the ARRL had no interest in doing that at all, and any elaboration was avoided by Hugh. It seems that the attitudes of the ARRL are largly one of a typical good-old-boys club, who don't want any of those new kids with unconventional ideas about the hobby get control of 'their' hobby. If this is typical of the attitudes of the ARRL, then I must agree with Wayne Greene of 73 magazine -- it's time for the ARRL to have some competition from another ham radio orgainization. Maybe than amateur radio has a chance to survive in the U.S. Unless the hobby can be made visible to the public, and be attractive to the public in todays society, it is doomed. Honestly, I don't know how to do it, but I do know it needs to be done, and soon.

Jon

--
| Jon Albers, IRS, Information Systems Management, Support and Installation. |
| Office Symbols: ISM:S:S:SI voice: (202/FTS)535-3729 Packet: KA3OVK@N4QQ |
| UUCP:(media|teemc|tcsc3b2|ki4pv)!ka3ovk!albers ARPA: JALBERS@SIMTEL20 |

3649. Re: Dubious quality of CQ (review of AEA IsoLoop)

Newsgroup: rec.ham-radio
Date: 1990-06-21 13:57:17 UTC
From: rbono@necis.UUCP
Message-ID: <1344@necis.UUCP>
Source record: 10854

In article <1990Jun19.220825.2911@midway.uchicago.edu>, gary@midway.uchicago.edu (gary buchholz) writes:
>
> Just read the review of the AEA IsoLoop in the July CQ. Being interested in
> purchasing one the these antennas it was the first thing I read. . . but
> was pretty much disappointed with the "quality" of the review. The review
> seemed to me to be more of an advertisement for the IsoLoop than any kind
> of comparative critical analysis. Further, the "performance" characteristics
> of the IsoLoop were given as subjective judgements when in fact a quantitative
> comparison could have been used.
>

I also read this artical, beacause that it was one of the first I have seen
on the IsoLoop. I ended up with many of the SAME questions that GARY did.

I also noticed several other errors in the magazine, the editorial which,
by the way, was the only mention of the "takeover" of Ham Radio by CQ Mag. also
it made a mistake in the call sign of one of its "new" employees from Ham Radio
Mag (Craig has not held N1ACH for a while now (he is now NX1G).
I don't always read the editorials..... I wonder how many devoted Ham Radio
subscribers will be surprized to find a "CQ" rag in their mailbox?!?!?

Back to the review.... This same author telephoned me to get the latest copy
of my DOSGATE packet application. He praised himself... kept telling of his
hundreds/thousands of dedicated readers.... Basically, he wanted to perform
a review of DOSGATE, and publish it in "his column".... Never having read his
column, I had him send me an S.A.S.E. for the DOSGATE disk, the same offer I
make to everyone else.....

A few months later.... I heard that the artical was published (this author
never contacted me again... and I was not even told of the publishing date or
target). I friend gave me his copy of the magazine with the artical (I think
it was April, '90)... The author used over 75% of text from my documentation.
There was very little 'review'.... I believe that a 'lay' person (one who is
NOT familliar with DOSGATE) would not be able to figure out what DOSGATE is
all about from this artical....

So I guess we should get use to these sorts of reviews... No wonder I hear
so many beginers saying things like: "I talked with Italy today on 10 meters
using a rubber ducky, 5 inch antenna. So it must be a good antenna". Or,
(when they are listening to the output of a repeater) "Yes, your new hand
held 1 watt radio is doing fine.... your signal here is 'full pin' on my
S-meter"....

I guess we can only try to 'educate' the beginers... explain how to
do some simple experiments, and to interpret the results.

Back to the IsoLoop (sorry for the rambling)... If anyone buys one of these things.... please let us know how it compares with a dipole cut for the band of interest, installed at a similar height, and make some contacts 'broadside' to the dipole, and switch back and forth between the two antennas while in contact with the same station.... Somehow I don't think that the IsoLoop will outperform any 'standard' antenna... It may be good as far as 'limited' space antennas go... If anyone has one, I would be glad to evaluate it for them!!

Needless to say.... I am NOT impressed with "CQ Mag".... I hope they will clean up their act.... I will probably let the rest of my subscription run its course.....

Geesh... my 'first' issue (since Ham Radio).... and I am already VERY UNHAPPY..... as 'Dire Straits' (sp?, the Rock Group) says:

I WANT MY H R M (HAM RADIO MAGAZINE)!

Rich
--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

3650. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-21 14:22:44 UTC
From: davet@tsdiag.ccur.com
Message-ID: <1021@tsdiag.ccur.com>
Source record: 10855

In article <192@ultrix.uhasun.hartford.edu> jbloom@uhasun.hartford.edu (Jon Bloom) writes:
-In article <1250177@hpnmdla.HP.COM>, alanb@hpnmdla.HP.COM (Alan Bloom) writes:
->
-> I have an idea. Eliminate voice as a legal mode in Amateur radio.
->
-> Al N1AL
-
-Something about babies and bath water springs to mind :-)
-
-Jon

Or just for hams with Extra calls... :-)
>
>--
>Jon Bloom, KE3Z | American Radio Relay League
>Internet: jbloom@uhasun.hartford.edu |
>Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

3651. Diver/Boat Communications

Newsgroup: rec.ham-radio
Date: 1990-06-21 15:44:05 UTC
From: nall@sun8.scri.fsu.edu
Message-ID: <127@sun13.scri.fsu.edu>
Source record: 10860
Cross-posted to: rec.scuba,rec.ham-radio

On pretty much a $0 budget, I need to come up with a method of having a diver communicate with a (slowly) moving boat from depths ranging from about 20 to 70 feet.

In brainstorming, someone mentioned the possibility of having a very low-powered transceiver, sealed for underwater use, and using the same frequency as our video depth-finder (200 KC). This should give an on-off capability, which obviously can be used for Morse.

Anyone ever heard of such? Are we all wet? (No pun intended). Any better ideas?

All suggestions, comments, etc., gladly received. Please e-mail, as I have doubts this would be of general interest.

--
John W. Nall | Supercomputation Computations Research Institute
nall@nu.cs.fsu.edu | Florida State University
#include <clever.h> | Tallahassee, FL 32306

3652. QRP ARCI membership

Newsgroup: rec.ham-radio
Date: 1990-06-21 17:34:29 UTC
From: hardie@herald.usask.ca
Message-ID: <1990Jun21.173429.13746@dvinci.usask.ca>
Source record: 10862

Membership in QRP ARCI costs $12 U.S. for a first time member.
Write to Mike Kilgore KG5F
2046 Ash Hill Rd.,
Corrollton, TX 75007

73 de Pete VE5VA (ARCI 6032, GQRP 3481)

3653. '89 nissan truck - ignition noise

Newsgroup: rec.ham-radio
Date: 1990-06-21 18:02:00 UTC
From: kenb@techsup.UUCP
Message-ID: <400023@techsup>
Source record: 10856

...
does anyone have experience with ignition noise in nissan
hardbody pickups? i have a 1989 truck that seems to radiate lots
of ignition noise. i'm pretty sure that the dc from the battery
is clean -- i can unhook the antenna from the radio and the noise
is eliminated. transmit audio is clean with the engine running
-- receive is clean on very strong signals.

this occurs with a kenwood tm-201 and an icom 3210. the hood's
been "bonded" with braid. the noise is spike-type ignition
noise. i don't have a problem with alternator whine.

anyway, i'm looking for opinions before i start spending money on
suppressor-type gadgetry. thanks...

ken brookner, n5lpi
kenb@techsup.lonestar.org
...!texbell!techsup!kenb

3654. Re: IRCs

Newsgroup: rec.ham-radio
Date: 1990-06-21 18:14:52 UTC
From: jneher@tenorman.Eng.Sun.COM
Message-ID: <137583@sun.Eng.Sun.COM>
Source record: 10868

Hi,

I have gathered from reading this newsgroup that IRC's are
used to mail QSL cards internationally. I still don't know
exactly what they are and how they should be used when QSL'ing.
Where can you get them? Which countries should you use them
for? Do you always send one along with your QSL card if you
expect the receive a reply from a station outside the U.S.
So far I have only QSL'd and received QSL's from
foreign stations using regular postage stamps.

Thanks in advance for the answers to these questions,

Jon Neher
N6XUI

3655. Uniden hr2510/2600 conversion idea

Newsgroup: rec.ham-radio
Date: 1990-06-21 18:32:02 UTC
From: jpd@pc.usl.edu
Message-ID: <10410@rouge.usl.edu>
Source record: 10863

A local ham asked that I put this idea out for comment:

With the waning of the sunspot cycle the Uniden 2510 and 2600 radios
will probably drop in price; could they be converted to operate on lower
frequence bands, yielding an affordable multimode radio? 15m & 18m?
12m & 15m?

I believe the hr2510 (pre-epoxy) can cover a 4 MHz bandwidth, so maybe
15 & 18 meter coverage is not preposterous!

73 de
james n5knx & Tom n5off
--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@w5ddl
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

3656. Satellite Link Calculation Software Wanted

Newsgroup: rec.ham-radio
Date: 1990-06-21 18:58:16 UTC
From: garvey@cmic.UUCP
Message-ID: <348@cmic.UUCP>
Source record: 10857
Cross-posted to: comp.sources.wanted,rec.ham-radio,rec.radio.shortwave

I'm hoping someone in net-land can help me locate software that does satellite link calulations. The more variables that it includes the better I'll like it. Sources in C preferred. However, I'll try just about anything (once :-)). We have an HP 9000/370 running HPUX. However, if it is for an IBM PC, or Apple MacIntosh... it's still useful.

Please respond via e-mail. I'll summarize or e-mail depending on the number of "me toos" recieved.

--

Joe Garvey UUCP: {apple,backbone}!versatc!mips!cmic!garvey
California Microwave Internet: garvey%cmic@mips.com
990 Almanor Ave HP Desk: garvey (cmic@mips.com) / hp1900/ux
Sunnyvale, Ca, 94086 800-831-3104 (outside CA)
408-720-6439 (let it ring) 800-824-7814 (inside CA)

3657. Experimental Callsigns

Newsgroup: rec.ham-radio
Date: 1990-06-21 19:47:17 UTC
From: daveh@compnect.UUCP
Message-ID: <644@compnect.UUCP>
Source record: 10858
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In response to the earlier posts on US callsign assignments, I checked the FCC ham callsign database for "X" suffix calls and found the following:

AA0X-AL9X Ham calls AA0X-AL7X in database
AA0XA-AL9XZ Ham calls AA4XA-AA4XZ & AA6XI & AA6XX in database
AA0XAA-AL9XZZ No ham calls assigned in this block
K0XA-K9XZ Ham calls K0XA thru K9XZ in database
K1XAA-K9XZZ No ham calls assigned in this block
KA1X-KZ9X Ham calls KA1X-KZ9X in database
KA1XA-KZ9XZ Ham calls KA1XA-KM4XZ in database
KA1XAA-KZ9XZZ No ham calls assigned in this block
N0XA-N9XZ Ham calls N0XA-N9XZ in database
N0XAA-N9XZZ No ham calls assigned in this block
NA0X-NZ9X Ham calls NA0X-NZ9X in database
NA0XA-NZ9XZ Ham calls NP4XA-NP4XZ in database
NA0XAA-NZ9XZZ No ham calls assigned in this block
W0XA-W9XZ Ham calls W0XA-W9XZ in database
W0XAA-W9XZZ No ham calls assigned in this block
WA0X-WZ9X Ham calls WA0X-WZ9X in database
WA0XA-WZ9XZ No ham calls assigned in this block
WA0XAA-WZ9XZZ No ham calls assigned in this block

The above was extracted from a fall 1989 copy of the FCC ham callsign database. X suffix ham calls have been assigned in 1x2, 2x1 and 2x2 callsign blocks. I was unable to to find any ham 1x3 or 2x3 ham calls with an "X" suffix, so these do appear to be reserved for experimental licenses. There are also no W 2x2 X suffix calls assigned yet.
--
==========
Dave Hultberg Radio: KA3UZR UUCP: uunet!wa3wbu!compnect!daveh
CIS: 72437,3215 US Snail: 1407 Concord Road, Mechanicsburg, PA 17055-1955

3658. Omega Navigation Receivers?

Newsgroup: rec.ham-radio
Date: 1990-06-21 20:52:19 UTC
From: charlie@oakhill.UUCP
Message-ID: <3417@radio.oakhill.UUCP>
Source record: 10864
Cross-posted to: rec.ham-radio,rec.radio.shortwave,sci.electronics

I would like to try recieving Omega navigation signals on 10-15KHz
(Not sure of specific frequency). Has anyone out there built a
TRF receiver for this band? I understand the Omega signals are
pretty strong. What kind of passband filtering and gain stages
would one use...seems like 5534 op-amps should work for the gain
stages. Perhaps LC bandpass for the TRF section?

Thanks in advance,

-Charlie Thompson

3659. Re: Undocumented features in handhelds? WAS: ICOM IC24/AT...

Newsgroup: rec.ham-radio
Date: 1990-06-21 21:52:00 UTC
From: jeff@xanadu.com
Message-ID: <1990Jun21.215200.28505@xanadu.com>
Source record: 10865

In article <1341@necis.UUCP> rbono@necis.UUCP (NM1D) writes:
>In article <932@cameron.egr.duke.edu>, jsm1@dukee.egr.duke.edu (J Scott McCalmont)
writes:
>> From article <1335@necis.UUCP>, by rbono@necis.UUCP (NM1D):
>> >
>> > Here is some of the "interesting" information. The so-called "modification"
>> > to enable the wide range RECEIVE ONLY frequency converage did NOT require
>> > any hardware changes to the unit.... (a FEW early units did require a diode
>> > to be removed)... simply hold down a few buttons when turning on the unit and
>> > keep them held until the unit is done with it's self test (Light-B-#).
>> >
>>
>> Well, to be adventuresome, I tried the "light-B-#" on my IC-2SAT.
>> I didn't get wide-range receive coverage, but I did get ALL the
>> LCD segments to turn on right after I powered the rig up.
>> None of the other key combinations that NM1D noted seemed to have
>> any effect.

[stuff deleted...]

>If you release the keys before the display has settled down, you won't
>enable the wide-range receive.

[....]

>
>Also, keep in mind.... this was done on the IC24A... The dual band 144/440MHz
>handheld.... I have not tried this on a IC2SA/T, IC3SA/T, or IC4SA/T.
>
[....]
>--
> /***\
> * Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
> * (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
> ***/

I recently received my IC-2SAT and tried the LIGHT+B+#+<ON> trick. The
dial now goes from 0 to something like 1309.9750. However, below 76.1 and
above 355.30 the display shows a "U" where the memory channel is displayed.
I assume this means some kind of error, and that the radio will only really
receive between 76.1 and 355.30. Is this correct? Before I bought the
set I looked at the spec sheet from ICOM. It claimed only 140 to 150 mhz
recieve. However, when I went shopping the sales guy said "Yeah, the specs
are usually bogus....here look for yourself...". From the factory, the 2SAT
will receive 134 to 174 mhz. Also, it appeared that there was no way to
quickly change the 100 and 10 mhz digit; e.g. to get from 140 to 150 mhz you

had to dial in "9990" (which gives you 149.990 mhz), the turn the vfo dial to get 150 mhz. With the LIGHT+B+#+<on> you can access the 100's and 10's digit. I don't know if this "mod" is such a good idea: I like to do band scan and now the band is huge. I suppose there is a way to program skip freqs though.

--

Jeff Crilly (N6ZFX)
AMIX Corporation
2345 Yale St.

3660. Re: ANS: Field day software bugs

Newsgroup: rec.ham-radio
Date: 1990-06-22 03:04:05 UTC
From: rnelson@watserv1.waterloo.edu
Message-ID: <1990Jun22.030405.2473@watserv1.waterloo.edu>
Source record: 10866

In article <9006192127.AA20355@tecnet1.jcte.jcs.mil> mgb@tecnet1.jcte.jcs.mil writes:
>Let me know PLEASE if you get an answer! I have the same problem and
>have written him email on it. Also ftp'ed the file again just to make
>100% sure that it didn't get damaged in transit... unlikely but I wanted
>to make absolutely sure. Same thing.
>
There is a new copy of sort-fd.exe on ucsd.edu. The file within fielday.zip
is broken. I have mailed both of you a uuencoded version of this program.
It should resolve the problem. Anyone else wanting the fix may ftp it
from ucsd.edu in /hamradio/sort-fd.zip.
Sorry for any problems this has caused.
73 de Randy

--
Randy Nelson VE3WRN Ontario Representative rnelson@watserv1.uwaterloo.edu
197A Cedarvale Cr. Disability Information ..uunet!watmath!watserv1!rnelson
WATERLOO, ON Services of Canada. rnelson@uncaedu.bitnet
N2L 4T3 (519)884-2989 (Voice and TDD) VE3WRN @ VE3EUK.ON.CAN.NA

3661. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-22 04:23:29 UTC
From: julian@bongo.UUCP
Message-ID: <164@bongo.UUCP>
Source record: 10861

I am going to try not to waffle on this. It is an emotional subject. It even touches on Morris See-Dubblya.

We are faced with two items that trouble me: Ham radio is becoming an old man's game. Science is not catching the imagination of today's youth. This is not limited to the U.S., depending on whose survey you read, either the Limey's or the Yanks are getting stupider in the sciences. The only consensus seems to be that the Japanese are doing well in teaching their kids science.

I think that ham radio is applied science. Even to make a CW contact, you need to know some physics - less and less with plug 'n' play gear alas - and talking to the DX station teaches you some Geography. Hey, if you get to chat about the weather, you may learn some meteorology. Let's face it ham radio is more educational than bowling on Wednesday nights.

If we get anyone, even youth, interested in amateur radio, we are doing a small bit for the knowledge base of the world. If you learn about the piezo-electric effect, you are less likely to think that having the right crystal will give you more vivid dreams or clear up the dog's halitosis.

This forum is probably read by some of the best minds in the amateur ranks. These minds could help spread the word about amateur radio. What we should tell people is how great minds and great men enjoy amateur radio. Telling people that some overweight old farts in the local park in the last weekend in June is "Amateur Radio" is not going to fire any imaginations. Let's show them the wonder, the gee wiz stuff. We need to push the science and experimentation. Today you can work 100 countries in an afternoon with the AT&T endorsement - Your itemised phone bill is confirmation. So people are no longer amazed that you can tell someone in Africa that they are "Fahvnahncuessell?"

Tell 'em that you know how the stuff works, show 'em a globe, explain satellites, show them your computer receiving email from around the world via radio. Show them the wonder.

No doubt about it, amateur radio is one of the best applied science lessons you can give.

Now my beef is that the ARRL is not pushing the science angle to the public. The constituency of the ARRL is HF Contesting. Don't believe me? Read QST. Then see who the elected officers are, certainly in my neck of the woods, they are all DXCC (No AT&T endorsement) types. Remember what happened to the Microwave column in QST? What happened

to QEX? Then Ham Radio Mag just died. CQ Mag the home of "How I worked the contest from the Djibouti Hilton" type articles is doing fine. When the contesters finally die what are we going to do?

So we have a situation where maybe if we pushed science on the public - like teaching it in schools - we could have more radio amateurs. Then if we had more amateurs, maybe there would be more interest in Science. I have been told that in US schools Geography is no longer a subject. Fancy going for DXCC and not knowing where the countries really are.

I have taught amateur radio courses and I was floored at the ignorance of my students. I had everything from housewives to a high school math teacher, an insurance salesman and even a stocks fraudster who could h do things with money that only Ivan Boesky would appreciate. My best student was a Vietnamese woman who is now an extra. She understood the wonder.

Today I called the ARRL to see if they had any Public Service Announcement (PSA) Videos. A PSA is really a free ad that stations run as filler, they sometimes make it on the air early Sunday morning. I was told they had one with Ronnie Milsap. I will have it in a week or two and see what it is like. How about a video of a group of guys at consoles at JPL or somewhere saying that they started life wondering about ham radio and now they steer spacecraft across the heavens. How about an airline pilot on a flight deck saying that he learned about foreign countries, weather and radio communications as a ham and the wonder of it all made him want to do it for a living so now he's a pilot. We must all know people who have prestigious careers because they became interested in amateur radio. Can't that too often about bowling.

I know this is long and rambling, but it is much shorter than the original. Thanks for bearing with me, I feel much better now.

Let's interest people in the science of it all. If you just like to yak, you can bowl. If you like to be rude and obnoxious, rather than contesting, you could sell encyclopedias door to door. If we get people interested in the wonder of it all, maybe the general standards will improve. They could use it.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

3662. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-22 07:33:13 UTC
From: dt@yenta.alb.nm.us
Message-ID: <1413@yenta.alb.nm.us>
Source record: 10870

alanb@hpnmdla.HP.COM (Alan Bloom) writes:

>I have an idea. Eliminate voice as a legal mode in Amateur radio.

>Al N1AL

(inserting tongue into cheek)
-.-- . .- .... - .... .- - .-- .. .-.. .-.. -.. --- .- .-.. --- -

--- ..-. ..-. ..--.. ..--.. -.- .. -. --. --. --- --- -.. .-.-.-
(extracting tongue)

actually, I'll agree that CW operators tend to be more civil, and it's about
the only mode I enjoy lately. However, communication is communication.
There is hostility on telephones, cb, the usenet, and all modes of amateur
radio. 20 meters probably just seems worse because it is such a hot band.
Everyone in the world can hear everyone else much of the time. That's a
lot of people trying to get along.

David (yenta!dt@bbx.basis.com)

3663. 20M garbage, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-22 09:15:39 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <54907@lanl.gov>
Source record: 10869

I guess noone heard my request for Amateur Auxiliary info...

hint hint

Seriously... is anyone on here in it? Do you think the Aux. is a tool that may assist us in our woes? WARC 92 is coming, you know! If we start now, maybe we can improve the situation and not lose as much as we probably are going to if things keep going like they are now. After all... we ARE supposed to be self-policing! So far, all I've heard of self-policing was "police men" creating more QRM telling wrong-doers that they are doing wrong! That does noone any good, and it seldom works. We need to crack down!! Does anyone even care?

Mark C. Lowe - KB5III

3664. Re: 20 Metre Mess

Newsgroup: rec.ham-radio
Date: 1990-06-22 11:29:08 UTC
From: jcraig@kean.ucs.mun.ca
Message-ID: <98307@kean.ucs.mun.ca>
Source record: 10786

Leave the Phonies to their own devices... as long as they leave me alone. CW FOREVER!!!!!

3665. Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-06-22 11:45:27 UTC
From: eric@electro.com
Message-ID: <2012@electro.com>
Source record: 10872

Interdigital filters can be built for this band and so can resonate
coils in a shielded containor (in 1988 Ham?/Antenna? Book). The
easiest is to use a set of tuned stubs or a version of the hairpin
filter. Look under microstrip or stripline filters for the lower
microwave bands. These can be cut and tuned with a knife/chissel
from regular copper clad epoxy.
But what can I say. I have built quite a few for 1.2GHz but all
have suffered from high 10-16db losses. If you get the notes
from the microwave conferences from the past few years you can
see what some people have played with (hair-pin) and get some
references but losses will be in the 2db range.
Eric (VE3 WNR)

3666. Re: Amateur Auxiliary

Newsgroup: rec.ham-radio
Date: 1990-06-22 13:05:49 UTC
From: cep@cci632.UUCP
Message-ID: <38242@cci632.UUCP>
Source record: 10875

In article <54551@lanl.gov> rdw2030@venus.tamu.edu writes:
>I'm not one to advocate "tattling" on a fellow ham, but if he is deliberately
>abusing the privilege, than screw it! Let the FCC know and hope that $1000
>fine does the trick!

Notice that in June's QST, there are lots of good stories about bad
apples "got theirs", including two hams causing malicious QRM, and a
few illegal CB salespeople. I got a lot of satisfaction out of reading
this stuff :-)

Chris

3667. Re: Dubious quality of CQ (review of AEA IsoLoop)

Newsgroup: rec.ham-radio
Date: 1990-06-22 13:30:13 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <61@thoreau.nsc.com>
Source record: 10871

Yes, I will miss my "Ham Radio Magazine" and the outlet for part 3 of PATHFINDER. Given the realities of publishing we may need a little more time to see the fruits of the merger(?), Terry and Craig always quoted a minimum 4 month lead time which could be violated only on national emergency or the like. It seems that the July issue was pretty well buttoned up then the deal went down. Let's give them a couple more months to demonstrate wheither the presence of Terry, Craig and the others from HRM are going to make any difference. Another thing we could try doing is stop talking about technical content of "CQ" and flood them with the kind of manuscripts we would like to see. No, the day of the W2PV and K2BT type text book is probably gone but there are other outlets for this kind of work.

Is there any one out there who would like to suggest to Craig that he push for a quarterly technical publication under the present banner but of the quality that we have come to expect from "Ham Radio Magazine"? They could offer it at a discount to "CQ" subscribers and sell it full price on the news stands and via the bookstore.

If we are to recover our technical publications then we will have to work for them.

Ron Todd, K3FR

3668. Re: Strange RFI

Newsgroup: rec.ham-radio
Date: 1990-06-22 13:31:14 UTC
From: sbk@cbnewsl.att.com
Message-ID: <1990Jun22.133114.20734@cbnewsl.att.com>
Source record: 10779

If the interference shows up on ALL bands, then see if your
receiver has a built-in loopstick antenna that's used for
the lower frequency bands. If so, you can use the fact
that there's a sharp decrease in signal strength with the
signal hits these antennas end-on. If the inteference
is fairly local, like a neighbor's television set, then
you can walk around the area, take bearings, and triangulate
to find the source of the interference.

Stan King, stan@floyd.att.com

3669. Re: 20M garbage, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-22 15:17:24 UTC
From: brewer@anarky.enet.dec.com
Message-ID: <334@e2big.enet.dec.com>
Source record: 10874

>
>
>Seriously... is anyone on here in it? Do you think the Aux. is a tool that
>may assist us in our woes? WARC 92 is coming, you know! If we start now,
>maybe we can improve the situation and not lose as much as we probably are
>going to if things keep going like they are now. After all... we ARE
>supposed to be self-policing! So far, all I've heard of self-policing was
>"police men" creating more QRM telling wrong-doers that they are doing wrong!
>That does noone any good, and it seldom works. We need to crack down!! Does
>anyone even care?
>
>Mark C. Lowe - KB5III

* Mark, I'm not sure that it is a question of caring, Im just not
sure what to *do* in this situation! Obviously since call signs
are given, the individuals could care less about peer pressure
and the "good image and fraternity" of Amateur Radio.

What can be done?!?!?

73
/john wb5oau

+---+
John Brewer WB5OAU	Brewer@ace.enet.dec.com
Digital Equipment Corporation	Brewer@cup.portal.com
Albuquerque NM	WB5OAU@KN5D
+---+

3670. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-22 15:35:34 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720071@hplsla.HP.COM>
Source record: 10867

>/ hplsla:rec.ham-radio / winter@Apple.COM (Patty Winter) / 7:08 pm Jun 20, 1990 /
>
>BTW, didn't Worldradio say once that "Kurt" is a woman?
>
>Patty

No, you're thinking of "Lil Paddle", the other person who occasionally pens the Antenna column in WRN. I'm not exactly sure what the relationship is, if any, between the the two. They both claim to be uh, "Old Timers", though... As you can tell, that column is about the only one I usually read, more for its entertainment value than anything else.

BTW, Getting back to CQ. I was pleasantly surprised to read 2 antenna articles in the same July issue (first one for me) by Les McCoy, K1ICP, who has been missing from QST's pages for quite some time. It's interesting to note that he brings up the very same point about low efficiency of small antennas.

Charlie, KX7L

3671. CB "Traffic Advisoy Channel"

Newsgroup: rec.ham-radio
Date: 1990-06-22 18:01:00 UTC
From: lambert@CCF1.NRL.NAVY.MIL
Message-ID: <9006221814.AA27497@ucsd.edu>
Source record: 10876

Almost everyone has a broadcast band receiver in the car. Why not use one of those broadcast band advisories like they use around amusement parks and tourist attractions? The CHP could be advised via CB channel 9, and then broadcast the information to the rest of the citizens.

3672. HR mag

Newsgroup: rec.ham-radio
Date: 1990-06-22 18:03:13 UTC
From: herbster@b11.ingr.com
Message-ID: <8205@b11.ingr.com>
Source record: 10782

I got my fist license the year HAM-RADIO magazine started publishing. I have
now received my first EVER issue of "Contest-Quarterly" as a consolation prize.
Why do i feel like i got the very short end of the stick??
What a R.I.P.

de km4jn

3673. Vintage Radio Equipment For Sale

Newsgroup: rec.ham-radio
Date: 1990-06-22 18:12:41 UTC
From: root@conexch.UUCP
Message-ID: <42052@conexch.UUCP>
Source record: 10792
Cross-posted to: misc.forsale,rec.ham-radio,sci.electronics

Thu May 31 12:03:12 PDT 1990

RADIOS:
1. Atwater Kent Model 10 "Radiodyne" breadboard. Rare model
fully operational with 120V power supply, tubes, owner's manual,
and Model M horn speaker. $1,000.00

2. Western Coil Model WC19 "Radiodyne" mint conditon and
working. $200.00

3. R C A Radiola III and Balanced Amplifier with tubes. $200.00

4. Priess "Stright Eight" with loop antenna. $185.00

5. Grebe "Synchrophase" excelent condition. $195.00

6. Philco Model 90 "cathedral" $495.00

7. Kennedy Model 20 Type 440 with tubes. $175.00

SPEAKERS:
1. Burns curved "petal" horn speaker, sounds great. $250.00

2. Western Electric Model 540-AW paper cone, works. 60.00

3. Bristol Baby Grand hard rubber horn speaker. $55.00

4. Atwater Kent Model "R", rare. $80.00

5. Sonochord paper cone with cloth front, mint, nice. $80.00

6. Music Master wooden horn speaker, nice. $130.00

7. Small Magnavox metal horn speaker, works. $65.00

MISC.
1. F. B. Myers RAC3 "Audion" new in box. $125.00

2. '99's, 01A's,... $10.00 - $25.00

3. Rider Manual I-V Abridged $35.00

4. Rider Manual II $30.00

5. Books ... Fine historical colletcion. Offers accepted.

Contact me via E-mail or phone: (714) 842-2862
Larry Dighera

--
USPS: The Consultants' Exchange, PO Box 12100, Santa Ana, CA 92712
TELE: (714) 842-6348: BBS (N81); (714) 842-5851: Xenix guest account (E71)
UUCP: conexch Any ACU 2400 17148425851 ogin:-""-ogin:-""-ogin: nuucp
UUCP: ...!uunet!spsd!conexch!root || ...!ccicpg!conexch!root

3674. Books on Early Electronics For Sale

Newsgroup: rec.ham-radio
Date: 1990-06-22 18:14:19 UTC
From: root@conexch.UUCP
Message-ID: <42053@conexch.UUCP>
Source record: 10791
Cross-posted to: misc.forsale,rec.ham-radio,sci.electronics

Here is a list of the wireless electronics books that I would
like to sell:

1. Modern Views of Electricity
Oliver Lodge

` 2. Talks About Radio
Oliver Lodge

3. Conqueror of Space
Biography of Lee De Forest

4. Man of High Fidelity, Edwin Armstrong
Biography

5. Loki, The Life of Steinmetz
Biography

6. From Immigrant to Inventor, Pupin
Biography

7. Radio Telephony,
Goldsmith, 1918

8. Elements of Electricity.
Millikan, 1919 $100

9. Experimental Electrical Engineering
Karapetoff, 1909, First Edition $100

10. Principales Underlying Radio Communications
U. S. Army Signal Corps, 1921

11. Hjemmets Radio, Norwegian, 1934

12. Standard Handbook for Electrical Engineeres
1915, 1983 pages

13. Radio for Everybody, 1922

14. ICS Handbook for Electrical Engineeres, 1908

15. Radio Laboratory Handbook, British

16. Hawkins Electrical Guide,
Ten Volumes, 1917

Contact me by E-mail or phone: (714) 842-2862
Larry Dighera

--
USPS: The Consultants' Exchange, PO Box 12100, Santa Ana, CA 92712
TELE: (714) 842-6348: BBS (N81); (714) 842-5851: Xenix guest account (E71)
UUCP: conexch Any ACU 2400 17148425851 ogin:-""-ogin:-""-ogin: nuucp
UUCP: ...!uunet!spsd!conexch!root || ...!ccicpg!conexch!root

3675. Re: Re: Info-Hams Digest V1 #32

Newsgroup: rec.ham-radio
Date: 1990-06-22 19:50:02 UTC
From: jle@hpfcdc.HP.COM
Message-ID: <7880161@hpfcdc.HP.COM>
Source record: 10790

> Interesting! I heard a ham call used by the Higgins character in the
> Magnum series. It was N6DBZ. Anybody know who it belongs to - a
> TV producer or tech or friend of one of the writers, etc etc??

Subject: Re: N6DBZ

N6DBZ (E, exp 98333)
MICHEL TER SARKISSOFF
8680 BODEGA HWY
SEBASTOPOL, CA 95472

Jer/ Eberhard, (SLASH), HAM = N0FZD | Hewlett-Packard - MS99, 1UP10, 15' East
CAP SAR Pilot, COMM,INST,CFI-GLIDER | 3404 East Harmony Road (303) 229-2861
UUCP:hplabs!hpfcla!jle | Fort Collins, Colorado 80525-9599
ARPA:jle%hpfcla@hplabs.HP.COM

3676. Re: Strange RFI

Newsgroup: rec.ham-radio
Date: 1990-06-22 20:45:59 UTC
From: bill@videovax.tv.tek.com
Message-ID: <5864@videovax.tv.tek.com>
Source record: 10784

Is there a television set operating nearby? I get all kinds of RFI from my TV, and a bit from the neighbors'. The horizontal oscillator operates at 15.734 KHz. A high-voltage sawtooth makes a wonderful harmonics generator. The interference is modulated at 60 Hz by the picture brightness. On my SW receiver it sounds like a buzz that changes in loudness when the TV scene changes.

--

Bill McFadden Tektronix, Inc. P.O. Box 500 MS 58-639 Beaverton, OR 97077
bill@videovax.tv.tek.com, {hplabs,uw-beaver,decvax}!tektronix!videovax!bill
Phone: (503) 627-6920 "The biggest difference between developing a missle component and a toy is the 'cost constraint.'" -- John Anderson, Engineer, TI

3677. Re: Amateur Auxiliary

Newsgroup: rec.ham-radio
Date: 1990-06-22 21:12:18 UTC
From: john@anasaz.UUCP
Message-ID: <2536@anasaz.UUCP>
Source record: 10785

In article <54551@lanl.gov> rdw2030@venus.tamu.edu writes:
]
]Are there any members of the Amateur Auxiliary here? What ability does the
](ahem) AA :-) have to help control this sort of crap that's going on on 20M
]and elsewhere? I would love to get in on such an activity. Just tuning
]around, I hear so much garbage and feel helpless to do anything about it, as
]many others have stated here.
Yes, am a member of Amateur Auxiliary (OOC, AZ). There's not a damn
thing we can do about the problem on 20 meters. The AA basically
has three ways of dealing with these sorts of problems:
(1) Education - let an offender know that he/she is in violation of
either FCC rules or good amateur practice.
(2) Peer Pressure - let an offender know that he/she is not going to
get approval from other amateurs for his/her activities.
(3) Assist the FCC in gathering information necessary for
a prosecution.

When there are people who are very familiar with the rules and with
standard amateur practice, and who don't give a damn what other
people think, (1) and (2) don't work. We all know the problems with
#3.

]
]How does the Auxiliary work? I guess I can whip out the Handbook. Hmmm...
]precious little. It refers to an article in QST of Aug '84.
]
]But hey, if we all write to our section managers (the guys that control the
]Auxiliary for their area) and find out about this, maybe we CAN do something!
]
]I'm not one to advocate "tattling" on a fellow ham, but if he is deliberately
]abusing the privilege, than screw it! Let the FCC know and hope that $1000
]fine does the trick!

Don't go to the FCC. Do go to your SM and get involved in the AA program.
]
]What do you all say? I have not heard of ANYONE being in the Aux., nor have I
]heard any mention of it in all my many years of hamming. (1.5, to be
]precise!) :-)

It's not our job to make a lot of noise. It also varies greatly from
one ARRL section to another.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253
Voice: (602) 951-9326 FAX:602-861-7642 Advice: Long palladium, Short Petroleum

Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3678. Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-06-22 21:21:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500574@ux1.cso.uiuc.edu>
Source record: 10780

What would be the bandpass curves of simple coaxial 1/4 wave shorting stubs attached to a T-connector? 1 of them? 2 of them spaced apart?

I am wanting to use some 1/4 shorting stubs for static dissipation and lightning protection, but would like to have some flexibility in the transmit range (we are talking <= 25w and typically <= 5w). I'd like to cover the whole 144-148 Mhz band if I can. Filtration is NOT my goal, but rather the ability to dissipate some static electricity. Resistors are out as they are destroyable components for surges. I also am planning to build this for 154-159 Mhz for some local public service radios in use.

I'd also like to know if anyone has tried this for dual-band use, and how good a bandpass can be had for both 144-148 and 440-450 (not exactly 3:1 ratio but close). I'm thinking to aim for the 147/441 Mhz harmonic pair as the center frequency. How high would my Q be on UHF as a 3/4 stub?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3679. Re: Icom R7000 sensitivity?

Newsgroup: rec.ham-radio
Date: 1990-06-22 21:47:55 UTC
From: chris@hplvli.HP.COM
Message-ID: <20200004@hplvli.HP.COM>
Source record: 10873

You indeed do have a problem with the R7000.
My R7000 met it's specs in all measured frequencies
up the limits of the HP-8640B signal generator.
Calibration of the S-meter was good (linearity and
accuracy) within my ability to read the meter.
SINAD sensitivity measurements were also fine,
per the ICOM spec, and good by comparison to any
"normal" ham receiver. I will try to remember to
post a copy of my measurements. It sounds like you have
a front end problem of major proportions, which
usually means it will be simple to find. Anything which
will cause 50 dB loss in sensitivity will be a broken
wire or relay, or a transistor really evaporated by ESD,
lightning, etc. Buy a service manual for the unit, it
has complex IF switching design, which changes with
receive frequency selection.

Then look for something obvious, like a module connector
having fallen out of it's socket, etc.
Just to be safe, see what you can measure in the way of
low-level sensitivity, ie NOT S-meter readings, but
what signal strength just starts to quiet the FM receiver
noise. Bad S-meter readings may indicate S meter AMP
problems, but bad low-level sensitivity means broken
RF or IF modules.

Take heart, a problem as large as this is usually simple
to fix.
73, de WD5IBS...chris

3680. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-22 21:54:34 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880162@hpfcdc.HP.COM>
Source record: 10789

>I have an idea. Eliminate voice as a legal mode in Amateur radio.
>
>Al N1AL

The jamming was in CW - well N0N, but that's close enuf. Eliminate CW. :-)

Perry/KF0CA

3681. How to buy a QSO

Newsgroup: rec.ham-radio
Date: 1990-06-22 22:14:44 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990Jun22.221444.25178@ecn.purdue.edu>
Source record: 10778

>>From: k4bnc@cbnewsh.att.com (john.a.siegel)
>More seriously, QST edited out a portion of my letter to the editor on the
>3Y5 mess that implied that the ARRL DXCC program was due a share of the blame.
This should surprise no one. The ARRL has a quite notorious past
history of trying to surpress opposing points of view - but don't
just take my word for it, go look it up for yourself. Check
around - while you will find that the ARRL has done a lot of
good things for Amateur radio, some of the abuses of their
own membership is simply appalling.

>Does anyone else think that the DXCC endorsement/Honor Roll program contributes
>to the overly competitive, work em at any cost attitude that also leads to
>jamming? How about a DXCC for 100 countries and no further endorsements?
John, I've said it before and I'll say it again here. It isn't
just any one award that is responsible for this totally
disgusting behavior. It is an attitude which you summed up
quite nicely and accurately - "...work em at any cost..."

I have stated openly for some time that many hams simply write
a check for their QSO's. By that, I mean that they decide they
want to achieve a certain award or a certain "level" of
recognition and they go out and buy equipment that is sufficiently
powerful enough to do the job. Now if they were buying equipment
that fell within the "just powerful enough" concept, that
would be fine. But NOOOOOOOO, they have to go out and buy
the Kilowatt, the tower and the mega-antenna.

What happens? Simple! All it takes is for a few of these guys
to get into the same pileup for a station, and the poor
schmuck that everybody WANTS to QSO with can hear ONLY the
kilowatt hams! So what can the rest do - THEY go out and buy
the KW, assuming they can afford it, just to be heard. And
those of us who don't run that power level can never get through
to a DX station Because of all the kilowatters covering us up.

One time I had the satisfaction of turning this situation
around. I was sitting with my measly 20 watts on top of
a mountain in the Smokies and encountered a pileup with
a New Zealand ham - I put up my call at the appropriate
time and he responded immediately. He didn't believe that
I was running a Uniden 2510 with no amp and told me I was
not only 59+ but louder than some fellows who told him they
were running about 1 KW! Made me feel just *fine*.

Now that, of course, does not mean that I intend to move
into the mountains just to get a DX QSO now and then. I *do*

occasionally run into very considerate types who will
periodically ASK for QRP stations only. Compared to a KW
I do consider myself QRP. I wish more stations both
stateside and DX would do this and give the little guys
a chance.

This ties in perfectly with what you are saying - there is
a real bad attitude in Amateur radio (and NO, it isn't
everyone....) that says make the QSO no matter what you have to
do because by God! I paid for that piece of spectrum and
by God! I own it!!!!! This attitude is pure crapola and
is, IMHO, the source of a great deal of the malicious
QRM that is going on.

I think the majority of hams aren't guilty of the worst
offenses but by their silence they contribute to the problem.
If enough of us screamed bloody murder to the FCC about
some of the more obnoxious cases, you bet something would be
done about it. But not enough of us do scream, so the
FCC figures it isn't a big enough problem for them to
waste manpower on.

For a supposedly self-policing service we are doing a pretty
lousy job of it.

Duane Mantick
WB9OMC

3682. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-22 22:36:29 UTC
From: rec@mplvax.EDU
Message-ID: <1219@mplvax.EDU>
Source record: 10777

In article <1250177@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>
>I have an idea. Eliminate voice as a legal mode in Amateur radio.
>
>Al N1AL

This may sound like a subtle dig to the the no-code folks but it may become a viable solution in the not so distant future. If the Amateur Radio Service continues to deteriorate in quality and the number of illegal operators continues to expand at their current rates, the HF spectrum will become enough of a problem to the other services that the politicos will have to act. To head off the total banning of Amateur Radio, the ARRL, FCC etc. might offer to ban the voice mode where the problem exists and give up the voice spectrum without a fight. In other words, bribe the power brokers to leave us with at least a minimal amount of spectrum and the CW/digital modes. This would make enforcement of a ban on illegal radio transmissions easier as any voice transmission would be illegal. Further, the small amount of relatively unobtrusive CW/digital the air would cause few problems and would bring little attention to itself.
I have a feeling that, under this scenario, there would be good deal of technological advancement in CW and the digital modes and at least the technical and educational basis for Amateur Radio would survive. One of the arguments for no-code is that CW is outmoded. Well, in the digital age SSB is outmoded or will be soon as new hardware based DSP technology comes on line. So melt down your D-104s OM's. The days of shouting into a mike at your good buddies across town are coming to an end.

See you on the narrow bandwidth, high throughput modes OM's. Its happening now.

AA6PN

Richard Currier
UCSD/MPL
Mail Sta P-004
La Jolla, CA
92093

619-534-1730
rec@mpl.ucsd.edu

--
richard currier marine physical lab u.c. san diego
{decvax|ucbvax} !ucsd!mplvax!rec
rec@mpl.ucsd.edu

3683. 3N211 upgrade for 3sk40M in Yaesu FT101

Newsgroup: rec.ham-radio
Date: 1990-06-23 00:17:00 UTC
From: MULTI@TRIUMFER.BITNET
Message-ID: <90Jun22.201848edt.57919@ugw.utcs.utoronto.ca>
Source record: 10781

Apparently the Motorola 3N211 dual gate fet has higher gain than the
standard issue 3SK40 used in the front end and the mixer of the FT101E.
Does anybody have any experience swapping the 3N211 for the 3SK40 in
the Yaesu FT101 series of transceivers.

3684. Uniden hr2510/2600 conversion idea

Newsgroup: rec.ham-radio
Date: 1990-06-23 03:04:39 UTC
From: faunt@CISCO.COM
Message-ID: <9006230304.AA21029@ucsd.edu>
Source record: 10783

I'd say leave them alone, get convertors and transverters, and get on
UHF and higher.

3685. The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-23 03:15:36 UTC
From: ornitz@kodak.UUCP
Message-ID: <2480@kodak.UUCP>
Source record: 10787

Like many others who have commented lately about the dubious quality of CQ magazine, I feel a great loss at the demise of Ham Radio Magazine. When I read that HR had been sold to CQ in last month's HR, I first felt a great loss which turned to anger when I realized that I had just sent in a three year renewal. The thought that any of my hard-earned (or even not so hard-earned) money would go to a subscription to CQ riled me. The numerous times I have read CQ have convinced me that the magazine is tailored for contesters and appliance operators. While I have no complaint with people who get their kicks out of contesting, it is not for me (except maybe Field Day). The technical content of CQ is about the worst of any ham radio publication I have ever seen. It is certainly not for my tastes!

I decided to call the subscription office of Ham Radio and see if my renewal could be cancelled. I spoke with a very nice lady whose name I do not remember. She said that I could certainly cancel my subscription and get a refund. When I told her my subscription number, she remarked that I had been reading Ham Radio for a long time - since early 1971. I said yes, and that I was sorry to see it go - especially to CQ. She remarked that I was not alone and that a very large number of other hams were doing as I had done: cancelling their subscription immediately and asking for a refund. It was rather sad talking to this lady, who obviously was not happy with the events either. She said the decision was purely a financial one on the part of their owner, even though a number of the staff felt that CQ was the wrong magazine to sell to. Ham Radio realized that their audience was a specialized one leaning heavily toward technical topics and that CQ was just the opposite.

Well, I received a CQ magazine the other day and the mailing label indicated that I had three years and a few months of subscription left. Perhaps they have not had time to cancel it yet, or perhaps my cancellation got lost in the shuffle. In any event, I will call them in a few days to see what happened. I certainly expect that all of my renewal fee should be refunded.

In any event, if enough former Ham Radio subscribers cancel what is left of their subscription to CQ, it should deliver a quite powerful message: the amateur radio community still supports a technically oriented magazine and that CQ is inadequate. Perhaps CQ will come around and greatly improve their technical content. If they make enough of an improvement, I'll subscribe. In the mean time, I renewed my membership in the Applied Computational Electro-magnetics Society, and I am looking into some of the European amateur radio journals. Perhaps others on the net can make suggestions about some of the smaller technical newsletters on VHF/UHF/microwaves. I am open to all suggestions. For those of you who are eligible for a free subscription, RF Design is an EXCELLENT magazine.

BTW, when I sent in my renewal to Ham Radio in April, I asked for an author's guide so I could submit an article. As far as submitting it to CQ, no thanks! Unfortunately it is a fact of life that when an advanced construction article is published in a magazine like CQ, a large number of people may attempt the project who really have no business doing so. The poor author gets stuck with a number of irate letters and lots of dumb questions. Well, technical questions are good and I enjoy answering them - but I don't have the time for such things as: "I substituted a Radio Shack 2N2222 for the GaAs FET and I used masking tape instead of PTFE. I used 1 microfarad mylars from my old speaker crossovers instead of the tantalum electrolytics. Why doesn't it work like you said on page 23? I know I followed your article exactly, and I have lots of experience. Why I built that 10 minute ID timer last year from the pre-etched circuit board with all the parts from my local Radio Shack!" And he doesn't even send a SASE....

I do not mean to sound elitist, but unless the technical competance of the average reader is at least somewhat near that of the audience the author intended, the highly technical article is a waste. Don't get me wrong, though. I am very much in favor of improving the technical know-how of hams. It is just that I would have to write on a far less technical level if I were trying to tailor an article for the average CQ reader. Someone has suggested that the way to improve CQ is to flood them with good technical articles. Perhaps. I hope so. But I doubt if CQ will risk losing its far larger circulation of DXers and contesters by running many highly technical articles in place of contest announcements and product "reviews" of faithful advertizers.

And before the DXers and contesters complain, let me again say that you deserve your own specialized magazine. These activities are just not for me, and I don't want to pay for a magazine that does not fit my interests.

Well, tomorrow is Field Day and I have to get the rigs ready for the mountain top! The motorcycle battery is charging and Murphy is warming up! 73
Barry WA4VZQ


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-----------------
| ___ ________ | Dr. Barry L. Ornitz WA4VZQ
| | / / | | UUCP: ....rutgers!rochester!kodak!ornitz
| | / / | | Eastman Kodak Company
| |< < K O D A K| | Eastman Chemical Company Research Laboratories
| | \ \ | | P. O. Box 1972, Building 167B
| |__\ \________| | Kingsport, TN 37662 615/229-4904
| | INTERNET: ornitz@kodak.com
-----------------
```

3686. Audio mod for Icom IC02 and IC04

Newsgroup: rec.ham-radio
Date: 1990-06-23 03:25:20 UTC
From: rfc@briar.Philips.Com
Message-ID: <100248@philabs.Philips.Com>
Source record: 10801

copied from packet:

Msg# TSF Size #Rd Date Time From MsgID To
28795 BF 1630 1 10-Jun 1416 KC4MCQ 25840_K6IYK MODS@NYNET ()
Sb: Icom O2 and O4 Audio Fix

===== AUDIO MODIFICATION FOR ICOM IC02 AND IC04 RADIOS =====

This audio mod works on the 02 and 04AT. It increases the
level of audio, as well as rolling off some of the lows.
Sounds real nice. It involves the circuit around Q105.

1. Replace C119 with a .01 uF cap (disc ceramic is fine).

2. Parallel R131 with a 1 uF cap (use a tantalum cap).

3. Parallel R132 with a .01 uF cap (disc ceramic is fine).

This is not the same mod as the one International Radio is
advertising, which involves changing C117.

I tried an AB-1 Audio Blaster from Engineering Consulting,
and was very unhappy with the results. I am very pleased
with the audio given by this mod (much cheaper too!).

Note: I haven't tried or verified this, proceed at your own risk. WA2ISE

3687. Re: HR mag

Newsgroup: rec.ham-radio
Date: 1990-06-23 04:25:26 UTC
From: steve@matt.ksu.ksu.edu
Message-ID: <1990Jun23.042526.6014@maverick.ksu.ksu.edu>
Source record: 10788

herbster@b11.ingr.com (Joe Herbster) writes:

>I got my fist license the year HAM-RADIO magazine started publishing. I have
>now received my first EVER issue of "Contest-Quarterly" as a consolation prize.
> Why do i feel like i got the very short end of the stick??
> What a R.I.P.
> de km4jn

I would tend to agree with you. My consolation prize of CQ magizine came
in the mail this week. Sorry, I am an experimenter, not a appliance
operator. CQ just does not cut it!

I wonder if QEX from the ARRL is any good as an experimentation magazine?
Someone has to come out with a new HR! Someone has to!

-Steve Schallehn, KB0AGD
Kansas State University ARC, W0QQQ
--

Steve Schallehn | Internet : steve@ksuvm.ksu.edu
Kansas State University | UUCP : ..!rutgers!ksuvax1!ksuvm.bitnet!steve
Manhattan, Kansas 66506 | Bitnet : STEVE@KSUVM

3688. Kenwood TM-701A Crossband Repeater Mod Prob

Newsgroup: rec.ham-radio
Date: 1990-06-23 14:00:17 UTC
From: dhp1@GTE.COM
Message-ID: <9334@bunny.GTE.COM>
Source record: 10794

I just finished the crossband repeater mod on my TM-701A dual-band
mobile rig. After running several tests I discovered that the repeated
audio is extremely low. Has anyone else seen this problem? The circuitry
in the TM-721/731 should be the same.....

Any help would be appreciated....

73
--
Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com OR dhp1@gte.com
617-455-5704 | UUCP: ....!gte.com!edcd.dnet!pascoe

3689. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-23 14:39:20 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <202@ultrix.uhasun.hartford.edu>
Source record: 10796

In article <164@bongo.UUCP>, julian@bongo.UUCP (Julian Macassey) writes:
> Now my beef is that the ARRL is not pushing the science angle to the
> public. The constituency of the ARRL is HF Contesting. Don't believe
> me? Read QST. Then see who the elected officers are, certainly in my
> neck of the woods, they are all DXCC (No AT&T endorsement) types.

Maybe that's because the experimenter/scientist types consider themselves above mere "politics." Hey, the voters can't vote for a person who isn't a candidate. As long as the technical types stay out of the political arena, they will be poorly represented. This is as true of the ARRL Board of Directors as it is of any other political body.

> Remember what happened to the Microwave column in QST? What happened
> to QEX? Then Ham Radio Mag just died. CQ Mag the home of "How I
> worked the contest from the Djibouti Hilton" type articles is doing
> fine. When the contesters finally die what are we going to do?

Ummm... what specifically are you referring to with QEX? I can tell you that the biggest problem with QEX is that people don't submit good material for it. On numerous occasions, the editors have suggested that a piece submitted for QST go into QEX, only to have the author leave in a snit. The reality is that the technical level of QST is going to approach (hopefully from above) the technical level of the _average_ ham, not the techie. (That's one reason why Ham Radio was successful for so many years--little competition in its niche market.) If people want to get highly technical information published by ARRL, QEX and the conference proceedings are the only available forums. (BTW, the technical editors probably wouldn't agree with that statement, but I think they would agree that a "simple but engaging" project has a better chance of appearing in QST than a highly technical one.)

> Today I called the ARRL to see if they had any Public Service
> Announcement (PSA) Videos. A PSA is really a free ad that stations run
> as filler, they sometimes make it on the air early Sunday morning. I
> was told they had one with Ronnie Milsap. I will have it in a week or
> two and see what it is like. How about a video of a group of guys at
> consoles at JPL or somewhere saying that they started life wondering
> about ham radio and now they steer spacecraft across the heavens. How
> about an airline pilot on a flight deck saying that he learned about
> foreign countries, weather and radio communications as a ham and the
> wonder of it all made him want to do it for a living so now he's a
> pilot. We must all know people who have prestigious careers because
> they became interested in amateur radio. Can't that too often about
> bowling.

A wonderful idea. It's worth suggesting directly to the folks in the Educational Activities Department at HQ. Write to Rosalie White. (They are getting some spots done by the ham astronauts, but I don't know the content.)

Understand, though, that resources--especially time--are hard to come by at ARRL HQ. The EAD has three people in it. Two of them work full time getting requested material out to the preople/clubs requesting it; the other one (Rosalie) has to do everything else, which includes planning the Educational conference, coordinating the SAREX missions, coordinating the generation and publication of lesson plans, etc. So don't expect that they can initiate a large-scale program and carry it through. What works best is when volunteers do more than just come up with good ideas. If you can locate someone capable of producing the spots, locate the people to appear in them, get scripts written, shoot the spots, title them, and deliver them to ARRL HQ, maybe they'll get distributed, but it would be better to locate someone to take care of distribution too. It's not that we don't care, it's that we don't have the time and the money to do all of the good things that you (and we) would like us to do. I don't remember the exact numbers, but in the last ten years the number of staff has stayed nearly constant while the membership has increased by something like 40%. (That's probably not the right number, but the point is the number has increased a lot.) So things are operating about full-out at HQ.

> Let's interest people in the science of it all. If you just like to
> yak, you can bowl. If you like to be rude and obnoxious, rather than
> contesting, you could sell encyclopedias door to door. If we get

Part of the problem we have now is the "I'm OK, you're not" attitude reflected by comments like those. Ham radio has a lot of facets, and bickering between the proponents of one thing or the other is not helpful to anyone.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3690. Re: HR mag

Newsgroup: rec.ham-radio
Date: 1990-06-23 14:43:05 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <203@ultrix.uhasun.hartford.edu>
Source record: 10797

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu>, steve@matt.ksu.ksu.edu (Steve Schallehn) writes:
> I wonder if QEX from the ARRL is any good as an experimentation magazine?

It's as good as the material submitted to it--no better.

I see a lot of people p*ssing and moaning about the lack of technical material. I _don't_ see those people writing and submitting articles.

How about it, folks?

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3691. HR

Newsgroup: rec.ham-radio
Date: 1990-06-23 14:47:21 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <55065@lanl.gov>
Source record: 10793

Unfortunately, I never really knew about Ham Radio magazine. I have some old issues (early late 70's, early 80's) but just assumed they weren't around anymore. Maybe it's a good thing, because I'm not in mourning over it. I am sad to see a quality publication go, though. I am an experimenter, too, just starting in RF projects.

Mark C. Lowe - KB5III

3692. News From OSCAR-11 08Jun90

Newsgroup: rec.ham-radio
Date: 1990-06-23 15:09:04 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <310@ka2qhd.UUCP>
Source record: 10795
Cross-posted to: rec.ham-radio,sci.space

```
* UOSAT-2 OBC STATUS INFORMATION *

DIARY OPERATING SYSTEM V3.1 SMH MLJM MSH

Today's date is 23 /6 /90 (Saturday)
Time is 14 :22 :38 UTC
Auto Mode is selected
Spin Period is - 288
Z Mag firings = 0
+ SPIN firings = 27
- SPIN firings = 12
SEU count = 361
RAM WASH pointer at C80E
WOD commenced 23 /6 /90 at 0 :0 :8
with channels 10 ,11 ,19 ,29 ,
Last cmnd was 109 to 0 , 0
Attitude control initiated, mode 1
Digitalker active

**** UoSAT-OSCAR-11 BULLETIN - 217 08 June 1990 ****

UoSAT MISSION CONTROL CENTRE
University of Surrey, Guildford, Surrey, GU2 5XH, England

** UoSAT-OSCAR-14 **

A new version of the PCE Housekeeping Integration Task (HIT) has been uploaded
to the spycecraft. In addition to providing telemetry and file broadcast, this
version also incorporates digipeating. The digipeat callsign is UOSAT3
(SSID 0). All binary data (e.g. telemetry & broadcast packets) will now be
sent from UOSAT3-11 to allow filtering with the LCALLS command.

** CPE DETECTS SOLAR FLARE **

The Cosmic Particle Experiment (CPE) on UO-14 has been monitoring the LEO
radiation environment since late April. On Mondqy 21st May, at just before
Midnight, the CPE picked up enhanced activity at high latitudes, in which the
particle count rate grew by two orders magnitude, peaking after about 8 hours -
indicating that a solar flare had occurred. There was then a slow decay until
about 22:00 hours on Thursday 24th, when there was a very sudden increase in
auroral region activity - again about two orders of magnitude. This activity
decreased rather more slowly, with further enhancements occurring on the
evening of the 26th May and the morning of the 28th. Since then, the activity
has decreased, reaching its 'normal' level by 1st June. Data from this experi-
ment are collected and analysed at UoSAT Mission Control before being passed on
to RAE Farnborough.
```

** 5th AMSAT-UK/UoSAT Colloquium **

The 5th AMSAT-UK/UoSAT Colloquium is taking place at the University of Surrey, England from July 26th - 29th 1990. As usual, there will be a varied programme of lectures for both the beginner and the experienced operator. Booking forms must be returned by 1st July 1990. Further details are available from Ron Broadbent, G3AAJ at AMSAT-UK.

** AO-13 **

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The best estimate of the current attitude is:

BLON = 179 and BLAT = -2.1 for 04 Jun 90

Cross mode B and S QSOs are possible during MA 135 to 140.

** AO-10 **

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

** BID **

Please use BID $UOSAT.217 when copying to the packet network.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

3693. Re: HR mag

Newsgroup: rec.ham-radio
Date: 1990-06-23 16:22:40 UTC
From: john@anasaz.UUCP
Message-ID: <2547@anasaz.UUCP>
Source record: 10799

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve Schallehn) writes:
]herbster@b11.ingr.com (Joe Herbster) writes:
]
]
]>I got my fist license the year HAM-RADIO magazine started publishing. I have
]>now received my first EVER issue of "Contest-Quarterly" as a consolation prize.
]> Why do i feel like i got the very short end of the stick??
]> What a R.I.P.
]> de km4jn
]
]I would tend to agree with you. My consolation prize of CQ magizine came
]in the mail this week. Sorry, I am an experimenter, not a appliance
]operator. CQ just does not cut it!
]
Yeah... me too. I think I'll wait a couple of months to see if they
start running interesting stuff before I cancel my subscription.

]I wonder if QEX from the ARRL is any good as an experimentation magazine?
QEX is a fine magazine. Unfortunately it is quite small... only a couple
of articles (plus some columns) per issue. One nice thing about QEX
is occasionally they have articles that are essentially calls for discussion
on various issues. If you don't get QEX, I recommend it.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253
Voice: (602) 951-9326 FAX:602-861-7642 Advice: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3694. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-23 16:56:52 UTC
From: brian@ucsd.Edu
Message-ID: <14575@ucsd.Edu>
Source record: 10798

Expires:
Sender:
Followup-To:
Distribution:
Organization: The Avant-Garde of the Now, Ltd.
Keywords:

>Maybe that's because the experimenter/scientist types consider themselves
>above mere "politics."

Actually, that statement reflects that
1) the speaker isn't an experimenter/scientist type
2) he doesn't understand the experimenter/scientist type
3) he considers himself a politician
4) he thinks that e/s types think they're superior
5) political types think they're superior
6) he like you to think the same
a lot of baggage to pack into one sentence. But let me provide an
alternative view:

I've been in ham radio politics - I'm not well suited for it. It's not
very different [from my perspective] from ordinary politics - you'd
expect that. But it's very different from the world that the
experimenter/scientist works in every day.

To an experimenter (or even more so, a scientist), the world is a
rational place, where there are rules which strictly determine the
effect from the causes. Often these are simple rules, linear,
predictable, comfortable. Sometimes they are complex, as are the
non-linearities of the chaoticists.

But it is a comfortable rational world, where all you have to do to
make it work for you is learn the rules and extrapolate them to cover
your situation or experiment. Never do rules work against their own
nature, or out of spite, or for hidden reasons or to further covert
agenda. And the scientist likes this comfortable rational world, where
all pull together to further the one cause of knowing and doing more.
In science, those who don't reason scientifically don't last long.

The political world isn't like that. Oh, it has its rules, but they
are not linear, nor predictively chaotic. They are, in the main, based
on estimating the worst possible motives of all concerned and the
irrationalities of the common man, coupled with the need to attain and
maintain power and control. In a sort of Darwinism, the political
world breeds that type of person - those who cannot control do not last.

This is regrettably necessary, as people will not be governed by rational men, for the people themselves are not rational. They will not stand for strict rational control. Indeed, out of the desire for rational control grew some of the worst dictatorships of history, better only than those governed by madmen.

So the scientist (or experimenter) is not well suited to politics.

So don't ask the scientist to play politics, and don't ask the politicians to play science.

Their minds are of different bents and do not easily change.

Instead, they have to work together to determine what is best balanced agains what is really achievable.

There must be some way to help this happen in the ARRL and the rest of amateur radio. I don't think we've been very successful so far.

- Brian

3695. Re: The Saturday REAL EBS test

Newsgroup: rec.ham-radio
Date: 1990-06-23 22:03:09 UTC
From: die@cpoint.UUCP
Message-ID: <5677@cpoint.UUCP>
Source record: 10800

In article <9006201317.AA21484@ucsd.edu> SPADGETT@AUDUCVAX.BITNET writes:
>
>Several people have mentioned about the Saturday in 1971 the
>news wire services transmitted the EBS message that said an
>attack on the United States had been detected.

I think I have pointed this out before, but this thread reminds me again... I have a friend who worked on computerizing the UPI wire service in the early to mid 70's (used RCA's Spectra-70 IBM 370 clones). He told me that before this incident the Cheyanne Mountain Norad complex was hard wired into the distribution network for the UPI and AP broadcast wires so that any time they sent characters down the wire from their end it would automatically disconnect the New York national feed or local feeds from state offices and run the Norad message. No editor at AP or UPI got to review the message, control of the wire was completely in the hands of the Norad operator's Teletype as soon as he started a (paper) tape rolling.

After the incident they disconnected all of that magic and of the late 70's (much could have changed since then of course) all the Norad message did was interrupt the editors in New York who could then decide to run it on the wire.

One scary thing about the way they computerized the UPI was that all wires for everywhere went through the main computer complex (initially in New York City, since moved to Texas (Dallas ?)). If the main complex went out there would be no UPI anywhere. The AP took a more conservative approach and had local computer equipment in each state office that could at least originate local news feeds and network to the other local offices if the national (New York) wire control points died.

I haven't kept up with the wire service's current configurations since the revolution in computing power on a desktop and the more recent revolution in wideband digital communications via fiber. I know that the UPI and AP both used satellite systems in the 1980's to distribute news to end users (radio stations and newspapers) and to their offices, but whether they still do, and how they currently handle the control of their national streams of news is unclear to me. In the 70's most news was distributed either by a FDM multiplexed 120 hz channel spaced low speed FSK system carrying 5 level Baudot (used for all the radio and TV wires) and 6 level TTS (teletypesetter used for newspaper wires) or by 1200 baud ASCII (carried everything). Both were sent to the clients over leased private line voice grade data circuits. What is currently used I don't know, but with modern modems and micro's

much more than just one stream of 1200 baud could be sent over a voice grade line, and of course a VSAT terminal can handle tens to hundreds of kbps over a two or three foot dish. (If anybody out there knows how things are now set up I'd be curious to hear).

--

David I. Emery Clearpoint Research Corp.
35 Parkwood Dr, Hopkinton Ma. 01748 1-508-435-7462
{decvax, cybvax0, mirror}!frog!cpoint!die
{m2c}!jjmhome!cpoint!die, Internet: die@cpoint.clearpoint.com

3696. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-24 02:57:52 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <205@ultrix.uhasun.hartford.edu>
Source record: 10802

In article <14575@ucsd.Edu>, brian@ucsd.Edu (Brian Kantor) writes:
>
> >Maybe that's because the experimenter/scientist types consider themselves
> >above mere "politics."
>
> Actually, that statement reflects that
> 1) the speaker isn't an experimenter/scientist type
> 2) he doesn't understand the experimenter/scientist type
> 3) he considers himself a politician
> 4) he thinks that e/s types think they're superior
> 5) political types think they're superior
> 6) he like you to think the same
> a lot of baggage to pack into one sentence. But let me provide an
> alternative view:

I'll ignore the insults and simply remark that you infer considerably
more than I implied. I _do_ think that a lot of s/e types consider
themselves above politics. But then, so do the members of most every
group--except politicians.

[much deleted]
> So the scientist (or experimenter) is not well suited to politics.

Gee, that doesn't say much for their adaptability, does it?

> So don't ask the scientist to play politics, and don't ask the
> politicians to play science.
>
> Their minds are of different bents and do not easily change.
>
> Instead, they have to work together to determine what is best balanced
> agains what is really achievable.

I don't accept that there is some irreversible dichotomy between the
so-called "scientific" mind and the "political" one. Such a
characterization is incredibly simplistic. It also runs counter
to my experience (I do have some, in spite of what you assume). I do
agree that all players must be involved in devising solutions to
problems, which is all I was suggesting in the first place, one of the
more effective ways of getting involved being to run for office.

> There must be some way to help this happen in the ARRL and the rest of
> amateur radio. I don't think we've been very successful so far.

No, and if the prevailing attitude is one of "leave politics to the
politicians" we aren't likely to be.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3697. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-24 03:47:01 UTC
From: jimla@tekigm2.MEN.TEK.COM
Message-ID: <9453@tekigm2.MEN.TEK.COM>
Source record: 10804

I also regret the passing of Ham Radio Magazine. For general electronics coverage, I have been reading Electronics & Wireless World published in England. Their tutorials on electromagnetics have been excellent. Is there a comparable magazine that specializes in Ham Radio?

Jim Larsen
N7IHQ

3698. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-06-24 04:21:26 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9006240423.AA10646@ucsd.edu>
Source record: 10803

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial RCP/M, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial RCP/M may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #711 -
Alouette 1
1 00424U 62B-A 1 90168.70700584 .00000194 00000-0 22260-3 0 3291
2 00424 80.4632 285.5609 0022255 272.8130 87.0472 13.67357195382760
ATS 3
1 03029U 67111 A 90169.61083641 -.00000074 00000-0 99999-4 0 3900
2 03029 13.2048 21.2123 0013764 209.8859 150.0238 1.00272775 82805
Cosmos 398
1 04966U 71 16 A 90172.56085894 .00071779 17552-4 40041-3 0 9373
2 04966 51.5172 228.0287 2267954 155.4638 217.3728 11.06870828592180
Starlette
1 07646U 75010 A 90165.39663347 -.00000037 00000-0 18111-4 0 840
2 07646 49.8192 169.4922 0205777 181.9634 178.0466 13.82139069775396
LAGEOS
1 08820U 76039 A 90169.20473505 .00000002 00000-0 00000 0 0 840
2 08820 109.8514 355.4704 0044569 237.9393 121.6955 6.38664272 74004
GPS-0001
1 10684U 78020 A 90171.42595927 .00000007 00000-0 99999-4 0 4370
2 10684 63.7567 89.4642 0116043 207.9070 151.4739 2.00557530 75917
GPS-0002
1 10893U 78 47 A 90167.41385619 -.00000025 00000-0 00000 0 0 1963
2 10893 64.2968 330.3615 0166499 24.4299 336.3788 2.00545376 88651
SeaSat 1
1 10967U 78064 A 90169.43698656 .00000944 00000-0 36908-3 0 3462
2 10967 108.0231 322.7349 0003123 231.6281 128.4614 14.35714487626635
GPS-0003
1 11054U 78093 A 90167.20229175 -.00000024 00000-0 00000 0 0 2370
2 11054 63.9268 326.7216 0060143 118.4839 242.1302 2.00567124 85668
Nimbus 7
1 11080U 78098 A 90172.29012292 .00000099 00000-0 11768-3 0 6810
2 11080 99.1949 77.1237 0009855 72.1461 288.0767 13.83439362588605
GPS-0004
1 11141U 78112 A 90168.79787832 .00000007 00000-0 00000 0 0 3880
2 11141 63.7131 89.4147 0059976 316.9543 42.5789 2.00557226 84399
GPS-0005
1 11690U 80 11 A 90168.93914504 .00000008 00000-0 00000 0 0 9904
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2 11690 64.1783 91.5102 0116168 202.9906 156.4995 2.00556113 90255
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2 11783 63.7181 326.1110 0151057 60.7445 300.7515 2.00558097 74410
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1 12472U 81049 A 90171.69289864 -.00000181 00000-0 99999-4 0 9370
2 12472 3.4898 75.8399 0002501 334.7230 24.8438 1.00218379 32264
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2 12624 89.0435 147.8534 6203010 281.0048 19.1270 3.51022568262252
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1 12887U 81100 A 90171.68570105 .00037441 00000-0 63830-3 0 7097
2 12887 97.6316 219.3445 0002135 60.4469 299.6947 15.51272493481815
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1 13138U 82 33 A 90172.71892332 .00035407 00000-0 36358-3 0 3380
2 13138 51.6023 281.2703 0000769 286.6913 73.3632 15.64565311465562
Cosmos 1383
1 13301U 82 66 A 90171.83392220 .00000133 00000-0 14472-3 0 5801
2 13301 82.9300 298.1003 0027851 147.5363 212.7513 13.67832765398174
LandSat 4
1 13367U 82 72 A 90172.04304150 -.00000019 00000-0 79924-6 0 3683
2 13367 98.1657 234.4962 0004572 111.8541 248.3191 14.57131459421866
IRAS
1 13777U 83 4 A 90170.35291732 .00000351 00000-0 26764-3 0 7837
2 13777 99.0276 7.1173 0013724 24.5337 335.6467 13.98800581 47244
Cosmos 1447
1 13916U 83 21 A 90171.61779284 .00000125 00000-0 12142-3 0 7300
2 13916 82.9436 9.5226 0038531 127.7444 232.7212 13.74046222363144
TDRS 1
1 13969U 83 26 B 90171.00000000 .00000129 00000-0 99999-4 0 111
2 13969 4.4889 65.5696 0001571 54.4040 337.2530 1.00273914 93148
GOES 6
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2 14050 2.2403 78.2756 0001686 258.5217 100.8038 1.00292057 10309
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1 14129U 83 58 B 90163.39968501 .00000001 00000-0 00000 0 0 5290
2 14129 26.0015 199.7252 5965020 150.6381 263.1683 2.05879628 24630
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1 14189U 83 72 A 90171.76556490 .00000006 00000-0 99999-4 0 7794
2 14189 63.3570 87.7585 0147119 219.2367 139.7100 2.00705477 50831
LandSat 5
1 14780U 84 21 A 90172.07059127 -.00000342 00000-0 -70770-4 0 2275
2 14780 98.2053 232.0831 0000567 126.6055 233.5200 14.57108316335283
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1 14781U 84 21 B 90169.58912495 .00001625 00000-0 30884-3 0 7509
2 14781 97.9489 222.0956 0011372 243.6577 116.3475 14.65432665336172
GPS-0009
1 15039U 84 59 A 90171.87469294 .00000006 00000-0 00000 0 0 9592
2 15039 63.1040 86.9135 0021949 234.3941 125.4108 2.00612104 44114
Cosmos 1574
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1 15055U 84 62 A 90170.17242414 .00000120 00000-0 11746-3 0 8903
2 15055 82.9570 60.8504 0027402 321.5786 38.3426 13.73360368300345
GPS-0010
1 15271U 84 97 A 90170.29128355 -.00000024 00000-0 00000 0 0 8621
2 15271 63.2121 325.7569 0105211 327.3740 31.9573 2.00556627 41192
Cosmos 1602
1 15331U 84105 A 90169.56775426 .00002778 00000-0 37866-3 0 3135
2 15331 82.5337 359.6328 0023773 332.6843 27.3135 14.78192508308298
NOAA 9
1 15427U 84123 A 90172.30266998 .00000542 00000-0 31393-3 0 5954
2 15427 99.1676 172.2267 0015327 1.9416 358.1810 14.12601877284563
Cosmos 1686
1 16095U 85 86 A 90171.95241643 .00059475 00000-0 60586-3 0 6726
2 16095 51.6080 285.1580 0001449 30.4940 329.4545 15.64534414266542
GPS-0011
1 16129U 85 93 A 90168.98579620 .00000007 00000-0 00000 0 0 5491
2 16129 63.8823 88.0120 0123333 149.0756 211.6528 2.00510602 34375
Mir
1 16609U 86 17 A 90172.76073718 .00026387 00000-0 30221-3 0 7515
2 16609 51.6147 307.7072 0011048 63.3425 296.7817 15.61859519248814
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1 16613U 86 19 A 90171.73687454 .00000175 00000-0 91107-4 0 9932
2 16613 98.7342 246.1317 0001539 139.2265 220.9022 14.20018663 64437
Cosmos 1766
1 16881U 90172.40737064 .00003774 00000-0 52156-3 0 370
2 16881 82.5184 56.0495 0023734 339.5473 20.4780 14.77697927209771
EGP
1 16908U 86 61 A 90171.37293989 -.00000016 00000-0 19101-3 0 2292
2 16908 50.0075 246.2041 0011767 202.8455 157.1857 12.44387676175252
NOAA 10
1 16969U 86 73 A 90172.28185337 .00000486 00000-0 22966-3 0 4442
2 16969 98.5967 200.1358 0012309 257.1591 102.8208 14.23643091195190
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1 17527U 87 18 A 90171.65763325 -.00000039 00000-0 -15942-4 0 5840
2 17527 99.1100 244.1660 0001300 102.1264 258.0014 13.94860756169743
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1 17561U 87 22 A 90161.65641300 .00000079 00000-0 99999-4 0 5521
2 17561 0.0121 301.7081 0063038 358.7262 59.0452 0.99317656 5353
Kvant-1
1 17845U 87 30 A 90171.86490762 .00082318 00000-0 92401-3 0 1727
2 17845 51.6121 312.2418 0010830 60.2337 299.6211 15.61852643184720
DMSP B5D2-3
1 18123U 87 53 A 90172.29971071 .00000556 00000-0 31126-3 0 6161
2 18123 98.8193 2.8470 0015029 15.0939 345.0682 14.14063679154986
RS-10/11
1 18129U 87 54 A 90171.81336743 .00000134 00000-0 13451-3 0 2299
2 18129 82.9264 325.8470 0013220 107.0326 253.2224 13.72095123149940
Meteor 2-16
1 18312U 87 68 A 90170.78557919 .00000218 00000-0 18868-3 0 4419
2 18312 82.5545 288.2315 0010939 243.6165 116.3872 13.83653719143343
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Meteor 2-17
1 18820U 88 5 A 90172.89461377 .00000155 00000-0 12865-3 0 2960
2 18820 82.5438 346.7171 0015818 315.1391 44.8495 13.84348230120830
DMSP B5D2-4
1 18822U 88 6 A 90172.91794690 .00000546 00000-0 26678-3 0 5192
2 18822 98.6470 51.8560 0005414 260.4843 99.5722 14.21479670123497
AO-13
1 19216U 88 51 B 90169.21205142 .00000183 00000-0 99999-4 0 1323
2 19216 56.9974 149.9110 6972403 229.4910 45.2756 2.09695778 15428
OKEAN 1
1 19274U 88 56 A 90171.85654817 .00001538 00000-0 21411-3 0 8316
2 19274 82.5157 155.2035 0023875 109.2023 251.1799 14.77034684105460
Meteor 3-2
1 19336U 88 64 A 90171.30534747 .00000391 00000-0 99999-3 0 5075
2 19336 82.5318 275.2112 0015982 310.2493 49.7114 13.16899625 91363
NOAA 11
1 19531U 88 89 A 90172.98691171 .00000501 00000-0 29549-3 0 2950
2 19531 98.9822 121.3021 0011291 272.4805 87.5060 14.11633376 89649
TDRS 2
1 19548U 88 91 B 90161.76543195 .00000114 00000-0 99999-4 0 1357
2 19548 0.0907 88.8162 0003705 26.8285 244.3580 1.00274699 211
Cosmos 2001
1 19796U 89 11 A 90172.17907949 -.00001015 00000-0 99999-4 0 5179
2 19796 63.2395 92.3898 7085903 319.9032 5.2085 2.00642981 9887
GPS BII-01
1 19802U 89 13 A 90157.48846768 .00000016 00000-0 99999-4 0 1318
2 19802 55.0571 197.8390 0055238 165.2883 194.9589 2.00642175 9537
Akebono
1 19822U 89 16 A 90171.62976481 .00001860 00000-0 12435-3 0 6515
2 19822 75.1095 237.1597 4176621 219.6351 101.0174 7.11210961 89
Meteor 2-18
1 19851U 89 18 A 90171.63847248 .00000242 00000-0 20864-3 0 2422
2 19851 82.5192 225.7056 0016123 0.1614 359.9550 13.83985121 66048
TDRS 3
1 19883U 89 21 B 90162.00000000 -.00000234 00000-0 99999-4 0 1369
2 19883 0.1193 71.3863 0000120 162.1134 344.5358 1.00279466 74877
GPS BII-02
1 20061U 89 44 A 90157.19570991 -.00000032 00000-0 00000 0 0 1376
2 20061 54.7543 16.2374 0086335 172.7547 187.4207 2.00485469 7273
Nadezhda 1
1 20103U 89 50 A 90171.52293882 .00000134 00000-0 13087-3 0 1436
2 20103 82.9603 282.5371 0038892 31.0147 329.3288 13.73597098 48177
GPS BII-03
1 20185U 89 64 A 90171.09512743 .00000016 00000-0 99999-4 0 1293
2 20185 54.9291 198.1287 0023918 158.1710 202.0849 2.00625953 6126
Activnyi
1 20261U 89 80 A 90172.77756111 .00000694 00000-0 21547-3 0 5694
2 20261 82.5963 225.6521 1257611 328.0841 24.9618 12.43769122 33168
Activnyi RB
1 20262U 89 80 C 90169.28571788 .00000617 00000-0 19045-3 0 2447
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1 20281U 89 80 B 90172.74567304 .00000961 00000-0 29790-3 0 5647
2 20281 82.5950 225.5961 1257204 328.0091 25.0260 12.44028410 33162
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1 20302U 89 85 A 90158.92932112 -.00000028 00000-0 99999-4 0 1328
2 20302 54.6414 317.4514 0032318 318.4744 41.2700 2.00374314 4682
Meteor 3-3
1 20305U 89 86 A 90171.63988592 -.00000036 00000-0 -10881-3 0 1487
2 20305 82.5517 215.5580 0015334 324.2236 35.7865 13.15858946 31406
COBE
1 20322U 89 89 A 90171.12317209 .00004297 00000-0 28182-2 0 1397
2 20322 99.0203 181.2994 0009659 8.1232 352.0103 14.02393286 29905
Kvant-2
1 20335U 89 93 A 90171.92889242 .00077875 00000-0 87509-3 0 2757
2 20335 51.6133 311.9040 0009997 55.3453 304.5187 15.61858512 32343
GPS BII-05
1 20361U 89 97 A 90156.17029847 .00000015 00000-0 99999-4 0 800
2 20361 54.9860 140.8057 0062556 46.6808 313.9547 2.00579991 3486
SPOT 2
1 20436U 90 5 A 90171.63135856 .00000294 00000-0 15603-3 0 2439
2 20436 98.7346 246.0829 0001128 82.2733 277.8573 14.20025623 21234
UO-14
1 20437U 90 5 B 90171.88813790 .00000563 00000-0 24025-3 0 1679
2 20437 98.6972 247.9857 0011417 139.1583 221.0451 14.28642103 21396
UO-15
1 20438U 90 5 C 90170.86188423 .00000376 00000-0 16638-3 0 958
2 20438 98.7014 246.9472 0010787 142.4110 217.7830 14.28382798 21247
PACSAT
1 20439U 90 5 D 90170.05686079 .00000584 00000-0 24775-3 0 851
2 20439 98.7039 246.2572 0012294 145.5192 214.6788 14.28745186 21138
DO-17
1 20440U 90 5 E 90168.79235554 .00000768 00000-0 32107-3 0 895
2 20440 98.7035 245.0046 0012120 148.5397 211.6509 14.28790263 20950
WO-18
1 20441U 90 5 F 90170.67209536 .00000633 00000-0 26654-3 0 911
2 20441 98.7035 246.9010 0012865 144.2589 215.9452 14.28889020 21229
LO-19
1 20442U 90 5 G 90170.52496173 .00000564 00000-0 23913-3 0 896
2 20442 98.7035 246.7695 0013515 145.3700 214.8365 14.28957434 21201
GPS BII-06
1 20452U 90 8 A 90147.83563653 .00000001 00000-0 99999-4 0 755
2 20452 54.5567 256.8002 0028456 44.6049 315.6465 2.00875970 2439
MOS-1B
1 20478U 90 13 A 90171.82820685 .00000075 00000-0 69125-4 0 3129
2 20478 99.1891 242.0325 0001262 77.7884 282.3441 13.94849028 18641
DEBUT
1 20479U 90 13 B 90169.17967046 .00000026 00000-0 87560-4 0 821
2 20479 99.0383 215.5008 0541780 46.3291 318.1420 12.83157754 16871
FO-20
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1 20480U 90 13 C 90171.05366904 .00000026 00000-0 10651-3 0 836
2 20480 99.0390 217.0162 0541731 42.1674 321.9813 12.83138036 17112
MOS-1B R/B
1 20491U 90 13 D 90172.04979028 .00000167 00000-0 36082-3 0 882
2 20491 99.0364 221.6026 0471052 22.3165 339.7787 13.02735227 16908
Soyuz TM-9
1 20494U 90 14 A 90171.86491347 .00097497 00000-0 10912-2 0 1716
2 20494 51.6135 312.2269 0010720 61.1127 298.7892 15.61855087 20244
LACE
1 20496U 90 15 A 90171.77264232 .00006771 00000-0 41401-3 0 1746
2 20496 43.1004 303.0383 0012850 9.5804 350.5267 15.10703885 19069
RME
1 20497U 90 15 B 90172.65878206 .00012556 00000-0 35337-3 0 1779
2 20497 43.1102 271.8856 0014057 4.2180 355.8485 15.36320503 19527
Nadezhda 2
1 20508U 90 17 A 90171.65378911 .00000142 00000-0 14101-3 0 1001
2 20508 82.9535 57.3535 0044591 338.7687 21.1580 13.73216180 15489
OKEAN 2
1 20510U 90 18 A 90171.86398912 .00002112 00000-0 32342-3 0 1805
2 20510 82.5267 94.3422 0017977 263.7789 96.1280 14.73199779 16614
INTELSAT-6
1 20523U 90 21 A 90172.28190577 .00007319 00000-0 51766-3 0 1846
2 20523 28.3450 236.7735 0016498 230.3449 128.4438 15.02917402 15065
GPS BII-07
1 20533U 90 25 A 90161.92445237 -.00000032 00000-0 00000 0 0 482
2 20533 55.0522 16.1760 0013220 57.8524 302.0320 2.00566529 1471
Offeq 2
1 20540U 90 27 A 90172.81744156 .01279835 -70756-4 15950-2 0 1601
2 20540 143.1802 183.2531 0443741 313.6997 42.8862 15.24811948 11539
PegSat
1 20546U 90 28 A 90172.56198062 -.00001710 00000-0 -10697-3 0 1238
2 20546 94.1201 217.4290 0148463 317.1437 41.8558 15.00457709 11497
HST
1 20580U 90 37 B 90171.52889924 .00002722 00000-0 29953-3 0 994
2 20580 28.4703 228.3351 0006133 166.0301 194.0409 14.84492270 8472
Cosmos 2075
1 20581U 90 38 A 90144.24709396 -.00004275 00000-0 -17923-3 0 877
2 20581 74.0254 356.0235 0023185 277.7210 82.1092 15.23022306 4379
Molniya1-77
1 20583U 90 39 A 90144.15730607 .00000070 00000-0 -16867-2 0 793
2 20583 62.7982 183.9973 7353596 288.2139 9.5835 2.00619305 573
1990 039B
1 20584U 90 39 B 90144.83967752 .03903616 41472-4 10039-2 0 1048
2 20584 62.7619 78.2685 0067648 125.7776 235.2487 16.21902308 4540
1990 39D
1 20586U 90 39 D 90143.60954820 .00000419 00000-0 68663-3 0 226
2 20586 62.8248 184.0281 7395335 288.1806 9.3720 1.96420289 535
Cosmos 2076
1 20596U 90 40 A 90151.40303225 -.00001233 00000-0 79009-3 0 438
2 20596 63.0666 334.8186 7375665 318.5072 4.4103 2.00587266 669
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1990 40B
1 20597U 90 40 B 90148.20589656 .39662252 43947-4 29451-3 0 822
2 20597 62.7886 226.6703 0013442 121.7004 238.9820 16.52106649 4698
1990 40D
1 20599U 90 40 D 90150.97163910 -.00000504 00000-0 -84377-3 0 296
2 20599 63.1771 334.5570 7351260 318.5828 4.4750 2.03474794 660
Cosmos 2077
1 20604U 90159.11959646 0.00895918 40743-4 30538-3 0 857
2 20604 62.8254 330.1747 0057360 101.0778 259.6824 16.20610237 5055
1990 043A
1 20607U 90 43 A 90154.58485080 .00001120 00000-0 20723-3 0 192
2 20607 89.8914 194.9155 0111658 193.2628 166.5623 14.60797763 3634
1990 043B
1 20608U 90 43 B 90163.07909590 .00000913 00000-0 16762-3 0 270
2 20608 89.8877 194.8050 0113706 163.3438 197.1583 14.60807011 4879
1990 043C
1 20609U 90 43 C 90171.49996653 .00002673 00000-0 49253-3 0 346
2 20609 89.8845 194.6763 0115406 134.7122 226.3597 14.61070356 6131
Cosmos 2078
1 20615U 90 44 A 90171.78867040 .00183402 60436-5 15216-3 0 1047
2 20615 69.9841 315.4552 0054706 133.3475 227.2649 16.10297192 5865
Cosmos 2079
1 20619U 90 45 A 90170.98085623 -.00000015 00000-0 99999-4 0 519
2 20619 64.8719 38.8869 0021352 211.0413 148.8961 2.13104966 685
Cosmos 2080
1 20620U 90 45 B 90170.62952013 -.00000015 00000-0 99999-4 0 507
2 20620 64.8743 38.9184 0008637 40.2121 319.9150 2.13103990 681
Cosmos 2081
1 20621U 90 45 C 90170.68787481 -.00000015 00000-0 99999-4 0 420
2 20621 64.8979 38.9113 0011765 200.8677 159.1381 2.13103485 680
1990 045E
1 20623U 90 45 E 90163.20436945 -.00000015 00000-0 99999-4 0 259
2 20623 64.8823 39.1778 0014747 338.6120 21.3945 2.13414211 527
Cosmos 2082
1 20624U 90 46 A 90171.39641548 .00000471 00000-0 27737-3 0 421
2 20624 70.9990 303.7385 0005429 0.8841 359.2281 14.12180135 4123
1990 046B
1 20625U 90 46 B 90165.28612832 .00000008 00000-0 14867-4 0 143
2 20625 70.9992 316.4299 0016110 313.0544 46.9234 14.13305988 3267
RESURS-F
1 20632U 90 47 A 90164.82233651 .00093889 29426-5 14473-3 0 407
2 20632 82.3338 5.1094 0009706 271.1520 88.9515 16.04091927 2491
Kristall
1 20635U 90 48 A 90171.80097653 .00027444 00000-0 31454-3 0 489
2 20635 51.6123 312.5532 0011873 60.8599 299.2947 15.61807758 3209
ROSAT
1 20638U 90 49 A 90172.05794610 .00004016 00000-0 36101-3 0 189
2 20638 52.9905 33.1186 0013920 358.2765 1.8155 14.97680491 2869
1990 049B
1 20639U 90 49 B 90172.04434621 .00013977 00000-0 61127-3 0 229
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2 20639 52.5253 23.5318 0075222 311.3412 48.1129 15.19808183 2910
1989 100N
1 20640U 89100 N 90164.84157702 .00302012 00000-0 12684-1 0 287
2 20640 73.5282 100.1213 0015575 186.1766 174.0874 15.21911966 25589
1990 051A
1 20643U 90 51 A 90170.02499123 -.00000056 00000-0 99999-4 0 34
2 20643 0.2125 274.8674 0024444 116.1052 329.4430 0.99973246 47
1990 051B
1 20644U 90 51 B 90171.36776106 .00390128 47406-4 10493-2 0 151
2 20644 27.2738 104.2768 0100070 215.0671 144.2514 15.84909865 1282
1990 051C
1 20645U 90 51 C 90170.83076531 .00144957 27220-4 10087-2 0 101
2 20645 27.1890 165.4801 7506130 183.1906 165.8885 2.05378272 143
1990 052A
1 20646U 90 52 A 90171.19925190 .00000331 00000-0 00000 0 0 85
2 20646 62.8438 226.5785 7426700 280.0455 11.0001 2.00423474 27
1990 052B
1 20647U 90 52 B 90171.42404771 .00873256 11572-4 11179-2 0 164
2 20647 62.8467 199.5626 0148143 126.4116 235.1676 15.88964493 1158
1990 052C
1 20648U 90 52 C 90170.90587622 .01241910 38417-4 91326-3 0 161
2 20648 62.8204 201.3552 0156234 118.3996 243.0484 15.94239816 1071
1990 052D
1 20649U 90 52 D 90169.19268561 -.00003756 00000-0 -23016-1 0 54
2 20649 62.8385 226.8468 7465608 280.0157 10.1759 1.96227319 115
1990 053A
1 20657U 90 53 A 90171.78996475 .00000042 00000-0 00000 0 0 86
2 20657 82.5910 64.1622 0084649 226.5671 132.6700 15.71279153 233
1990 053B
1 20658U 90 53 B 90172.01029418 .22936512 -65877-5 19941-3 0 89
2 20658 82.5792 63.8626 0008396 84.5802 277.3345 16.51835735 274
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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3699. ICOM R71A vs KENWOOD R5000

Newsgroup: rec.ham-radio
Date: 1990-06-24 04:31:00 UTC
From: 812spg@SACEMNET.AF.MIL
Message-ID: <9006240432.AA10810@ucsd.edu>
Source record: 10805

Having used a SONY ICF-2010 for several years, I'm now ready to "upgrade" my SWL equipment. Keeping finances in mind, I've narrowed my selection down to two receivers -- the ICOM R71A and the Kenwood R5000.

My question is, which of these two receivers would give me more "bang for the buck?" The price is the same for both receivers, so what's the difference between the two (if any)?

Any comments on either of these receivers by those who've had the chance to own or operate one would be greatly appreciated. I'd just hate to slap myself in the forehead later on down the road and say, "Wow, I could have had a [fill-in-the-blank]!"

==========
Disclaimer: All comments, questions and views are mine only and do NOT in any way reflect those of the United States Air Force.

SSgt Larry Zielasko, 812 SPG/SPOT, Ellsworth AFB SD 57706-5000

INTERNET: 812SPG@SACEMNET.AF.MIL AV: 675-4057 VOICE: 385-4057
==========

3700. Re: Kenwood TM-701A Crossband Repeater Mod Prob

Newsgroup: rec.ham-radio
Date: 1990-06-24 04:48:25 UTC
From: jim@mmsac.UUCP
Message-ID: <5348@mmsac.UUCP>
Source record: 10806

>I just finished the crossband repeater mod on my TM-701A dual-band
>mobile rig. After running several tests I discovered that the repeated
>audio is extremely low. Has anyone else seen this problem? The circuitry
>in the TM-721/731 should be the same.....

I've got a 731, and the crossband-repeat level is fine on my radio.
Are you unplugging the local microphone when you use the
crossband-repeat mode? That might lower the level some.
--
Jim "Lips" Earl UUCP: ucbvax!ucdavis!csusac!mmsac!jim
KB6KCP INTERNET: mmsac!jim@csusac.csus.edu
==========
The opinions stated herein are all mine.

3701. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-24 11:53:12 UTC
From: wilhite@unocss.unomaha.edu
Message-ID: <3006@unocss.unomaha.edu>
Source record: 10807

In article <9453@tekigm2.MEN.TEK.COM>, jimla@tekigm2.MEN.TEK.COM (James G Larsen) writes:
>
> I also regret the passing of Ham Radio Magazine. For general
> electronics coverage, I have been reading Electronics & Wireless World
> published in England. Their tutorials on electromagnetics have been
> excellent. Is there a comparable magazine that specializes in Ham
> Radio?

Jim, I would be interested in getting information on the electronics
magazine that you were referring to in you post. Thanks.

--
Timothy R. Wilhite KB0ASO

3702. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-24 19:42:03 UTC
From: kchen@Apple.COM
Message-ID: <42297@apple.Apple.COM>
Source record: 10808

wilhite@unocss.unomaha.edu (wilhite) writes:

>In article <9453@tekigm2.MEN.TEK.COM>, jimla@tekigm2.MEN.TEK.COM (James G Larsen) writes:
>>
>> I also regret the passing of Ham Radio Magazine. For general
>> electronics coverage, I have been reading Electronics & Wireless World
>> published in England. Their tutorials on electromagnetics have been
>> excellent.
>
>Jim, I would be interested in getting information on the electronics
>magazine that you were referring to in you post. Thanks.

Perhaps I should also help plug WW, having read it since the early 60s when it was known simply as Wireless World. Back then, it was a little different. How can I describe it -- it's like WW is to Popular Electronics as HR is to CQ :-) :-). There were lots of interesting articles that you seldom find anywhere else, e.g., class D amplifiers. These were not construction articles as you see them in other magazines but simply schematics and descriptions of how they work. I loved them as a high school kid.

Between then and now, Wireless World merged with, I think, Electronics (or some such) and is now called "Electronics World and Wireless World." What you have now is a mixture of the old and what reminds you of McGraw Hill's "Electronics." Quite often, there will be some articles of interest (Cross Field Antennas??) to Hams. And sometimes there are articles of interests to audio tinkerers (preamps and amps and the like). Letters to the Editor are truly, umm, how should I say it ... entertaining? (Maybe it is just very "Brit." :-) All sorts of flames regarding CFAs, cold fusion, alternate "theories" (translation: wild ideas that will *never* pass peer review :-) on Relativity, Ether, Shannon's theory and so on. What some people might call pseudo-science.

In the Silicon Gulch, you can usually pick up WW at bookstores such as "Printers, Inc" and "Tower Books." But, hey, this part of W6-land is weird. I don't expect normal bookstores in sane communities to carry it.

This is the info I can find in its pages: subscription rates in the US is stated as $116, airmail, to Reed Business Publishing, 205 E. 42nd Street, NY 10117. The rate seems high, since the single issues go for $5.95 around here and #1.95 (substitute appropriate "pound" sign if necessary) in the UK.

Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

3703. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-24 21:35:45 UTC
From: winter@Apple.COM
Message-ID: <42301@apple.Apple.COM>
Source record: 10809

In article <164@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
> Today you can
>work 100 countries in an afternoon with the AT&T endorsement - Your
>itemised phone bill is confirmation. So people are no longer amazed
>that you can tell someone in Africa that they are "Fahvnahncuessell?"

I keep hearing this, but I don't believe it. I've talked to people who do ham demos for kids, and the kids are enthralled with being able to hear someone in Minnesota, ferevvins sake--all the more so for countries outside the U.S.

In order to call 100 countries, you either have to know someone there or be willing to waste a lot of money on dialing random numbers. Either way, where's the adventure? I believe it *is* still exciting to dial around a band, not knowing who you'll find.

Last year I dialed past the local 440 MHz repeater that has a 10m link and heard a Californian, a Mexican, and an Australian chatting away. All this on a radio that I can hold in my hand! *I* was sure impressed.

Does everyone get reactions from non-hams (or even from hams) like Julian describes? Or are people less blase' than he thinks?

> I have been told that in US schools Geography is no longer a
>subject. Fancy going for DXCC and not knowing where the countries
>really are.

Yeah, well, listen to a DX club repeater sometime and it probably won't cheer you up in this regard. I've been appalled at the lack of knowledge of (1) geography, (2) callsign prefixes, (3) languages, etc. by the so-called hotshot DXers.

> Today I called the ARRL to see if they had any Public Service
>Announcement (PSA) Videos.

I have some print ads for amateur radio that I roughed out a couple of years ago. One is aimed at computer magazines. Some of you won't like it, though, because it starts by suggesting a code key as a relaxing low-tech pastime for a computerist's off-hours. :-) It goes on, of course, to talk about using computers to decode CW, and about packet radio, satellites, etc. etc.

Ad campaigns don't come cheap, though. Anyone want to pony up the money so the League can run stuff like this in the major computer mags on a consistent basis??

As for Julian's suggestion about having PSAs in which people talk
about how ham radio led them to their careers, that's a great idea.
But we don't need to wait until we find a film crew to film PSAs:
that's a great idea for a feature article in a local newspaper or
a professional magazine.

You don't need to write it yourself--have your local ham radio PR
person contact the business or feature desk at the local paper and tell
them about 2-3 well-known people in your area who are hams. (And who
have already agreed to be interviewed.) Contact the editor of magazines
in those people's professions and give them the same lead. I'm working
on just such a project in this area and have a nibble from the business
editor of one of the major Bay Area papers. As valuable a resource as
Newington is, we don't need to wait for them to do everything for us.

Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3704. * SpaceNews 25-Jun-90 *

Newsgroup: rec.ham-radio
Date: 1990-06-24 22:12:34 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <311@ka2qhd.UUCP>
Source record: 10810
Cross-posted to: rec.ham-radio,sci.space

Bulletin ID: SPC0625

=========
SpaceNews
=========

MONDAY JUNE 25, 1990

SpaceNews is published and distributed weekly around the world on USENET
and Amateur Packet Radio. It is available for unlimited distribution.

* SHUTTLE NEWS *
================
The crew for mission STS-38 arrived at the Kennedy Space Center last week
for the Terminal Countdown Demonstration Test. Atlantis was rolled out to
launch pad 39-A last week. The hot firing test of the orbiter's two APUs
(Auxiliary Power Units) went well. The APUs were run for seven minutes each
at normal speed and for ten seconds at high speed. The launch date for this
mission will be announced this week.

* OSCAR-12 LIVES AGAIN *
========================
Fuji-OSCAR-12 has been heard on recent occasions by G3IOR, G3CAG and G4CUO.
The spacecraft is apparently receiving enough sunlight to produce a weak
battery charging current and support low-power transponder and beacon
operations. FO-12 was switched off by telecommand last year, but apparently
switched back on when it received commands sent to its sucessor, FO-20.
FO-12 transponder and beacon activity cease when it receives strong uplink
signals intended for FO-20.

* CRRES LAUNCH *
================
CRRES, to be launched aboard an Atlas Centaur Rocket on July 9th, will
embark on a joint NASA/USAF mission to study the Earth's magnetic field and
the effects of the radiation environment of space on advanced electronics.
Chemical releases from the satellite in the ionosphere and magnetosphere
will briefly "paint" the waves and lines of magnetic fields with luminous
particles. During the mission's first year, canisters of five chemical
tracers expelled from the spacecraft will create brilliantly visible releases
over the Carribean, South Pacific, and North America.

* CQ DX *
=========
If there are any Amateur Radio operators outside of North America who have
both UUCP and Amateur Packet radio availability and would like to help

distributing SpaceNews through existing packet networks, please send me a note so we can establish a distribution network. I can place interested stations on a UUCP mailing list so they will be able to forward SpaceNews to their local packet systems and help reduce the long delay many foreign stations are reporting before receiving SpaceNews.

* FEEDBACK WELCOMED *
==========
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ...uunet!rutgers!petsd!tsdiag!ka2qhd!kd2bd
AMPR : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

(The callbook address also works.)

<eof>

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple, neat and wrong." -- H.L. Mencken

3705. ARRL Letter 15-Jun-90

Newsgroup: rec.ham-radio
Date: 1990-06-25 02:47:16 UTC
From: gws@n8emr.UUCP
Message-ID: <1547@n8emr.UUCP>
Source record: 10812

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
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GAY E. MILIUS, W4UG, SK

ARRL Director Emeritus Gay E. Milius Jr., W4UG, of Virginia Beach, VA, died June 6 after a long illness. He was 79, and the husband of Martha Milius.

Milius was vice director of the ARRL Hudson Division in 1951 and 1952, and vice director of the Roanoke Division from 1977 to 1980. He became Roanoke Division director in 1980 and held that post until 1989.

An active DXer and DXCC Honor Roll member, he was the Roanoke Division's representative to the ARRL DX Advisory Committee at the time of his death.

He was a 1933 graduate of Dartmouth College and a 1941 graduate of Fordham Law School. He was a retired commander in the US Naval Reserve and a veteran of the Second World War and of the Korean War.

Besides his wife, he leaves two daughters, Carroll Huffman of Twin Lakes, MN and Mitzi Milius of Aspen, CO; a son, Gay E. Milius III of New York City; and a brother, Howard Milius of Cranford, NJ.

The funeral and burial were June 11 in Virginia Beach.

The family requests that memorial donations be made to the American Radio Relay League.

ARRL LETTER - VOLUME 9 - NUMBER 12 - June 15, 1990 - Page 2 of 4

TRANSCONTINENTAL RELAY AIDS YOUNG SOVIET AMATEUR

American amateurs from coast to coast, using HF as well as VHF FM and packet, have come to the aid of a critically injured Russian amateur.

On May 25 a group of Soviet hams, from the UZ4FWO club station in Penza, were involved in an automobile accident enroute to a radiosport event. RA4FB, Oleg Kolosilin, was killed. Oleg Porugov, UA4FAY, was seriously injured.

Porugov, 25, lies in a coma in a hospital near Ryazan, about 150 miles from Moscow. He suffers from pneumonia and one lung has collapsed. Hiscondition prevents doctors from moving him to better facilities.

Porugov's attending physician, a Dr. Makarov, has stated "In small Soviet towns the doctors can be good, but medical supplies--even disposable syringes--are scarce."

In daily contact with Makarov is an American neurosurgeon, Dr. Joseph Izzo of Foster City, Calif. Izzo responds to Telex and E-mail messages from Makarov, answering questions by Amateur Radio. The responses, carried on a daily schedule, are between the stations of Len Traubman, W6HJK, a dentist in San Mateo, and UZ4FWO, in Soviet Russia. Help with relaying and translation has been provided by Ed Kritsky, NT2X, and Angel Garcia, WA2VUY.

Kritsky, who came to the United States from Leningrad in 1978, took a telephone call shortly after the accident from another American amateur. "UZ4FWO needs to talk to you, Ed. They need medical consultation."

Kritsky asked Igor, the UZ4FWO operator, if he had any American ham acquaintances in the medical profession. Igor suggested Traubman and Dr. Lawrence M. Probes, ND8S, who also has acted as a relay station. Meanwhile, Kritsky also had contacted a local physician, Dr. Anatoly Barkan of Brooklyn, another Soviet emigre.

Igor passed the condition of the patient to Kritsky via Amateur Radio, and Kritsky sent it by facsimile to Traubman and Dr. Izzo (who although not a ham, paid for the initial shipment of drugs).

In addition to medical advice, several hundred dollars worth of supplies for Porugov, including powerful antibiotics and special tracheal tubing, have been arranged for and shipped from the United States. Charles L. Starke, NX2T, a medical internist, arranged for the tubing, which was shuttled to JFK airport by Alan Singer, N2KW.

Singer located Starke using the Tri-State DX PaketCluster Network.

Thanks to Amateur Radio, Soviet amateurs have been able to receive word that the shipments are enroute, allowing them to get to tche Moscow airport in time to arrange for expeditious treatment by customs authorities. One of the UZ4FWO operators has been standing by in Moscow to receive the shipments.

Kritsky observed that initially the chief of medicine in Ryazan was skeptical of these arrangements, of taking advice from outsiders. "But once he heard the tone of voice of those talking on 20 meters," Kritsky said, "he knew we were there to help. He knew we cared."

"We are just a few American hams doing what we can," said WA2VUY. "If Igor were not a ham, none of this probably could have happened," he said.

On Monday, June 11, 17 days after the accident, Oleg Porugov, UA4FAY, opened his eyes for the first time, and moved his hand.

MORE HAMS IN SPACE

Three more astronauts soon will have Amateur Radio call signs, joining Ken Cameron, KB5AWP, aboard STS-37 (a SAREX mission) in November. Flight commander Steve Nagel and mission specialists Linda Godwin and Jay Apt all have recently passed Technician class exams. Godwin and Nagel took their

exams in Dallas at the Ham Con on June 9, where Cameron upgraded to General class. Nagel passed his test in May.

The fifth STS-37 crewmember, Jerry Ross, has yet to take the plunge, but he "has some books on his desk," according to Cameron.

Space Shuttle STS-35, also a SAREX flight by astronaut Ron Parise, WA4SIR, was postponed again May 29 and has been returned to its hangar for major repairs. Since another Shuttle, carrying a military payload, is scheduled for launch soon, STS-35 has been pushed back to at least August.

KANSAS CITY HOSTS NATIONAL CONVENTION

More than 5000 radio amateurs attended the 1990 ARRL National Convention June 9 and 10 in Kansas City, MO. The convention, sponsored by the PhD Amateur Radio Association, featured forums on many areas of interest to amateurs, as well as a very strong turnout by manufacturers and retailers of Amateur Radio gear.

Banquet speaker Dave Bell, W6AQ, entertained some 350 guests with his presentation "The King and I," recounting how King Hussein, JY1, of Jordan, came to appear in the 1979 ARRL film "The World of Amateur Radio."

In addition to the *Westlink* Young Ham of the Year award given to Mary Alestra, KB2IGG (and reported earlier), Advanced Electronics Applications made their fifth Amateur Ambassador Award to James Heil, KB5AWM. The 22-year-old Heil, of Houston, was instrumental in creating the Clear Lake Amateur Radio Club, a general interest club with a special mission to recruit and train new amateurs.

Also in attendance was Ralph Haller, chief of FCC's Private Radio Bureau, who hosted an informal question and answer session attended by more than a dozen League directors and other officials.

HQ HOSTS OPEN HOUSE

On June 3 ARRL HQ and W1AW hosted several hundred visitors during the annual Open House. Coinciding each year with the Newington Amateur Radio League's hamfest, the event this year featured tours of the newly renovated W1AW, where visitors were able to operate as well as use two computers (recently donated by the Tandy Corporation) in conjunction with various logging programs and databases.

Lab supervisor Jon Bloom, KE3Z, demonstrated for visitors the League's setup for measuring transmitter spectral purity, with a commercial 2 meter FM transceiver and a Hewlett Packard spectrum analyzer. Visitors also got a peek at a 20 meter transceiver being designed by staff member Zack Lau, KH6CP, showing several stages of the development process. This rig is being designed for production and donation to amateur societies in third world countries.

DXCC BEGINS MOVE TO DATA PROCESSING

DXCC automation has begun in earnest, with final testing of software completed June 1. New applications and endorsements are entered into a mail log for tracking through the system. This log helps staff members quickly answer questions regarding the status of DXCC applications and endorsements in progress. On June 11 "backfilling" began--the process of entering past records into the computer on a priority basis. As endorsement applications are received they are backfilled to bring the applicant's record up to date; the endorsement is then processed.

* Last week, a formal application for DXCC status was received at HQ for the Penguin Islands, a string of 13 islets off the coast of Namibia. The application, made by DK9KX, KC1AG, and ZS9A, indicates that the islands are claimed by South Africa, and propose DXCC status based on the islets' meeting the 75-mile minimum separation from S. Africa. It can be expected that the the DX Advisory Committee will require several months to deliberate on the application.

MORE ON SCANNER LAWS

ARRL has submitted to FCC reply comments supporting preemption of local and state laws regulating the use of mobile radios by licensed Radio Amateurs. In its May 31 comments, the League pointed out several comments filed in the proceeding that buttressed the League's position.

The League contends that possession by licensed amateurs of radio receivers that incidentally cover public safety frequencies should not be prohibited by local or state laws. This, the League pointed out, is supported by the Associated Public-Safety Communications Officers (APCO), "the nation's oldest and largest public safety communications organization."

Comments filed by Uniden America Corporation noted that all radio communications are interstate, and as such the state and local laws which prohibit the possession of radio receivers by licensed amateurs interfere with "instrumentalities of interstate commerce," which should not be permitted.

The League requested that "the Commission determine that statutes or local ordinances which preclude the possession of radio equipment by licensed radio amateurs merely because such equipment is capable of reception of police or other public service communications conflict with Federal communications law and policy, and are therefore void."

NOVICE TICKET COMING TO GREAT BRITAIN

Great Britain will have new Novice class licensees sometime in 1991, according to Radio Communication, the official journal of the Radio Society of Great Britain. The final draft of the Novice License was announced April 19.

Recognizing "the value of amateur radio as a training ground for careers in electronics and radio engineering," ministers of the Radiocommunications Agency approved, according to *RadCom*, the following guidelines:

A Novice Class B license, permitting operation on 50 and 430 MHz, as well as on 1.3 and 10 GHz. Passing of a 5 wpm Morse test after one year as a Novice Class B licensee will allow the licensee privileges on 1.8, 3.5, 10, 21, and 28 MHz, with 5 watts dc input. The 28 MHz privileges include radiotelephony in the 28.3 to 28.5 MHz segment.

(In Great Britain both "full" and Novice licensees are designated either "A" (including CW) or "B" (codeless).

It should be noted that after 25 years of a codeless "full" license (with full privileges above 30 MHz), Great Britain now prepares to institute a Novice license along the lines of the Novice license that has existed in the US for more than 30 years.

Training courses conducted by RSGB will be followed by a written exam for the Novice Class B license. June *RadCom* features an article on preparing to teach such classes.

* On an unrelated matter of interest from England, the April 1990 issue of RadCom reports the results of a survey of 10 "old timers" (over 50 years old). These CW operators were first asked to specify at what frequency they preferred to copy code, then were allowed to actually copy CW. The frequency of the tone they chose was measured, and averaged about 500 Hertz. Manufacturers who design transceivers should note this. "The impact on AF filter design and BFO crystal selection," RadCom says, "is obvious."

BRIEFS

* The latest issue of *WARC Countdown*, a newsletter to all IARU member societies, stresses the need to "ensure that at least one suitably qualified radio amateur is designated as a full participant in his country's WARC-92 delegation." Member societies are encouraged to, if necessary, first convince their governments of the value of Amateur Radio, then to make a ham a delegate. "It goes without saying," the newsletter says, "that the case for Amateur Radio at WARC-92 can best be made by a ham."

* ARRL Volunteer Counsel Frank Terranella, N2IGO, has announced a meeting and forum in conjunction with the ARRL Hudson Division Convention on Sunday, July 8, at the New York Institute of Technology. A one-hour meeting of all the division's VCs will be followed by a public forum, where VCs will answer questions regarding legal issues of concern to hams. For more information, contact Terranella at 201-947-4100.

*Every new ham is special, but Jack Lee is something else again. He eagerly awaits arrival of his Novice ticket after passing the exam May 30 under the watchful eyes of the Newington Amateur Radio League and the Pioneer Valley (Connecticut) Radio Association. The test, administered at W1AW, concluded a licensing class directed by N1FCK and W1VMY. By the way, Mr. Lee's full name is John Maxim Lee, and his grandfather was Hiram Percy Maxim, founder and first president of ARRL.

* FCC has denied a request to establish an Amateur Radio "license" free of any examination. The request for rule making, by Donald L. Stoner, W6TNS, was for a "digital communicator class" permit that would have allowed

licensed amateurs to grant permission to up to 26 non-licensed persons to be control operators. Proposed operations would have been on the 33 cm amateur band.

In its denial, dated May 22, the Commission cited federal law precluding operators who have not demonstrated "their qualifications" to the Commisssion.

* The *RSGB Microwave Handbook Vol. 1* is the latest addition to the ARRL library. Edited by G3PFR, it covers microwave theory and practice in mostly non-mathematical language. Two additional volumes will follow. 224 pages.

* Don't forget Field Day! It's June 23 and 24 this year, and there's just time to request a Field Day package from HQ. Rules are in May *QST*, pp 84 and 85.

* The June issue of *QEX*, the ARRL Experimenters' Exchange, features a system for TNCs using NET/ROM software to prevent packet collision. This should be of special interest to operators of PacketCluster and similar networks.

* July *QST* solicits nominations for director and vice director in the following ARRL divisions: Central, Hudson, New England, Northwestern, Roanoke, Rocky Mountain, Southwestern, and West Gulf. See the July *QST* "Happenings" column for details.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

3706. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-25 03:31:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500575@ux1.cso.uiuc.edu>
Source record: 10811

> I'm interested to know if anyone has built a repeater controller based
> upon an IBM PC or clone. I'm willing to dedicate the entire PC with
> harddisk to the repeater controller operation.

It seems like a lot of money to me to tie up in a controller.

> I would expect that the controller would offer all the features of
> the ACC line plus things like:

Well, these things are about as expensive (and in my opinion, not worth
it due to lack of the features I want).

> Has anyone built the necessary interface hardware? I'd be more likely
> to program such a thing if I didn't have to build the hardware.

It would be nice to have all the functionality of a controller for a
repeater on a single board you can plug into a PC. I had asked about
the interface between controllers and the actual repeaters some while
back here on rec.ham-radio, and the general concensus I got was that
there is not standard interface bewteen the repeater hardware and the
controller. I don't know what assumptions, or excess hardware for all
the variations, controllers like the ACC ones have.

I would consider the following connections to be essential:

Controller ---> Repeater
1. On/Off (PTT) the transmitter.
2. On/Off the audio.
3. On/Off the transmit CTCSS.
4. Audio from CPU for ID, battery mode indicator, etc.

Repeater ---> Controller
1. Carrier level
2. Discriminator noise level
3. Discriminator output
4. Audio

Other ---> Controller
1. Battery voltage
2. Battery current
3. PA voltage
4. PA current
5. SWR
6. Tower lights current
7. Clock/Time

Whether or not things like CTCSS decoder/encoder, DTMF decoder/encoder, squelch level, etc., should be in the "radio" or on the controller are probably religious issues. I personally want CPU control over these things so I can do everything from setting them remotely to programming them to dynamically change to meet conditions. For instance, I would want different squelch levels in effect for "idle" and "ready" states (idle is when the repeater has not been transmitting lately; ready is between transmissions of an active QSO) so that it requires a good signal to bring up the machine, but it will tolerate some fading during the QSO. Likewise a different set of squelch levels would be required if CTCSS is present (to allow locals to access w/o CTCSS, but DX needs CTCSS). Another possibility is to allow users to turn off the need for CTCSS on a per-QSO basis (it comes back on when the machine goes to idle state). Perhaps CTCSS could be required to bring up the machine, and not needed once it is up. I could put all these things in a huge matrix and plug in LOTS of values to program the machine with, and I know that ACC controllers cannot do this.

Cross-band and multi-band repeaters need even more sophisticated control, especially when multiple receivers are concurrently receiving different but good signals; what do you want your repeater to do?

I, too, prefer to program the software (and I mean writing machine/assembly code, not CONFIGURING as you would do to an ACC even though they CALL that "programming") instead of building the hardware. However, building a controller from a PC compatible mother board, or perhaps (depending on just how easily boards can be added) Kantronics new DataEngine, seems like a reasonable way to get the hardware in place ready for programming. Having a hard disk is not essential, but does give you some flexibility. You could, if you are careful, upload new controller code via radio.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3707. FT-411E

Newsgroup: rec.ham-radio
Date: 1990-06-25 13:31:00 UTC
From: tom@ARO-EMH1.ARMY.MIL
Message-ID: <9006251333.AA19149@ucsd.edu>
Source record: 10816

Does anyone have information about the modifications made to the
Yaesu FT-411E (versus the 411)? I can't tell anything from the QST ad.

3708. Re: HR mag

Newsgroup: rec.ham-radio
Date: 1990-06-25 13:35:50 UTC
From: cep@cci632.UUCP
Message-ID: <38282@cci632.UUCP>
Source record: 10813

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve Schallehn) writes:
>
>I wonder if QEX from the ARRL is any good as an experimentation magazine?
>Someone has to come out with a new HR! Someone has to!
>
>-Steve Schallehn, KB0AGD

Not really. My club just got its renewal notice for QEX and I have decided not to renew it. (We are an ARRL-affiliated club, by the way, which has some *teriffic* benefits).

My problem with QEX is redundancy. I have seen an article that says, "Let's have fun and build a 20-meter cw portable tranceiver that works on a 9-volt battery!" SOOOOO many times - this is the sort of thing that belongs in the handbook, and not to pop up in QEX two or three times a year.

Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
President - Rochester Institute of Technology Amateur Radio Club K2GXT
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

3709. Re: How to buy a QSO

Newsgroup: rec.ham-radio
Date: 1990-06-25 13:40:15 UTC
From: lewine@dg.dg.com
Message-ID: <556@dg.dg.com>
Source record: 10814

In article <1990Jun22.221444.25178@ecn.purdue.edu> wb9omc@ea.ecn.purdue.edu (Duane P Mantick) writes:
>>>From: k4bnc@cbnewsh.att.com (john.a.siegel)
> One time I had the satisfaction of turning this situation
> around. I was sitting with my measly 20 watts on top of
> a mountain in the Smokies and encountered a pileup with
> a New Zealand ham - I put up my call at the appropriate
> time and he responded immediately. He didn't believe that
> I was running a Uniden 2510 with no amp and told me I was
> not only 59+ but louder than some fellows who told him they
> were running about 1 KW! Made me feel just *fine*.

That is correct. The difference between 20 watts and 1000 watts is 13 db or about 2 S-units. A good antenna in a good QTH can make much more of a difference. The difference between someone that the gods of propagation are smiling on and someone that they are not can be 60 db or more.

I remember on night working about 50 east european stations in a row. They said that I was the only W/K station that they could hear. This was not due to monster antennas or high power. It was mostly the dumb luck of being exactly where the opening was. Sill, it was great to be the target of a pileup for once.

P.S. My attitude to DXCC is, if I happen to work them great, if not, no big deal. I have about 125 confirmed countries. Almost all of them came back on the first or second call and QSL via the buro. After all, ham radio should be fun. If you are not having fun do something else.

--73,
WB2UMF

3710. octopus

Newsgroup: rec.ham-radio
Date: 1990-06-25 14:34:00 UTC
From: DERRY@ROSEVC.Rose-Hulman.EDU
Message-ID: <747936BC553F80145F@ROSEVC.Rose-Hulman.Edu>
Source record: 10817

During planning for field day our group heard references to a device used illegally by some filed day groups. This device was referred to as an OCTOPUS. Does anyone want to tell me what the heck it is?

Thanks a whole bunch. 73 es cul de K9CUN

3711. Re: How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-25 14:40:36 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <1990Jun25.144036.27405@dg-rtp.dg.com>
Source record: 10822

The majority of us shmucks are running 200 watts input and are doing just fine. I'd bet that a vote to reduce max input power on HF to 200 would pass! (if it could only be put to a vote...) Sure, some would still have amps and/or build them, but I'd also bet that *most* of the KW ops couldn't build one. Imagine how one of us 200 watters sounds to a QRPer. Same difference but a move in the right direction.

I, personally, wouldn't mind it if omnidirectional antennas were also illegal. Why should anybody expect to own a frequency in *every* direction. I'd be happy, though, to just have a lower power limit. One can do *so* much with antenna's - it's amazing.

We'd have *alot* more room on our bands if people used directional antennas and ran reduced power. The latter would force the fomer somewhat.

Perhaps we should all go back to nursery school and kindergarten and learn how to share.

What a deal - my $100 worth - for free!

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

3712. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-25 15:01:37 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <1990Jun25.150137.27983@dg-rtp.dg.com>
Source record: 10823

In article <2480@kodak.UUCP>, ornitz@kodak.UUCP (Barry Ornitz) writes:
> I decided to call the subscription office of Ham Radio and see if my renewal
> could be cancelled. I spoke with a very nice lady whose name I do not
> remember. She said that I could certainly cancel my subscription and get a
> refund. When I told her my subscription number, she remarked that I had been
> reading Ham Radio for a long time - since early 1971. I said yes, and that I
> was sorry to see it go - especially to CQ. She remarked that I was not alone
> and that a very large number of other hams were doing as I had done:
> cancelling

This is very excellent advice and a *very* effective way to make your point to them. Much quicker than composing a letter which will get scanned at best. I'm going to cancel. If and when they want to send me free copies of a new-and-improved CQ to entice me to sub I'll scan it. Remember, money talks and bullshit walks. They *are* touting the "new" subscription numbers to advertisers. You can bet that the advertisers are watching the sub numbers.

If you have the time, you should also perhaps indicate to them what will make you subscribe. Perhaps a technical journal? Give them suggestions and alternatives if you do this.

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

3713. MORE ON HAM RADIO'S DEMISE

Newsgroup: rec.ham-radio
Date: 1990-06-25 15:30:34 UTC
From: THM33@ISS1.AF.MIL
Message-ID: <9006251231.AA17747@ucsd.edu>
Source record: 10815

The other day I received the July issue of CQ. To say that it is garbage would be the understatement of the year. Maybe if enough people write to IEEE they can publish a Transactions on Ham Radio, or something....
In any event, with the passing of Ham Radio seems to be an omen that the technical side of amateur radio may be doomed to extinction, along with flying, and any other hobby that involves active participation/learning (read: EFFORT) on the part of the individual. Could this be a reflection on American society in general ?

Tom Mullins - WB8MVR | Uh, Biplane on short final - Get a move on --
THM33@ISS1.AF.MIL | You've got a P-51 on your tail!
|
| - Unknown Controller, Oshkosh, WI

3714. Reposting something I saved, Pt. 2

Newsgroup: rec.ham-radio
Date: 1990-06-25 15:32:02 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <254.2685523B@w8grt.fidonet.org>
Source record: 10727

From: gb@sunpix.East.Sun.COM (Gary Bishop - Sun Visualization Products)
Newsgroups: rec.ham-radio
Subject: Ham Radio Magazines of the World
Message-ID: <1483@sunpix.East.Sun.COM>
Date: 11 May 90 20:06:14 GMT
Sender: gb@sunpix.East.Sun.COM
Organization: Sun Microsystems, Research Triangle Park, NC

[Part 2 of 2]

HAM JOURNAL. (Text in Japanese) q. CQ Publishing Co., 1-14-2 Sugamo, Toshima, Tokyo 170, Japan Ed. TOmo Hayami.

621.38 II ISSN 0019-624X
INDIAN RADIO AMATEUR. 1966. 3/yr. Rs.11. Amateur Radio Society of India. Treasurer, 5-E Connaught Place, New Delhi 1, India. Ed. O.P. Verma. adv. charts. illus.

621.38 CN ISSN 0048-1734
ONTARIO AMATEUR. 1964. bi-m. membership. Radio Society of Ontairo, Inc. Box 246, Port Credit Postal Station, Mississauga, Ont. L5G4L8, Canada. TEL 416-925-3311. Ed. R.D. Pellowe. adv. circ. 1,400.

621.38 DK
OZ; tidsskrift for amatoer-radio. 1927. m. Kr.385. Landsforeningen Edsperimenterende Danske Radioamatoerer, Postbox 172, DK-5100 Oden: C, Denmark, Ed. Flemming Hessel. adv. bk. rev. charts. illus. index. circ. 6,000.

384.4 UK ISSN 0141-0857
PRACTICAL WIRELESS. 1932. m. $22.40. I P C Magazines Ltd., Pratical Group, Westover House, West Quay Rd., Poole, Dorset BH15 1JG, England. Ed. Geoff Arnold. circ. 41752.

621.38 US ISSN 0886-8093
QEX ARRL EXPERIMENTERS' EXCHANGE AND AMSAT SATELLITE JOURNAL. m. $12 to non-members. American Radio Relay League, Inc. 225 Main St., Newington, CT 06111. Ed. Paul L. Rinaldo. circ. 4,500.

621.38 US ISSN 0033-4812 TK1
QST; devoted entirely to amateur radio. 1915. m. $25 to non-members. American Radio Relay League, Inc., 225 Main St. Newington, CT 06111. Ed. Paul Rinaldo. adv. bk. rev. charts. illus. index. circ. 145,000.

621.384 SW ISSN 0033-4820
QTC. 1927. 11/yr. Kr.127.50($16.30) Foereningen Sveriges Saendareamatoerer, Oestmarksgatan 43, S-123 42 Farsta, Sweden. Ed.

Sven Granberg. adv. bk. rev. illus. circ. 7,300.

621.38 RH
QUA (Text in English) 1966. bi-m. controlled circulation to members only. Zimbabwe Amateur Radio Society, Box 2377. Harare, Zimbabwe. Ed. Molly Henderson. (processed)

621.38 US ISSN 0033-7161
RTTY JOURNAL. 1953. 10/yr. $10. RTTY Journal, 9085 La Casita Ave., Fountain Valley, CA 92708. TEL 714-847-5050. Ed. Dale S. Sinner. adv. bk. rev. charts. illus. pat. tr.lit. index. cum-index: 1956-1980. circ. 5,700.

621.38 YU ISSN 0033-8168
RADIO-AMATEUR; casopis Saveza radio-amatera Jugoslavije. 1947. m. 3360 din($30) (Savez Radio-Amatera Jogoslavije) Technicka Knjiga 7 Jula 26, Belgrade, Yugoslavia. Ed. Zarko Resanovic.

621.38 US ISSN 0033-779X CODEN: PRCAAO
RADIO CLUB OF AMERICA, PROCEEDINGS. 1920. s-a. $6. Radio Club of America. Inc., c/0 John Oirrisey, Ed., 45 S. Fifth St. Park Ridge, NJ 07656. TEL 201-246-7271. bk. rev. illus. index. circ. 1,200. Indexed: Sci.Abstr.

384.5 UK ISSN 0033-7803
RADIO COMMUNICATION. 1924. m. membership. Radio Society of Grat Britain, Lambda House, Cranborne Rd., Potters Bar, Herts EN63Je, England. Ed. A.W. Hutchinson. adv. bk. rev. bibl. charts. index. circ. 36,000.

791.4 FR ISSN 0033-7668
RADIO - PLANS. 1933. m. 50 F. Publications Georges Ventillard, 2.12 rue de Bellevue, 75940 Paris Cedex 19, France. Ed. J.C. Roussez. adv. charts. illus. index. circ. 49,000.

621.3 II
RADIO_TRANSITRONIC CONSTRUCTOR; radio, television audio electronics. (Text in English) vol. 7, 1970.m. Rs.8. 132-3612 Pantnagar, Bombay 75, India. Ed. Sushil Bhatia. adv. bk. rev. charts. illus. tr.lit.

681.384 UK ISSN 0037.4261
SHORT WAVE MAGAZINE. 1937. m. L3.75. Short Wave Magazine Ltd., 34 High Street, Welwyn, Herts, England. Ed. Paul Essery. adv. charts. illus. circ. 15,000. Indexed: Br.Tech.Ind.

621.38 CN ISSN 0049-5778
V E 6. 1964. m. Can. $5. Amateur Radio League of Alberta, Box 447, Thorhild, Alta. TOA 3J0, Canada. Ed. Vic Prodanink. adv. circ. 500.

384.5 US
WORLDRADIO. 1971. m. $12. Worldradio, Inc., 2120 28th St. Sacramento, CA 95818. TEL 916-457-3655. Ed. Christine Wilson. adv. bk. rev. illus. circ 26,600.

621.384 US ISSN 0883-234X TK9956
73 FOR RADIO AMATEURS. 1960. m. $24.97. C.W. Communications, Inc. (Peterborough), 80 Elm st., Peterborough, NH 03458. TEL 603-924-9471. Ed. Susan Philbrick. adv. bk. rev. illus. index. circ 65,000.
Path: w8grt!nstar!ndmath!cartan!news!iu vax!mailrus!cs.utexas.edu!uunet!fernwood!portal!cup.portal.com!ckp From: ckp@cup.portal.com (Christine K Paustian) Newsgroups: rec.ham-radio Subject: Re: Ham Radio Magazines of the World Message-ID: <29834@cup.portal.com> Date: 12 May 90 13:36:05 GMT References: <1483@sunpix.East.Sun.COM> Organization: The Portal System (TM) Lines: 13

Two additions to the list:

RADIOSCAN MAGAZINE - Spanish Edition - 175 Fontainebleau Boulevard, Suite 2K-5, Miami, FL 33172. Subscriptions: Domestic - one year $19.95, two years $38, three years $58.00. Foreign Air Mail - one year $50.00, two years $90.00, three years $130.00. Circulation is to 21 Spanish-speaking countries.

RADIOSCAN MAGAZINE - English Edition - ISSN 1049-9121 - published monthly by RADIOSCAN Corporation, 175 Fontainebleau Boulevard, Suite 2K05, Miami, FL 33172. Subscriptions: Domestic - one year $14.95, two years $30.00, three years $40.00. Canada/Mexico - one year $19.95. Foreign Air Mail: one year $70.00.

--- FD 1.99c
* Origin: Moderator, HAM_TECH / HAM4SALE Echoes (1:234/1)

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|\/\/\/|
| | Jim Grubs - via FidoNet node 1:234/1
| (o)(o) UUCP: ...!ncar!asuvax!stjhmc!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____________________________________
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

3715. Reposting something I saved

Newsgroup: rec.ham-radio
Date: 1990-06-25 15:32:02 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <253.2685522E@w8grt.fidonet.org>
Source record: 10826

From: gb@sunpix.East.Sun.COM (Gary Bishop - Sun Visualization Products)
Newsgroups: rec.ham-radio
Subject: Ham Radio Magazines of the World
Message-ID: <1483@sunpix.East.Sun.COM>
Date: 11 May 90 20:06:14 GMT
Sender: gb@sunpix.East.Sun.COM
Organization: Sun Microsystems, Research Triangle Park, NC

[Part 1 of 2]

Magazines related to ham radio from Ulrich's International Periodicals Directory 1988-89 edition. Comments on the content or value of any of these from those who have seen them would be appreciated. I might have missed some of the foreign language ones since it didn't always give a hint as to the subject matter. Also, the US magazine "Ham Radio" was not included in their list. I don't know what the criteria was for inclusion in their listing. If you notice an omission, please send me the relevant info, so I can maintain the list. Enjoy.

gb wa4fut

section: Communications - Radio and Television

384.5 CS
AMATERSKE Radio. 1952. m. 60 Kcs($27.30) Vydavatelstvi Nase Vojsko, Vladislova 26, 11366 Prague 1, Czechoslovakia. Ed. Frantisek Smolik.

621.38 CS
AMATERSKE RADIO B. 1965. bi-m. 30 Kcs. Vydavatelstvi Nase Vojsko, Vladislavova 26, 11366 Prague 1, Czechoslovakia (Subscr. to: Artia Ve Smeckach 30, 111 27 Prague 1) Ed. Jan Klabal. circ. 85,000

621.38 AT ISSN 0002-6859
AMATEUR RADIO. 1933. m. Aus $45. Wireless Institute of Australia, Box 300, South Caulfield Vic. 3162, Australia TEL 03-528-5962. Ed. W. Rice. adv. bk. rev. abstr. charts. illus. cum.index every 5 years. circ. 8,700. Indexed: Pinpointer.

621.34 UK ISSN 0264-2557
AMATEUR RADIO. 1982. m. L10.80 Goodhead Publications. Ltd., 27 Murdock Rd., Bicester, Oxon, England. Ed. Richard Lamont. adv. circ. 30,000.

621.38 US ISSN 0889-6089
AMATEUR SATELLITE REPORT. 1981. bi-w. $24 6000. Radio Amateur Satellite Corporation, 850 Sligo Ave., No. 601, Silver Spring, MD 20910. TEL 301-589-6062. Ed Vern Riportella. (back issues avail.)

621.38 IT ISSN 0003-5386
ANTENNA; rassegna mensile di technica elettronica. 1928. m. L. 10000. Editrice Il Rostro, Via Monte Generoso 6-A, Milan, Italy. Ed. Alfonso Giovene. adv. charts. illus. index. circ 25,0000. Indexed: Sci.Abstr.

384.5 BL ISSN 0101-9112
ANTENNA - ELETRONICA POPULAR. 1926. m. $25 (Cz.$450) Antenna Edicoes Tecnicas Ltda. Av. Marechal Floriano 143, 20060 Rio De Janeiro RJ, Brazil. TEL (021) 223-2442. Ed. Gilberto A. Penna. adv. bk. rev. index every 6 mos. cir. 25,000.

384.5 001.6 621.381 UK
BERNARDS AND BABANI PRESS RADIO & ELECTRONICS & COMPUTER BOOKS. 1971. irreg., no.5, 1972. Bernard Babani (Publishing) Ltd. The Grampians, Shepherds Bush Rd., London W67NF, England

621.38 NZ ISSN 0006-9523
BREAK-IN. 1928. m. NZ. $50. New Zealand Association of Radio Transmitters, Inc. Box 1733, Christchurch, New Zealand. TEL 3-484-739. Ed. C.R. Craford. adv. bk. rev. charts. illus index. circ. 3,600. Description: Monthly journal for members of New Zealand amateur radio society (NZART) including technical construction articles, news and general operating information.

621.384 US ISSN 0007-893X
CQ; the radio amateurs' journal. 1945. m. $18. CQ Publishing, Inc., 76 N. Broadway, Hicksville, NY 11801. TEL 516-681-2922. Ed. A.M. Dorhoffer. adv. bk. rev. charts. illus. circ. 107,000. Indexed: Sci. Abstr.

621.384 JA ISSN 0007-8964
CQ HAM RADIO. (Text in Japanese) 1946. m. 13680 Yen($55) CQ Publishing Co., 1-14-2 Sugamo, Toshima, Tokyo 170, Japan. Ed. Mitsunobu Koiso. adv. charts. illus.

621.38 CN ISSN 0318-0867
The CANADIAN AMATEUR; Canadian amateur radio from coast to coast. Short title: TCA. 1973. m (Jul. & Aug. combined) CAN $25($25) (Canadian Amateur Radio Federation Inc.) C.A.R.F. Publications Ltd., Box 356, Kingston, Ont. K7L4W2, Canada. TEL 613-545-9100. Ed. George Sansom. adv. cir. 5,000.

621 VE
CIRCUIT - FOTON. 1980. m. Bs.200($40) M.G. Ediciones Especializadas S.A., Ave. Maturin No. 15, Urb. Los Cedros, El Bosque, Caracas 1050, Venezuela. adv. cir. 3,500.

621.384 GW ISSN 0178-269X
CQ DL. 1927. m. DM.52 for no-members. Deutscher Amateur-Radio-Club, Lindenallee 6, 3507 Baunatal, W. Germany (B.R.D.) Ed. Dr.Hans Schwarz. adv. bk. rev. charts. illus. tr.lit. index. cum-index: 1951-1954; 1960-1965; 1966-1970. circ. 50,000.

621.384 NE ISSN 0013-4767
ELECTRON: maandblad voor de Nederlandse radio-amateur. 1945. m. fl.62.50. Vereniging voor Experimenteel Radio Onderzoek in Nederland, Postbox 1166, 6801 BD Arnhem, Netherlands. TEL (085)426760. Ed. H.H. Duivenvoorden. adv. bk. rev. charts. illus. tr.lit. index. circ. 13,000. Description: publication for radio amateurs covering news and information, technology, amateur satelites, antennas, international news, reports of events, and contest results. Includes calendar of events, and association library news.

384 GE
FUNK AMATEUR. m. M.60.40. Militaerverlag der Deutschen Demokratischen Republik, Storkower Str. 158, 1055 Berlin, E. Germany (D.D.R.) Ed. Karl-Heinz Schubert. charts. illus.

621.38 JA

--- FD 1.99c
* Origin: Moderator, HAM_TECH / HAM4SALE Echoes (1:234/1)

--
|\/\/\/|
| | Jim Grubs - via FidoNet node 1:234/1
| (o)(o) UUCP: ...!ncar!asuvax!stjhmc!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| ____
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

3716. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-25 16:20:38 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250178@hpnmdla.HP.COM>
Source record: 10731

>>alanb@hpnmdla.HP.COM (Alan Bloom) writes:

>>I have an idea. Eliminate voice as a legal mode in Amateur radio.

>>Al N1AL

>actually, I'll agree that CW operators tend to be more civil, and it's about
---

It's interesting that everyone assumed that I thought the only alternative
was CW.

Al N1AL

3717. FT101E

Newsgroup: rec.ham-radio
Date: 1990-06-25 16:33:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9006251545.AA23825@ucsd.edu>
Source record: 10818

I have a FT101E and it has the speech processor, noise blanker, and calibrator. I think the EE version did not have the speech processor and maybe the noise blanker.

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

3718. Re: Books on Early Electronics For Sale

Newsgroup: rec.ham-radio
Date: 1990-06-25 16:36:24 UTC
From: lowood@lindy.Stanford.EDU
Message-ID: <10157@lindy.Stanford.EDU>
Source record: 10820
Cross-posted to: misc.forsale,rec.ham-radio,sci.electronics

In article <42053@conexch.UUCP> root@conexch.UUCP (Larry Dighera) writes:
>
>Here is a list of the wireless electronics books that I would
>like to sell:
>
> 3. Conqueror of Space
> Biography of Lee De Forest
>
Is this book still available? You did not list a price or condition; can
you tell me more about the condition and about how much you want for it?

Henry

3719. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-25 16:38:38 UTC
From: bobw@col.hp.com
Message-ID: <24300016@col.hp.com>
Source record: 10736

Re: Goodbye Ham Radio Magazine

* I said goodbye to HR some time ago. I feel that they lost the
formula that made them successful. The magazine appealed to
the more technical portion of the amateur radio population.
About three or four years ago, I think they forgot this fact
and started watering down their technical content. I had written
a couple of articles for them and conversations with their
editors began to center more on sure fire idiot proof construction
and less on technical content (IMHO).
At that point I pulled the plug on my subscription,
so I have no recent experience with HR.

* Wireless World is a really interesting magazine. It has a
great mix of electrical engineering, amateur radio, general
electronics hobbyist stuff, basic theory and pseudo-science.
The downside is 1) ads are for UK products 2) prices are
in pounds 3) words like color are spelled 'colour' 4) expensive
in the US.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd

3720. HR/CQ, Teaching Science, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-25 17:00:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9006251607.AA25426@ucsd.edu>
Source record: 10819

I also got my copy of CQ (instead of Ham Radio). I guess i'll let the subscription expire (October or so), but i'll not renew it. It would be nice to see a list of other magazines that are available, cost, etc. I'm afraid there is not a lot of choice. QST is ok, but there sure is a lot of contest, ARRL news, etc, etc, etc.

one of the best ways to support science education is to become INVOLVED in the science fair programs in a local school. If they don't have one start one (with the help of the local school). One has to be careful not to step on the toes of the local science teachers, principles, etc. but I've found them to be open to ideas, HELP, etc. We raised money for prizes, organized field trips, etc. It works. A ham radio display at a local science fair would be a good idea.

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

3721. Re: octopus

Newsgroup: rec.ham-radio
Date: 1990-06-25 17:35:46 UTC
From: jdn@casux4.uucp
Message-ID: <24616@bellcore.bellcore.com>
Source record: 10824

In article <747936BC553F80145F@ROSEVC.Rose-Hulman.Edu> DERRY@ROSEVC.Rose-Hulman.EDU writes:
>During planning for field day our group heard references to a device used
>illegally by some filed day groups. This device was referred to as an
>OCTOPUS. Does anyone want to tell me what the heck it is?
>

I have some vague idea what its all about, but if there are more knowledgeable contesters on the net, please come to my aid.

The OCTOPUS is a switching network which connects a number of operating transmitters, but only allows a single transmitter to transmit at any given time. The idea is that you can have multiple band positions active at the same time, but since the octopus prevents you from putting more than one signal on the air at any given time, you can submit your log as MULTI-SINGLE rather than MULTI-MULTI. Clearly, the performance of the station using an octopus is going to be closer to MULTI-MULTI and far beyond anything you hope to achieve with the traditional MULTI-SINGLE.

I believe the octopus was first introduced by a very cleaver bunch at one of the big eastern european contest clubs. I would not view it as "illegal" but rather as a very clever innovation. Subsequent to its introduction, I believe, the rules of the CQ World Wide DX Contest were revised to exclude its use in MULTI-SINGLE.

I have not looked closely at FD rules, but perhaps they are not properly phrased to exclude the octopus? If so, be careful not to criticize the operators for "illegal" operation- they may just be more clever than the rest!

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3722. FT101B vs FT101E

Newsgroup: rec.ham-radio
Date: 1990-06-25 17:37:00 UTC
From: MULTI@TRIUMFER.BITNET
Message-ID: <90Jun25.133735edt.58193@ugw.utcs.utoronto.ca>
Source record: 10821

The previous reason for my query was that I had an excellent opportunity to buy a Yaesu FT101E, and was unsure whether it came with RF speech clipper. It turns out that the FT101E does have a factory-installed speech clipper, and the deal included a Yaesu FV101 vfo, all for the price of $499 Canadian. Now if I can locate a Yaesu antenna tuner which covers 160 meters, I will be all set.

Y.N. Miles,
<MULTI@TRIUMFcl.bitnet>

ps: I replaced the 3SK40 dual-gate mosfets with Motorola 3N211 mosfets.

3723. Re: Amateur Auxiliary

Newsgroup: rec.ham-radio
Date: 1990-06-25 18:13:46 UTC
From: stevew@wyse.wyse.com
Message-ID: <2767@wyse.wyse.com>
Source record: 10728

In article <54551@lanl.gov> rdw2030@venus.tamu.edu writes:
>
>Are there any members of the Amateur Auxiliary here? What ability does the
>(ahem) AA :-) have to help control this sort of crap that's going on on 20M
>and elsewhere? I would love to get in on such an activity. Just tuning
>around, I hear so much garbage and feel helpless to do anything about it, as
>many others have stated here.

I guess I qualify as a member of the auxiliary (OOC for SCV ;-)
so I'll try to answer some of your questions. The Amateur Auxiliary
is able to send notices to stations who the OO believes is in some
manner not complying with Part 97. This can be anything from
not IDing every ten minutes to jamming. This is an attempt at
self-policing. The OO doesn't have any special powers, he's just
another ham, no more than that.

>How does the Auxiliary work? I guess I can whip out the Handbook. Hmmm...
>precious little. It refers to an article in QST of Aug '84.

Well, we listen alot. If we hear something that sounds like a violation
we'll write a card to the station we heard. The card indicates what
the OO heard, along with a reference to the relevant section of Part 97.

If a problem persists the OO can bring the situation to the attention
of the OO Co-ordinator for his section. The OOC can either ask
for help from what is known as the Regional Monitoring Station
or try to deal with it himself. In my section I worry mostly about
VHF problems, and will try to deal with these myself. If its an HF
problem I'll pass it up the chain to the RMS.

The RMS stations are appointed by directors and are the ham
equivalent of the FCC monitoring stations. There aren't to
many of these stations. In CA we have a total of 3(that I'm
aware of).

When a problem can't be solved by peer pressure then the only
choice left to the OOC/RMS is to turn the problem over to the
FCC. Before this can happen the OOC/RMS must inform the ARRL
division director about the case. How this turn over occurs
is different in each section. My section (Santa Clara Valley)
has a Memorandum of Understanding with the the San Francisco
FCC office about how this is to happen. This agreement has
been in place for just a year and we've had pretty good results
so far.

The FCC in our section requires that we supply them with information
about what the we believe the violation is, when it is occuring, and
which city we believe the station to be located. The biggest part
of this list is the nature of when the offense is occuring. It
must be repetitive and predictable for the FCC to come out. They
don't have a great deal of man-power so FCC uses the amateur
auxiliary to do some of the foot work before they show up on the
seen. FCC gets alot of calls of the sort "Well, this guy is on
the repeater and he's cussing all the time." So the FCC asks
when he's on and gets the reply "Oh, he's on all the time...I heard
him on last night, then he was on maybe a week ago in the morning."
That's why the repetitive/perdictable part ;-)

>But hey, if we all write to our section managers (the guys that control the
>Auxiliary for their area) and find out about this, maybe we CAN do something!

Feel free! I can assure you that the next SM of the SCV has a pretty
good understanding of the situation here ;-) and for that matter the
current one does too (Glen, WB6W, is my partner when I go out on
most of my DFing expeditions.) Your SM can at least direct you
to the OOC in your section.

The real problem we have isn't VHF because that can be dealt with
fairly effectively at the local level. HF with its' capability
of spanning the country/globe is harder nut to crack. How do
you DF someone thats half a continent away, then do something
about it? I'm not sure there is a good answer for this one.
I sure don't have it anyway....

>I'm not one to advocate "tattling" on a fellow ham, but if he is deliberately
>abusing the privilege, than screw it! Let the FCC know and hope that $1000
>fine does the trick!

This is a fine point that maybe needs to be discussed. The Auxiliary tries
to use peer pressure to get people to moderate their behavior. Thats
the only tool we have. We aren't band cops, just merely other hams that
have to live-on/use the same frequencies. When peer pressure fails then
the FCC is the only resort we have. FCC also gives a person one chance
before fines start getting levied. If the person heeds that warning
that will be the end of it. This is what happened in the two casses
that I've turned over to FCC in the last year. I'm glad it turned
out that way. The two offending parties started behaving themselves
and that was the end of it.

>What do you all say? I have not heard of ANYONE being in the Aux., nor have I
>heard any mention of it in all my many years of hamming. (1.5, to be
>precise!) :-)

Well now you've heard from someone ;-) I'll be glad to try and answer
any questions you've got.

Steve Wilson KA6S
OOC for SCV section

3724. Re: 20M garbage, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-25 18:18:00 UTC
From: stevew@wyse.wyse.com
Message-ID: <2768@wyse.wyse.com>
Source record: 10729

In article <54907@lanl.gov> rdw2030@venus.tamu.edu writes:
>I guess noone heard my request for Amateur Auxiliary info...
>
>hint hint
> stuff deleted...
>Mark C. Lowe - KB5III

Geessssh Mark......Even OO's go on field day. See my comments in the previous posting.

73's de Steve KA6S

3725. Re: How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-25 18:19:51 UTC
From: saaf@joker.optics.rochester.edu
Message-ID: <SAAF.90Jun25141951@joker.optics.rochester.edu>
Source record: 10825

In article <1990Jun25.144036.27405@dg-rtp.dg.com> harrism@aquila.rtp.dg.com (Mike Harris) writes:

> I'd bet that a vote to reduce max input power on HF to 200 would pass!

This raises an interesting question: how many big guns do you think limit themselves to 1500? I would not be surprised if there were one hundred stations running at least 10kW in the US. There will always be people who run as much as they please regardless of the rules. Not to say that they are necessarily bad ops (whatever that means :^).

Len
NV2Z

--

| Len Saaf, The Institute of Optics, Univ. of Rochester, Rochester, NY |
| Internet: saaf@joker.optics.rochester.edu Bitnet: SAAF@UOROPT |

3726. Re: HR mag

Newsgroup: rec.ham-radio
Date: 1990-06-25 18:25:16 UTC
From: stevew@wyse.wyse.com
Message-ID: <2769@wyse.wyse.com>
Source record: 10730

In article <8205@b11.ingr.com> herbster@b11.ingr.com (Joe Herbster) writes:
>
>I got my fist license the year HAM-RADIO magazine started publishing. I have
>now received my first EVER issue of "Contest-Quarterly" as a consolation prize.
> Why do i feel like i got the very short end of the stick??
> What a R.I.P.
>
> de km4jn

Cuz you were!

I tried canceling my subscription, they didn't do it!

Steve KA6S

3727. RE: Making Ham Radio Known

Newsgroup: rec.ham-radio
Date: 1990-06-25 19:31:17 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006252139.AA22365@ti.com>
Source record: 10733

> From: TILDE::"ajs@hpfcdc.HP.COM" "Alan Silverstein" 24-JUN-1990 01:31:25.18
> To: info-hams-incoming
> Subj: Re: Making ham radio known
>
> > Think about what you do in ham radio. Do you yak with your friends on
> > the way to work on the 2-meter repeater?
>
> Well I've only been Tech-licensed a week and a half, but one thing I do
> is help people make phone calls to friends from the top of 14000'
> mountains. If that doesn't stimulate interest, I dunno what will.
>
OK, you've made a positive contribution right there, only two weeks out of
the mailbox. (Congrats, BTW!)

Anything a ham does for the public, whether its a courtesy phone patch/remote
call, or getting help to someone stranded in a flood or earthquake, is on
the plus side.

We need all of that we can get. Good show.

Now. Were those folks (since they were up on a mountain...) part of a club
or organization (climbing club, environmentalist organization, whatever?)

Is there a way you can arrange for a presentation at one of their meetings
about ham radio? If not yourself, maybe someone from your radio club is not
uncomfortable in front of a strange group...

SYSMSGSBE-W-WARNING: SOAPBOX MODE ENGAGED...

That's a little more agressive, and I think that is what Patty and some of
us were looking for. I unfortunately, between work and running code practice
for the club and helping out with the VE team have plenty to do. If I had
about three more nights per week, I'd like to seek out new life and new
civi-... oops... new organizations that need programs and present to Lion's
Club and Elks and Shriner's and Ladies' Auxiliary of the Volunteer Fire
Department... and present ham radio as it is (or as we hope it to be!)

Two things are possible if you do that right...
(1) Jane and John Q. Public know FOR REAL what ham radio is, not what
rumor and misinformation make of it, and
(2) SOMEBODY might get interested.

(2) is nice, but they're not going to beat your door down. (1) builds a
firm foundation on which (2) can build from.

Maybe, maybe not. But it sure can't hurt...if it's done well.

SYSMSGSBE-I-NOTICE: SOAPBOX MODE TERMINATED.

Have fun with your new license. Go try all the neat things you can do, and if you can do a favor for a friend or a stranger, let 'em know it was a HAM who did it!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3728. Re: Strange RFI

Newsgroup: rec.ham-radio
Date: 1990-06-25 19:47:54 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880163@hpfcdc.HP.COM>
Source record: 10740

>Is there a television set operating nearby? I get all kinds of RFI from my TV,
>and a bit from the neighbors'. The horizontal oscillator operates at
>15.734 KHz.

Yeah, I get this one, too. Lessee - 30 Mhz is on about the 2000th
harmonic. That's a sharp sawtooth indeed ! Can I put a ferrite bead
on a wire somewhere in the telly to get rid of this ?

My wife finds it ironic she QRMs me as much as I QRM her. :-)

Perry

3729. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-25 20:18:49 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880165@hpfcdc.HP.COM>
Source record: 10739

>I see a lot of people p*ssing and moaning about the lack of technical
>material. I _don't_ see those people writing and submitting articles.
>
>Jon Bloom, KE3Z

I agree. Magazines don't dream up this stuff - we do. When was the last time you did something original ? If you have a better, cheaper, faster way to do something and don't publish, it's as if you never thought of it at all.

What about me ? I'm working on a cheaper soft-start for high-power (tube) RF amps. Does one already exist ? I don't know - I haven't seen one yet.

By the way, I find this newsgroup to be a powerful counter point to the regular mags. We can say what we want against CQ and QST in an unedditted manner. We can also exchange ideas in a way not possible via a magazine. I even find technically useful information, despite the lack of graphics.

Perry Scott, KF0CA

3730. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-25 20:21:23 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880166@hpfcdc.HP.COM>
Source record: 10741

Just a word of caution - disk drives are less rugged than most electronics.
If the controller spends most of it's time in an air-conditioned shack, it
should be fine. :-)

Perry Scott

3731. RE: ... Teaching Science, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-25 20:24:27 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006252141.AA22506@ti.com>
Source record: 10734

> From: TILDE::"BRUCEH@UTKVX3.BITNET" 25-JUN-1990 15:01:53.93
> To: info-hams-incoming
> Subj: HR/CQ, Teaching Science, etc.
>
> one of the best ways to support science education is to become INVOLVED
> in the science fair programs in a local school. If they don't have one
> start one (with the help of the local school). One has to be careful
> not to step on the toes of the local science teachers, principles, etc.
> but I've found them to be open to ideas, HELP, etc. We raised money for

Maybe one slightly different tack is to approach the TEACHERS, make resources and training availble to them, and offer to assist with transferring it to the students.

I get the impression a lot of teachers feel tied up with budget constraints and administrative policy.

If you can get one teacher interested in ham radio, that might lead to getting a dozen students involved...

Just a thought!!

73,
Bob
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3732. Re: How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-25 21:21:32 UTC
From: perley@trub
Message-ID: <8993@crdgw1.crd.ge.com>
Source record: 10732

In article <1990Jun25.144036.27405@dg-rtp.dg.com>, harrism@aquila (Mike Harris) writes:

>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

>We'd have *alot* more room on our bands if people used directional antennas
>and ran reduced power. The latter would force the fomer somewhat.

It sure would cut down on the round-table QSO's & networks.

Oh, and the mobile operators might think it was a bit of an imposition.

I would think that Kilowatt ops are more likely to have a beam & tower
already. Either they have more money to spend, or are willing to spend
more of what they have on the hobby.

We have a lot more room with most people running SSB rather than AM,
but we didn't have to legislate to accomplish it. People switched for
their own reasons (like more bang for the watt).

-don perley - ke2tp

perley@trub.crd.ge.com

3733. RTTY DX Notes, 6/22/90

Newsgroup: rec.ham-radio
Date: 1990-06-25 21:56:32 UTC
From: gws@n8emr.UUCP
Message-ID: <1548@n8emr.UUCP>
Source record: 10742

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ RTTYDX $RTDX0622
RTTY DX Notes, 1of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 1 of 3.
BID: $RTDX0622

The ANARTS contest has come and gone, and if you thought that the
propagation was poor for that weekend, you should have a look at it
now. Even the intruders are missing. But we have received some logs,
and from some of the scores there was little to complain about. Keep
the logs coming, chaps.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, OD5NG, PJ2MI, TG9VT,
VK2EG, W2JGR and the Tri-State DX Association VHF packet cluster.
Thank you all for your assistance. Every little bit helps.

Bandpass:

Friday 15:
ED9CI 14083 at 0001Z QSL/Note
KR6N/KP4 14087 at 0034Z
FO5EM 14081 at 0610Z
VR6WH 14088 at 0655Z
BV2HC 14087 at 1252Z
PJ2WOL 14074 at 1407Z ARQ
CU2AT 14090 at 1642Z
HK0BKX 21090 at 2110Z QSL
T5RM 14074 at 2114Z QSL/ARQ

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0623
RTTY DX Notes, 2of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 2 of 3.
BID: $RTDX0623

Saturday 16:
FY5DG 14090 at 0040Z QSL
SU1HN 14083 at 0305Z QSL
```

ED9CI 14091 at 0310Z
HK0BKX 14088 at 0335Z
V31AR 14075 at 0400Z ARQ
EA6BH 14078 at 0703Z
9M2AX 14085 at 1138Z
FM2WL 14086 at 1159Z
YB0GI 14093 at 1329Z
HS1BV 21091 at 2005Z
EA9MY 14083 at 2257Z

Sunday 17:
ED9CI 14091 at 0036Z
J28TY 14089 at 0252Z
UZ3AWP 14088 at 0410Z
UQ2HO 14088 at 0703Z
HI8BJ 14089 at 1240Z
PP8DA 21089 at 1528Z
5N0ETP 21089 at 1532Z
CU2CB 21090 at 1556Z
VR6WH 14089 at 1725Z
SV5TS 14082 at 1957Z
EA9MY 14081 at 2252Z

Monday 18:
UZ3AWP 14081 at 0605Z
J28TY 21090 at 1400Z
9Q5BG 21084 at 1742Z
KC5RY/HP1 14074 at 2000Z ARQ
6Y5EW 14074 at 2055Z ARQ
YL1WW 21084 at 2116Z

Tuesday 19:
J73WA 14086 at 0149Z
YL1WW 14090 at 0300Z
FY4FS 14088 at 0537Z
LY1BYL 14086 at 2027Z
RF1F/UA3TT 14082 at 2322Z
V44KW 14088 at 2339Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0624
RTTY DX Notes, 3of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 3 of 3.
BID: $RTDX0624

Wednesday 20:
LY2WW 21083 at 0235Z
RA3AL 14097 at 0345Z
EA6MQ 14097 at 0518Z QSL

KL7KJ 14087 at 0522Z
VR6WH 14089 at 0635Z
PJ2MI 14074 at 1040Z ARQ
ES2WX 14084 at 1153Z
UA9EAL 14085 at 1352Z
BV4VB 21088 at 1745Z
PZ1DZ 14084 at 2338Z

Thursday 21:
UQ2HO 14089 at 0348Z
J73EH 14082 at 0440Z
EA6MQ 14088 at 0516Z

QSL Information:

ED9CI says to QSL via EA9KQ.

T5RM will QSL via HB9RTR, 134 Saules, 1233 Bernex, Switzerland.

HK0BKX (San Andres) via WB9NUL.

FY5DG is at Box 450, Kouru, French Guyana.

SU1HN will QSL via Box 1578, Alf Maskan, Cairo.

EA6MQ will QSL via his Callbook address.

Notes of Interest:

ED9CI was the station that was reported last week as having the callsign of AN9CI. The call was changed at the last moment, but it was still Aure on Chafarinas Island.

YL1WW is in Riga, USSR. No further information at this time.

TV9GIR will be a special call from Margaux Island (north of Bordeaux) on June 23/24. They will operate all bands and modes (including CW on 10 MHz). QSL via FD1MRE or via the bureau.

We appear to be a little short of information this week, but propagation has been very poor, and someone has taken Africa off the map.

GL DE DX1 (VK2EG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

3734. Re: YAESU FT-411 MOD, please help!

Newsgroup: rec.ham-radio
Date: 1990-06-25 22:44:07 UTC
From: <>
Message-ID: <15780005@.HP.COM>
Source record: 10735

Here is the info for the mods server:

Stan

~~~~~~
~ Stan Witherspoon ~ Disclaimer ~
~ Systems Technology Division ~~~~~~~~~~~~~~~~~~~~~~~~
~ Hewlett Packard Company ~ These are my ~
~ 8010 Foothills Blvd. ~ personal opinions ~
~ Roseville Ca. 95678 ~ and do not represent ~
~ Phone: (916) 785-5071 ~ the views of anyone ~
~ RF: N6SCE ~ or anything else ~
~ Email: ucbvax!hplabs!hprpcd!stan ~
~~~~~~

This file is: INTRO MODS

MODS database
---- --------

This database was setup to archive files containing information on
how to modify radio equipement to either improve its performance,
or add new functions or capabilities to the radio.

*** AS of Nov 1, 1989 FTP access from the internet is available
HAMSTER.business.uwo.ca [129.100.22.100]

To access a file from the archive via mail, send a message to the server running
under userid -> BITLIB@UWO.CA
Also you may try the userid -> BITLIB@UWO.CDN

The subject of the message MUST be -> MODS
If your mailer does not ask for the subject; make the first line of your
message look like this:

SUBJECT: MODS

The server ignores all messages that do not have MODS in the subject
field. All bad requests get re-routed to my userid ,and I eventually
read them, fix them, and re-submit them.

The text of your message descibes what files you want. For example:
sendme intro mods
sendme radio mods
sendme TH215 mods

You can have as many requests in the same message as required.
INTRO MODS is the file you are reading now.

RADIO MODS is a list of files available.
TH-215 MODS is a file that can be requested.

Below is an example of a file request message:

```
.....................................................................
.
. Date: Friday, April 5, 1989
. From: MBRAMWEL@BUSINESS.UWO.CA (Mark Bramwell)
. Subject: MODS
. To: bitlib@uwo.ca
.
. from: mbramwel@uwo.ca
. sendme radio mods
. sendme pro2004 mods
. sendme tm721 mods
.
.....................................................................
```

In the above example I have a 'from:' line in my message. That will
tell the server to send to an id other than the id listed in the
header. The userid should be reachable from bitnet. That means
UUCP users should include a gateway in their id.

To submit a file for the database, send me the message and I will
add your entry to the database.

**Note: If you don't seem to be getting a reply to your requests, it is
probally due to the fact that your header doesn't show a reachable
address. You must be reachable from UWO. You can place your return
address in the first line of your message. Example:
FROM: someuser@somenode

UUCP users have had some success by stating their address as:
userx!usery!userz@julian.uucp
Julian can usually find most gateways.

Any questions or concerns can be directed to:

Mark Bramwell VE3PZR
University of Western Ontario
School of Business Administration
London, Ontario

Bitnet: MBRAMWEL@UWO.CA Packet: VE3PZR @ VE3GYQ

FTP Server: HAMSTER.business.uwo.ca [129.100.22.100]

3735. test

Newsgroup: rec.ham-radio
Date: 1990-06-26 02:28:00 UTC
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Message-ID: <74156B1FBBFF001C69@mbian.gal.utexas.edu>
Source record: 10737

```
test
```

3736. startup message

Newsgroup: rec.ham-radio
Date: 1990-06-26 02:36:00 UTC
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Message-ID: <7414437482DF001C69@mbian.gal.utexas.edu>
Source record: 10738

```
startup message
```

3737. Deluge ARRL with mail...

Newsgroup: rec.ham-radio
Date: 1990-06-26 04:14:47 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <55207@lanl.gov>
Source record: 10751

Well, what do you think would be the effect of a mass mailing telling the ARRL what we would like to see in QST? All of us sitting on here saying QST's ok, BUT... That doesn't fix the problem!

I think it needs to be BIGGER! Not necessarily in size, but content! Have you ever noticed that fully ONE-HALF!!! of QST is ads? It's really a bit more than that, considering the ads that come between articles and such. That's pathetic!! I subscribe because I feel I need to keep a leg in somehow but it IS a bit sad! It's almost like BYTE!

Where's the beef? I agree... we need more technical stuff!!! I wonder how many people subscribed to Ham Radio. If someone started up a strictly "high-tech" ham magazine, I wonder how much support they could realistically expect. As was mentioned before... the mag can only be as good as its submissions!

Mark C. Lowe - KB5III

3738. AA info...

Newsgroup: rec.ham-radio
Date: 1990-06-26 04:40:58 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <55209@lanl.gov>
Source record: 10750

Many thanks for the excellent description of your program there, Steve! You guys sound like you've really got it together over there! I hope you will continue to keep us informed about how things are going in the future!

Mark C. Lowe - KB5III

3739. AMSAT News, 6/23/90

Newsgroup: rec.ham-radio
Date: 1990-06-26 05:17:20 UTC
From: tad@ssc.UUCP
Message-ID: <851@ssc.UUCP>
Source record: 10760

SB ALL @ AMSAT $ANS-174.01
EUROPEAN FIELD DAY

HR AMSAT NEWS SERVICE BULLETIN 174.01 FROM AMSAT HQ
SILVER SPRING, MD JUNE 23, 1990
TO ALL RADIO AMATEURS BT

While amateurs in North America were involved in Field Day '90 (scores of stations were working AO-13 alone!), plans were underway for a similar emergency communications test in Europe the following weekend. AMSAT Education Advisor, Rich Ensign (N8IWJ) relays the following details:

Jurgen, DG7NBH reports that hams in the Nurenberg, West Germany area are gathering for their annual test of emergency operations on June 30, 1990. Jurgen and his group have a special emphasis this year. They are calling their event an "American Activity Day." American hams living in the Nurenberg area are being invited to the operations site to share in contacting as many stations in the U.S. as possible. Jurgen will have his Mode B OSCAR station on site and he will be found on OSCAR 13 on a downlink frequency of 145.925 MHz between 20:00 and 22:30 UTC. At that time there is an excellent window between the U. S. and Europe. Why not give DG7NBH a call!
/EX
SB ALL @ AMSAT $ANS-174.02
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 174.02 FROM AMSAT HQ
SILVER SPRING, MD JUNE 23, 1990
TO ALL RADIO AMATEURS BT

Last ZRO Test of the Current Set to be Held Last Saturday in June

You have one more chance to test out your receive station on AO-13 during the latest round of The ZRO Memorial Technical Achievement Award Program. The "ZRO Test", which is a test of operating skill and equipment performance, has been run over the past few weeks and will conclude at the end of June.

The following schedule of Mode "B" and "JL" ZRO tests were chosen for convenient operating times and favorable squint angles. The "B" tests can be heard on 145.840 MHz and the "JL" tests on 435.945 MHz.

Saturday June 30, 1990 at 1840 UTC "JL"
Saturday June 30, 1990 at 1930 UTC "B"

Any changes will be announced as soon as possible via the AMSAT HF and AO-13 Operations Nets. Recently updated ZRO brochures are available from WA5ZIB, Andy MacAllister, AMSAT V.P. User Operations, 14714 Knightsway Drive,

Houston, TX 77083 for an S.A.S.E. with two units of postage. The brochure describes test procedures, means for obtaining certificates and gives some historical background about the program.

All listener reports with date of test and numbers copied should be sent to WA5ZIB at the address above. A report will be returned verifying the level of accurate reception. Good luck!
/EX
SB ALL @ AMSAT $ANS-174.03
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 174.03 FROM AMSAT HQ
SILVER SPRING, MD JUNE 23, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

26 Jun 90 0115 144 B N5BF Monday

Orientation Change to 210/0

09 Jul 90 0000 184 B N5BF Sunday
16 Jul 90 0115 130 B N5BF Sunday
27 Jul 90 0030 130 B N5BF Thursday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your local AMSAT Area Coordinator.
/EX
SB ALL @ AMSAT $ANS-174.04
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 174.04 FROM AMSAT HQ
SILVER SPRING, MD JUNE 23, 1990
TO ALL RADIO AMATEURS BT

Transponder Schedule for AO-13 Effective 05MAY90

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

The current attitude is:

BLON = 179.4 and BLAT = -4.1 for 25 Jun 90

Cross mode B and S QSOs are possible during MA 135 to 140.

AO-10's Mode-B Transponder Now Available for Use:

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

[AO-10 update received from Graham Ratcliff, VK5AGR, via AO-13 beacons.]
/EX

3740. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-26 06:17:05 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <26434@netnews.upenn.edu>
Source record: 10744

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

IMHO, using a PC as a repeater controller is a good idea, and shouldn't be difficult to implement. PC's are nice because most of the hard work that would normally have to be done in hardware in a non-CPU based repeater can be done in software. Access codes can be easily changed, PROMS don't have to be burned for different CW ID's, the ID's themselves can be generated by the computer, etc. The way I see it, the above caveat can easily be remedied by not using floppy drives/a hard drive in normal operation. The system should be set up so that upon booting, both the control software and all data necessary to run the repeater, including the custom control codes, ID's, messages, etc. should all be loaded into memory to prevent unnecessary use of the disk drive and also to increase speed. But that's probably pretty obvious. I can't think of any real reason why the computer would have to write anything to disk as the repeater is used. What's there to be logged that easily be converted to a digital format that's of any use?

BTW, most of the interfacing can probably be done without having to directly communicate with the computer byte-wise. Control lines on the RS232 port make handy binary lines. Having the computer set lines high is a quick and efficient way of flipping relays, keying CW, etc. They can be used as input as well - have a receiver set the line high when a signal opens squelch. It's a lot easier than having to read and write 8 bits on the data lines and allows for more than one device to be connected to the computer unlike 2-device serial communications. And if one port isn't enough, another serial port can be added for about $25. A stripped-down single-floppy XT clone with 2 serial ports should cost less than $500 new, probably under $300 used. If money is really tight, use as C64 (ick) or trash-80.

About the only "real" communications that would be necessary would be getting DTMF tones from the receiver to the computer. That shouldn't be all that difficult either. Less than 5 chips in actuality. Take a DTMF decoder and a UART and you're 99% done. Things like detecting S/N for voting or detecting PL might be a bit more difficult, but they would be necessary in a non-computer-based repeater anyway. Control of the repeater would be simple - just tack on a modem.

If you do decide to go through with the project, keep us posted. I'd
be interested in hearing how you went about the whole project. I'm
sure it's been done many other times before, but it would still
be interesting.

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

3741. Info-Hams Digest V1 #41

Newsgroup: rec.ham-radio
Date: 1990-06-26 07:00:05 UTC
From: /dev/null@ucsd.edu
Message-ID: <9006260700.AA08886@ucsd.edu>
Source record: 10747

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 41

Today's Topics:
... Teaching Science, etc.
arrl PFB 26
ATV BALLOON LAUNCH (Northeastern USA)
Denmark & Holland
Dubious quality of CQ review of AEA IsoLoop
Ham calls seen in horrible movie
Homebrew repeater controllers
How to buy a QSO, 20 M mess, etc...
HR mag
Making Ham Radio Known
RTTY DX Notes, 6/22/90
startup message
Strange RFI
test
The Demise of HR Magazine and Comments on CQ
Wanted: TRS-80 Model 100 software - packet radio

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

Date: Mon, 25 Jun 90 15:24:27 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: ... Teaching Science, etc.
To: infohams@flopn2.csc.ti.com

> From: TILDE::"BRUCEH@UTKVX3.BITNET" 25-JUN-1990 15:01:53.93
> To: info-hams-incoming
> Subj: HR/CQ, Teaching Science, etc.
>
> one of the best ways to support science education is to become INVOLVED
> in the science fair programs in a local school. If they don't have one
> start one (with the help of the local school). One has to be careful
> not to step on the toes of the local science teachers, principles, etc.
> but I've found them to be open to ideas, HELP, etc. We raised money for

Maybe one slightly different tack is to approach the TEACHERS, make resources
and training availble to them, and offer to assist with transferring it to
the students.

I get the impression a lot of teachers feel tied up with budget constraints
and administrative policy.

If you can get one teacher interested in ham radio, that might lead to getting
a dozen students involved...

Just a thought!!

73,
Bob
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 22:00:20 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: arrl PFB 26
To: info-hams@ucsd.edu

==
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==

ZCZC AP30
PROPAGATION FORECAST BULLETIN 26 ARLPP026
FROM ED TILTON, W1HDQ
SPRING HILL FL JUNE 25, 1990
TO ALL RADIO AMATEURS

THE SOLAR FLUX WAS OFF TO A GOOD START EARLY IN JUNE, BUT IT PEAKED
AT 217 ON THE 12TH. THIS WAS 51 POINTS BELOW THE YEARS HIGH OF 268
SET ONE MONTH EARLIER. THE SOLAR FLUX THEN SLID BACK TO 133 BY THE
23RD. IT ROSE A BIT ON THE 24TH AND IT MAY BE ON ITS WAY TO HIGHER
LEVELS THIS WEEK.

SOME NEW ACTIVITY WAS SEEN IN THE EASTERN PORTION OF THE SUN OVER
THE WEEKEND, AND MORE MAY BE SHOWING UP IN THE NEXT FEW DAYS. ITS
PROGRESS CAN BE FOLLOWED BY LISTENING TO INFORMATION GIVEN BY WWV AT
18 MINUTES AFTER EACH HOUR.

DESPITE THE LOW SOLAR FLUX, PROPAGATION WAS FAIRLY GOOD LAST WEEK,
EXCEPT THAT BANDS ABOVE 21 MHZ MAY HAVE BEEN MARGINAL FOR DX USE AT
TIMES WHEN SPORADIC E SKIP WAS IN. IT MAY HAVE BEEN MUCH OF THE
TIME AND IT WILL BE WITH US OFTEN WELL INTO JULY, AT LEAST.

E SKIP IS USEFUL FOR MEDIUM DISTANCE WORK ON 28 AND 50 MHZ, AND IT
MAY SHOW UP ON 144 MHZ AT TIMES, ESPECIALLY IN JUNE AND EARLY JULY.
IT IS LIKELY TO BE VERY ERRATIC AND SHORT LIVED ON 144 MHZ.

AMERICAN SUNSPOT NUMBERS FOR JUNE 14 THROUGH 20 WERE BETWEEN 67 AND
125 WITH A MEAN OF 95.4. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 25 Jun 90 14:35:53 GMT
From: usc!samsung!cg-atla!raybed2!ewb@ucsd.edu (EUGENE BALINSKI)
Subject: ATV BALLOON LAUNCH (Northeastern USA)
To: info-hams@ucsd.edu

WB8ELK's BALLOON Launch carrying LIVE ATV is going on as scheduled. The
launch net will be on 40 meters LSB 7155 KHz. "CAP COMM" will be
WA3USG. Net will commence at 8:30 AM EDT with launch expected at 9:00 AM
EDT. Video will be on 439.25 (CABLE CH 60). Beacon frequency 144.34.

Bill (WB8ELK) is inviting everyone out to the launch sight to view the
launch. Bill is also in need of some people with FOX HUNTING skills
to help with the recovery. If you can help please contact him direct at
73 Mag Phone: 603-525-4201.

If you view the video or hear the beacon please get in touch with
Bill. He will certainly want to get reception reports.

73
Gene WA1UXA

Note: Bill's Packet address is WB8ELK @ WA1WOK.NH.USA.NA

Date: Tue, 26 Jun 90 08:38 MET
From: "Cor Posch, A.M.C. Amsterdam" <POSCH%AMC.UVA.NL@CUNYVM.CUNY.EDU>
Subject: Denmark & Holland
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

In article <1990jun21>att!cbnewsj!mea1@ucbvax.Berkeley.EDU (michael.e.alterman)
writes:

>We are planning a vacation to Denmark and the Netherlands this summer.
>My wife and I are both licensed hams and we would like to bring our HT
>and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)
>We would like to use them to meet local hams, as well as for travel advice.
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

The repeaters in Holland are all located in the 145.6 - 145.775
region, and most of them do not require a tone burst to start them up. The
offset is as in the US, -600 Kc for the input frequency. On 70cm most of
the repeaters are in the 430.000 - 430.500 region, requiring a +1.6Mc shift
for the input frequency. Remember the bandplan is a lot smaller in Holland
for 2m and 70cm as it is in the US, but you can easaly find that your
reciprocal license (I guess).

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?

When I was over in the US, I noticed no big differences, so I guess
they are the same.

>Can we obtain directories of repeaters, before we leave home.

It'll be probably (again) in your receprocal license agreement,
but if not, I'm quite willing to help you out.

>What is the required procedure for reciprocal operating privileges?

As I did for Canada and the US, request one. The address, I think,
you can use for Holland is:

HDTP/ Directie Operationele Zaken
Postbus 450
9700 AL Groningen
The Netherlands.

Include to speed up the procedure, copies of your US licenses. As noted
before, you might have to pay for your license(s)!

>Please reply via email, if possible.

Why personaly, I think it could be of interest for a wider audiance
too.

Hope to hear you.

Cor Posch, PA3DYW
POSCH@AMC.UVA.NL

Date: 25 Jun 90 13:52:33 GMT
From: apctrc!gpss5!zslf0a@uunet.uu.net (Steven L. Farmer)
Subject: Dubious quality of CQ review of AEA IsoLoop
To: info-hams@ucsd.edu

In article <42200@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>Theoretical arguments against small antennas are very compelling. (The

Well, I dunno. One of my antenna references (_Antenna Theory and Design_,
W. Stutzman, G. Thiele) does an analysis of a circular loop 0.2 wavelengths
in circumference at 1 MHz. The calculated impedance is 0.316+j285.8. With
copper wire with a conductivity of 5.7E-07 mhos/m, the total input resistance

is calculated at 0.324 ohms. This yields an efficiency of 97.5%. Not bad.
The horizontal radiation pattern (free space) is only slightly inferior to
a dipole in its most favored direction. Again, not bad.

Of course, losses in any network used for matching to the transmission line
aren't considered in this. But it still indicates that small loops *might*
work pretty well. Whether the AEA job does or not is still an open question.
Hopefully, someone out there will actually TEST one and let the rest of us
know.

73's - Steve WA5RPF

Date: 25 Jun 90 13:15:30 GMT
From: att!tsdiag!davet@ucbvax.Berkeley.EDU (Dave Tiller N2KAU)
Subject: Ham calls seen in horrible movie
To: info-hams@ucsd.edu

In article <1990Jun20.191715.20514@cbnewsc.att.com> tedk@cbnewsc.att.com (ted.g.kekatos)
writes:
>In article <1014@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>|
>|On the late, late, way-late movie the other night on NY channel 7 there
>|was shown a movie starring Larry Hagman as a chivalrous helicopter pilot
>
>But, what was the name of this movie? I want to rent it!
>
Ah hah! Another fan of good bad movies! I think it was called "Dangerous
Rescue." It was produced by Zarkoff. We (Jim Blakey and I) use our own
rating scheme:

good/good : Star Wars, Die Hard, etc. A movie that tries to be
a good movie and succeeds.
bad/good : Out Of Africa (IMHO), Star Trek V. A movie that tries
to be a good movie and fails.
good/bad : Toxic Avenger, Killer Klowns. A movie intended to be
bad that succeeds.
bad/bad : Toxic Avenger II, etc. A movie intended to be bad that
fails. These are the most painful to watch.
See ya at the bad movies! (too bad I can't use my ATV setup to broadcast
them locally.)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

Date: 26 Jun 90 06:17:05 GMT
From: netnews.upenn.edu!eniac.seas.upenn.edu!depolo@rutgers.edu (Jeff DePolo)
Subject: Homebrew repeater controllers

To: info-hams@ucsd.edu

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

IMHO, using a PC as a repeater controller is a good idea, and shouldn't be difficult to implement. PC's are nice because most of the hard work that would normally have to be done in hardware in a non-CPU based repeater can be done in software. Access codes can be easily changed, PROMS don't have to be burned for different CW ID's, the ID's themselves can be generated by the computer, etc. The way I see it, the above caveat can easily be remedied by not using floppy drives/a hard drive in normal operation. The system should be set up so that upon booting, both the control software and all data necessary to run the repeater, including the custom control codes, ID's, messages, etc. should all be loaded into memory to prevent unnecessary use of the disk drive and also to increase speed. But that's probably pretty obvious. I can't think of any real reason why the computer would have to write anything to disk as the repeater is used. What's there to be logged that easily be converted to a digital format that's of any use?

BTW, most of the interfacing can probably be done without having to directly communicate with the computer byte-wise. Control lines on the RS232 port make handy binary lines. Having the computer set lines high is a quick and efficient way of flipping relays, keying CW, etc. They can be used as input as well - have a receiver set the line high when a signal opens squelch. It's a lot easier than having to read and write 8 bits on the data lines and allows for more than one device to be connected to the computer unlike 2-device serial communications. And if one port isn't enough, another serial port can be added for about $25. A stripped-down single-floppy XT clone with 2 serial ports should cost less than $500 new, probably under $300 used. If money is really tight, use as C64 (ick) or trash-80.

About the only "real" communications that would be necessary would be getting DTMF tones from the receiver to the computer. That shouldn't be all that difficult either. Less than 5 chips in actuality. Take a DTMF decoder and a UART and you're 99% done. Things like detecting S/N for voting or detecting PL might be a bit more difficult, but they would be necessary in a non-computer-based repeater anyway. Control of the repeater would be simple - just tack on a modem.

If you do decide to go through with the project, keep us posted. I'd be interested in hearing how you went about the whole project. I'm sure it's been done many other times before, but it would still be interesting.

--- Jeff
+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

Date: 25 Jun 90 21:21:32 GMT
From: crdgw1!trub@uunet.uu.net (Donald P Perley)
Subject: How to buy a QSO, 20 M mess, etc...
To: info-hams@ucsd.edu

In article <1990Jun25.144036.27405@dg-rtp.dg.com>, harrism@aquila (Mike Harris) writes:

>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

>We'd have *alot* more room on our bands if people used directional antennas
>and ran reduced power. The latter would force the fomer somewhat.

It sure would cut down on the round-table QSO's & networks.

Oh, and the mobile operators might think it was a bit of an imposition.

I would think that Kilowatt ops are more likely to have a beam & tower
already. Either they have more money to spend, or are willing to spend
more of what they have on the hobby.

We have a lot more room with most people running SSB rather than AM,
but we didn't have to legislate to accomplish it. People switched for
their own reasons (like more bang for the watt).

-don perley - ke2tp

perley@trub.crd.ge.com

Date: 25 Jun 90 13:35:50 GMT
From: rochester!rit!cci632!cep@rutgers.edu (co-op)
Subject: HR mag
To: info-hams@ucsd.edu

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve
Schallehn) writes:
>
>I wonder if QEX from the ARRL is any good as an experimentation magazine?
>Someone has to come out with a new HR! Someone has to!
>
>-Steve Schallehn, KB0AGD

Not really. My club just got its renewal notice for QEX and I have
decided not to renew it. (We are an ARRL-affiliated club, by the
way, which has some *teriffic* benefits).

My problem with QEX is redundancy. I have seen an article that says,
"Let's have fun and build a 20-meter cw portable tranceiver that works
on a 9-volt battery!" SOOOOO many times - this is the sort of thing
that belongs in the handbook, and not to pop up in QEX two or three
times a year.

Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
President - Rochester Institute of Technology Amateur Radio Club K2GXT
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

----

Date: Mon, 25 Jun 90 14:31:17 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: Making Ham Radio Known
To: infohams@flopn2.csc.ti.com

> From: TILDE::"ajs@hpfcdc.HP.COM" "Alan Silverstein" 24-JUN-1990 01:31:25.18
> To: info-hams-incoming
> Subj: Re: Making ham radio known
>
> > Think about what you do in ham radio. Do you yak with your friends on
> > the way to work on the 2-meter repeater?
>
> Well I've only been Tech-licensed a week and a half, but one thing I do
> is help people make phone calls to friends from the top of 14000'
> mountains. If that doesn't stimulate interest, I dunno what will.
>
OK, you've made a positive contribution right there, only two weeks out of
the mailbox. (Congrats, BTW!)

Anything a ham does for the public, whether its a courtesy phone patch/remote
call, or getting help to someone stranded in a flood or earthquake, is on
the plus side.

We need all of that we can get. Good show.

Now. Were those folks (since they were up on a mountain...) part of a club
or organization (climbing club, environmentalist organization, whatever?)

Is there a way you can arrange for a presentation at one of their meetings
about ham radio? If not yourself, maybe someone from your radio club is not
uncomfortable in front of a strange group...

SYSMSGSBE-W-WARNING: SOAPBOX MODE ENGAGED...

That's a little more agressive, and I think that is what Patty and some of
us were looking for. I unfortunately, between work and running code practice

for the club and helping out with the VE team have plenty to do. If I had about three more nights per week, I'd like to seek out new life and new civi-... oops... new organizations that need programs and present to Lion's Club and Elks and Shriner's and Ladies' Auxiliary of the Volunteer Fire Department... and present ham radio as it is (or as we hope it to be!)

Two things are possible if you do that right...
(1) Jane and John Q. Public know FOR REAL what ham radio is, not what rumor and misinformation make of it, and
(2) SOMEBODY might get interested.

(2) is nice, but they're not going to beat your door down. (1) builds a firm foundation on which (2) can build from.

Maybe, maybe not. But it sure can't hurt...if it's done well.

SYSMSGSBE-I-NOTICE: SOAPBOX MODE TERMINATED.

Have fun with your new license. Go try all the neat things you can do, and if you can do a favor for a friend or a stranger, let 'em know it was a HAM who did it!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 21:56:32 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: RTTY DX Notes, 6/22/90
To: info-hams@ucsd.edu

==========
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==========

SB RTTYDX @ RTTYDX $RTDX0622
RTTY DX Notes, 1of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 1 of 3.
BID: $RTDX0622

The ANARTS contest has come and gone, and if you thought that the propagation was poor for that weekend, you should have a look at it now. Even the intruders are missing. But we have received some logs, and from some of the scores there was little to complain about. Keep the logs coming, chaps.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, OD5NG, PJ2MI, TG9VT, VK2EG, W2JGR and the Tri-State DX Association VHF packet cluster. Thank you all for your assistance. Every little bit helps.

Bandpass:

Friday 15:
ED9CI 14083 at 0001Z QSL/Note
KR6N/KP4 14087 at 0034Z
FO5EM 14081 at 0610Z
VR6WH 14088 at 0655Z
BV2HC 14087 at 1252Z
PJ2WOL 14074 at 1407Z ARQ
CU2AT 14090 at 1642Z
HK0BKX 21090 at 2110Z QSL
T5RM 14074 at 2114Z QSL/ARQ

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0623
RTTY DX Notes, 2of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 2 of 3.
BID: $RTDX0623

Saturday 16:
FY5DG 14090 at 0040Z QSL
SU1HN 14083 at 0305Z QSL
ED9CI 14091 at 0310Z
HK0BKX 14088 at 0335Z
V31AR 14075 at 0400Z ARQ
EA6BH 14078 at 0703Z
9M2AX 14085 at 1138Z
FM2WL 14086 at 1159Z
YB0GI 14093 at 1329Z
HS1BV 21091 at 2005Z
EA9MY 14083 at 2257Z

Sunday 17:
ED9CI 14091 at 0036Z
J28TY 14089 at 0252Z
UZ3AWP 14088 at 0410Z
UQ2HO 14088 at 0703Z
HI8BJ 14089 at 1240Z
PP8DA 21089 at 1528Z
5N0ETP 21089 at 1532Z

CU2CB 21090 at 1556Z
VR6WH 14089 at 1725Z
SV5TS 14082 at 1957Z
EA9MY 14081 at 2252Z

Monday 18:
UZ3AWP 14081 at 0605Z
J28TY 21090 at 1400Z
9Q5BG 21084 at 1742Z
KC5RY/HP1 14074 at 2000Z ARQ
6Y5EW 14074 at 2055Z ARQ
YL1WW 21084 at 2116Z

Tuesday 19:
J73WA 14086 at 0149Z
YL1WW 14090 at 0300Z
FY4FS 14088 at 0537Z
LY1BYL 14086 at 2027Z
RF1F/UA3TT 14082 at 2322Z
V44KW 14088 at 2339Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0624
RTTY DX Notes, 3of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 3 of 3.
BID: $RTDX0624

Wednesday 20:
LY2WW 21083 at 0235Z
RA3AL 14097 at 0345Z
EA6MQ 14097 at 0518Z QSL
KL7KJ 14087 at 0522Z
VR6WH 14089 at 0635Z
PJ2MI 14074 at 1040Z ARQ
ES2WX 14084 at 1153Z
UA9EAL 14085 at 1352Z
BV4VB 21088 at 1745Z
PZ1DZ 14084 at 2338Z

Thursday 21:
UQ2HO 14089 at 0348Z
J73EH 14082 at 0440Z
EA6MQ 14088 at 0516Z

QSL Information:

ED9CI says to QSL via EA9KQ.

T5RM will QSL via HB9RTR, 134 Saules, 1233 Bernex, Switzerland.

HK0BKX (San Andres) via WB9NUL.

FY5DG is at Box 450, Kouru, French Guyana.

SU1HN will QSL via Box 1578, Alf Maskan, Cairo.

EA6MQ will QSL via his Callbook address.

Notes of Interest:

ED9CI was the station that was reported last week as having the
callsign of AN9CI. The call was changed at the last moment, but it
was still Aure on Chafarinas Island.

YL1WW is in Riga, USSR. No further information at this time.

TV9GIR will be a special call from Margaux Island (north of Bordeaux)
on June 23/24. They will operate all bands and modes (including CW on
10 MHz). QSL via FD1MRE or via the bureau.

We appear to be a little short of information this week, but
propagation has been very poor, and someone has taken Africa off the
map.

GL DE DX1 (VK2EG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips
to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: Mon, 25 Jun 90 21:36 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: startup message
To: INFO-HAMS@ucsd.edu

startup message

Date: 25 Jun 90 19:47:54 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Subject: Strange RFI
To: info-hams@ucsd.edu

>Is there a television set operating nearby? I get all kinds of RFI from my TV,
>and a bit from the neighbors'. The horizontal oscillator operates at
>15.734 KHz.

Yeah, I get this one, too. Lessee - 30 Mhz is on about the 2000th
harmonic. That's a sharp sawtooth indeed ! Can I put a ferrite bead

on a wire somewhere in the telly to get rid of this ?

My wife finds it ironic she QRMs me as much as I QRM her. :-)

Perry

x.Berkeley.EDU (5.63/1.41)
id AA26315; Mon, 25 Jun 90 21:10:32 -0700
Received: from USENET by ucbvax.Berkeley.EDU with netnews
for info-hams-ddn@ucsd.edu (info-hams@ucsd.edu)
(contact usenet@ucbvax.Berkeley.EDU if you have questions)
Date: 25 Jun 90 20:18:49 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Organization: HP Ft. Collins, Co.
Subject: Re: The Demise of HR Magazine and Comments on CQ
Message-Id: <7880165@hpfcdc.HP.COM>
References: <2480@kodak.UUCP>
Sender: info-hams-relay@ucsd.edu
To: info-hams@ucsd.edu

>I see a lot of people p*ssing and moaning about the lack of technical
>material. I _don't_ see those people writing and submitting articles.
>
>Jon Bloom, KE3Z

I agree. Magazines don't dream up this stuff - we do. When was the
last time you did something original ? If you have a better, cheaper,
faster way to do something and don't publish, it's as if you never
thought of it at all.

What about me ? I'm working on a cheaper soft-start for high-power
(tube) RF amps. Does one already exist ? I don't know - I haven't seen
one yet.

By the way, I find this newsgroup to be a powerful counter point to the
regular mags. We can say what we want against CQ and QST in an uneditted
manner. We can also exchange ideas in a way not possible via a magazine.
I even find technically useful information, despite the lack of graphics.

Perry Scott, KF0CA

Date: Mon, 25 Jun 90 21:28 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: test
To: INFO-HAMS@ucsd.edu

test

Date: 25 Jun 90 16:38:38 GMT
From: hpcc01!col!bobw@hplabs.hpl.hp.com (Bob Witte)

Subject: The Demise of HR Magazine and Comments on CQ
To: info-hams@ucsd.edu

Re: Goodbye Ham Radio Magazine

* I said goodbye to HR some time ago. I feel that they lost the
formula that made them successful. The magazine appealed to
the more technical portion of the amateur radio population.
About three or four years ago, I think they forgot this fact
and started watering down their technical content. I had written
a couple of articles for them and conversations with their
editors began to center more on sure fire idiot proof construction
and less on technical content (IMHO).
At that point I pulled the plug on my subscription,
so I have no recent experience with HR.

* Wireless World is a really interesting magazine. It has a
great mix of electrical engineering, amateur radio, general
electronics hobbyist stuff, basic theory and pseudo-science.
The downside is 1) ads are for UK products 2) prices are
in pounds 3) words like color are spelled 'colour' 4) expensive
in the US.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd

Date: 25 Jun 90 21:44:24 GMT
From: att!cbnewsc!tedk@ucbvax.Berkeley.EDU (ted.g.kekatos)
Subject: Wanted: TRS-80 Model 100 software - packet radio
To: info-hams@ucsd.edu

Wanted: Software for Radio Shack TRS-80 Model 100

* Terminal program for packet radio TNC (split screen?)
* Amateur Radio speciality programs

Send info/program source to:

Ted G. Kekatos N9IXE
UUCP: ..!att!ihlpl!tedk
INTERNET: tedk@i88.isc.com
(708) 979-0804

End of Info-Hams Digest
****

3742. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-26 07:10:58 UTC
From: julian@bongo.UUCP
Message-ID: <165@bongo.UUCP>
Source record: 10678

In article <202@ultrix.uhasun.hartford.edu>, jbloom@uhasun.hartford.edu (Jon Bloom) writes:
> In article <164@bongo.UUCP>, julian@bongo.UUCP (Julian Macassey) writes:
> > Now my beef is that the ARRL is not pushing the science angle to the
> > public. The constituency of the ARRL is HF Contesting. Don't believe
> > me? Read QST. Then see who the elected officers are, certainly in my
> > neck of the woods, they are all DXCC (No AT&T endorsement) types.
>
Lots of stuff deleted.
> Understand, though, that resources--especially time--are hard to come
> by at ARRL HQ. The EAD has three people in it. Two of them work full
> time getting requested material out to the preople/clubs requesting
> it; the other one (Rosalie) has to do everything else, which includes
> planning the Educational conference, coordinating the SAREX missions,
> coordinating the generation and publication of lesson plans, etc. So
> don't expect that they can initiate a large-scale program and carry
> it through. What works best is when volunteers do more than just come
> up with good ideas. If you can locate someone capable of producing the
> spots, locate the people to appear in them, get scripts written, shoot
> the spots, title them, and deliver them to ARRL HQ, maybe they'll get
> distributed, but it would be better to locate someone to take care of
> distribution too. It's not that we don't care, it's that we don't have
> the time and the money to do all of the good things that you (and we) would
> like us to do. I don't remember the exact numbers, but in the last ten
> years the number of staff has stayed nearly constant while the membership
> has increased by something like 40%. (That's probably not the right number,
> but the point is the number has increased a lot.) So things are operating
> about full-out at HQ.
Let me see, same number of bods and 40% more members, that makes 40%
more money.

So what is happening at HQ? Let the ARRL themselves tell us how
these scarce resources paid for by our subscriptions (Yes, mine as
well) are advancing the radio art and challenging the borders of
engineering and science:

+ ARRL LETTER - VOLUME 9 - NUMBER 12 - June 15, 1990 - Page 3 of 4

+ HQ HOSTS OPEN HOUSE

+Lab supervisor Jon Bloom, KE3Z, demonstrated for visitors the League's setup
+for measuring transmitter spectral purity, with a commercial 2 meter FM
+transceiver and a Hewlett Packard spectrum analyzer. Visitors also got a
+peek at a 20 meter transceiver being designed by staff member Zack Lau,
+KH6CP, showing several stages of the development process. This rig is being

+designed for production and donation to amateur societies in third world
+countries.

We are going to pay for the third world to get free U.S. Built
radios? For 20M too no less.

+ DXCC BEGINS MOVE TO DATA PROCESSING

+DXCC automation has begun in earnest, with final testing of software
+completed June 1. New applications and endorsements are entered into a mail
+log for tracking through the system. This log helps staff members quickly
+answer questions regarding the status of DXCC applications and endorsements
+in progress. On June 11 "backfilling" began--the process of entering past
+records into the computer on a priority basis. As endorsement applications
+are received they are backfilled to bring the applicant's record up to date;
+the endorsement is then processed.

I wonder how many Microwave columns in QST this would pay for? But hey
gotta keep proving to ourselves that with a modern equipment it is
technically possible to talk to at least 100 countries, even if some
of them are uninhabited reefs. What will we do when the contesters die
off?

+* Last week, a formal application for DXCC status was received at HQ for the
+Penguin Islands, a string of 13 islets off the coast of Namibia. The
+application, made by DK9KX, KC1AG, and ZS9A, indicates that the islands are
+claimed by South Africa, and propose DXCC status based on the islets'
+meeting the 75-mile minimum separation from S. Africa. It can be expected
+that the the DX Advisory Committee will require several months to
+deliberate on the application.

My fees pay to prove that more desert islands are really countries?
No wonder they are busy at the ARRL, this is important stuff. We can't
just leave it up to the UN to decide who and what is a country.

+ * The *RSGB Microwave Handbook Vol. 1* is the latest addition to the
+ARRL library. Edited by G3PFR, it covers microwave theory and practice in
+mostly non-mathematical language. Two additional volumes will follow. 224
+pages.
I recall a time when the ARRL produced manuals that were respected
all over the world. Now we have to get the RSGB (1/10 size of ARRL) to
produce books on Microwaves etc. The book probably has metric
dimensions too.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

3743. Denmark & Holland

Newsgroup: rec.ham-radio
Date: 1990-06-26 07:38:00 UTC
From: POSCH@AMC.UVA.NL
Message-ID: <73B7EA92789F001D0B@AMC.UVA.NL>
Source record: 10743

In article <1990jun21>att!cbnewsj!mea1@ucbvax.Berkeley.EDU (michael.e.alterman) writes:

>We are planning a vacation to Denmark and the Netherlands this summer.
>My wife and I are both licensed hams and we would like to bring our HT
>and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)
>We would like to use them to meet local hams, as well as for travel advice.
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

The repeaters in Holland are all located in the 145.6 - 145.775 region, and most of them do not require a tone burst to start them up. The offset is as in the US, -600 Kc for the input frequency. On 70cm most of the repeaters are in the 430.000 - 430.500 region, requiring a +1.6Mc shift for the input frequency. Remember the bandplan is a lot smaller in Holland for 2m and 70cm as it is in the US, but you can easaly find that your reciprocal license (I guess).

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?

When I was over in the US, I noticed no big differences, so I guess they are the same.

>Can we obtain directories of repeaters, before we leave home.

It'll be probably (again) in your receprocal license agreement, but if not, I'm quite willing to help you out.

>What is the required procedure for reciprocal operating privileges?

As I did for Canada and the US, request one. The address, I think, you can use for Holland is:

HDTP/ Directie Operationele Zaken
Postbus 450
9700 AL Groningen
The Netherlands.

Include to speed up the procedure, copies of your US licenses. As noted before, you might have to pay for your license(s)!

>Please reply via email, if possible.

Why personaly, I think it could be of interest for a wider audiance too.

Hope to hear you.

Cor Posch, PA3DYW
POSCH@AMC.UVA.NL

3744. (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41

Newsgroup: rec.ham-radio
Date: 1990-06-26 08:11:00 UTC
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Message-ID: <73E5741EBF1F001D95@mbian.gal.utexas.edu>
Source record: 10745

```
Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 03:10 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 03:10 CDT
Received: by ucsd.edu; id AA08976 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:23 -0700
Received: by ucsd.edu; id AA08886 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:09 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 00:00:05 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #41
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260700.AA08886@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 41

Today's Topics:
... Teaching Science, etc.
arrl PFB 26
ATV BALLOON LAUNCH (Northeastern USA)
Denmark & Holland
Dubious quality of CQ review of AEA IsoLoop
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startup message
Strange RFI
test
The Demise of HR Magazine and Comments on CQ
Wanted: TRS-80 Model 100 software - packet radio

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".
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Date: Mon, 25 Jun 90 15:24:27 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: ... Teaching Science, etc.
To: infohams@flopn2.csc.ti.com
```

> From: TILDE::"BRUCEH@UTKVX3.BITNET" 25-JUN-1990 15:01:53.93
> To: info-hams-incoming
> Subj: HR/CQ, Teaching Science, etc.
>
> one of the best ways to support science education is to become INVOLVED
> in the science fair programs in a local school. If they don't have one
> start one (with the help of the local school). One has to be careful
> not to step on the toes of the local science teachers, principles, etc.
> but I've found them to be open to ideas, HELP, etc. We raised money for

Maybe one slightly different tack is to approach the TEACHERS, make resources
and training availble to them, and offer to assist with transferring it to
the students.

I get the impression a lot of teachers feel tied up with budget constraints
and administrative policy.

If you can get one teacher interested in ham radio, that might lead to getting
a dozen students involved...

Just a thought!!

73,
Bob
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 22:00:20 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: arrl PFB 26
To: info-hams@ucsd.edu

==
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==

ZCZC AP30
PROPAGATION FORECAST BULLETIN 26 ARLPP026
FROM ED TILTON, W1HDQ
SPRING HILL FL JUNE 25, 1990
TO ALL RADIO AMATEURS

THE SOLAR FLUX WAS OFF TO A GOOD START EARLY IN JUNE, BUT IT PEAKED
AT 217 ON THE 12TH. THIS WAS 51 POINTS BELOW THE YEARS HIGH OF 268

SET ONE MONTH EARLIER. THE SOLAR FLUX THEN SLID BACK TO 133 BY THE 23RD. IT ROSE A BIT ON THE 24TH AND IT MAY BE ON ITS WAY TO HIGHER LEVELS THIS WEEK.

SOME NEW ACTIVITY WAS SEEN IN THE EASTERN PORTION OF THE SUN OVER THE WEEKEND, AND MORE MAY BE SHOWING UP IN THE NEXT FEW DAYS. ITS PROGRESS CAN BE FOLLOWED BY LISTENING TO INFORMATION GIVEN BY WWV AT 18 MINUTES AFTER EACH HOUR.

DESPITE THE LOW SOLAR FLUX, PROPAGATION WAS FAIRLY GOOD LAST WEEK, EXCEPT THAT BANDS ABOVE 21 MHZ MAY HAVE BEEN MARGINAL FOR DX USE AT TIMES WHEN SPORADIC E SKIP WAS IN. IT MAY HAVE BEEN MUCH OF THE TIME AND IT WILL BE WITH US OFTEN WELL INTO JULY, AT LEAST.

E SKIP IS USEFUL FOR MEDIUM DISTANCE WORK ON 28 AND 50 MHZ, AND IT MAY SHOW UP ON 144 MHZ AT TIMES, ESPECIALLY IN JUNE AND EARLY JULY. IT IS LIKELY TO BE VERY ERRATIC AND SHORT LIVED ON 144 MHZ.

AMERICAN SUNSPOT NUMBERS FOR JUNE 14 THROUGH 20 WERE BETWEEN 67 AND 125 WITH A MEAN OF 95.4. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 25 Jun 90 14:35:53 GMT
From: usc!samsung!cg-atla!raybed2!ewb@ucsd.edu (EUGENE BALINSKI)
Subject: ATV BALLOON LAUNCH (Northeastern USA)
To: info-hams@ucsd.edu

WB8ELK's BALLOON Launch carrying LIVE ATV is going on as scheduled. The launch net will be on 40 meters LSB 7155 KHz. "CAP COMM" will be WA3USG. Net will commence at 8:30 AM EDT with launch expected at 9:00 AM EDT. Video will be on 439.25 (CABLE CH 60). Beacon frequency 144.34.

Bill (WB8ELK) is inviting everyone out to the launch sight to view the launch. Bill is also in need of some people with FOX HUNTING skills to help with the recovery. If you can help please contact him direct at 73 Mag Phone: 603-525-4201.

If you view the video or hear the beacon please get in touch with Bill. He will certainly want to get reception reports.

73
Gene WA1UXA

Note: Bill's Packet address is WB8ELK @ WA1WOK.NH.USA.NA

Date: Tue, 26 Jun 90 08:38 MET
From: "Cor Posch, A.M.C. Amsterdam" <POSCH%AMC.UVA.NL@CUNYVM.CUNY.EDU>
Subject: Denmark & Holland
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

In article <1990jun21>att!cbnewsj!mea1@ucbvax.Berkeley.EDU (michael.e.alterman)
writes:

>We are planning a vacation to Denmark and the Netherlands this summer.
>My wife and I are both licensed hams and we would like to bring our HT
>and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)
>We would like to use them to meet local hams, as well as for travel advice.
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

The repeaters in Holland are all located in the 145.6 - 145.775
region, and most of them do not require a tone burst to start them up. The
offset is as in the US, -600 Kc for the input frequency. On 70cm most of
the repeaters are in the 430.000 - 430.500 region, requiring a +1.6Mc shift
for the input frequency. Remember the bandplan is a lot smaller in Holland
for 2m and 70cm as it is in the US, but you can easaly find that your
reciprocal license (I guess).

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?

When I was over in the US, I noticed no big differences, so I guess
they are the same.

>Can we obtain directories of repeaters, before we leave home.

It'll be probably (again) in your receprocal license agreement,
but if not, I'm quite willing to help you out.

>What is the required procedure for reciprocal operating privileges?

As I did for Canada and the US, request one. The address, I think,
you can use for Holland is:

HDTP/ Directie Operationele Zaken
Postbus 450
9700 AL Groningen
The Netherlands.

Include to speed up the procedure, copies of your US licenses. As noted
before, you might have to pay for your license(s)!

>Please reply via email, if possible.

Why personaly, I think it could be of interest for a wider audiance
too.

Hope to hear you.

Cor Posch, PA3DYW

POSCH@AMC.UVA.NL

Date: 25 Jun 90 13:52:33 GMT
From: apctrc!gpss5!zslf0a@uunet.uu.net (Steven L. Farmer)
Subject: Dubious quality of CQ review of AEA IsoLoop
To: info-hams@ucsd.edu

In article <42200@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>Theoretical arguments against small antennas are very compelling. (The

Well, I dunno. One of my antenna references (_Antenna Theory and Design_,
W. Stutzman, G. Thiele) does an analysis of a circular loop 0.2 wavelengths
in circumference at 1 MHz. The calculated impedance is 0.316+j285.8. With
copper wire with a conductivity of 5.7E-07 mhos/m, the total input resistance
is calculated at 0.324 ohms. This yields an efficiency of 97.5%. Not bad.
The horizontal radiation pattern (free space) is only slightly inferior to
a dipole in its most favored direction. Again, not bad.

Of course, losses in any network used for matching to the transmission line
aren't considered in this. But it still indicates that small loops *might*
work pretty well. Whether the AEA job does or not is still an open question.
Hopefully, someone out there will actually TEST one and let the rest of us
know.

73's - Steve WA5RPF

Date: 25 Jun 90 13:15:30 GMT
From: att!tsdiag!davet@ucbvax.Berkeley.EDU (Dave Tiller N2KAU)
Subject: Ham calls seen in horrible movie
To: info-hams@ucsd.edu

In article <1990Jun20.191715.20514@cbnewsc.att.com> tedk@cbnewsc.att.com (ted.g.kekatos)
writes:
>In article <1014@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>|
>|On the late, late, way-late movie the other night on NY channel 7 there
>|was shown a movie starring Larry Hagman as a chivalrous helicopter pilot
>
>But, what was the name of this movie? I want to rent it!
>
Ah hah! Another fan of good bad movies! I think it was called "Dangerous
Rescue." It was produced by Zarkoff. We (Jim Blakey and I) use our own
rating scheme:

good/good : Star Wars, Die Hard, etc. A movie that tries to be
a good movie and succeeds.
bad/good : Out Of Africa (IMHO), Star Trek V. A movie that tries
to be a good movie and fails.
good/bad : Toxic Avenger, Killer Klowns. A movie intended to be

bad that succeeds.
bad/bad : Toxic Avenger II, etc. A movie intended to be bad that
fails. These are the most painful to watch.
See ya at the bad movies! (too bad I can't use my ATV setup to broadcast
them locally.)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

Date: 26 Jun 90 06:17:05 GMT
From: netnews.upenn.edu!eniac.seas.upenn.edu!depolo@rutgers.edu (Jeff DePolo)
Subject: Homebrew repeater controllers
To: info-hams@ucsd.edu

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

IMHO, using a PC as a repeater controller is a good idea, and shouldn't be
difficult to implement. PC's are nice because most of the hard work that
would normally have to be done in hardware in a non-CPU based repeater
can be done in software. Access codes can be easily changed, PROMS
don't have to be burned for different CW ID's, the ID's themselves can
be generated by the computer, etc. The way I see it, the above caveat
can easily be remedied by not using floppy drives/a hard drive in normal
operation. The system should be set up so that upon booting, both the
control software and all data necessary to run the repeater, including
the custom control codes, ID's, messages, etc. should all be loaded into
memory to prevent unnecessary use of the disk drive and also to increase
speed. But that's probably pretty obvious. I can't think of any real
reason why the computer would have to write anything to disk as the
repeater is used. What's there to be logged that easily be converted
to a digital format that's of any use?

BTW, most of the interfacing can probably be done without having to directly
communicate with the computer byte-wise. Control lines on the RS232 port
make handy binary lines. Having the computer set lines high is a quick
and efficient way of flipping relays, keying CW, etc. They can be used
as input as well - have a receiver set the line high when a signal
opens squelch. It's a lot easier than having to read and write 8 bits
on the data lines and allows for more than one device to be connected
to the computer unlike 2-device serial communications. And if one
port isn't enough, another serial port can be added for about $25.
A stripped-down single-floppy XT clone with 2 serial ports should cost
less than $500 new, probably under $300 used. If money is really

tight, use as C64 (ick) or trash-80.

About the only "real" communications that would be necessary would be
getting DTMF tones from the receiver to the computer. That shouldn't be
all that difficult either. Less than 5 chips in actuality. Take
a DTMF decoder and a UART and you're 99% done. Things like detecting
S/N for voting or detecting PL might be a bit more difficult, but they would
be necessary in a non-computer-based repeater anyway. Control of the
repeater would be simple - just tack on a modem.

If you do decide to go through with the project, keep us posted. I'd
be interested in hearing how you went about the whole project. I'm
sure it's been done many other times before, but it would still
be interesting.

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

Date: 25 Jun 90 21:21:32 GMT
From: crdgw1!trub@uunet.uu.net (Donald P Perley)
Subject: How to buy a QSO, 20 M mess, etc...
To: info-hams@ucsd.edu

In article <1990Jun25.144036.27405@dg-rtp.dg.com>, harrism@aquila (Mike Harris) writes:

>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

>We'd have *alot* more room on our bands if people used directional antennas
>and ran reduced power. The latter would force the fomer somewhat.

It sure would cut down on the round-table QSO's & networks.

Oh, and the mobile operators might think it was a bit of an imposition.

I would think that Kilowatt ops are more likely to have a beam & tower
already. Either they have more money to spend, or are willing to spend
more of what they have on the hobby.

We have a lot more room with most people running SSB rather than AM,
but we didn't have to legislate to accomplish it. People switched for
their own reasons (like more bang for the watt).

-don perley - ke2tp

perley@trub.crd.ge.com

Date: 25 Jun 90 13:35:50 GMT
From: rochester!rit!cci632!cep@rutgers.edu (co-op)
Subject: HR mag
To: info-hams@ucsd.edu

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve Schallehn) writes:
>
>I wonder if QEX from the ARRL is any good as an experimentation magazine?
>Someone has to come out with a new HR! Someone has to!
>
>-Steve Schallehn, KB0AGD

Not really. My club just got its renewal notice for QEX and I have decided not to renew it. (We are an ARRL-affiliated club, by the way, which has some *teriffic* benefits).

My problem with QEX is redundancy. I have seen an article that says, "Let's have fun and build a 20-meter cw portable tranceiver that works on a 9-volt battery!" SOOOOO many times - this is the sort of thing that belongs in the handbook, and not to pop up in QEX two or three times a year.

Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
President - Rochester Institute of Technology Amateur Radio Club K2GXT
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

----

Date: Mon, 25 Jun 90 14:31:17 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: Making Ham Radio Known
To: infohams@flopn2.csc.ti.com

> From: TILDE::"ajs@hpfcdc.HP.COM" "Alan Silverstein" 24-JUN-1990 01:31:25.18
> To: info-hams-incoming
> Subj: Re: Making ham radio known
>
> > Think about what you do in ham radio. Do you yak with your friends on
> > the way to work on the 2-meter repeater?
>
> Well I've only been Tech-licensed a week and a half, but one thing I do
> is help people make phone calls to friends from the top of 14000'
> mountains. If that doesn't stimulate interest, I dunno what will.
>
OK, you've made a positive contribution right there, only two weeks out of the mailbox. (Congrats, BTW!)

Anything a ham does for the public, whether its a courtesy phone patch/remote call, or getting help to someone stranded in a flood or earthquake, is on the plus side.

We need all of that we can get. Good show.

Now. Were those folks (since they were up on a mountain...) part of a club or organization (climbing club, environmentalist organization, whatever?)

Is there a way you can arrange for a presentation at one of their meetings about ham radio? If not yourself, maybe someone from your radio club is not uncomfortable in front of a strange group...

SYSMSGSBE-W-WARNING: SOAPBOX MODE ENGAGED...

That's a little more agressive, and I think that is what Patty and some of us were looking for. I unfortunately, between work and running code practice for the club and helping out with the VE team have plenty to do. If I had about three more nights per week, I'd like to seek out new life and new civi-... oops... new organizations that need programs and present to Lion's Club and Elks and Shriner's and Ladies' Auxiliary of the Volunteer Fire Department... and present ham radio as it is (or as we hope it to be!)

Two things are possible if you do that right...
(1) Jane and John Q. Public know FOR REAL what ham radio is, not what rumor and misinformation make of it, and
(2) SOMEBODY might get interested.

(2) is nice, but they're not going to beat your door down. (1) builds a firm foundation on which (2) can build from.

Maybe, maybe not. But it sure can't hurt...if it's done well.

SYSMSGSBE-I-NOTICE: SOAPBOX MODE TERMINATED.

Have fun with your new license. Go try all the neat things you can do, and if you can do a favor for a friend or a stranger, let 'em know it was a HAM who did it!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 21:56:32 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: RTTY DX Notes, 6/22/90

To: info-hams@ucsd.edu

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
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SB RTTYDX @ RTTYDX $RTDX0622
RTTY DX Notes, 1of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 1 of 3.
BID: $RTDX0622

The ANARTS contest has come and gone, and if you thought that the propagation was poor for that weekend, you should have a look at it now. Even the intruders are missing. But we have received some logs, and from some of the scores there was little to complain about. Keep the logs coming, chaps.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, OD5NG, PJ2MI, TG9VT, VK2EG, W2JGR and the Tri-State DX Association VHF packet cluster. Thank you all for your assistance. Every little bit helps.

Bandpass:

Friday 15:
ED9CI 14083 at 0001Z QSL/Note
KR6N/KP4 14087 at 0034Z
FO5EM 14081 at 0610Z
VR6WH 14088 at 0655Z
BV2HC 14087 at 1252Z
PJ2WOL 14074 at 1407Z ARQ
CU2AT 14090 at 1642Z
HK0BKX 21090 at 2110Z QSL
T5RM 14074 at 2114Z QSL/ARQ

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0623
RTTY DX Notes, 2of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 2 of 3.
BID: $RTDX0623

Saturday 16:
FY5DG 14090 at 0040Z QSL
SU1HN 14083 at 0305Z QSL
ED9CI 14091 at 0310Z
HK0BKX 14088 at 0335Z
V31AR 14075 at 0400Z ARQ
EA6BH 14078 at 0703Z

9M2AX 14085 at 1138Z
FM2WL 14086 at 1159Z
YB0GI 14093 at 1329Z
HS1BV 21091 at 2005Z
EA9MY 14083 at 2257Z

Sunday 17:
ED9CI 14091 at 0036Z
J28TY 14089 at 0252Z
UZ3AWP 14088 at 0410Z
UQ2HO 14088 at 0703Z
HI8BJ 14089 at 1240Z
PP8DA 21089 at 1528Z
5N0ETP 21089 at 1532Z
CU2CB 21090 at 1556Z
VR6WH 14089 at 1725Z
SV5TS 14082 at 1957Z
EA9MY 14081 at 2252Z

Monday 18:
UZ3AWP 14081 at 0605Z
J28TY 21090 at 1400Z
9Q5BG 21084 at 1742Z
KC5RY/HP1 14074 at 2000Z ARQ
6Y5EW 14074 at 2055Z ARQ
YL1WW 21084 at 2116Z

Tuesday 19:
J73WA 14086 at 0149Z
YL1WW 14090 at 0300Z
FY4FS 14088 at 0537Z
LY1BYL 14086 at 2027Z
RF1F/UA3TT 14082 at 2322Z
V44KW 14088 at 2339Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0624
RTTY DX Notes, 3of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 3 of 3.
BID: $RTDX0624

Wednesday 20:
LY2WW 21083 at 0235Z
RA3AL 14097 at 0345Z
EA6MQ 14097 at 0518Z QSL
KL7KJ 14087 at 0522Z
VR6WH 14089 at 0635Z
PJ2MI 14074 at 1040Z ARQ
ES2WX 14084 at 1153Z

UA9EAL 14085 at 1352Z
BV4VB 21088 at 1745Z
PZ1DZ 14084 at 2338Z

Thursday 21:
UQ2HO 14089 at 0348Z
J73EH 14082 at 0440Z
EA6MQ 14088 at 0516Z

QSL Information:

ED9CI says to QSL via EA9KQ.

T5RM will QSL via HB9RTR, 134 Saules, 1233 Bernex, Switzerland.

HK0BKX (San Andres) via WB9NUL.

FY5DG is at Box 450, Kouru, French Guyana.

SU1HN will QSL via Box 1578, Alf Maskan, Cairo.

EA6MQ will QSL via his Callbook address.

Notes of Interest:

ED9CI was the station that was reported last week as having the callsign of AN9CI. The call was changed at the last moment, but it was still Aure on Chafarinas Island.

YL1WW is in Riga, USSR. No further information at this time.

TV9GIR will be a special call from Margaux Island (north of Bordeaux) on June 23/24. They will operate all bands and modes (including CW on 10 MHz). QSL via FD1MRE or via the bureau.

We appear to be a little short of information this week, but propagation has been very poor, and someone has taken Africa off the map.

GL DE DX1 (VK2EG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: Mon, 25 Jun 90 21:36 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: startup message
To: INFO-HAMS@ucsd.edu

startup message

Date: 25 Jun 90 19:47:54 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Subject: Strange RFI
To: info-hams@ucsd.edu

>Is there a television set operating nearby? I get all kinds of RFI from my TV,
>and a bit from the neighbors'. The horizontal oscillator operates at
>15.734 KHz.

Yeah, I get this one, too. Lessee - 30 Mhz is on about the 2000th
harmonic. That's a sharp sawtooth indeed ! Can I put a ferrite bead
on a wire somewhere in the telly to get rid of this ?

My wife finds it ironic she QRMs me as much as I QRM her. :-)

Perry

x.Berkeley.EDU (5.63/1.41)
id AA26315; Mon, 25 Jun 90 21:10:32 -0700
Received: from USENET by ucbvax.Berkeley.EDU with netnews
for info-hams-ddn@ucsd.edu (info-hams@ucsd.edu)
(contact usenet@ucbvax.Berkeley.EDU if you have questions)
Date: 25 Jun 90 20:18:49 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Organization: HP Ft. Collins, Co.
Subject: Re: The Demise of HR Magazine and Comments on CQ
Message-Id: <7880165@hpfcdc.HP.COM>
References: <2480@kodak.UUCP>
Sender: info-hams-relay@ucsd.edu
To: info-hams@ucsd.edu

>I see a lot of people p*ssing and moaning about the lack of technical
>material. I _don't_ see those people writing and submitting articles.
>
>Jon Bloom, KE3Z

I agree. Magazines don't dream up this stuff - we do. When was the
last time you did something original ? If you have a better, cheaper,
faster way to do something and don't publish, it's as if you never
thought of it at all.

What about me ? I'm working on a cheaper soft-start for high-power
(tube) RF amps. Does one already exist ? I don't know - I haven't seen
one yet.

By the way, I find this newsgroup to be a powerful counter point to the
regular mags. We can say what we want against CQ and QST in an uneditted
manner. We can also exchange ideas in a way not possible via a magazine.
I even find technically useful information, despite the lack of graphics.

Perry Scott, KF0CA

Date: Mon, 25 Jun 90 21:28 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: test
To: INFO-HAMS@ucsd.edu

test

Date: 25 Jun 90 16:38:38 GMT
From: hpcc01!col!bobw@hplabs.hpl.hp.com (Bob Witte)
Subject: The Demise of HR Magazine and Comments on CQ
To: info-hams@ucsd.edu

Re: Goodbye Ham Radio Magazine

* I said goodbye to HR some time ago. I feel that they lost the
formula that made them successful. The magazine appealed to
the more technical portion of the amateur radio population.
About three or four years ago, I think they forgot this fact
and started watering down their technical content. I had written
a couple of articles for them and conversations with their
editors began to center more on sure fire idiot proof construction
and less on technical content (IMHO).
At that point I pulled the plug on my subscription,
so I have no recent experience with HR.

* Wireless World is a really interesting magazine. It has a
great mix of electrical engineering, amateur radio, general
electronics hobbyist stuff, basic theory and pseudo-science.
The downside is 1) ads are for UK products 2) prices are
in pounds 3) words like color are spelled 'colour' 4) expensive
in the US.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd

Date: 25 Jun 90 21:44:24 GMT
From: att!cbnewsc!tedk@ucbvax.Berkeley.EDU (ted.g.kekatos)
Subject: Wanted: TRS-80 Model 100 software - packet radio
To: info-hams@ucsd.edu

Wanted: Software for Radio Shack TRS-80 Model 100

* Terminal program for packet radio TNC (split screen?)
* Amateur Radio speciality programs

Send info/program source to:

Ted G. Kekatos N9IXE
UUCP: ..!att!ihlpl!tedk
INTERNET: tedk@i88.isc.com
(708) 979-0804

End of Info-Hams Digest
****

3745. HDTV and Waveform Modulation

Newsgroup: rec.ham-radio
Date: 1990-06-26 08:23:39 UTC
From: cfogg@milton.u.washington.edu
Message-ID: <4454@milton.u.washington.edu>
Source record: 10746
Cross-posted to: rec.video,sci.electronics,rec.ham-radio

A new term to add to the HDTV glossary, waveform modulation is given a brief mention in the July 1990 issue of _Video_Magazine_, page 50.

According to the article, Production Services, Inc. of Tuscon, Arizona claims they can "squeeze a full-blown HDTV signal and a conventional NTSC signal within the same 6 MHz frequency channel" by using "a new modulation technology to add information to the spectrum without interference."

Richard Gerdes, PSI co-founder, explains that their technique "alters the shape of the carrier and transmits the result of that altered wave shape."

At the NTSC level:

PSI gas already developed a commercial product using waveform modulation for NTSC broadcasts: an encoder and decoder that allows an NTSC station to broadcast two channels simultaneously from one transmitter. "You could tune to channel 4A or 4B using the decoder," Gerdes says. The FCC has already granted an experimental license for channel 11 in Tuscon, a Fox Network affiliate, to begin testing the system.

Article aside, has anyone in Tuscon seen this? Any elaborations on waveform modulation; PSI's technology? And does WM have implications for other EM-based communications?

3746. Info-Hams Digest V1 #42

Newsgroup: rec.ham-radio
Date: 1990-06-26 09:30:14 UTC
From: /dev/null@ucsd.edu
Message-ID: <9006260930.AA16644@ucsd.edu>
Source record: 10752

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 42

Today's Topics:
(From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
ARRL NR 21: FIELD DAY POINTS
HDTV and Waveform Modulation
How to buy a QSO

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

Date: Tue, 26 Jun 90 03:11 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
To: INFO-HAMS@ucsd.edu

Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 03:10 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 03:10 CDT
Received: by ucsd.edu; id AA08976 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:23 -0700
Received: by ucsd.edu; id AA08886 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:09 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 00:00:05 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #41
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260700.AA08886@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 41

Today's Topics:
... Teaching Science, etc.
arrl PFB 26
ATV BALLOON LAUNCH (Northeastern USA)
Denmark & Holland
Dubious quality of CQ review of AEA IsoLoop
Ham calls seen in horrible movie
Homebrew repeater controllers
How to buy a QSO, 20 M mess, etc...

HR mag
Making Ham Radio Known
RTTY DX Notes, 6/22/90
startup message
Strange RFI
test
The Demise of HR Magazine and Comments on CQ
Wanted: TRS-80 Model 100 software - packet radio

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

Date: Mon, 25 Jun 90 15:24:27 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: ... Teaching Science, etc.
To: infohams@flopn2.csc.ti.com

> From: TILDE::"BRUCEH@UTKVX3.BITNET" 25-JUN-1990 15:01:53.93
> To: info-hams-incoming
> Subj: HR/CQ, Teaching Science, etc.
>
> one of the best ways to support science education is to become INVOLVED
> in the science fair programs in a local school. If they don't have one
> start one (with the help of the local school). One has to be careful
> not to step on the toes of the local science teachers, principles, etc.
> but I've found them to be open to ideas, HELP, etc. We raised money for

Maybe one slightly different tack is to approach the TEACHERS, make resources
and training availble to them, and offer to assist with transferring it to
the students.

I get the impression a lot of teachers feel tied up with budget constraints
and administrative policy.

If you can get one teacher interested in ham radio, that might lead to getting
a dozen students involved...

Just a thought!!

73,
Bob
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !

=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 22:00:20 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: arrl PFB 26
To: info-hams@ucsd.edu

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
```

ZCZC AP30
PROPAGATION FORECAST BULLETIN 26 ARLPP026
FROM ED TILTON, W1HDQ
SPRING HILL FL JUNE 25, 1990
TO ALL RADIO AMATEURS

THE SOLAR FLUX WAS OFF TO A GOOD START EARLY IN JUNE, BUT IT PEAKED AT 217 ON THE 12TH. THIS WAS 51 POINTS BELOW THE YEARS HIGH OF 268 SET ONE MONTH EARLIER. THE SOLAR FLUX THEN SLID BACK TO 133 BY THE 23RD. IT ROSE A BIT ON THE 24TH AND IT MAY BE ON ITS WAY TO HIGHER LEVELS THIS WEEK.

SOME NEW ACTIVITY WAS SEEN IN THE EASTERN PORTION OF THE SUN OVER THE WEEKEND, AND MORE MAY BE SHOWING UP IN THE NEXT FEW DAYS. ITS PROGRESS CAN BE FOLLOWED BY LISTENING TO INFORMATION GIVEN BY WWV AT 18 MINUTES AFTER EACH HOUR.

DESPITE THE LOW SOLAR FLUX, PROPAGATION WAS FAIRLY GOOD LAST WEEK, EXCEPT THAT BANDS ABOVE 21 MHZ MAY HAVE BEEN MARGINAL FOR DX USE AT TIMES WHEN SPORADIC E SKIP WAS IN. IT MAY HAVE BEEN MUCH OF THE TIME AND IT WILL BE WITH US OFTEN WELL INTO JULY, AT LEAST.

E SKIP IS USEFUL FOR MEDIUM DISTANCE WORK ON 28 AND 50 MHZ, AND IT MAY SHOW UP ON 144 MHZ AT TIMES, ESPECIALLY IN JUNE AND EARLY JULY. IT IS LIKELY TO BE VERY ERRATIC AND SHORT LIVED ON 144 MHZ.

AMERICAN SUNSPOT NUMBERS FOR JUNE 14 THROUGH 20 WERE BETWEEN 67 AND 125 WITH A MEAN OF 95.4. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 25 Jun 90 14:35:53 GMT
From: usc!samsung!cg-atla!raybed2!ewb@ucsd.edu (EUGENE BALINSKI)
Subject: ATV BALLOON LAUNCH (Northeastern USA)

To: info-hams@ucsd.edu

WB8ELK's BALLOON Launch carrying LIVE ATV is going on as scheduled. The launch net will be on 40 meters LSB 7155 KHz. "CAP COMM" will be WA3USG. Net will commence at 8:30 AM EDT with launch expected at 9:00 AM EDT. Video will be on 439.25 (CABLE CH 60). Beacon frequency 144.34.

Bill (WB8ELK) is inviting everyone out to the launch sight to view the launch. Bill is also in need of some people with FOX HUNTING skills to help with the recovery. If you can help please contact him direct at 73 Mag Phone: 603-525-4201.

If you view the video or hear the beacon please get in touch with Bill. He will certainly want to get reception reports.

73
Gene WA1UXA

Note: Bill's Packet address is WB8ELK @ WA1WOK.NH.USA.NA

Date: Tue, 26 Jun 90 08:38 MET
From: "Cor Posch, A.M.C. Amsterdam" <POSCH%AMC.UVA.NL@CUNYVM.CUNY.EDU>
Subject: Denmark & Holland
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

In article <1990jun21>att!cbnewsj!mea1@ucbvax.Berkeley.EDU (michael.e.alterman) writes:

>We are planning a vacation to Denmark and the Netherlands this summer.
>My wife and I are both licensed hams and we would like to bring our HT
>and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)
>We would like to use them to meet local hams, as well as for travel advice.
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

The repeaters in Holland are all located in the 145.6 - 145.775 region, and most of them do not require a tone burst to start them up. The offset is as in the US, -600 Kc for the input frequency. On 70cm most of the repeaters are in the 430.000 - 430.500 region, requiring a +1.6Mc shift for the input frequency. Remember the bandplan is a lot smaller in Holland for 2m and 70cm as it is in the US, but you can easaly find that your reciprocal license (I guess).

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?

When I was over in the US, I noticed no big differences, so I guess they are the same.

>Can we obtain directories of repeaters, before we leave home.

It'll be probably (again) in your receprocal license agreement, but if not, I'm quite willing to help you out.

>What is the required procedure for reciprocal operating privileges?

As I did for Canada and the US, request one. The address, I think,
you can use for Holland is:

HDTP/ Directie Operationele Zaken
Postbus 450
9700 AL Groningen
The Netherlands.

Include to speed up the procedure, copies of your US licenses. As noted
before, you might have to pay for your license(s)!

>Please reply via email, if possible.

Why personaly, I think it could be of interest for a wider audiance
too.

Hope to hear you.

Cor Posch, PA3DYW
POSCH@AMC.UVA.NL

Date: 25 Jun 90 13:52:33 GMT
From: apctrc!gpss5!zslf0a@uunet.uu.net (Steven L. Farmer)
Subject: Dubious quality of CQ review of AEA IsoLoop
To: info-hams@ucsd.edu

In article <42200@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>Theoretical arguments against small antennas are very compelling. (The

Well, I dunno. One of my antenna references (_Antenna Theory and Design_,
W. Stutzman, G. Thiele) does an analysis of a circular loop 0.2 wavelengths
in circumference at 1 MHz. The calculated impedance is 0.316+j285.8. With
copper wire with a conductivity of 5.7E-07 mhos/m, the total input resistance
is calculated at 0.324 ohms. This yields an efficiency of 97.5%. Not bad.
The horizontal radiation pattern (free space) is only slightly inferior to
a dipole in its most favored direction. Again, not bad.

Of course, losses in any network used for matching to the transmission line
aren't considered in this. But it still indicates that small loops *might*
work pretty well. Whether the AEA job does or not is still an open question.
Hopefully, someone out there will actually TEST one and let the rest of us
know.

73's - Steve WA5RPF

Date: 25 Jun 90 13:15:30 GMT
From: att!tsdiag!davet@ucbvax.Berkeley.EDU (Dave Tiller N2KAU)
Subject: Ham calls seen in horrible movie
To: info-hams@ucsd.edu

In article <1990Jun20.191715.20514@cbnewsc.att.com> tedk@cbnewsc.att.com (ted.g.kekatos) writes:
>In article <1014@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>|
>|On the late, late, way-late movie the other night on NY channel 7 there
>|was shown a movie starring Larry Hagman as a chivalrous helicopter pilot
>
>But, what was the name of this movie? I want to rent it!
>
Ah hah! Another fan of good bad movies! I think it was called "Dangerous Rescue." It was produced by Zarkoff. We (Jim Blakey and I) use our own rating scheme:

good/good : Star Wars, Die Hard, etc. A movie that tries to be a good movie and succeeds.
bad/good : Out Of Africa (IMHO), Star Trek V. A movie that tries to be a good movie and fails.
good/bad : Toxic Avenger, Killer Klowns. A movie intended to be bad that succeeds.
bad/bad : Toxic Avenger II, etc. A movie intended to be bad that fails. These are the most painful to watch.
See ya at the bad movies! (too bad I can't use my ATV setup to broadcast them locally.)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

Date: 26 Jun 90 06:17:05 GMT
From: netnews.upenn.edu!eniac.seas.upenn.edu!depolo@rutgers.edu (Jeff DePolo)
Subject: Homebrew repeater controllers
To: info-hams@ucsd.edu

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

IMHO, using a PC as a repeater controller is a good idea, and shouldn't be difficult to implement. PC's are nice because most of the hard work that would normally have to be done in hardware in a non-CPU based repeater can be done in software. Access codes can be easily changed, PROMS don't have to be burned for different CW ID's, the ID's themselves can be generated by the computer, etc. The way I see it, the above caveat can easily be remedied by not using floppy drives/a hard drive in normal operation. The system should be set up so that upon booting, both the control software and all data necessary to run the repeater, including the custom control codes, ID's, messages, etc. should all be loaded into

memory to prevent unnecessary use of the disk drive and also to increase
speed. But that's probably pretty obvious. I can't think of any real
reason why the computer would have to write anything to disk as the
repeater is used. What's there to be logged that easily be converted
to a digital format that's of any use?

BTW, most of the interfacing can probably be done without having to directly
communicate with the computer byte-wise. Control lines on the RS232 port
make handy binary lines. Having the computer set lines high is a quick
and efficient way of flipping relays, keying CW, etc. They can be used
as input as well - have a receiver set the line high when a signal
opens squelch. It's a lot easier than having to read and write 8 bits
on the data lines and allows for more than one device to be connected
to the computer unlike 2-device serial communications. And if one
port isn't enough, another serial port can be added for about $25.
A stripped-down single-floppy XT clone with 2 serial ports should cost
less than $500 new, probably under $300 used. If money is really
tight, use as C64 (ick) or trash-80.

About the only "real" communications that would be necessary would be
getting DTMF tones from the receiver to the computer. That shouldn't be
all that difficult either. Less than 5 chips in actuality. Take
a DTMF decoder and a UART and you're 99% done. Things like detecting
S/N for voting or detecting PL might be a bit more difficult, but they would
be necessary in a non-computer-based repeater anyway. Control of the
repeater would be simple - just tack on a modem.

If you do decide to go through with the project, keep us posted. I'd
be interested in hearing how you went about the whole project. I'm
sure it's been done many other times before, but it would still
be interesting.

--- Jeff
+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

Date: 25 Jun 90 21:21:32 GMT
From: crdgw1!trub@uunet.uu.net (Donald P Perley)
Subject: How to buy a QSO, 20 M mess, etc...
To: info-hams@ucsd.edu

In article <1990Jun25.144036.27405@dg-rtp.dg.com>, harrism@aquila (Mike Harris) writes:

>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

>We'd have *alot* more room on our bands if people used directional antennas
>and ran reduced power. The latter would force the fomer somewhat.

It sure would cut down on the round-table QSO's & networks.

Oh, and the mobile operators might think it was a bit of an imposition.

I would think that Kilowatt ops are more likely to have a beam & tower
already. Either they have more money to spend, or are willing to spend
more of what they have on the hobby.

We have a lot more room with most people running SSB rather than AM,
but we didn't have to legislate to accomplish it. People switched for
their own reasons (like more bang for the watt).

-don perley - ke2tp

perley@trub.crd.ge.com

Date: 25 Jun 90 13:35:50 GMT
From: rochester!rit!cci632!cep@rutgers.edu (co-op)
Subject: HR mag
To: info-hams@ucsd.edu

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve
Schallehn) writes:
>
>I wonder if QEX from the ARRL is any good as an experimentation magazine?
>Someone has to come out with a new HR! Someone has to!
>
>-Steve Schallehn, KB0AGD

Not really. My club just got its renewal notice for QEX and I have
decided not to renew it. (We are an ARRL-affiliated club, by the
way, which has some *teriffic* benefits).

My problem with QEX is redundancy. I have seen an article that says,
"Let's have fun and build a 20-meter cw portable tranceiver that works
on a 9-volt battery!" SOOOOO many times - this is the sort of thing
that belongs in the handbook, and not to pop up in QEX two or three
times a year.

Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
President - Rochester Institute of Technology Amateur Radio Club K2GXT
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

----

Date: Mon, 25 Jun 90 14:31:17 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: Making Ham Radio Known

To: infohams@flopn2.csc.ti.com

> From: TILDE::"ajs@hpfcdc.HP.COM" "Alan Silverstein" 24-JUN-1990 01:31:25.18
> To: info-hams-incoming
> Subj: Re: Making ham radio known
>
> > Think about what you do in ham radio. Do you yak with your friends on
> > the way to work on the 2-meter repeater?
>
> Well I've only been Tech-licensed a week and a half, but one thing I do
> is help people make phone calls to friends from the top of 14000'
> mountains. If that doesn't stimulate interest, I dunno what will.
>
OK, you've made a positive contribution right there, only two weeks out of
the mailbox. (Congrats, BTW!)

Anything a ham does for the public, whether its a courtesy phone patch/remote
call, or getting help to someone stranded in a flood or earthquake, is on
the plus side.

We need all of that we can get. Good show.

Now. Were those folks (since they were up on a mountain...) part of a club
or organization (climbing club, environmentalist organization, whatever?)

Is there a way you can arrange for a presentation at one of their meetings
about ham radio? If not yourself, maybe someone from your radio club is not
uncomfortable in front of a strange group...

SYSMSGSBE-W-WARNING: SOAPBOX MODE ENGAGED...

That's a little more agressive, and I think that is what Patty and some of
us were looking for. I unfortunately, between work and running code practice
for the club and helping out with the VE team have plenty to do. If I had
about three more nights per week, I'd like to seek out new life and new
civi-... oops... new organizations that need programs and present to Lion's
Club and Elks and Shriner's and Ladies' Auxiliary of the Volunteer Fire
Department... and present ham radio as it is (or as we hope it to be!)

Two things are possible if you do that right...
(1) Jane and John Q. Public know FOR REAL what ham radio is, not what
rumor and misinformation make of it, and
(2) SOMEBODY might get interested.

(2) is nice, but they're not going to beat your door down. (1) builds a
firm foundation on which (2) can build from.

Maybe, maybe not. But it sure can't hurt...if it's done well.

SYSMSGSBE-I-NOTICE: SOAPBOX MODE TERMINATED.

Have fun with your new license. Go try all the neat things you can do, and
if you can do a favor for a friend or a stranger, let 'em know it was a
HAM who did it!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 21:56:32 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: RTTY DX Notes, 6/22/90
To: info-hams@ucsd.edu

==========
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==========

SB RTTYDX @ RTTYDX $RTDX0622
RTTY DX Notes, 1of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 1 of 3.
BID: $RTDX0622

The ANARTS contest has come and gone, and if you thought that the propagation was poor for that weekend, you should have a look at it now. Even the intruders are missing. But we have received some logs, and from some of the scores there was little to complain about. Keep the logs coming, chaps.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, OD5NG, PJ2MI, TG9VT, VK2EG, W2JGR and the Tri-State DX Association VHF packet cluster. Thank you all for your assistance. Every little bit helps.

Bandpass:

Friday 15:
ED9CI 14083 at 0001Z QSL/Note
KR6N/KP4 14087 at 0034Z
FO5EM 14081 at 0610Z
VR6WH 14088 at 0655Z
BV2HC 14087 at 1252Z
PJ2WOL 14074 at 1407Z ARQ
CU2AT 14090 at 1642Z
HK0BKX 21090 at 2110Z QSL
T5RM 14074 at 2114Z QSL/ARQ

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0623
RTTY DX Notes, 2of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 2 of 3.
BID: $RTDX0623

Saturday 16:
FY5DG 14090 at 0040Z QSL
SU1HN 14083 at 0305Z QSL
ED9CI 14091 at 0310Z
HK0BKX 14088 at 0335Z
V31AR 14075 at 0400Z ARQ
EA6BH 14078 at 0703Z
9M2AX 14085 at 1138Z
FM2WL 14086 at 1159Z
YB0GI 14093 at 1329Z
HS1BV 21091 at 2005Z
EA9MY 14083 at 2257Z

Sunday 17:
ED9CI 14091 at 0036Z
J28TY 14089 at 0252Z
UZ3AWP 14088 at 0410Z
UQ2HO 14088 at 0703Z
HI8BJ 14089 at 1240Z
PP8DA 21089 at 1528Z
5N0ETP 21089 at 1532Z
CU2CB 21090 at 1556Z
VR6WH 14089 at 1725Z
SV5TS 14082 at 1957Z
EA9MY 14081 at 2252Z

Monday 18:
UZ3AWP 14081 at 0605Z
J28TY 21090 at 1400Z
9Q5BG 21084 at 1742Z
KC5RY/HP1 14074 at 2000Z ARQ
6Y5EW 14074 at 2055Z ARQ
YL1WW 21084 at 2116Z

Tuesday 19:
J73WA 14086 at 0149Z
YL1WW 14090 at 0300Z
FY4FS 14088 at 0537Z
LY1BYL 14086 at 2027Z
RF1F/UA3TT 14082 at 2322Z
V44KW 14088 at 2339Z

Continued in part 3.
/EX

SB RTTYDX @ RTTYDX $RTDX0624
RTTY DX Notes, 3of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 3 of 3.
BID: $RTDX0624

Wednesday 20:
LY2WW 21083 at 0235Z
RA3AL 14097 at 0345Z
EA6MQ 14097 at 0518Z QSL
KL7KJ 14087 at 0522Z
VR6WH 14089 at 0635Z
PJ2MI 14074 at 1040Z ARQ
ES2WX 14084 at 1153Z
UA9EAL 14085 at 1352Z
BV4VB 21088 at 1745Z
PZ1DZ 14084 at 2338Z

Thursday 21:
UQ2HO 14089 at 0348Z
J73EH 14082 at 0440Z
EA6MQ 14088 at 0516Z

QSL Information:

ED9CI says to QSL via EA9KQ.

T5RM will QSL via HB9RTR, 134 Saules, 1233 Bernex, Switzerland.

HK0BKX (San Andres) via WB9NUL.

FY5DG is at Box 450, Kouru, French Guyana.

SU1HN will QSL via Box 1578, Alf Maskan, Cairo.

EA6MQ will QSL via his Callbook address.

Notes of Interest:

ED9CI was the station that was reported last week as having the callsign of AN9CI. The call was changed at the last moment, but it was still Aure on Chafarinas Island.

YL1WW is in Riga, USSR. No further information at this time.

TV9GIR will be a special call from Margaux Island (north of Bordeaux) on June 23/24. They will operate all bands and modes (including CW on 10 MHz). QSL via FD1MRE or via the bureau.

We appear to be a little short of information this week, but propagation has been very poor, and someone has taken Africa off the map.

GL DE DX1 (VK2EG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips
to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: Mon, 25 Jun 90 21:36 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: startup message
To: INFO-HAMS@ucsd.edu

startup message

Date: 25 Jun 90 19:47:54 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Subject: Strange RFI
To: info-hams@ucsd.edu

>Is there a television set operating nearby? I get all kinds of RFI from my TV,
>and a bit from the neighbors'. The horizontal oscillator operates at
>15.734 KHz.

Yeah, I get this one, too. Lessee - 30 Mhz is on about the 2000th
harmonic. That's a sharp sawtooth indeed ! Can I put a ferrite bead
on a wire somewhere in the telly to get rid of this ?

My wife finds it ironic she QRMs me as much as I QRM her. :-)

Perry

x.Berkeley.EDU (5.63/1.41)
id AA26315; Mon, 25 Jun 90 21:10:32 -0700
Received: from USENET by ucbvax.Berkeley.EDU with netnews
for info-hams-ddn@ucsd.edu (info-hams@ucsd.edu)
(contact usenet@ucbvax.Berkeley.EDU if you have questions)
Date: 25 Jun 90 20:18:49 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Organization: HP Ft. Collins, Co.
Subject: Re: The Demise of HR Magazine and Comments on CQ
Message-Id: <7880165@hpfcdc.HP.COM>
References: <2480@kodak.UUCP>
Sender: info-hams-relay@ucsd.edu
To: info-hams@ucsd.edu

>I see a lot of people p*ssing and moaning about the lack of technical
>material. I _don't_ see those people writing and submitting articles.
>
>Jon Bloom, KE3Z

I agree. Magazines don't dream up this stuff - we do. When was the last time you did something original ? If you have a better, cheaper, faster way to do something and don't publish, it's as if you never thought of it at all.

What about me ? I'm working on a cheaper soft-start for high-power (tube) RF amps. Does one already exist ? I don't know - I haven't seen one yet.

By the way, I find this newsgroup to be a powerful counter point to the regular mags. We can say what we want against CQ and QST in an uneditted manner. We can also exchange ideas in a way not possible via a magazine. I even find technically useful information, despite the lack of graphics.

Perry Scott, KF0CA

Date: Mon, 25 Jun 90 21:28 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: test
To: INFO-HAMS@ucsd.edu

test

Date: 25 Jun 90 16:38:38 GMT
From: hpcc01!col!bobw@hplabs.hpl.hp.com (Bob Witte)
Subject: The Demise of HR Magazine and Comments on CQ
To: info-hams@ucsd.edu

Re: Goodbye Ham Radio Magazine

* I said goodbye to HR some time ago. I feel that they lost the formula that made them successful. The magazine appealed to the more technical portion of the amateur radio population. About three or four years ago, I think they forgot this fact and started watering down their technical content. I had written a couple of articles for them and conversations with their editors began to center more on sure fire idiot proof construction and less on technical content (IMHO).
At that point I pulled the plug on my subscription, so I have no recent experience with HR.

* Wireless World is a really interesting magazine. It has a great mix of electrical engineering, amateur radio, general electronics hobbyist stuff, basic theory and pseudo-science. The downside is 1) ads are for UK products 2) prices are in pounds 3) words like color are spelled 'colour' 4) expensive in the US.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197

Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd

Date: 25 Jun 90 21:44:24 GMT
From: att!cbnewsc!tedk@ucbvax.Berkeley.EDU (ted.g.kekatos)
Subject: Wanted: TRS-80 Model 100 software - packet radio
To: info-hams@ucsd.edu

Wanted: Software for Radio Shack TRS-80 Model 100

* Terminal program for packet radio TNC (split screen?)
* Amateur Radio speciality programs

Send info/program source to:

Ted G. Kekatos N9IXE
UUCP: ..!att!ihlpl!tedk
INTERNET: tedk@i88.isc.com
(708) 979-0804

End of Info-Hams Digest
****

Date: 25 Jun 90 13:43:47 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: ARRL NR 21: FIELD DAY POINTS
To: info-hams@ucsd.edu

Does copying the ARRL message via usenet count?

Date: 26 Jun 90 08:23:39 GMT
From: cs.utexas.edu!swrinde!emory!ogicse!milton!cfogg@tut.cis.ohio-state.edu (Chad Fogg)
Subject: HDTV and Waveform Modulation
To: info-hams@ucsd.edu

A new term to add to the HDTV glossary, waveform modulation is given
a brief mention in the July 1990 issue of _Video_Magazine_, page 50.

According to the article, Production Services, Inc. of Tuscon, Arizona
claims they can "squeeze a full-blown HDTV signal and a conventional
NTSC signal within the same 6 MHz frequency channel" by using "a new
modulation technology to add information to the spectrum without inter-
ference."

Richard Gerdes, PSI co-founder, explains that their technique "alters
the shape of the carrier and transmits the result of that altered wave

shape."

At the NTSC level:

PSI gas already developed a commercial product using waveform modulation
for NTSC broadcasts: an encoder and decoder that allows an NTSC station
to broadcast two channels simultaneously from one transmitter. "You
could tune to channel 4A or 4B using the decoder," Gerdes says. The
FCC has already granted an experimental license for channel 11 in Tuscon,
a Fox Network affiliate, to begin testing the system.

Article aside, has anyone in Tuscon seen this? Any elaborations on
waveform modulation; PSI's technology? And does WM have implications
for other EM-based communications?

Date: 25 Jun 90 13:40:15 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: How to buy a QSO
To: info-hams@ucsd.edu

In article <1990Jun22.221444.25178@ecn.purdue.edu> wb9omc@ea.ecn.purdue.edu (Duane P
Mantick) writes:
>>>From: k4bnc@cbnewsh.att.com (john.a.siegel)
> One time I had the satisfaction of turning this situation
> around. I was sitting with my measly 20 watts on top of
> a mountain in the Smokies and encountered a pileup with
> a New Zealand ham - I put up my call at the appropriate
> time and he responded immediately. He didn't believe that
> I was running a Uniden 2510 with no amp and told me I was
> not only 59+ but louder than some fellows who told him they
> were running about 1 KW! Made me feel just *fine*.

That is correct. The difference between 20 watts and 1000 watts is 13 db or
about 2 S-units. A good antenna in a good QTH can make much more of a
difference. The difference between someone that the gods of propagation are
smiling on and someone that they are not can be 60 db or more.

I remember on night working about 50 east european stations in a row. They
said that I was the only W/K station that they could hear. This was not due
to monster antennas or high power. It was mostly the dumb luck of being
exactly where the opening was. Sill, it was great to be the target of a
pileup for once.

P.S. My attitude to DXCC is, if I happen to work them great, if not, no big
deal. I have about 125 confirmed countries. Almost all of them came back on
the first or second call and QSL via the buro. After all, ham radio should be
fun. If you are not having fun do something else.

--73,
WB2UMF

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End of Info-Hams Digest
******************************
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3747. (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #42

Newsgroup: rec.ham-radio
Date: 1990-06-26 11:02:00 UTC
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Message-ID: <73CDA851193F001CAC@mbian.gal.utexas.edu>
Source record: 10748

```
Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 06:00 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 06:00 CDT
Received: by ucsd.edu; id AA16701 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
02:30:38 -0700
Received: by ucsd.edu; id AA16644 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
02:30:20 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 02:30:14 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #42
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260930.AA16644@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 42

Today's Topics:
(From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
ARRL NR 21: FIELD DAY POINTS
HDTV and Waveform Modulation
How to buy a QSO

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".
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Date: Tue, 26 Jun 90 03:11 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
To: INFO-HAMS@ucsd.edu

Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 03:10 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 03:10 CDT
Received: by ucsd.edu; id AA08976 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:23 -0700
Received: by ucsd.edu; id AA08886 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:09 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 00:00:05 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #41
To: Info-Hams@ucsd.edu
```

Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260700.AA08886@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 41

Today's Topics:
... Teaching Science, etc.
arrl PFB 26
ATV BALLOON LAUNCH (Northeastern USA)
Denmark & Holland
Dubious quality of CQ review of AEA IsoLoop
Ham calls seen in horrible movie
Homebrew repeater controllers
How to buy a QSO, 20 M mess, etc...
HR mag
Making Ham Radio Known
RTTY DX Notes, 6/22/90
startup message
Strange RFI
test
The Demise of HR Magazine and Comments on CQ
Wanted: TRS-80 Model 100 software - packet radio

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Date: Mon, 25 Jun 90 15:24:27 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: ... Teaching Science, etc.
To: infohams@flopn2.csc.ti.com

> From: TILDE::"BRUCEH@UTKVX3.BITNET" 25-JUN-1990 15:01:53.93
> To: info-hams-incoming
> Subj: HR/CQ, Teaching Science, etc.
>
> one of the best ways to support science education is to become INVOLVED
> in the science fair programs in a local school. If they don't have one
> start one (with the help of the local school). One has to be careful
> not to step on the toes of the local science teachers, principles, etc.
> but I've found them to be open to ideas, HELP, etc. We raised money for

Maybe one slightly different tack is to approach the TEACHERS, make resources
and training availble to them, and offer to assist with transferring it to
the students.

I get the impression a lot of teachers feel tied up with budget constraints
and administrative policy.

If you can get one teacher interested in ham radio, that might lead to getting
a dozen students involved...

Just a thought!!

73,
Bob
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 22:00:20 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: arrl PFB 26
To: info-hams@ucsd.edu

==========
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==========

ZCZC AP30
PROPAGATION FORECAST BULLETIN 26 ARLPP026
FROM ED TILTON, W1HDQ
SPRING HILL FL JUNE 25, 1990
TO ALL RADIO AMATEURS

THE SOLAR FLUX WAS OFF TO A GOOD START EARLY IN JUNE, BUT IT PEAKED
AT 217 ON THE 12TH. THIS WAS 51 POINTS BELOW THE YEARS HIGH OF 268
SET ONE MONTH EARLIER. THE SOLAR FLUX THEN SLID BACK TO 133 BY THE
23RD. IT ROSE A BIT ON THE 24TH AND IT MAY BE ON ITS WAY TO HIGHER
LEVELS THIS WEEK.

SOME NEW ACTIVITY WAS SEEN IN THE EASTERN PORTION OF THE SUN OVER
THE WEEKEND, AND MORE MAY BE SHOWING UP IN THE NEXT FEW DAYS. ITS
PROGRESS CAN BE FOLLOWED BY LISTENING TO INFORMATION GIVEN BY WWV AT
18 MINUTES AFTER EACH HOUR.

DESPITE THE LOW SOLAR FLUX, PROPAGATION WAS FAIRLY GOOD LAST WEEK,
EXCEPT THAT BANDS ABOVE 21 MHZ MAY HAVE BEEN MARGINAL FOR DX USE AT
TIMES WHEN SPORADIC E SKIP WAS IN. IT MAY HAVE BEEN MUCH OF THE
TIME AND IT WILL BE WITH US OFTEN WELL INTO JULY, AT LEAST.

E SKIP IS USEFUL FOR MEDIUM DISTANCE WORK ON 28 AND 50 MHZ, AND IT
MAY SHOW UP ON 144 MHZ AT TIMES, ESPECIALLY IN JUNE AND EARLY JULY.
IT IS LIKELY TO BE VERY ERRATIC AND SHORT LIVED ON 144 MHZ.

AMERICAN SUNSPOT NUMBERS FOR JUNE 14 THROUGH 20 WERE BETWEEN 67 AND
125 WITH A MEAN OF 95.4. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 25 Jun 90 14:35:53 GMT
From: usc!samsung!cg-atla!raybed2!ewb@ucsd.edu (EUGENE BALINSKI)
Subject: ATV BALLOON LAUNCH (Northeastern USA)
To: info-hams@ucsd.edu

WB8ELK's BALLOON Launch carrying LIVE ATV is going on as scheduled. The
launch net will be on 40 meters LSB 7155 KHz. "CAP COMM" will be
WA3USG. Net will commence at 8:30 AM EDT with launch expected at 9:00 AM
EDT. Video will be on 439.25 (CABLE CH 60). Beacon frequency 144.34.

Bill (WB8ELK) is inviting everyone out to the launch sight to view the
launch. Bill is also in need of some people with FOX HUNTING skills
to help with the recovery. If you can help please contact him direct at
73 Mag Phone: 603-525-4201.

If you view the video or hear the beacon please get in touch with
Bill. He will certainly want to get reception reports.

73
Gene WA1UXA

Note: Bill's Packet address is WB8ELK @ WA1WOK.NH.USA.NA

Date: Tue, 26 Jun 90 08:38 MET
From: "Cor Posch, A.M.C. Amsterdam" <POSCH%AMC.UVA.NL@CUNYVM.CUNY.EDU>
Subject: Denmark & Holland
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

In article <1990jun21>att!cbnewsj!mea1@ucbvax.Berkeley.EDU (michael.e.alterman)
writes:

>We are planning a vacation to Denmark and the Netherlands this summer.
>My wife and I are both licensed hams and we would like to bring our HT
>and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)
>We would like to use them to meet local hams, as well as for travel advice.
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

The repeaters in Holland are all located in the 145.6 - 145.775
region, and most of them do not require a tone burst to start them up. The
offset is as in the US, -600 Kc for the input frequency. On 70cm most of

the repeaters are in the 430.000 - 430.500 region, requiring a +1.6Mc shift
for the input frequency. Remember the bandplan is a lot smaller in Holland
for 2m and 70cm as it is in the US, but you can easaly find that your
reciprocal license (I guess).

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?

When I was over in the US, I noticed no big differences, so I guess
they are the same.

>Can we obtain directories of repeaters, before we leave home.

It'll be probably (again) in your receprocal license agreement,
but if not, I'm quite willing to help you out.

>What is the required procedure for reciprocal operating privileges?

As I did for Canada and the US, request one. The address, I think,
you can use for Holland is:

HDTP/ Directie Operationele Zaken
Postbus 450
9700 AL Groningen
The Netherlands.

Include to speed up the procedure, copies of your US licenses. As noted
before, you might have to pay for your license(s)!

>Please reply via email, if possible.

Why personaly, I think it could be of interest for a wider audiance
too.

Hope to hear you.

Cor Posch, PA3DYW
POSCH@AMC.UVA.NL

Date: 25 Jun 90 13:52:33 GMT
From: apctrc!gpss5!zslf0a@uunet.uu.net (Steven L. Farmer)
Subject: Dubious quality of CQ review of AEA IsoLoop
To: info-hams@ucsd.edu

In article <42200@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>Theoretical arguments against small antennas are very compelling. (The

Well, I dunno. One of my antenna references (_Antenna Theory and Design_,
W. Stutzman, G. Thiele) does an analysis of a circular loop 0.2 wavelengths
in circumference at 1 MHz. The calculated impedance is 0.316+j285.8. With
copper wire with a conductivity of 5.7E-07 mhos/m, the total input resistance
is calculated at 0.324 ohms. This yields an efficiency of 97.5%. Not bad.
The horizontal radiation pattern (free space) is only slightly inferior to

a dipole in its most favored direction. Again, not bad.

Of course, losses in any network used for matching to the transmission line aren't considered in this. But it still indicates that small loops *might* work pretty well. Whether the AEA job does or not is still an open question. Hopefully, someone out there will actually TEST one and let the rest of us know.

73's - Steve WA5RPF

Date: 25 Jun 90 13:15:30 GMT
From: att!tsdiag!davet@ucbvax.Berkeley.EDU (Dave Tiller N2KAU)
Subject: Ham calls seen in horrible movie
To: info-hams@ucsd.edu

In article <1990Jun20.191715.20514@cbnewsc.att.com> tedk@cbnewsc.att.com (ted.g.kekatos) writes:
>In article <1014@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>|
>|On the late, late, way-late movie the other night on NY channel 7 there
>|was shown a movie starring Larry Hagman as a chivalrous helicopter pilot
>
>But, what was the name of this movie? I want to rent it!
>
Ah hah! Another fan of good bad movies! I think it was called "Dangerous Rescue." It was produced by Zarkoff. We (Jim Blakey and I) use our own rating scheme:

good/good : Star Wars, Die Hard, etc. A movie that tries to be a good movie and succeeds.
bad/good : Out Of Africa (IMHO), Star Trek V. A movie that tries to be a good movie and fails.
good/bad : Toxic Avenger, Killer Klowns. A movie intended to be bad that succeeds.
bad/bad : Toxic Avenger II, etc. A movie intended to be bad that fails. These are the most painful to watch.
See ya at the bad movies! (too bad I can't use my ATV setup to broadcast them locally.)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

Date: 26 Jun 90 06:17:05 GMT
From: netnews.upenn.edu!eniac.seas.upenn.edu!depolo@rutgers.edu (Jeff DePolo)
Subject: Homebrew repeater controllers
To: info-hams@ucsd.edu

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

IMHO, using a PC as a repeater controller is a good idea, and shouldn't be
difficult to implement. PC's are nice because most of the hard work that
would normally have to be done in hardware in a non-CPU based repeater
can be done in software. Access codes can be easily changed, PROMS
don't have to be burned for different CW ID's, the ID's themselves can
be generated by the computer, etc. The way I see it, the above caveat
can easily be remedied by not using floppy drives/a hard drive in normal
operation. The system should be set up so that upon booting, both the
control software and all data necessary to run the repeater, including
the custom control codes, ID's, messages, etc. should all be loaded into
memory to prevent unnecessary use of the disk drive and also to increase
speed. But that's probably pretty obvious. I can't think of any real
reason why the computer would have to write anything to disk as the
repeater is used. What's there to be logged that easily be converted
to a digital format that's of any use?

BTW, most of the interfacing can probably be done without having to directly
communicate with the computer byte-wise. Control lines on the RS232 port
make handy binary lines. Having the computer set lines high is a quick
and efficient way of flipping relays, keying CW, etc. They can be used
as input as well - have a receiver set the line high when a signal
opens squelch. It's a lot easier than having to read and write 8 bits
on the data lines and allows for more than one device to be connected
to the computer unlike 2-device serial communications. And if one
port isn't enough, another serial port can be added for about $25.
A stripped-down single-floppy XT clone with 2 serial ports should cost
less than $500 new, probably under $300 used. If money is really
tight, use as C64 (ick) or trash-80.

About the only "real" communications that would be necessary would be
getting DTMF tones from the receiver to the computer. That shouldn't be
all that difficult either. Less than 5 chips in actuality. Take
a DTMF decoder and a UART and you're 99% done. Things like detecting
S/N for voting or detecting PL might be a bit more difficult, but they would
be necessary in a non-computer-based repeater anyway. Control of the
repeater would be simple - just tack on a modem.

If you do decide to go through with the project, keep us posted. I'd
be interested in hearing how you went about the whole project. I'm
sure it's been done many other times before, but it would still
be interesting.

--- Jeff
+----------------------+---+
| Jeff DePolo N3HBZ/AA | Internet: depolo@eniac.seas.upenn.edu |
| Univ. of Pennsylvania | RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia) |

| Computer Science Eng. | Twisted pair: (215) 386-7199 home |
| Class of 1991 | Carrier pigeon: 420 South 42nd St. Philly, PA 19104 |
+----------------------+--+

Date: 25 Jun 90 21:21:32 GMT
From: crdgw1!trub@uunet.uu.net (Donald P Perley)
Subject: How to buy a QSO, 20 M mess, etc...
To: info-hams@ucsd.edu

In article <1990Jun25.144036.27405@dg-rtp.dg.com>, harrism@aquila (Mike Harris) writes:

>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

>We'd have *alot* more room on our bands if people used directional antennas
>and ran reduced power. The latter would force the fomer somewhat.

It sure would cut down on the round-table QSO's & networks.

Oh, and the mobile operators might think it was a bit of an imposition.

I would think that Kilowatt ops are more likely to have a beam & tower
already. Either they have more money to spend, or are willing to spend
more of what they have on the hobby.

We have a lot more room with most people running SSB rather than AM,
but we didn't have to legislate to accomplish it. People switched for
their own reasons (like more bang for the watt).

-don perley - ke2tp

perley@trub.crd.ge.com

Date: 25 Jun 90 13:35:50 GMT
From: rochester!rit!cci632!cep@rutgers.edu (co-op)
Subject: HR mag
To: info-hams@ucsd.edu

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve
Schallehn) writes:
>
>I wonder if QEX from the ARRL is any good as an experimentation magazine?
>Someone has to come out with a new HR! Someone has to!
>
>-Steve Schallehn, KB0AGD

Not really. My club just got its renewal notice for QEX and I have
decided not to renew it. (We are an ARRL-affiliated club, by the
way, which has some *teriffic* benefits).

My problem with QEX is redundancy. I have seen an article that says, "Let's have fun and build a 20-meter cw portable tranceiver that works on a 9-volt battery!" SOOOOO many times - this is the sort of thing that belongs in the handbook, and not to pop up in QEX two or three times a year.

Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
President - Rochester Institute of Technology Amateur Radio Club K2GXT
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

---

Date: Mon, 25 Jun 90 14:31:17 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: Making Ham Radio Known
To: infohams@flopn2.csc.ti.com

> From: TILDE::"ajs@hpfcdc.HP.COM" "Alan Silverstein" 24-JUN-1990 01:31:25.18
> To: info-hams-incoming
> Subj: Re: Making ham radio known
>
> > Think about what you do in ham radio. Do you yak with your friends on
> > the way to work on the 2-meter repeater?
>
> Well I've only been Tech-licensed a week and a half, but one thing I do
> is help people make phone calls to friends from the top of 14000'
> mountains. If that doesn't stimulate interest, I dunno what will.
>
OK, you've made a positive contribution right there, only two weeks out of the mailbox. (Congrats, BTW!)

Anything a ham does for the public, whether its a courtesy phone patch/remote call, or getting help to someone stranded in a flood or earthquake, is on the plus side.

We need all of that we can get. Good show.

Now. Were those folks (since they were up on a mountain...) part of a club or organization (climbing club, environmentalist organization, whatever?)

Is there a way you can arrange for a presentation at one of their meetings about ham radio? If not yourself, maybe someone from your radio club is not uncomfortable in front of a strange group...

SYSMSGSBE-W-WARNING: SOAPBOX MODE ENGAGED...

That's a little more agressive, and I think that is what Patty and some of us were looking for. I unfortunately, between work and running code practice for the club and helping out with the VE team have plenty to do. If I had about three more nights per week, I'd like to seek out new life and new civi-... oops... new organizations that need programs and present to Lion's Club and Elks and Shriner's and Ladies' Auxiliary of the Volunteer Fire

Department... and present ham radio as it is (or as we hope it to be!)

Two things are possible if you do that right...
(1) Jane and John Q. Public know FOR REAL what ham radio is, not what rumor and misinformation make of it, and
(2) SOMEBODY might get interested.

(2) is nice, but they're not going to beat your door down. (1) builds a firm foundation on which (2) can build from.

Maybe, maybe not. But it sure can't hurt...if it's done well.

SYSMSGSBE-I-NOTICE: SOAPBOX MODE TERMINATED.

Have fun with your new license. Go try all the neat things you can do, and if you can do a favor for a friend or a stranger, let 'em know it was a HAM who did it!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 21:56:32 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: RTTY DX Notes, 6/22/90
To: info-hams@ucsd.edu

==========
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==========

SB RTTYDX @ RTTYDX $RTDX0622
RTTY DX Notes, 1of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 1 of 3.
BID: $RTDX0622

The ANARTS contest has come and gone, and if you thought that the propagation was poor for that weekend, you should have a look at it now. Even the intruders are missing. But we have received some logs, and from some of the scores there was little to complain about. Keep the logs coming, chaps.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, OD5NG, PJ2MI, TG9VT,
VK2EG, W2JGR and the Tri-State DX Association VHF packet cluster.
Thank you all for your assistance. Every little bit helps.

Bandpass:

Friday 15:
ED9CI 14083 at 0001Z QSL/Note
KR6N/KP4 14087 at 0034Z
FO5EM 14081 at 0610Z
VR6WH 14088 at 0655Z
BV2HC 14087 at 1252Z
PJ2WOL 14074 at 1407Z ARQ
CU2AT 14090 at 1642Z
HK0BKX 21090 at 2110Z QSL
T5RM 14074 at 2114Z QSL/ARQ

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0623
RTTY DX Notes, 2of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 2 of 3.
BID: $RTDX0623

Saturday 16:
FY5DG 14090 at 0040Z QSL
SU1HN 14083 at 0305Z QSL
ED9CI 14091 at 0310Z
HK0BKX 14088 at 0335Z
V31AR 14075 at 0400Z ARQ
EA6BH 14078 at 0703Z
9M2AX 14085 at 1138Z
FM2WL 14086 at 1159Z
YB0GI 14093 at 1329Z
HS1BV 21091 at 2005Z
EA9MY 14083 at 2257Z

Sunday 17:
ED9CI 14091 at 0036Z
J28TY 14089 at 0252Z
UZ3AWP 14088 at 0410Z
UQ2HO 14088 at 0703Z
HI8BJ 14089 at 1240Z
PP8DA 21089 at 1528Z
5N0ETP 21089 at 1532Z
CU2CB 21090 at 1556Z
VR6WH 14089 at 1725Z
SV5TS 14082 at 1957Z
EA9MY 14081 at 2252Z

Monday 18:
UZ3AWP 14081 at 0605Z
J28TY 21090 at 1400Z
9Q5BG 21084 at 1742Z
KC5RY/HP1 14074 at 2000Z ARQ
6Y5EW 14074 at 2055Z ARQ
YL1WW 21084 at 2116Z

Tuesday 19:
J73WA 14086 at 0149Z
YL1WW 14090 at 0300Z
FY4FS 14088 at 0537Z
LY1BYL 14086 at 2027Z
RF1F/UA3TT 14082 at 2322Z
V44KW 14088 at 2339Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0624
RTTY DX Notes, 3of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 3 of 3.
BID: $RTDX0624

Wednesday 20:
LY2WW 21083 at 0235Z
RA3AL 14097 at 0345Z
EA6MQ 14097 at 0518Z QSL
KL7KJ 14087 at 0522Z
VR6WH 14089 at 0635Z
PJ2MI 14074 at 1040Z ARQ
ES2WX 14084 at 1153Z
UA9EAL 14085 at 1352Z
BV4VB 21088 at 1745Z
PZ1DZ 14084 at 2338Z

Thursday 21:
UQ2HO 14089 at 0348Z
J73EH 14082 at 0440Z
EA6MQ 14088 at 0516Z

QSL Information:

ED9CI says to QSL via EA9KQ.

T5RM will QSL via HB9RTR, 134 Saules, 1233 Bernex, Switzerland.

HK0BKX (San Andres) via WB9NUL.

FY5DG is at Box 450, Kouru, French Guyana.

SU1HN will QSL via Box 1578, Alf Maskan, Cairo.

EA6MQ will QSL via his Callbook address.

Notes of Interest:

ED9CI was the station that was reported last week as having the
callsign of AN9CI. The call was changed at the last moment, but it
was still Aure on Chafarinas Island.

YL1WW is in Riga, USSR. No further information at this time.

TV9GIR will be a special call from Margaux Island (north of Bordeaux)
on June 23/24. They will operate all bands and modes (including CW on
10 MHz). QSL via FD1MRE or via the bureau.

We appear to be a little short of information this week, but
propagation has been very poor, and someone has taken Africa off the
map.

GL DE DX1 (VK2EG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips
to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: Mon, 25 Jun 90 21:36 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: startup message
To: INFO-HAMS@ucsd.edu

startup message

Date: 25 Jun 90 19:47:54 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Subject: Strange RFI
To: info-hams@ucsd.edu

>Is there a television set operating nearby? I get all kinds of RFI from my TV,
>and a bit from the neighbors'. The horizontal oscillator operates at
>15.734 KHz.

Yeah, I get this one, too. Lessee - 30 Mhz is on about the 2000th
harmonic. That's a sharp sawtooth indeed ! Can I put a ferrite bead
on a wire somewhere in the telly to get rid of this ?

My wife finds it ironic she QRMs me as much as I QRM her. :-)

Perry

x.Berkeley.EDU (5.63/1.41)
id AA26315; Mon, 25 Jun 90 21:10:32 -0700
Received: from USENET by ucbvax.Berkeley.EDU with netnews
for info-hams-ddn@ucsd.edu (info-hams@ucsd.edu)
(contact usenet@ucbvax.Berkeley.EDU if you have questions)
Date: 25 Jun 90 20:18:49 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Organization: HP Ft. Collins, Co.
Subject: Re: The Demise of HR Magazine and Comments on CQ
Message-Id: <7880165@hpfcdc.HP.COM>
References: <2480@kodak.UUCP>
Sender: info-hams-relay@ucsd.edu
To: info-hams@ucsd.edu

>I see a lot of people p*ssing and moaning about the lack of technical
>material. I _don't_ see those people writing and submitting articles.
>
>Jon Bloom, KE3Z

I agree. Magazines don't dream up this stuff - we do. When was the
last time you did something original ? If you have a better, cheaper,
faster way to do something and don't publish, it's as if you never
thought of it at all.

What about me ? I'm working on a cheaper soft-start for high-power
(tube) RF amps. Does one already exist ? I don't know - I haven't seen
one yet.

By the way, I find this newsgroup to be a powerful counter point to the
regular mags. We can say what we want against CQ and QST in an uneditted
manner. We can also exchange ideas in a way not possible via a magazine.
I even find technically useful information, despite the lack of graphics.

Perry Scott, KF0CA

Date: Mon, 25 Jun 90 21:28 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: test
To: INFO-HAMS@ucsd.edu

test

Date: 25 Jun 90 16:38:38 GMT
From: hpcc01!col!bobw@hplabs.hpl.hp.com (Bob Witte)
Subject: The Demise of HR Magazine and Comments on CQ
To: info-hams@ucsd.edu

Re: Goodbye Ham Radio Magazine

* I said goodbye to HR some time ago. I feel that they lost the
formula that made them successful. The magazine appealed to

the more technical portion of the amateur radio population.
About three or four years ago, I think they forgot this fact
and started watering down their technical content. I had written
a couple of articles for them and conversations with their
editors began to center more on sure fire idiot proof construction
and less on technical content (IMHO).
At that point I pulled the plug on my subscription,
so I have no recent experience with HR.

* Wireless World is a really interesting magazine. It has a
great mix of electrical engineering, amateur radio, general
electronics hobbyist stuff, basic theory and pseudo-science.
The downside is 1) ads are for UK products 2) prices are
in pounds 3) words like color are spelled 'colour' 4) expensive
in the US.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd

Date: 25 Jun 90 21:44:24 GMT
From: att!cbnewsc!tedk@ucbvax.Berkeley.EDU (ted.g.kekatos)
Subject: Wanted: TRS-80 Model 100 software - packet radio
To: info-hams@ucsd.edu

Wanted: Software for Radio Shack TRS-80 Model 100

* Terminal program for packet radio TNC (split screen?)
* Amateur Radio speciality programs

Send info/program source to:

Ted G. Kekatos N9IXE
UUCP: ..!att!ihlpl!tedk
INTERNET: tedk@i88.isc.com
(708) 979-0804

End of Info-Hams Digest
****

Date: 25 Jun 90 13:43:47 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: ARRL NR 21: FIELD DAY POINTS
To: info-hams@ucsd.edu

Does copying the ARRL message via usenet count?

Date: 26 Jun 90 08:23:39 GMT
From: cs.utexas.edu!swrinde!emory!ogicse!milton!cfogg@tut.cis.ohio-state.edu (Chad Fogg)
Subject: HDTV and Waveform Modulation
To: info-hams@ucsd.edu

A new term to add to the HDTV glossary, waveform modulation is given
a brief mention in the July 1990 issue of _Video_Magazine_, page 50.

According to the article, Production Services, Inc. of Tuscon, Arizona
claims they can "squeeze a full-blown HDTV signal and a conventional
NTSC signal within the same 6 MHz frequency channel" by using "a new
modulation technology to add information to the spectrum without inter-
ference."

Richard Gerdes, PSI co-founder, explains that their technique "alters
the shape of the carrier and transmits the result of that altered wave
shape."

At the NTSC level:

PSI gas already developed a commercial product using waveform modulation
for NTSC broadcasts: an encoder and decoder that allows an NTSC station
to broadcast two channels simultaneously from one transmitter. "You
could tune to channel 4A or 4B using the decoder," Gerdes says. The
FCC has already granted an experimental license for channel 11 in Tuscon,
a Fox Network affiliate, to begin testing the system.

Article aside, has anyone in Tuscon seen this? Any elaborations on
waveform modulation; PSI's technology? And does WM have implications
for other EM-based communications?

Date: 25 Jun 90 13:40:15 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: How to buy a QSO
To: info-hams@ucsd.edu

In article <1990Jun22.221444.25178@ecn.purdue.edu> wb9omc@ea.ecn.purdue.edu (Duane P
Mantick) writes:
>>>From: k4bnc@cbnewsh.att.com (john.a.siegel)
> One time I had the satisfaction of turning this situation
> around. I was sitting with my measly 20 watts on top of
> a mountain in the Smokies and encountered a pileup with
> a New Zealand ham - I put up my call at the appropriate
> time and he responded immediately. He didn't believe that
> I was running a Uniden 2510 with no amp and told me I was
> not only 59+ but louder than some fellows who told him they
> were running about 1 KW! Made me feel just *fine*.

That is correct. The difference between 20 watts and 1000 watts is 13 db or about 2 S-units. A good antenna in a good QTH can make much more of a difference. The difference between someone that the gods of propagation are smiling on and someone that they are not can be 60 db or more.

I remember on night working about 50 east european stations in a row. They said that I was the only W/K station that they could hear. This was not due to monster antennas or high power. It was mostly the dumb luck of being exactly where the opening was. Sill, it was great to be the target of a pileup for once.

P.S. My attitude to DXCC is, if I happen to work them great, if not, no big deal. I have about 125 confirmed countries. Almost all of them came back on the first or second call and QSL via the buro. After all, ham radio should be fun. If you are not having fun do something else.

--73,
WB2UMF

End of Info-Hams Digest
****

3748. Info-Hams Digest V1 #43

Newsgroup: rec.ham-radio
Date: 1990-06-26 11:30:05 UTC
From: /dev/null@ucsd.edu
Message-ID: <9006261130.AA29342@ucsd.edu>
Source record: 10753

```
Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 43

Today's Topics:
(From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #42

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".
------------------------------------------------------------------------

Date: Tue, 26 Jun 90 06:02 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #42
To: INFO-HAMS@ucsd.edu

Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 06:00 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 06:00 CDT
Received: by ucsd.edu; id AA16701 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
02:30:38 -0700
Received: by ucsd.edu; id AA16644 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
02:30:20 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 02:30:14 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #42
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260930.AA16644@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 42

Today's Topics:
(From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
ARRL NR 21: FIELD DAY POINTS
HDTV and Waveform Modulation
How to buy a QSO

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
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Date: Tue, 26 Jun 90 03:11 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
To: INFO-HAMS@ucsd.edu

Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 03:10 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 03:10 CDT
Received: by ucsd.edu; id AA08976 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:23 -0700
Received: by ucsd.edu; id AA08886 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:09 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 00:00:05 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #41
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260700.AA08886@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 41

Today's Topics:
... Teaching Science, etc.
arrl PFB 26
ATV BALLOON LAUNCH (Northeastern USA)
Denmark & Holland
Dubious quality of CQ review of AEA IsoLoop
Ham calls seen in horrible movie
Homebrew repeater controllers
How to buy a QSO, 20 M mess, etc...
HR mag
Making Ham Radio Known
RTTY DX Notes, 6/22/90
startup message
Strange RFI
test
The Demise of HR Magazine and Comments on CQ
Wanted: TRS-80 Model 100 software - packet radio

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

Date: Mon, 25 Jun 90 15:24:27 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: ... Teaching Science, etc.
To: infohams@flopn2.csc.ti.com

> From: TILDE::"BRUCEH@UTKVX3.BITNET" 25-JUN-1990 15:01:53.93
> To: info-hams-incoming
> Subj: HR/CQ, Teaching Science, etc.
>
> one of the best ways to support science education is to become INVOLVED
> in the science fair programs in a local school. If they don't have one
> start one (with the help of the local school). One has to be careful
> not to step on the toes of the local science teachers, principles, etc.
> but I've found them to be open to ideas, HELP, etc. We raised money for

Maybe one slightly different tack is to approach the TEACHERS, make resources
and training availble to them, and offer to assist with transferring it to
the students.

I get the impression a lot of teachers feel tied up with budget constraints
and administrative policy.

If you can get one teacher interested in ham radio, that might lead to getting
a dozen students involved...

Just a thought!!

73,
Bob
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 22:00:20 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: arrl PFB 26
To: info-hams@ucsd.edu

==
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==

ZCZC AP30
PROPAGATION FORECAST BULLETIN 26 ARLPP026
FROM ED TILTON, W1HDQ
SPRING HILL FL JUNE 25, 1990
TO ALL RADIO AMATEURS

THE SOLAR FLUX WAS OFF TO A GOOD START EARLY IN JUNE, BUT IT PEAKED
AT 217 ON THE 12TH. THIS WAS 51 POINTS BELOW THE YEARS HIGH OF 268

SET ONE MONTH EARLIER. THE SOLAR FLUX THEN SLID BACK TO 133 BY THE 23RD. IT ROSE A BIT ON THE 24TH AND IT MAY BE ON ITS WAY TO HIGHER LEVELS THIS WEEK.

SOME NEW ACTIVITY WAS SEEN IN THE EASTERN PORTION OF THE SUN OVER THE WEEKEND, AND MORE MAY BE SHOWING UP IN THE NEXT FEW DAYS. ITS PROGRESS CAN BE FOLLOWED BY LISTENING TO INFORMATION GIVEN BY WWV AT 18 MINUTES AFTER EACH HOUR.

DESPITE THE LOW SOLAR FLUX, PROPAGATION WAS FAIRLY GOOD LAST WEEK, EXCEPT THAT BANDS ABOVE 21 MHZ MAY HAVE BEEN MARGINAL FOR DX USE AT TIMES WHEN SPORADIC E SKIP WAS IN. IT MAY HAVE BEEN MUCH OF THE TIME AND IT WILL BE WITH US OFTEN WELL INTO JULY, AT LEAST.

E SKIP IS USEFUL FOR MEDIUM DISTANCE WORK ON 28 AND 50 MHZ, AND IT MAY SHOW UP ON 144 MHZ AT TIMES, ESPECIALLY IN JUNE AND EARLY JULY. IT IS LIKELY TO BE VERY ERRATIC AND SHORT LIVED ON 144 MHZ.

AMERICAN SUNSPOT NUMBERS FOR JUNE 14 THROUGH 20 WERE BETWEEN 67 AND 125 WITH A MEAN OF 95.4. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 25 Jun 90 14:35:53 GMT
From: usc!samsung!cg-atla!raybed2!ewb@ucsd.edu (EUGENE BALINSKI)
Subject: ATV BALLOON LAUNCH (Northeastern USA)
To: info-hams@ucsd.edu

WB8ELK's BALLOON Launch carrying LIVE ATV is going on as scheduled. The launch net will be on 40 meters LSB 7155 KHz. "CAP COMM" will be WA3USG. Net will commence at 8:30 AM EDT with launch expected at 9:00 AM EDT. Video will be on 439.25 (CABLE CH 60). Beacon frequency 144.34.

Bill (WB8ELK) is inviting everyone out to the launch sight to view the launch. Bill is also in need of some people with FOX HUNTING skills to help with the recovery. If you can help please contact him direct at 73 Mag Phone: 603-525-4201.

If you view the video or hear the beacon please get in touch with Bill. He will certainly want to get reception reports.

73
Gene WA1UXA

Note: Bill's Packet address is WB8ELK @ WA1WOK.NH.USA.NA

Date: Tue, 26 Jun 90 08:38 MET
From: "Cor Posch, A.M.C. Amsterdam" <POSCH%AMC.UVA.NL@CUNYVM.CUNY.EDU>
Subject: Denmark & Holland
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

In article <1990jun21>att!cbnewsj!mea1@ucbvax.Berkeley.EDU (michael.e.alterman) writes:

>We are planning a vacation to Denmark and the Netherlands this summer.
>My wife and I are both licensed hams and we would like to bring our HT
>and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)
>We would like to use them to meet local hams, as well as for travel advice.
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

The repeaters in Holland are all located in the 145.6 - 145.775 region, and most of them do not require a tone burst to start them up. The offset is as in the US, -600 Kc for the input frequency. On 70cm most of the repeaters are in the 430.000 - 430.500 region, requiring a +1.6Mc shift for the input frequency. Remember the bandplan is a lot smaller in Holland for 2m and 70cm as it is in the US, but you can easaly find that your reciprocal license (I guess).

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?

When I was over in the US, I noticed no big differences, so I guess they are the same.

>Can we obtain directories of repeaters, before we leave home.

It'll be probably (again) in your receprocal license agreement, but if not, I'm quite willing to help you out.

>What is the required procedure for reciprocal operating privileges?

As I did for Canada and the US, request one. The address, I think, you can use for Holland is:

HDTP/ Directie Operationele Zaken
Postbus 450
9700 AL Groningen
The Netherlands.

Include to speed up the procedure, copies of your US licenses. As noted before, you might have to pay for your license(s)!

>Please reply via email, if possible.

Why personaly, I think it could be of interest for a wider audiance too.

Hope to hear you.

Cor Posch, PA3DYW

POSCH@AMC.UVA.NL

Date: 25 Jun 90 13:52:33 GMT
From: apctrc!gpss5!zslf0a@uunet.uu.net (Steven L. Farmer)
Subject: Dubious quality of CQ review of AEA IsoLoop
To: info-hams@ucsd.edu

In article <42200@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>Theoretical arguments against small antennas are very compelling. (The

Well, I dunno. One of my antenna references (_Antenna Theory and Design_,
W. Stutzman, G. Thiele) does an analysis of a circular loop 0.2 wavelengths
in circumference at 1 MHz. The calculated impedance is 0.316+j285.8. With
copper wire with a conductivity of 5.7E-07 mhos/m, the total input resistance
is calculated at 0.324 ohms. This yields an efficiency of 97.5%. Not bad.
The horizontal radiation pattern (free space) is only slightly inferior to
a dipole in its most favored direction. Again, not bad.

Of course, losses in any network used for matching to the transmission line
aren't considered in this. But it still indicates that small loops *might*
work pretty well. Whether the AEA job does or not is still an open question.
Hopefully, someone out there will actually TEST one and let the rest of us
know.

73's - Steve WA5RPF

Date: 25 Jun 90 13:15:30 GMT
From: att!tsdiag!davet@ucbvax.Berkeley.EDU (Dave Tiller N2KAU)
Subject: Ham calls seen in horrible movie
To: info-hams@ucsd.edu

In article <1990Jun20.191715.20514@cbnewsc.att.com> tedk@cbnewsc.att.com (ted.g.kekatos)
writes:
>In article <1014@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>|
>|On the late, late, way-late movie the other night on NY channel 7 there
>|was shown a movie starring Larry Hagman as a chivalrous helicopter pilot
>
>But, what was the name of this movie? I want to rent it!
>
Ah hah! Another fan of good bad movies! I think it was called "Dangerous
Rescue." It was produced by Zarkoff. We (Jim Blakey and I) use our own
rating scheme:

good/good : Star Wars, Die Hard, etc. A movie that tries to be
a good movie and succeeds.
bad/good : Out Of Africa (IMHO), Star Trek V. A movie that tries
to be a good movie and fails.
good/bad : Toxic Avenger, Killer Klowns. A movie intended to be

bad that succeeds.
bad/bad : Toxic Avenger II, etc. A movie intended to be bad that
fails. These are the most painful to watch.
See ya at the bad movies! (too bad I can't use my ATV setup to broadcast
them locally.)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

Date: 26 Jun 90 06:17:05 GMT
From: netnews.upenn.edu!eniac.seas.upenn.edu!depolo@rutgers.edu (Jeff DePolo)
Subject: Homebrew repeater controllers
To: info-hams@ucsd.edu

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

IMHO, using a PC as a repeater controller is a good idea, and shouldn't be
difficult to implement. PC's are nice because most of the hard work that
would normally have to be done in hardware in a non-CPU based repeater
can be done in software. Access codes can be easily changed, PROMS
don't have to be burned for different CW ID's, the ID's themselves can
be generated by the computer, etc. The way I see it, the above caveat
can easily be remedied by not using floppy drives/a hard drive in normal
operation. The system should be set up so that upon booting, both the
control software and all data necessary to run the repeater, including
the custom control codes, ID's, messages, etc. should all be loaded into
memory to prevent unnecessary use of the disk drive and also to increase
speed. But that's probably pretty obvious. I can't think of any real
reason why the computer would have to write anything to disk as the
repeater is used. What's there to be logged that easily be converted
to a digital format that's of any use?

BTW, most of the interfacing can probably be done without having to directly
communicate with the computer byte-wise. Control lines on the RS232 port
make handy binary lines. Having the computer set lines high is a quick
and efficient way of flipping relays, keying CW, etc. They can be used
as input as well - have a receiver set the line high when a signal
opens squelch. It's a lot easier than having to read and write 8 bits
on the data lines and allows for more than one device to be connected
to the computer unlike 2-device serial communications. And if one
port isn't enough, another serial port can be added for about $25.
A stripped-down single-floppy XT clone with 2 serial ports should cost
less than $500 new, probably under $300 used. If money is really

tight, use as C64 (ick) or trash-80.

About the only "real" communications that would be necessary would be
getting DTMF tones from the receiver to the computer. That shouldn't be
all that difficult either. Less than 5 chips in actuality. Take
a DTMF decoder and a UART and you're 99% done. Things like detecting
S/N for voting or detecting PL might be a bit more difficult, but they would
be necessary in a non-computer-based repeater anyway. Control of the
repeater would be simple - just tack on a modem.

If you do decide to go through with the project, keep us posted. I'd
be interested in hearing how you went about the whole project. I'm
sure it's been done many other times before, but it would still
be interesting.

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

Date: 25 Jun 90 21:21:32 GMT
From: crdgw1!trub@uunet.uu.net (Donald P Perley)
Subject: How to buy a QSO, 20 M mess, etc...
To: info-hams@ucsd.edu

In article <1990Jun25.144036.27405@dg-rtp.dg.com>, harrism@aquila (Mike Harris) writes:

>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

>We'd have *alot* more room on our bands if people used directional antennas
>and ran reduced power. The latter would force the fomer somewhat.

It sure would cut down on the round-table QSO's & networks.

Oh, and the mobile operators might think it was a bit of an imposition.

I would think that Kilowatt ops are more likely to have a beam & tower
already. Either they have more money to spend, or are willing to spend
more of what they have on the hobby.

We have a lot more room with most people running SSB rather than AM,
but we didn't have to legislate to accomplish it. People switched for
their own reasons (like more bang for the watt).

-don perley - ke2tp

perley@trub.crd.ge.com

Date: 25 Jun 90 13:35:50 GMT
From: rochester!rit!cci632!cep@rutgers.edu (co-op)
Subject: HR mag
To: info-hams@ucsd.edu

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve Schallehn) writes:
>
>I wonder if QEX from the ARRL is any good as an experimentation magazine?
>Someone has to come out with a new HR! Someone has to!
>
>-Steve Schallehn, KB0AGD

Not really. My club just got its renewal notice for QEX and I have decided not to renew it. (We are an ARRL-affiliated club, by the way, which has some *teriffic* benefits).

My problem with QEX is redundancy. I have seen an article that says, "Let's have fun and build a 20-meter cw portable tranceiver that works on a 9-volt battery!" SOOOOO many times - this is the sort of thing that belongs in the handbook, and not to pop up in QEX two or three times a year.

Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
President - Rochester Institute of Technology Amateur Radio Club K2GXT
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

---

Date: Mon, 25 Jun 90 14:31:17 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: Making Ham Radio Known
To: infohams@flopn2.csc.ti.com

> From: TILDE::"ajs@hpfcdc.HP.COM" "Alan Silverstein" 24-JUN-1990 01:31:25.18
> To: info-hams-incoming
> Subj: Re: Making ham radio known
>
> > Think about what you do in ham radio. Do you yak with your friends on
> > the way to work on the 2-meter repeater?
>
> Well I've only been Tech-licensed a week and a half, but one thing I do
> is help people make phone calls to friends from the top of 14000'
> mountains. If that doesn't stimulate interest, I dunno what will.
>
OK, you've made a positive contribution right there, only two weeks out of the mailbox. (Congrats, BTW!)

Anything a ham does for the public, whether its a courtesy phone patch/remote call, or getting help to someone stranded in a flood or earthquake, is on the plus side.

We need all of that we can get. Good show.

Now. Were those folks (since they were up on a mountain...) part of a club or organization (climbing club, environmentalist organization, whatever?)

Is there a way you can arrange for a presentation at one of their meetings about ham radio? If not yourself, maybe someone from your radio club is not uncomfortable in front of a strange group...

SYSMSGSBE-W-WARNING: SOAPBOX MODE ENGAGED...

That's a little more agressive, and I think that is what Patty and some of us were looking for. I unfortunately, between work and running code practice for the club and helping out with the VE team have plenty to do. If I had about three more nights per week, I'd like to seek out new life and new civi-... oops... new organizations that need programs and present to Lion's Club and Elks and Shriner's and Ladies' Auxiliary of the Volunteer Fire Department... and present ham radio as it is (or as we hope it to be!)

Two things are possible if you do that right...
(1) Jane and John Q. Public know FOR REAL what ham radio is, not what rumor and misinformation make of it, and
(2) SOMEBODY might get interested.

(2) is nice, but they're not going to beat your door down. (1) builds a firm foundation on which (2) can build from.

Maybe, maybe not. But it sure can't hurt...if it's done well.

SYSMSGSBE-I-NOTICE: SOAPBOX MODE TERMINATED.

Have fun with your new license. Go try all the neat things you can do, and if you can do a favor for a friend or a stranger, let 'em know it was a HAM who did it!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 21:56:32 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: RTTY DX Notes, 6/22/90

To: info-hams@ucsd.edu

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
```

SB RTTYDX @ RTTYDX $RTDX0622
RTTY DX Notes, 1of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 1 of 3.
BID: $RTDX0622

The ANARTS contest has come and gone, and if you thought that the propagation was poor for that weekend, you should have a look at it now. Even the intruders are missing. But we have received some logs, and from some of the scores there was little to complain about. Keep the logs coming, chaps.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, OD5NG, PJ2MI, TG9VT, VK2EG, W2JGR and the Tri-State DX Association VHF packet cluster. Thank you all for your assistance. Every little bit helps.

Bandpass:

Friday 15:
ED9CI 14083 at 0001Z QSL/Note
KR6N/KP4 14087 at 0034Z
FO5EM 14081 at 0610Z
VR6WH 14088 at 0655Z
BV2HC 14087 at 1252Z
PJ2WOL 14074 at 1407Z ARQ
CU2AT 14090 at 1642Z
HK0BKX 21090 at 2110Z QSL
T5RM 14074 at 2114Z QSL/ARQ

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0623
RTTY DX Notes, 2of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 2 of 3.
BID: $RTDX0623

Saturday 16:
FY5DG 14090 at 0040Z QSL
SU1HN 14083 at 0305Z QSL
ED9CI 14091 at 0310Z
HK0BKX 14088 at 0335Z
V31AR 14075 at 0400Z ARQ
EA6BH 14078 at 0703Z

9M2AX 14085 at 1138Z
FM2WL 14086 at 1159Z
YB0GI 14093 at 1329Z
HS1BV 21091 at 2005Z
EA9MY 14083 at 2257Z

Sunday 17:
ED9CI 14091 at 0036Z
J28TY 14089 at 0252Z
UZ3AWP 14088 at 0410Z
UQ2HO 14088 at 0703Z
HI8BJ 14089 at 1240Z
PP8DA 21089 at 1528Z
5N0ETP 21089 at 1532Z
CU2CB 21090 at 1556Z
VR6WH 14089 at 1725Z
SV5TS 14082 at 1957Z
EA9MY 14081 at 2252Z

Monday 18:
UZ3AWP 14081 at 0605Z
J28TY 21090 at 1400Z
9Q5BG 21084 at 1742Z
KC5RY/HP1 14074 at 2000Z ARQ
6Y5EW 14074 at 2055Z ARQ
YL1WW 21084 at 2116Z

Tuesday 19:
J73WA 14086 at 0149Z
YL1WW 14090 at 0300Z
FY4FS 14088 at 0537Z
LY1BYL 14086 at 2027Z
RF1F/UA3TT 14082 at 2322Z
V44KW 14088 at 2339Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0624
RTTY DX Notes, 3of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 3 of 3.
BID: $RTDX0624

Wednesday 20:
LY2WW 21083 at 0235Z
RA3AL 14097 at 0345Z
EA6MQ 14097 at 0518Z QSL
KL7KJ 14087 at 0522Z
VR6WH 14089 at 0635Z
PJ2MI 14074 at 1040Z ARQ
ES2WX 14084 at 1153Z

UA9EAL 14085 at 1352Z
BV4VB 21088 at 1745Z
PZ1DZ 14084 at 2338Z

Thursday 21:
UQ2HO 14089 at 0348Z
J73EH 14082 at 0440Z
EA6MQ 14088 at 0516Z

QSL Information:

ED9CI says to QSL via EA9KQ.

T5RM will QSL via HB9RTR, 134 Saules, 1233 Bernex, Switzerland.

HK0BKX (San Andres) via WB9NUL.

FY5DG is at Box 450, Kouru, French Guyana.

SU1HN will QSL via Box 1578, Alf Maskan, Cairo.

EA6MQ will QSL via his Callbook address.

Notes of Interest:

ED9CI was the station that was reported last week as having the callsign of AN9CI. The call was changed at the last moment, but it was still Aure on Chafarinas Island.

YL1WW is in Riga, USSR. No further information at this time.

TV9GIR will be a special call from Margaux Island (north of Bordeaux) on June 23/24. They will operate all bands and modes (including CW on 10 MHz). QSL via FD1MRE or via the bureau.

We appear to be a little short of information this week, but propagation has been very poor, and someone has taken Africa off the map.

GL DE DX1 (VK2EG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: Mon, 25 Jun 90 21:36 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: startup message
To: INFO-HAMS@ucsd.edu

startup message

Date: 25 Jun 90 19:47:54 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Subject: Strange RFI
To: info-hams@ucsd.edu

>Is there a television set operating nearby? I get all kinds of RFI from my TV,
>and a bit from the neighbors'. The horizontal oscillator operates at
>15.734 KHz.

Yeah, I get this one, too. Lessee - 30 Mhz is on about the 2000th
harmonic. That's a sharp sawtooth indeed ! Can I put a ferrite bead
on a wire somewhere in the telly to get rid of this ?

My wife finds it ironic she QRMs me as much as I QRM her. :-)

Perry

x.Berkeley.EDU (5.63/1.41)
id AA26315; Mon, 25 Jun 90 21:10:32 -0700
Received: from USENET by ucbvax.Berkeley.EDU with netnews
for info-hams-ddn@ucsd.edu (info-hams@ucsd.edu)
(contact usenet@ucbvax.Berkeley.EDU if you have questions)
Date: 25 Jun 90 20:18:49 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Organization: HP Ft. Collins, Co.
Subject: Re: The Demise of HR Magazine and Comments on CQ
Message-Id: <7880165@hpfcdc.HP.COM>
References: <2480@kodak.UUCP>
Sender: info-hams-relay@ucsd.edu
To: info-hams@ucsd.edu

>I see a lot of people p*ssing and moaning about the lack of technical
>material. I _don't_ see those people writing and submitting articles.
>
>Jon Bloom, KE3Z

I agree. Magazines don't dream up this stuff - we do. When was the
last time you did something original ? If you have a better, cheaper,
faster way to do something and don't publish, it's as if you never
thought of it at all.

What about me ? I'm working on a cheaper soft-start for high-power
(tube) RF amps. Does one already exist ? I don't know - I haven't seen
one yet.

By the way, I find this newsgroup to be a powerful counter point to the
regular mags. We can say what we want against CQ and QST in an uneditted
manner. We can also exchange ideas in a way not possible via a magazine.
I even find technically useful information, despite the lack of graphics.

Perry Scott, KF0CA

Date: Mon, 25 Jun 90 21:28 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: test
To: INFO-HAMS@ucsd.edu

test

Date: 25 Jun 90 16:38:38 GMT
From: hpcc01!col!bobw@hplabs.hpl.hp.com (Bob Witte)
Subject: The Demise of HR Magazine and Comments on CQ
To: info-hams@ucsd.edu

Re: Goodbye Ham Radio Magazine

* I said goodbye to HR some time ago. I feel that they lost the
formula that made them successful. The magazine appealed to
the more technical portion of the amateur radio population.
About three or four years ago, I think they forgot this fact
and started watering down their technical content. I had written
a couple of articles for them and conversations with their
editors began to center more on sure fire idiot proof construction
and less on technical content (IMHO).
At that point I pulled the plug on my subscription,
so I have no recent experience with HR.

* Wireless World is a really interesting magazine. It has a
great mix of electrical engineering, amateur radio, general
electronics hobbyist stuff, basic theory and pseudo-science.
The downside is 1) ads are for UK products 2) prices are
in pounds 3) words like color are spelled 'colour' 4) expensive
in the US.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd

Date: 25 Jun 90 21:44:24 GMT
From: att!cbnewsc!tedk@ucbvax.Berkeley.EDU (ted.g.kekatos)
Subject: Wanted: TRS-80 Model 100 software - packet radio
To: info-hams@ucsd.edu

Wanted: Software for Radio Shack TRS-80 Model 100

* Terminal program for packet radio TNC (split screen?)
* Amateur Radio speciality programs

Send info/program source to:

Ted G. Kekatos N9IXE
UUCP: ..!att!ihlpl!tedk
INTERNET: tedk@i88.isc.com
(708) 979-0804

End of Info-Hams Digest
****

Date: 25 Jun 90 13:43:47 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: ARRL NR 21: FIELD DAY POINTS
To: info-hams@ucsd.edu

Does copying the ARRL message via usenet count?

Date: 26 Jun 90 08:23:39 GMT
From: cs.utexas.edu!swrinde!emory!ogicse!milton!cfogg@tut.cis.ohio-state.edu (Chad Fogg)
Subject: HDTV and Waveform Modulation
To: info-hams@ucsd.edu

A new term to add to the HDTV glossary, waveform modulation is given
a brief mention in the July 1990 issue of _Video_Magazine_, page 50.

According to the article, Production Services, Inc. of Tuscon, Arizona
claims they can "squeeze a full-blown HDTV signal and a conventional
NTSC signal within the same 6 MHz frequency channel" by using "a new
modulation technology to add information to the spectrum without inter-
ference."

Richard Gerdes, PSI co-founder, explains that their technique "alters
the shape of the carrier and transmits the result of that altered wave
shape."

At the NTSC level:

PSI gas already developed a commercial product using waveform modulation
for NTSC broadcasts: an encoder and decoder that allows an NTSC station
to broadcast two channels simultaneously from one transmitter. "You
could tune to channel 4A or 4B using the decoder," Gerdes says. The
FCC has already granted an experimental license for channel 11 in Tuscon,
a Fox Network affiliate, to begin testing the system.

Article aside, has anyone in Tuscon seen this? Any elaborations on
waveform modulation; PSI's technology? And does WM have implications
for other EM-based communications?

Date: 25 Jun 90 13:40:15 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: How to buy a QSO
To: info-hams@ucsd.edu

In article <1990Jun22.221444.25178@ecn.purdue.edu> wb9omc@ea.ecn.purdue.edu (Duane P Mantick) writes:
>>>From: k4bnc@cbnewsh.att.com (john.a.siegel)
> One time I had the satisfaction of turning this situation
> around. I was sitting with my measly 20 watts on top of
> a mountain in the Smokies and encountered a pileup with
> a New Zealand ham - I put up my call at the appropriate
> time and he responded immediately. He didn't believe that
> I was running a Uniden 2510 with no amp and told me I was
> not only 59+ but louder than some fellows who told him they
> were running about 1 KW! Made me feel just *fine*.

That is correct. The difference between 20 watts and 1000 watts is 13 db or about 2 S-units. A good antenna in a good QTH can make much more of a difference. The difference between someone that the gods of propagation are smiling on and someone that they are not can be 60 db or more.

I remember on night working about 50 east european stations in a row. They said that I was the only W/K station that they could hear. This was not due to monster antennas or high power. It was mostly the dumb luck of being exactly where the opening was. Sill, it was great to be the target of a pileup for once.

P.S. My attitude to DXCC is, if I happen to work them great, if not, no big deal. I have about 125 confirmed countries. Almost all of them came back on the first or second call and QSL via the buro. After all, ham radio should be fun. If you are not having fun do something else.

--73,
WB2UMF

End of Info-Hams Digest
****

End of Info-Hams Digest
****

3749. Re: octopus

Newsgroup: rec.ham-radio
Date: 1990-06-26 13:18:42 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <62@thoreau.nsc.com>
Source record: 10757

In article <747936BC553F80145F@ROSEVC.Rose-Hulman.Edu>, DERRY@ROSEVC.Rose-Hulman.EDU writes:
> During planning for field day our group heard references to a device used
> illegally by some filed day groups. This device was referred to as an
> OCTOPUS. Does anyone want to tell me what the heck it is?
>
> Thanks a whole bunch. 73 es cul de K9CUN

The item called an OCTOPUS can actually have two applications. In the first case it is totally legal, it is an old term for a power cord. The illegal version is an interlock system which enables a team with multipul transmitters to abide by the rule which prohibits a single transmitter team from transmitting on more than one transmitter at a time. The interlock works like this:

The transmit buttons are all interlocked such that the first station pushing a transmit button locks out all others from transmitting until he releases his button. When he is finished then the nest request is honored. Often these have an override function which enables a station to transmit until he explicitly releases the lockout. This is by ARRL FD rules totally illegal as not complying with the spirit of the definition of single transmitter class. The concept could be expanded to several transmitter setups but would be equally illegal.

Ron Todd, K3FR

3750. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-26 13:22:30 UTC
From: gary@ke4zv.UUCP
Message-ID: <809@ke4zv.UUCP>
Source record: 10775

In article <30500575@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>> I'm interested to know if anyone has built a repeater controller based
>> upon an IBM PC or clone. I'm willing to dedicate the entire PC with
>> harddisk to the repeater controller operation.
>
>It seems like a lot of money to me to tie up in a controller.

A group of local amateurs led by N4CLA has developed a controller based
on a plugin board for the PC. It digitizes the receiver output, processes
it, and converts it back to analog for the transmitter. It is roughly
a DSP system with shared dual ported memory that allows voice mail,
a dynamic voice detection type squelch, touchtone detection and generation,
and over 200 commands. It will work in any PC, even the original IBM
PC1, and it can be used without the PC if you don't need voice mail.

They have installed it on two repeaters so far and plan to introduce
it commercially at the upcoming Atlanta Hamfest. It is a very flexible
system with very high quality audio.

I am of the school that says "two wires make a light" and don't feel
the need to have such a powerful controller. However for those who
feel the need, this thing is a technical marvel.

Gary KE4ZV

3751. (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #43

Newsgroup: rec.ham-radio
Date: 1990-06-26 13:25:00 UTC
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Message-ID: <73B9A5E1B6FF001BE2@mbian.gal.utexas.edu>
Source record: 10749

```
Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 08:23 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 08:23 CDT
Received: by ucsd.edu; id AA29370 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
04:30:21 -0700
Received: by ucsd.edu; id AA29342 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
04:30:09 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 04:30:05 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #43
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006261130.AA29342@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 43

Today's Topics:
(From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #42

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".
------------------------------------------------------------------------

Date: Tue, 26 Jun 90 06:02 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #42
To: INFO-HAMS@ucsd.edu

Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 06:00 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 06:00 CDT
Received: by ucsd.edu; id AA16701 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
02:30:38 -0700
Received: by ucsd.edu; id AA16644 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
02:30:20 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 02:30:14 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #42
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260930.AA16644@ucsd.edu>
X-Envelope-to: perry
```

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 42

Today's Topics:
(From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
ARRL NR 21: FIELD DAY POINTS
HDTV and Waveform Modulation
How to buy a QSO

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

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Date: Tue, 26 Jun 90 03:11 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: (From: IN%"Info-Hams@UCSD.Edu") Info-Hams Digest V1 #41
To: INFO-HAMS@ucsd.edu

Received: from nic.the.net by mbian.gal.utexas.edu; Tue, 26 Jun 90 03:10 CDT
Received: from ucsd.edu by nic.the.net; Tue, 26 Jun 90 03:10 CDT
Received: by ucsd.edu; id AA08976 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:23 -0700
Received: by ucsd.edu; id AA08886 sendmail 5.64/UCSD-2.1-sun Tue, 26 Jun 90
00:00:09 -0700 for /usr/lib/sendmail -oc -odb -oQ/var/spool/lqueue -oi
-finfo-hams-relay info-hams-list
Date: Tue, 26 Jun 90 00:00:05 PDT
From: Info-Hams Mailing List and Newsgroup </dev/null@ucsd.edu>
Subject: Info-Hams Digest V1 #41
To: Info-Hams@ucsd.edu
Reply-to: Info-Hams@UCSD.Edu
Message-id: <9006260700.AA08886@ucsd.edu>
X-Envelope-to: perry

Info-Hams Digest Tue, 26 Jun 90 Volume 90 : Issue 41

Today's Topics:
... Teaching Science, etc.
arrl PFB 26
ATV BALLOON LAUNCH (Northeastern USA)
Denmark & Holland
Dubious quality of CQ review of AEA IsoLoop
Ham calls seen in horrible movie
Homebrew repeater controllers
How to buy a QSO, 20 M mess, etc...
HR mag
Making Ham Radio Known
RTTY DX Notes, 6/22/90
startup message
Strange RFI
test
The Demise of HR Magazine and Comments on CQ

Wanted: TRS-80 Model 100 software - packet radio

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

Date: Mon, 25 Jun 90 15:24:27 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: ... Teaching Science, etc.
To: infohams@flopn2.csc.ti.com

> From: TILDE::"BRUCEH@UTKVX3.BITNET" 25-JUN-1990 15:01:53.93
> To: info-hams-incoming
> Subj: HR/CQ, Teaching Science, etc.
>
> one of the best ways to support science education is to become INVOLVED
> in the science fair programs in a local school. If they don't have one
> start one (with the help of the local school). One has to be careful
> not to step on the toes of the local science teachers, principles, etc.
> but I've found them to be open to ideas, HELP, etc. We raised money for

Maybe one slightly different tack is to approach the TEACHERS, make resources
and training availble to them, and offer to assist with transferring it to
the students.

I get the impression a lot of teachers feel tied up with budget constraints
and administrative policy.

If you can get one teacher interested in ham radio, that might lead to getting
a dozen students involved...

Just a thought!!

73,
Bob
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 22:00:20 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: arrl PFB 26
To: info-hams@ucsd.edu

==
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==

ZCZC AP30
PROPAGATION FORECAST BULLETIN 26 ARLPP026
FROM ED TILTON, W1HDQ
SPRING HILL FL JUNE 25, 1990
TO ALL RADIO AMATEURS

THE SOLAR FLUX WAS OFF TO A GOOD START EARLY IN JUNE, BUT IT PEAKED AT 217 ON THE 12TH. THIS WAS 51 POINTS BELOW THE YEARS HIGH OF 268 SET ONE MONTH EARLIER. THE SOLAR FLUX THEN SLID BACK TO 133 BY THE 23RD. IT ROSE A BIT ON THE 24TH AND IT MAY BE ON ITS WAY TO HIGHER LEVELS THIS WEEK.

SOME NEW ACTIVITY WAS SEEN IN THE EASTERN PORTION OF THE SUN OVER THE WEEKEND, AND MORE MAY BE SHOWING UP IN THE NEXT FEW DAYS. ITS PROGRESS CAN BE FOLLOWED BY LISTENING TO INFORMATION GIVEN BY WWV AT 18 MINUTES AFTER EACH HOUR.

DESPITE THE LOW SOLAR FLUX, PROPAGATION WAS FAIRLY GOOD LAST WEEK, EXCEPT THAT BANDS ABOVE 21 MHZ MAY HAVE BEEN MARGINAL FOR DX USE AT TIMES WHEN SPORADIC E SKIP WAS IN. IT MAY HAVE BEEN MUCH OF THE TIME AND IT WILL BE WITH US OFTEN WELL INTO JULY, AT LEAST.

E SKIP IS USEFUL FOR MEDIUM DISTANCE WORK ON 28 AND 50 MHZ, AND IT MAY SHOW UP ON 144 MHZ AT TIMES, ESPECIALLY IN JUNE AND EARLY JULY. IT IS LIKELY TO BE VERY ERRATIC AND SHORT LIVED ON 144 MHZ.

AMERICAN SUNSPOT NUMBERS FOR JUNE 14 THROUGH 20 WERE BETWEEN 67 AND 125 WITH A MEAN OF 95.4. AR

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 25 Jun 90 14:35:53 GMT
From: usc!samsung!cg-atla!raybed2!ewb@ucsd.edu (EUGENE BALINSKI)
Subject: ATV BALLOON LAUNCH (Northeastern USA)
To: info-hams@ucsd.edu

WB8ELK's BALLOON Launch carrying LIVE ATV is going on as scheduled. The launch net will be on 40 meters LSB 7155 KHz. "CAP COMM" will be WA3USG. Net will commence at 8:30 AM EDT with launch expected at 9:00 AM EDT. Video will be on 439.25 (CABLE CH 60). Beacon frequency 144.34.

Bill (WB8ELK) is inviting everyone out to the launch sight to view the launch. Bill is also in need of some people with FOX HUNTING skills to help with the recovery. If you can help please contact him direct at

73 Mag Phone: 603-525-4201.

If you view the video or hear the beacon please get in touch with
Bill. He will certainly want to get reception reports.

73
Gene WA1UXA

Note: Bill's Packet address is WB8ELK @ WA1WOK.NH.USA.NA

Date: Tue, 26 Jun 90 08:38 MET
From: "Cor Posch, A.M.C. Amsterdam" <POSCH%AMC.UVA.NL@CUNYVM.CUNY.EDU>
Subject: Denmark & Holland
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

In article <1990jun21>att!cbnewsj!mea1@ucbvax.Berkeley.EDU (michael.e.alterman)
writes:

>We are planning a vacation to Denmark and the Netherlands this summer.
>My wife and I are both licensed hams and we would like to bring our HT
>and or mobile transceiver with us. (ICOM-IC24AT and 3210, USA models)
>We would like to use them to meet local hams, as well as for travel advice.
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

The repeaters in Holland are all located in the 145.6 - 145.775
region, and most of them do not require a tone burst to start them up. The
offset is as in the US, -600 Kc for the input frequency. On 70cm most of
the repeaters are in the 430.000 - 430.500 region, requiring a +1.6Mc shift
for the input frequency. Remember the bandplan is a lot smaller in Holland
for 2m and 70cm as it is in the US, but you can easaly find that your
reciprocal license (I guess).

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?

When I was over in the US, I noticed no big differences, so I guess
they are the same.

>Can we obtain directories of repeaters, before we leave home.

It'll be probably (again) in your receprocal license agreement,
but if not, I'm quite willing to help you out.

>What is the required procedure for reciprocal operating privileges?

As I did for Canada and the US, request one. The address, I think,
you can use for Holland is:

HDTP/ Directie Operationele Zaken
Postbus 450
9700 AL Groningen
The Netherlands.

Include to speed up the procedure, copies of your US licenses. As noted before, you might have to pay for your license(s)!

>Please reply via email, if possible.

Why personaly, I think it could be of interest for a wider audiance too.

Hope to hear you.

Cor Posch, PA3DYW
POSCH@AMC.UVA.NL

Date: 25 Jun 90 13:52:33 GMT
From: apctrc!gpss5!zslf0a@uunet.uu.net (Steven L. Farmer)
Subject: Dubious quality of CQ review of AEA IsoLoop
To: info-hams@ucsd.edu

In article <42200@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
>Theoretical arguments against small antennas are very compelling. (The

Well, I dunno. One of my antenna references (_Antenna Theory and Design_, W. Stutzman, G. Thiele) does an analysis of a circular loop 0.2 wavelengths in circumference at 1 MHz. The calculated impedance is 0.316+j285.8. With copper wire with a conductivity of 5.7E-07 mhos/m, the total input resistance is calculated at 0.324 ohms. This yields an efficiency of 97.5%. Not bad. The horizontal radiation pattern (free space) is only slightly inferior to a dipole in its most favored direction. Again, not bad.

Of course, losses in any network used for matching to the transmission line aren't considered in this. But it still indicates that small loops *might* work pretty well. Whether the AEA job does or not is still an open question. Hopefully, someone out there will actually TEST one and let the rest of us know.

73's - Steve WA5RPF

Date: 25 Jun 90 13:15:30 GMT
From: att!tsdiag!davet@ucbvax.Berkeley.EDU (Dave Tiller N2KAU)
Subject: Ham calls seen in horrible movie
To: info-hams@ucsd.edu

In article <1990Jun20.191715.20514@cbnewsc.att.com> tedk@cbnewsc.att.com (ted.g.kekatos) writes:
>In article <1014@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
>|
>|On the late, late, way-late movie the other night on NY channel 7 there
>|was shown a movie starring Larry Hagman as a chivalrous helicopter pilot
>
>But, what was the name of this movie? I want to rent it!

>
Ah hah! Another fan of good bad movies! I think it was called "Dangerous
Rescue." It was produced by Zarkoff. We (Jim Blakey and I) use our own
rating scheme:

good/good : Star Wars, Die Hard, etc. A movie that tries to be
a good movie and succeeds.
bad/good : Out Of Africa (IMHO), Star Trek V. A movie that tries
to be a good movie and fails.
good/bad : Toxic Avenger, Killer Klowns. A movie intended to be
bad that succeeds.
bad/bad : Toxic Avenger II, etc. A movie intended to be bad that
fails. These are the most painful to watch.
See ya at the bad movies! (too bad I can't use my ATV setup to broadcast
them locally.)
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

Date: 26 Jun 90 06:17:05 GMT
From: netnews.upenn.edu!eniac.seas.upenn.edu!depolo@rutgers.edu (Jeff DePolo)
Subject: Homebrew repeater controllers
To: info-hams@ucsd.edu

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

IMHO, using a PC as a repeater controller is a good idea, and shouldn't be
difficult to implement. PC's are nice because most of the hard work that
would normally have to be done in hardware in a non-CPU based repeater
can be done in software. Access codes can be easily changed, PROMS
don't have to be burned for different CW ID's, the ID's themselves can
be generated by the computer, etc. The way I see it, the above caveat
can easily be remedied by not using floppy drives/a hard drive in normal
operation. The system should be set up so that upon booting, both the
control software and all data necessary to run the repeater, including
the custom control codes, ID's, messages, etc. should all be loaded into
memory to prevent unnecessary use of the disk drive and also to increase
speed. But that's probably pretty obvious. I can't think of any real
reason why the computer would have to write anything to disk as the
repeater is used. What's there to be logged that easily be converted
to a digital format that's of any use?

BTW, most of the interfacing can probably be done without having to directly communicate with the computer byte-wise. Control lines on the RS232 port make handy binary lines. Having the computer set lines high is a quick and efficient way of flipping relays, keying CW, etc. They can be used as input as well - have a receiver set the line high when a signal opens squelch. It's a lot easier than having to read and write 8 bits on the data lines and allows for more than one device to be connected to the computer unlike 2-device serial communications. And if one port isn't enough, another serial port can be added for about $25. A stripped-down single-floppy XT clone with 2 serial ports should cost less than $500 new, probably under $300 used. If money is really tight, use as C64 (ick) or trash-80.

About the only "real" communications that would be necessary would be getting DTMF tones from the receiver to the computer. That shouldn't be all that difficult either. Less than 5 chips in actuality. Take a DTMF decoder and a UART and you're 99% done. Things like detecting S/N for voting or detecting PL might be a bit more difficult, but they would be necessary in a non-computer-based repeater anyway. Control of the repeater would be simple - just tack on a modem.

If you do decide to go through with the project, keep us posted. I'd be interested in hearing how you went about the whole project. I'm sure it's been done many other times before, but it would still be interesting.

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

Date: 25 Jun 90 21:21:32 GMT
From: crdgw1!trub@uunet.uu.net (Donald P Perley)
Subject: How to buy a QSO, 20 M mess, etc...
To: info-hams@ucsd.edu

In article <1990Jun25.144036.27405@dg-rtp.dg.com>, harrism@aquila (Mike Harris) writes:

>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

>We'd have *alot* more room on our bands if people used directional antennas
>and ran reduced power. The latter would force the fomer somewhat.

It sure would cut down on the round-table QSO's & networks.

Oh, and the mobile operators might think it was a bit of an imposition.

I would think that Kilowatt ops are more likely to have a beam & tower
already. Either they have more money to spend, or are willing to spend
more of what they have on the hobby.

We have a lot more room with most people running SSB rather than AM,
but we didn't have to legislate to accomplish it. People switched for
their own reasons (like more bang for the watt).

-don perley - ke2tp

perley@trub.crd.ge.com

Date: 25 Jun 90 13:35:50 GMT
From: rochester!rit!cci632!cep@rutgers.edu (co-op)
Subject: HR mag
To: info-hams@ucsd.edu

In article <1990Jun23.042526.6014@maverick.ksu.ksu.edu> steve@matt.ksu.ksu.edu (Steve
Schallehn) writes:
>
>I wonder if QEX from the ARRL is any good as an experimentation magazine?
>Someone has to come out with a new HR! Someone has to!
>
>-Steve Schallehn, KB0AGD

Not really. My club just got its renewal notice for QEX and I have
decided not to renew it. (We are an ARRL-affiliated club, by the
way, which has some *teriffic* benefits).

My problem with QEX is redundancy. I have seen an article that says,
"Let's have fun and build a 20-meter cw portable tranceiver that works
on a 9-volt battery!" SOOOOO many times - this is the sort of thing
that belongs in the handbook, and not to pop up in QEX two or three
times a year.

Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
President - Rochester Institute of Technology Amateur Radio Club K2GXT
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

----

Date: Mon, 25 Jun 90 14:31:17 CDT
From: rlwest@flopn2.csc.ti.com (Bob West, WA8YCD)
Subject: Making Ham Radio Known
To: infohams@flopn2.csc.ti.com

> From: TILDE::"ajs@hpfcdc.HP.COM" "Alan Silverstein" 24-JUN-1990 01:31:25.18
> To: info-hams-incoming
> Subj: Re: Making ham radio known
>

> > Think about what you do in ham radio. Do you yak with your friends on
> > the way to work on the 2-meter repeater?
>
> Well I've only been Tech-licensed a week and a half, but one thing I do
> is help people make phone calls to friends from the top of 14000'
> mountains. If that doesn't stimulate interest, I dunno what will.
>
OK, you've made a positive contribution right there, only two weeks out of the mailbox. (Congrats, BTW!)

Anything a ham does for the public, whether its a courtesy phone patch/remote call, or getting help to someone stranded in a flood or earthquake, is on the plus side.

We need all of that we can get. Good show.

Now. Were those folks (since they were up on a mountain...) part of a club or organization (climbing club, environmentalist organization, whatever?)

Is there a way you can arrange for a presentation at one of their meetings about ham radio? If not yourself, maybe someone from your radio club is not uncomfortable in front of a strange group...

SYSMSGSBE-W-WARNING: SOAPBOX MODE ENGAGED...

That's a little more agressive, and I think that is what Patty and some of us were looking for. I unfortunately, between work and running code practice for the club and helping out with the VE team have plenty to do. If I had about three more nights per week, I'd like to seek out new life and new civi-... oops... new organizations that need programs and present to Lion's Club and Elks and Shriner's and Ladies' Auxiliary of the Volunteer Fire Department... and present ham radio as it is (or as we hope it to be!)

Two things are possible if you do that right...
(1) Jane and John Q. Public know FOR REAL what ham radio is, not what rumor and misinformation make of it, and
(2) SOMEBODY might get interested.

(2) is nice, but they're not going to beat your door down. (1) builds a firm foundation on which (2) can build from.

Maybe, maybe not. But it sure can't hurt...if it's done well.

SYSMSGSBE-I-NOTICE: SOAPBOX MODE TERMINATED.

Have fun with your new license. Go try all the neat things you can do, and if you can do a favor for a friend or a stranger, let 'em know it was a HAM who did it!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt

RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

Date: 25 Jun 90 21:56:32 GMT
From: n8emr!gws@tut.cis.ohio-state.edu (Gary Sanders)
Subject: RTTY DX Notes, 6/22/90
To: info-hams@ucsd.edu

==========
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
==========

SB RTTYDX @ RTTYDX $RTDX0622
RTTY DX Notes, 1of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 1 of 3.
BID: $RTDX0622

The ANARTS contest has come and gone, and if you thought that the propagation was poor for that weekend, you should have a look at it now. Even the intruders are missing. But we have received some logs, and from some of the scores there was little to complain about. Keep the logs coming, chaps.

Our thanks this week go to I5FLN, I5ICY, I5IGQ, OD5NG, PJ2MI, TG9VT, VK2EG, W2JGR and the Tri-State DX Association VHF packet cluster. Thank you all for your assistance. Every little bit helps.

Bandpass:

Friday 15:
ED9CI 14083 at 0001Z QSL/Note
KR6N/KP4 14087 at 0034Z
FO5EM 14081 at 0610Z
VR6WH 14088 at 0655Z
BV2HC 14087 at 1252Z
PJ2WOL 14074 at 1407Z ARQ
CU2AT 14090 at 1642Z
HK0BKX 21090 at 2110Z QSL
T5RM 14074 at 2114Z QSL/ARQ

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0623
RTTY DX Notes, 2of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 2 of 3.
BID: $RTDX0623

Saturday 16:
FY5DG 14090 at 0040Z QSL
SU1HN 14083 at 0305Z QSL
ED9CI 14091 at 0310Z
HK0BKX 14088 at 0335Z
V31AR 14075 at 0400Z ARQ
EA6BH 14078 at 0703Z
9M2AX 14085 at 1138Z
FM2WL 14086 at 1159Z
YB0GI 14093 at 1329Z
HS1BV 21091 at 2005Z
EA9MY 14083 at 2257Z

Sunday 17:
ED9CI 14091 at 0036Z
J28TY 14089 at 0252Z
UZ3AWP 14088 at 0410Z
UQ2HO 14088 at 0703Z
HI8BJ 14089 at 1240Z
PP8DA 21089 at 1528Z
5N0ETP 21089 at 1532Z
CU2CB 21090 at 1556Z
VR6WH 14089 at 1725Z
SV5TS 14082 at 1957Z
EA9MY 14081 at 2252Z

Monday 18:
UZ3AWP 14081 at 0605Z
J28TY 21090 at 1400Z
9Q5BG 21084 at 1742Z
KC5RY/HP1 14074 at 2000Z ARQ
6Y5EW 14074 at 2055Z ARQ
YL1WW 21084 at 2116Z

Tuesday 19:
J73WA 14086 at 0149Z
YL1WW 14090 at 0300Z
FY4FS 14088 at 0537Z
LY1BYL 14086 at 2027Z
RF1F/UA3TT 14082 at 2322Z
V44KW 14088 at 2339Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0624
RTTY DX Notes, 3of3, 6/22/90

RTTY DX Notes for Weekending 22nd June 1990.
Part 3 of 3.

BID: $RTDX0624

Wednesday 20:
LY2WW 21083 at 0235Z
RA3AL 14097 at 0345Z
EA6MQ 14097 at 0518Z QSL
KL7KJ 14087 at 0522Z
VR6WH 14089 at 0635Z
PJ2MI 14074 at 1040Z ARQ
ES2WX 14084 at 1153Z
UA9EAL 14085 at 1352Z
BV4VB 21088 at 1745Z
PZ1DZ 14084 at 2338Z

Thursday 21:
UQ2HO 14089 at 0348Z
J73EH 14082 at 0440Z
EA6MQ 14088 at 0516Z

QSL Information:

ED9CI says to QSL via EA9KQ.

T5RM will QSL via HB9RTR, 134 Saules, 1233 Bernex, Switzerland.

HK0BKX (San Andres) via WB9NUL.

FY5DG is at Box 450, Kouru, French Guyana.

SU1HN will QSL via Box 1578, Alf Maskan, Cairo.

EA6MQ will QSL via his Callbook address.

Notes of Interest:

ED9CI was the station that was reported last week as having the callsign of AN9CI. The call was changed at the last moment, but it was still Aure on Chafarinas Island.

YL1WW is in Riga, USSR. No further information at this time.

TV9GIR will be a special call from Margaux Island (north of Bordeaux) on June 23/24. They will operate all bands and modes (including CW on 10 MHz). QSL via FD1MRE or via the bureau.

We appear to be a little short of information this week, but propagation has been very poor, and someone has taken Africa off the map.

GL DE DX1 (VK2EG) VIA TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX
--

Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: Mon, 25 Jun 90 21:36 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: startup message
To: INFO-HAMS@ucsd.edu

startup message

Date: 25 Jun 90 19:47:54 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Subject: Strange RFI
To: info-hams@ucsd.edu

>Is there a television set operating nearby? I get all kinds of RFI from my TV,
>and a bit from the neighbors'. The horizontal oscillator operates at
>15.734 KHz.

Yeah, I get this one, too. Lessee - 30 Mhz is on about the 2000th
harmonic. That's a sharp sawtooth indeed ! Can I put a ferrite bead
on a wire somewhere in the telly to get rid of this ?

My wife finds it ironic she QRMs me as much as I QRM her. :-)

Perry

x.Berkeley.EDU (5.63/1.41)
id AA26315; Mon, 25 Jun 90 21:10:32 -0700
Received: from USENET by ucbvax.Berkeley.EDU with netnews
for info-hams-ddn@ucsd.edu (info-hams@ucsd.edu)
(contact usenet@ucbvax.Berkeley.EDU if you have questions)
Date: 25 Jun 90 20:18:49 GMT
From: hpfcso!hpfcdc!perry@hplabs.hpl.hp.com (Perry Scott)
Organization: HP Ft. Collins, Co.
Subject: Re: The Demise of HR Magazine and Comments on CQ
Message-Id: <7880165@hpfcdc.HP.COM>
References: <2480@kodak.UUCP>
Sender: info-hams-relay@ucsd.edu
To: info-hams@ucsd.edu

>I see a lot of people p*ssing and moaning about the lack of technical
>material. I _don't_ see those people writing and submitting articles.
>
>Jon Bloom, KE3Z

I agree. Magazines don't dream up this stuff - we do. When was the
last time you did something original ? If you have a better, cheaper,

faster way to do something and don't publish, it's as if you never thought of it at all.

What about me ? I'm working on a cheaper soft-start for high-power (tube) RF amps. Does one already exist ? I don't know - I haven't seen one yet.

By the way, I find this newsgroup to be a powerful counter point to the regular mags. We can say what we want against CQ and QST in an unedditted manner. We can also exchange ideas in a way not possible via a magazine. I even find technically useful information, despite the lack of graphics.

Perry Scott, KF0CA

Date: Mon, 25 Jun 90 21:28 CDT
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Subject: test
To: INFO-HAMS@ucsd.edu

test

Date: 25 Jun 90 16:38:38 GMT
From: hpcc01!col!bobw@hplabs.hpl.hp.com (Bob Witte)
Subject: The Demise of HR Magazine and Comments on CQ
To: info-hams@ucsd.edu

Re: Goodbye Ham Radio Magazine

* I said goodbye to HR some time ago. I feel that they lost the formula that made them successful. The magazine appealed to the more technical portion of the amateur radio population. About three or four years ago, I think they forgot this fact and started watering down their technical content. I had written a couple of articles for them and conversations with their editors began to center more on sure fire idiot proof construction and less on technical content (IMHO).
At that point I pulled the plug on my subscription, so I have no recent experience with HR.

* Wireless World is a really interesting magazine. It has a great mix of electrical engineering, amateur radio, general electronics hobbyist stuff, basic theory and pseudo-science. The downside is 1) ads are for UK products 2) prices are in pounds 3) words like color are spelled 'colour' 4) expensive in the US.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901

Radio: KB0CY Packet: kb0cy@w0lkd

Date: 25 Jun 90 21:44:24 GMT
From: att!cbnewsc!tedk@ucbvax.Berkeley.EDU (ted.g.kekatos)
Subject: Wanted: TRS-80 Model 100 software - packet radio
To: info-hams@ucsd.edu

Wanted: Software for Radio Shack TRS-80 Model 100

* Terminal program for packet radio TNC (split screen?)
* Amateur Radio speciality programs

Send info/program source to:

Ted G. Kekatos N9IXE
UUCP: ..!att!ihlpl!tedk
INTERNET: tedk@i88.isc.com
(708) 979-0804

End of Info-Hams Digest
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Date: 25 Jun 90 13:43:47 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: ARRL NR 21: FIELD DAY POINTS
To: info-hams@ucsd.edu

Does copying the ARRL message via usenet count?

Date: 26 Jun 90 08:23:39 GMT
From: cs.utexas.edu!swrinde!emory!ogicse!milton!cfogg@tut.cis.ohio-state.edu (Chad Fogg)
Subject: HDTV and Waveform Modulation
To: info-hams@ucsd.edu

A new term to add to the HDTV glossary, waveform modulation is given
a brief mention in the July 1990 issue of _Video_Magazine_, page 50.

According to the article, Production Services, Inc. of Tuscon, Arizona
claims they can "squeeze a full-blown HDTV signal and a conventional
NTSC signal within the same 6 MHz frequency channel" by using "a new
modulation technology to add information to the spectrum without inter-
ference."

Richard Gerdes, PSI co-founder, explains that their technique "alters
the shape of the carrier and transmits the result of that altered wave
shape."

At the NTSC level:

PSI gas already developed a commercial product using waveform modulation
for NTSC broadcasts: an encoder and decoder that allows an NTSC station
to broadcast two channels simultaneously from one transmitter. "You
could tune to channel 4A or 4B using the decoder," Gerdes says. The
FCC has already granted an experimental license for channel 11 in Tuscon,
a Fox Network affiliate, to begin testing the system.

Article aside, has anyone in Tuscon seen this? Any elaborations on
waveform modulation; PSI's technology? And does WM have implications
for other EM-based communications?

Date: 25 Jun 90 13:40:15 GMT
From: dg!lewine@uunet.uu.net (Don Lewine)
Subject: How to buy a QSO
To: info-hams@ucsd.edu

In article <1990Jun22.221444.25178@ecn.purdue.edu> wb9omc@ea.ecn.purdue.edu (Duane P
Mantick) writes:
>>>From: k4bnc@cbnewsh.att.com (john.a.siegel)
> One time I had the satisfaction of turning this situation
> around. I was sitting with my measly 20 watts on top of
> a mountain in the Smokies and encountered a pileup with
> a New Zealand ham - I put up my call at the appropriate
> time and he responded immediately. He didn't believe that
> I was running a Uniden 2510 with no amp and told me I was
> not only 59+ but louder than some fellows who told him they
> were running about 1 KW! Made me feel just *fine*.

That is correct. The difference between 20 watts and 1000 watts is 13 db or
about 2 S-units. A good antenna in a good QTH can make much more of a
difference. The difference between someone that the gods of propagation are
smiling on and someone that they are not can be 60 db or more.

I remember on night working about 50 east european stations in a row. They
said that I was the only W/K station that they could hear. This was not due
to monster antennas or high power. It was mostly the dumb luck of being
exactly where the opening was. Sill, it was great to be the target of a
pileup for once.

P.S. My attitude to DXCC is, if I happen to work them great, if not, no big
deal. I have about 125 confirmed countries. Almost all of them came back on
the first or second call and QSL via the buro. After all, ham radio should be
fun. If you are not having fun do something else.

--73,
WB2UMF

End of Info-Hams Digest
****

End of Info-Hams Digest
****

3752. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-26 13:32:33 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <63@thoreau.nsc.com>
Source record: 10758

In article <1990Jun25.150137.27983@dg-rtp.dg.com>, harrism@aquila.rtp.dg.com (Mike Harris) writes:
> Remember, money
> talks and bullshit walks. They *are* touting the "new" subscription numbers
> to advertisers. You can bet that the advertisers are watching the sub numbers.
> If you have the time, you should also perhaps indicate to them what will make
> you subscribe. Perhaps a technical journal? Give them suggestions and
> alternatives if you do this.

I know it takes a lot more letters but why not write to the advertizers??
A few well composed suggestions to some of the bigger advertizers might
just put some pressure where it might do some good. That coupled with
reduced subscription lists ?could? have an effect. CQ Used (c 1945-1970)
to be a reasonable good rag. I still think we should push for a quarterly
tech journal along the lines of what HR used to be (and 73 also before
Wayne lost a fair amount of his common sense). A quarterly couldn't put
too much burden to the publishing buisness, they would have the ability
to select really prime tech stuff and put out a good quality mag, something
with less half-tone and a darned sight less glitz.

Ron Todd, K3FR

3753. Re: Amateur Auxiliary

Newsgroup: rec.ham-radio
Date: 1990-06-26 13:41:21 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <64@thoreau.nsc.com>
Source record: 10759

Another thing the OOC does is to issue "GOOD GUY TICKETS"
these are sort of warm fuzzies to the guys who they believe
exemplify correct and curteous on the air practice!! Be
a GOOD GUY and get told so.

Ron Todd, K3FR

3754. Re: octopus

Newsgroup: rec.ham-radio
Date: 1990-06-26 13:43:41 UTC
From: cep@cci632.UUCP
Message-ID: <38306@cci632.UUCP>
Source record: 10765

In article <24616@bellcore.bellcore.com> jdn@casux4.UUCP (jonathan nagy) writes:
>
>The idea is that you can have multiple band positions
>active at the same time, but since the octopus prevents you from
>putting more than one signal on the air at any given time, you can
>submit your log as MULTI-SINGLE rather than MULTI-MULTI.

Hmm. I thought that, once you transmitted on a band, you had to stay
on that band for at least 15 minutes.

WZ2B

3755. Re: Making Ham Radio Known

Newsgroup: rec.ham-radio
Date: 1990-06-26 13:50:13 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <65@thoreau.nsc.com>
Source record: 10755

In article <9006252139.AA22365@ti.com>, rlwest@flopn2.csc.ti.com (Bob West, WA8YCD) writes:
>
> Have fun with your new license. Go try all the neat things you can do, and
> if you can do a favor for a friend or a stranger, let 'em know it was a
> HAM who did it!
>
One thing I did when I became SM of Utah in '83 was to have some buisness cards printed up with the ARRL logo in red (the SM color). Besides handing these out at club meetings and ham fests I also used them whenever I lent a hand to an organization or an individual. Stopping by the road to help a stranded motorist call for assistance or ringing up a patch during a race I always indicated that I was a RADIO HAM not a CB, I then gave them one of my cards and made a short statment that we were always glad to help out.

Ron Todd, K3FR

3756. Rumor of V31BB's death

Newsgroup: rec.ham-radio
Date: 1990-06-26 15:14:02 UTC
From: pswecker@uncmed.med.unc.edu
Message-ID: <436@beguine.UUCP>
Source record: 10756

I have only heard this third hand, but rumor has it that Jim, V31BB, has died in Belize. For those unfamiliar with him, he was probably best known as the voice of the MFJ junk net, which was a nice platform for him to expound on the evils of buying equipment from the MFJ corp.

Having only spoken to him once, but having listened to V31BB alot, this rumor is going to need lots of checking before it can truly be believed. One story is that his death was due to electric shock while working on his amplifier.

If anyone knows any more about this, please give us the info!

-- Peter St. Wecker

Peter St.Wecker, N4YRJ Internet:pswecker@med.unc.edu
(919) 966-1096 UUCP:pswecker@uncmed.uucp
Dept. of Physiology, Univ. of North Carolina, Chapel Hill NC

3757. Mail Loop

Newsgroup: rec.ham-radio
Date: 1990-06-26 15:19:00 UTC
From: John.Perry.-.KG5RG@mbian.gal.utexas.edu
Message-ID: <73A9B5D18F5F001DCF@mbian.gal.utexas.edu>
Source record: 10754

To the entire net:

I just caught the mail lop that I was inadvertently
creating! I offer my sincerest aplogies to everyone ont the INFO-
HAMS mailing list! It has been caught and corrected. I'm sorry
for any problems I may have created!

John Perry - KG5RG
University of Texas Medical Branch
The Marine Biomedical Institute
200 University Blvd. H-43
Galveston, Texas 77550-2772
Voice : (409) 761-2124
FAX : (409) 762-9382

You can send mail to me at any of the following addresses:

DECnet : MBIAN::PERRY
THEnet : MBIAN::PERRY
Internet : perry@mbian.gal.utexas.edu
SPAN : UTSPAN::UTADNX::MBIAN::PERRY

3758. Kenwood TS440

Newsgroup: rec.ham-radio
Date: 1990-06-26 15:53:42 UTC
From: hiramc@sco.COM
Message-ID: <7264@scorn.sco.COM>
Source record: 10770

I'm looking at possible mobile rigs. This TS440 seems
to be able to do everything. I have no experience
with Kenwoods. Does anyone have any complaints about it?
Limitations? Common difficulties? Reliability?

Is it an exceptional rig?

Thanks for the comments.

--Hiram [uunet!sco!hiramc || hiramc@sco.COM]
WB6RSS

3759. ICOM IC24AT command summary

Newsgroup: rec.ham-radio
Date: 1990-06-26 15:56:55 UTC
From: rbono@necis.UUCP
Message-ID: <1347@necis.UUCP>
Source record: 10768

I have noticed that many on the net seem to be interested in the new ICOM series of hand held radios, and have received many email requests for futher information, therefore I thought you (the net) may be interested in the following information that KC1IY and myself put together...

```
*******************************************************************************
*******************************************************************************
** ICOM IC24AT keyboard command summary **
** Copyright (c) 1990 **
** KC1IY and NM1D **
** Revision 1.1 **
** Distribution allowed if this notice is included in its entirety **
*******************************************************************************
*******************************************************************************
```

This is an attempt to document all of the known key sequences for the ICOM IC24AT (144/440MHz dual band hand held). Some key sequences may be common with the IC[2,3,4]SAT, therefore a few key sequences for those radios are also on this list. Some key sequences require options (such as the PL encode/decode board).

This is not designed to replace the owners manual, but to summarize the information in one place.

Note: Many controls vary depending on the current mode, i.e.: Scan up/down will search frequencies when in VFO mode, and will scan memory channels when in Memory mode. Consult the owners guide for complete information.

```
KEY/COMBINATION = Result, action
--------------- ------------------------------------------------------------
0-9,A,B,C,D,#,* = note: when transmitting these will generate DTMF tones
0-9 = Enter frequency (can also use the VFO knob)
A = VFO mode / clear incomplete entry
B = Memory mode
C = VHF / UHF change
D = Call channel
* = Step frequency down/scan down
# = Step frequency up/scan up
MONI = Open squelch and change to input frequency (if not simplex)
while button is depressed
H/L/DTMF = Select High/Low power, or (while transmitting) send
preprogrammed DTMF codes

FUNC + 0 = Dial set
FUNC + 1 = PL enable (when option is installed)
FUNC + 2 = Code squelch [NOT for the IC24AT, IC[2,3,4]SAT option only]
```

FUNC + 3 = Skip memory
FUNC + 4 = Duplex operation
FUNC + 5 = Code [NOT for the IC24AT, IC[2,3,4]SAT option only]
FUNC + 6 = Mask frequency
FUNC + 7 = Priority mode on/off (operation dependent on current mode)
FUNC + 8 = Set mode (several different functions, press A to exit)
FUNC + 9 = Real time clock and timer functions (press PTT to exit)
FUNC + A = Memory to VFO transfer
FUNC + B = Memory Write
FUNC + C = Split operation (cross band full duplex)
FUNC + D = Lock mode / Cross Band Repeat disable
FUNC + * = Scan programmed limits (down)
FUNC + # = Scan programmed limits (up)
FUNC + 5 + D = Cross Band Repeat enable (split mode must be on!)
Diode D14 (right diode on CPU board) must be removed to
enable the use of this function)
FUNC + MONI = RX/TX light enable / disable
FUNC + H/L/DTMF = Select DTMF Autodialer memory
Func + VFO knob = Change frequency/memory channel
(according to dial set, see FUNC+0)
Func + LIGHT = Lock light on (don't time out)

H/L/DTMF + VFO knob = Change output power (4 power levels when using 13.8 vdc)

The following key combinations selects "power on modes". Start with the radio
OFF, then hold down the indicated keys, and continue to hold them while turning
the power ON. Some 'modes' override others.

LIGHT + * = PTT enable
LIGHT + 0 = PTT Disabled (inhibits the transmitter, good security method)
LIGHT + 1 = 1 MHz digit set (4 digit frequency entry)
LIGHT + 2 = 10 MHz digit set (5 digit frequency entry)
LIGHT + 3 = 100 MHz digit set (6 digit frequency entry)
LIGHT + 4 = Scan pause until signal disappears
LIGHT + 5 = Scan pause for 10 seconds
LIGHT + 6 = ???? Unknown action
LIGHT + 7 = Power Save deactivated (use this for packet operation)
LIGHT + 8 = Power Save (minimum - 0.125 / 0.5 second)
LIGHT + 9 = Power Save (maximum - 0.125 / 2.0 seconds)
LIGHT + A = ???? Unknown action
LIGHT + B = ???? Unknown action
LIGHT + C = ???? Unknown action
LIGHT + D = ???? Unknown action
LIGHT + # = ???? Unknown action
LIGHT + B + # = RX Extended Range enable
This requires that diode D13 is removed (left diode on
CPU board). Note that this diode has already been removed
by ICOM at the factory on many units. Be sure to hold
these keys down until the activity display stops and is
showing a receive frequency.

FUNC + A = Reset the CPU (this will clear all the memory channels to the factory defaults)

If you have any corrections or additions, please send them to uucp:rbono@necis.nec.com or packet:NM1D@WB1DSW.
****
****

--
/**********\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**********/

3760. Re: Rumor of V31BB's death

Newsgroup: rec.ham-radio
Date: 1990-06-26 16:00:20 UTC
From: hpb@unix.cis.pitt.edu
Message-ID: <25222@unix.cis.pitt.edu>
Source record: 10761

In article <436@beguine.UUCP> pswecker@uncmed.med.unc.edu (Peter St.Wecker, N4YRJ) writes:
>I have only heard this third hand, but rumor has it that Jim, V31BB, has
>died in Belize.
>
>One story is that his death was due to electric shock while working on his
>amplifier.
>
IF TRUE (I do not know either way)...

Would it not be ironic if the amp was manufactured by Ameritron, a division
of MFJ?

73,
Harry Bloomberg, WA3TBL
hpb@hpb.cis.pitt.edu

3761. 10 GHz Repeater

Newsgroup: rec.ham-radio
Date: 1990-06-26 16:45:17 UTC
From: U009@cs.cciw.ca
Message-ID: <5A061A0B1D2F0393-MTACY830*U009@cs.cciw.ca>
Source record: 10762

In article <1990Jun12.154433.8267@sunee.waterloo.edu>, pgray@sunee.waterloo.edu (Peter Gray) writes:
> The computer would control the dishes and initially they would search the
> area for signals. When a signal is found, the dish is stopped and adjusted
> for max signal. Then the second dish is used to repeat the input. If a signal
> is heard on the second dish, it is locked also.
>

How about a wide-band/packet approach... digitize and send the blocks to rptr.
assume the rotation speed of the antennas (2 will be needed, similar
to a radar scanner I have in the basement at the moment) is 30 rpm, continuous.
Digitize your voice into .5 second segments at 3K sps (12 K samples per
rotation). Transmit the last 8 segments at 500K to 1M bps to the repeater,
and hopefully, it can receive and interleave your packets with everyone elses,
transmitting all of them for the next 2 rotations (oldest get dropped).
You receive these packets and reconstruct the audio. Limited full duplex
with the problems of missed packets, of course.
Transmit only when you hear the repeater spewing packets.
A small bit-slice machine should be able to keep up doing the packet
reassembly.

Is Roger (VE3RKS) in on this? Say hi for me.

Regards, Stu Beal, VE3MWM, (U009@CS.CCIW.CA),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

3762. 10 GHz NB Skeds wanted

Newsgroup: rec.ham-radio
Date: 1990-06-26 16:52:10 UTC
From: U009@cs.cciw.ca
Message-ID: <5A061A0B2F0A03AE-MTACY830*U009@cs.cciw.ca>
Source record: 10764

I am located in FN03bi looking for eastwardly contacts on 10 GHz ssb or CW. Buffalo, Rochester, Toronto type areas. I can go to a better location at FN03al if necessary (more height). Email me and we'll set up some skeds for testing before the contest.

(Dave, KD5RO, do you have a new net address yet?)

Regards, Stu Beal, VE3MWM, (U009@CS.CCIW.CA),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

3763. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-26 17:25:31 UTC
From: cep@cci632.UUCP
Message-ID: <38314@cci632.UUCP>
Source record: 10767

In article <26434@netnews.upenn.edu> depolo@eniac.seas.upenn.edu.UUCP (Jeff DePolo) writes:

>About the only "real" communications that would be necessary would be
>getting DTMF tones from the receiver to the computer.

Radio shack has informed me that they have discontinued the SSI2102 touch tone decoder IC from the retail line. They could not tell me whether or not the part would be available on order.

It may be worthwhile for all hams to comb the local radio shack's now, as any that are still left in stock will probably be half price ($5-6 range).

Unfortunately, these chips are not easy to come by ... DTMF decoders are not listed by Digikey, JDR Microdevices, Jameco, or any of the other "standby's". The alternative - building DTMF decoders out of eight (seven if you don't care about ABCD tones) 567's - is messy and a pain in the neck to align properly.

73's Chris WZ2B

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
Computer Consoles, Inc. (an STC company) Rochester, NY
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

3764. cw rig recommendation

Newsgroup: rec.ham-radio
Date: 1990-06-26 17:58:02 UTC
From: eric@iodine.cchem.berkeley.edu
Message-ID: <1990Jun26.175802.12879@agate.berkeley.edu>
Source record: 10763

Howdy Folks!!

I have just discovered this newsgroup and it has prompted me to ask a few questions about rigs for cw. I have been inactive for about 10 years now due to school (college and grad school), and since an end of school isn't in sight, I figured that I would try to get back into hamming and not wait. I am most interested in cw, sort of a purist perhaps. Looking at the rigs over the past years and with the addition and implementations of the new bands from WARC '79 has made me desire a new rig.

My old (and I think still working) rig is a Heathkit HW101 from about '73 I think. It has 80, 40, 20, 15, and 10 meters on it. The only controls are the rf, af, filter, and tuning knobs (final amp and VFO). It sort of makes me laugh comparing it to what is available now. The receiver has a 0.36 microvolt sensitivity I seem to recall.

Now the questions. What, if any, of the new bells and whistles are really useful to the cw op (I do use SSB at times too.). RIT seems handy, as does the notch filter. Does
variable passband and those sorts of controls help? I would like to have full break-in. What are the memories used for? Are they mostly for the general coverage mode of usage?

Lastly, what rigs would you recommend and why? I seem to recall that things like the Drake CR-7 were good, but they don't seem to exist anymore.
What if I reask this
question with the stipulation that the price be less than $1000. What could I sell the HW101 for?

Thanks for your help!!

Eric Peterson iodine.cchem.berkeley.edu
Department of Chemistry
University of CA, Berkely

3765. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-26 18:06:08 UTC
From: tad@ssc.UUCP
Message-ID: <853@ssc.UUCP>
Source record: 10687

In article <5720070@hplsla.HP.COM>, charlier@hplsla.HP.COM (Charlie Panek) writes:
. Would even the ARRL, which
> is a membership organization, not just a magazine, be this openly critical?
> Probably not. Ham radio sorely needs a Consumer Reports type of organization,

Anyone recall the critical review that QST gave of the MFJ Multi-Mode
Data Controller/TNC? MFJ got pissed, and made enough noise that QST
agreed to do ANOTHER review, this time of a MODIFIED unit! Of course,
in the end it had a good effect, because the same mods were allegedly
done to the production units as well....but somehow I can't imagine
Consumer Reports following up a scathing review with a more friendly
one, following acceptance of a modified product from the manufacturer!

Then there was the great review of the bogus "automatic" antenna tuner,
that achieved low SWR with big RESISTORS in the circuit....

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3766. oh-oh!

Newsgroup: rec.ham-radio
Date: 1990-06-26 18:09:44 UTC
From: rusty@cadnetix.COM
Message-ID: <12709@cadnetix.COM>
Source record: 10684

Well, folks, there is a greater than 50-50 chance that I will be losing net access Real Soon Now. If mail suddenly bounces when sent to me, my apologies, I had absolutely nothing to do with it!

It is possible that I will be reachable via telephone at my home number (303) 673-9041, if needed. I may also move to the Phoenix area.

I will attempt to make one final posting to the net if my access is being terminated and I have enough warning.

Thanks, and its been REAL fun!

(This implies that we won't be doing the callsign project any time too soon, also. Sorry about that, I'll try to get it back on track as soon as possible.

73, and its been a blast! de rusty n7ikq (aka 'Mr Callsign Project')

---Join the usenet un-net, 28.410 and/or 28.390(+-) 1700Z to 1900Z saturdays!
Rusty Carruth. Radio: N7IKQ ^^ or later :-)
DOMAIN: rusty@cadnetix.com UUCP:{uunet,boulder}!cadnetix!rusty
home: POB. 461, Lafayette CO 80026

3767. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-26 18:11:55 UTC
From: tad@ssc.UUCP
Message-ID: <854@ssc.UUCP>
Source record: 10690

> In article <1990Jun19.220825.2911@midway.uchicago.edu>, gary@midway.uchicago.edu (gary buchholz) writes...
> >
> >was pretty much disappointed with the "quality" of the review. The review
> >seemed to me to be more of an advertisement for the IsoLoop than any kind
> >of comparative critical analysis.

I don't mind a folksy type semi-technical review, but the thing that really bothered me about this one was that he kept saying that the Isoloop outperformed his conventional HF antenna by several S-units....without ever telling us what the other antenna was!

>

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3768. Re: Dubious quality of CQ (review of AEA IsoLoop)

Newsgroup: rec.ham-radio
Date: 1990-06-26 18:27:58 UTC
From: tad@ssc.UUCP
Message-ID: <855@ssc.UUCP>
Source record: 10688

In article <1344@necis.UUCP>, rbono@necis.UUCP (NM1D) writes:
> Needless to say.... I am NOT impressed with "CQ Mag".... I hope they will
> clean up their act.... I will probably let the rest of my subscription run
> its course.....

I have been a subscriber to both CQ and HR for many years. For some reason, CQ has always listed me as KKT7H on the mailing label. Of course, now that the change has come, CQ is sending me TWO (!) issues per month...one with the KT7H from HR, and the other to KKT7H.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3769. The mess on 20 meters

Newsgroup: rec.ham-radio
Date: 1990-06-26 18:36:39 UTC
From: sorgatz@ttidcb.tti.com
Message-ID: <18128@ttidca.TTI.COM>
Source record: 10685

In listening to the 20 meter band circus I've noticed that there are 3
problem areas:

1) The small number of American Amateur Extras that have taken it upon
themselves to dictate/interpret the FCC rules to the other stations/
operators on the band. All of these jerks that I've heard have been
in 4 or 5 land. Looking up their calls and relating their mailing
address with a position on my map, I find none of them to be in
remote or inaccessable areas - why isn't the Auxillary or ARRL
pink-ticketing these individuals?

2) The large number of Spanish-speaking stations that seem hell-bent
on doing nothing but jamming the DX parties. These stations never
id, nor do they seem to be active in seeking contacts, or conversing
amongst themselves. Most of the signals are between S9 and 40+ over S9..
..I wonder where they are? Perhaps an inquiry with the diplomat kids...

3) The fact that the ARRL, the FCC and the Amateur Community is unwilling
to take on these sour-note clowns head-on. Everyone keeps ignoring the
obvious! Get 'em on tape, send the pink-tickets - if they keep it up,
bust 'em! Just get a Fed Judge to issue a warrent, get a Fed Marshall
(with riot gun!) to accompany the FCC Field Engineer and go serve up
the warrent. Put their stupid little asses in the clink! Is that so
damn difficult?! The FCC does this about 4 times a year to the worst
of the CB bad-boys..why not the jerks on 20?

-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-------------------------+
Citicorp(+)TTI *----------> panic trap; type = N+1 *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-------------------------+
{csun,philabs,psivax,pyramid,quad1,rdlvax,retix}!ttidca!sorgatz **
(OPINIONS EXPRESSED DO NOT REFLECT THE VIEWS OF CITICORP OR IT'S MANAGEMENT!)

3770. Broadcast commands?

Newsgroup: rec.ham-radio
Date: 1990-06-26 19:36:53 UTC
From: chip@tct.uucp
Message-ID: <2687B955.F01@tct.uucp>
Source record: 10681
Cross-posted to: rec.ham-radio,sci.space

According to kd2bd@ka2qhd.UUCP (John Magliacane):
>Fuji-OSCAR-12 has been heard on recent occasions by G3IOR, G3CAG and G4CUO.
>The spacecraft is apparently receiving enough sunlight to produce a weak
>battery charging current and support low-power transponder and beacon
>operations. FO-12 was switched off by telecommand last year, but apparently
>switched back on when it received commands sent to its sucessor, FO-20.

Now, wait a minute.

Does this mean that the commands to the various spacecraft are not all
tagged with destination IDs?

I can imagine what kind of confusion a lack of satellite ID could, and
apparently can, cause. "Retract your solar panels. No, not you --
the one with the bent antenna. Yeah, you." :-)
--
Chip Salzenberg at ComDev/TCT <chip@tct.uucp>, <uunet!ateng!tct!chip>

3771. Re: QRP ARCI membership

Newsgroup: rec.ham-radio
Date: 1990-06-26 20:22:40 UTC
From: tad@ssc.UUCP
Message-ID: <857@ssc.UUCP>
Source record: 10689

In article <1990Jun21.173429.13746@dvinci.usask.ca>, hardie@herald.usask.ca (Peter Hardie) writes:
>
> Membership in QRP ARCI costs $12 U.S. for a first time member.
> Write to Mike Kilgore KG5F
> 2046 Ash Hill Rd.,
> Corrollton, TX 75007
>
> 73 de Pete VE5VA (ARCI 6032, GQRP 3481)

actually, it is:

2046 Ash Hill Road
CARROLLTON, TX 75007-3102

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3772. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-26 20:23:01 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <26480@netnews.upenn.edu>
Source record: 10769

In article <38314@cci632.UUCP> cep@ccird7.UUCP (Christopher Piggott - co-op) writes:
>
>Radio shack has informed me that they have discontinued the SSI2102 touch
>tone decoder IC from the retail line. They could not tell me whether
>or not the part would be available on order.

Since the chip is made by SSI, I'd imagine that some of the better distributors
that carry SSI components would still have them. If not, there are lot
of companies that make DTMF decoders for the sole purpose of repeater
control. They can't be all that expensive. With the expanding use of
DTMF for controlling devices like phone answering machines or even
BSR remote control power switches, they should still be pretty easy to
find. I have a couple of the SSI chips from Radio Shack and for $7.77,
which is what I paid, you can't beat the deal. If you can still find
them, grab a few. They are definately worth it.

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

3773. DTMF sel call on TH-26AT & IC-2SAT

Newsgroup: rec.ham-radio
Date: 1990-06-26 20:42:22 UTC
From: bobw@col.hp.com
Message-ID: <24300017@col.hp.com>
Source record: 10677

Can someone tell me how the DTMF selective call feature works
on the Kenwood TH-26AT (or TH-46AT) and the ICOM IC-2SAT?
Also, any comments pro or con on these HT's are hereby solicited.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd
"Ban all activities that I don't participate in...
they are obviously non-essential."

3774. Re: MORE ON HAM RADIO'S DEMISE

Newsgroup: rec.ham-radio
Date: 1990-06-26 21:27:07 UTC
From: paul@hpldola.HP.COM
Message-ID: <12120039@hpldola.HP.COM>
Source record: 10766

Just picked up the latest issue of '73 after being somewhat disappointed with my gratuitous copy of CQ - and besides, '73 was focused on DF which I find interesting.

In an editorial or publisher's note, the '73 folk said they planned to help make up for the demise of HR with more technical content. Anyone want to review the latest '73?

-Paul "Spice is the Variety of Life"
paul@hpldola.hp.com N0KCL

3775. DELUGE THE ARRL WITH ARTICLE SUBMISSIONS INSTEAD!!!!!!!!!!!

Newsgroup: rec.ham-radio
Date: 1990-06-26 21:38:23 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006262200.AA18262@ti.com>
Source record: 10771

From: TILDE::"rdw2030@venus.tamu.edu" 26-JUN-1990 16:27:00.81
To: info-hams-incoming
Subj: Deluge ARRL with mail...

> Where's the beef? I agree... we need more technical stuff!!! I wonder how
> many people subscribed to Ham Radio. If someone started up a strictly "high-
> tech" ham magazine, I wonder how much support they could realistically expect.
> As was mentioned before... the mag can only be as good as its submissions!
>
> Mark C. Lowe - KB5III

Mark!

You are a hot-out-of-the-gate engineer (didn't you say communications
technology?) with what should be cutting-edge awareness of what's out there
in the "high-tech" world.

What would it take for YOU, YES, YOU! to write an article for such a
publication (be it QST or QEX or HAM RADIO-if-it-were-resurrected, whatever)
on some topic of interest to amateurs?

Do it!

Convince yourself that nobody else is gonna do it.

Then do it.

THAT is what it takes. Not "somebody oughta..." but "I will...".

Seriously.

I'm not kidding, :-)'ing, flaming, or being sarcastic.

REALLY!

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3776. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-26 21:42:32 UTC
From: gary@ke4zv.UUCP
Message-ID: <810@ke4zv.UUCP>
Source record: 10776

In article <7880166@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Just a word of caution - disk drives are less rugged than most electronics.
>If the controller spends most of it's time in an air-conditioned shack, it
>should be fine. :-)
>
>Perry Scott

Some real world experience. We have been using PCs for packet switches
on mountain tops for over two years. Hard disk drives have been the
MOST reliable part of our installations. Of course we are using old
5 to 10 megabyte clunkers that have broad tracks and loose tolerances,
but we have had absolutely zero failures in unconditioned radio huts.
What does fail is the floppy drive. The diskette disintigrates in
summer with the oxide peeling off and plating onto the heads. In
winter the diskette gets so brittle that it fails. So don't leave
a diskette at the site if you want it to survive.

Gary KE4ZV

3777. Re: HDTV and Waveform Modulation

Newsgroup: rec.ham-radio
Date: 1990-06-26 22:13:45 UTC
From: gary@ke4zv.UUCP
Message-ID: <811@ke4zv.UUCP>
Source record: 10682
Cross-posted to: rec.video,sci.electronics,rec.ham-radio

In article <4454@milton.u.washington.edu> cfogg@milton.u.washington.edu (Chad Fogg) writes:
>A new term to add to the HDTV glossary, waveform modulation is given
>a brief mention in the July 1990 issue of _Video_Magazine_, page 50.
>
>Richard Gerdes, PSI co-founder, explains that their technique "alters
>the shape of the carrier and transmits the result of that altered wave
>shape."

This is called "modulation" and is what all transmitters do to convey intelligence on a carrier.

>At the NTSC level:
>
> PSI gas already developed a commercial product using waveform modulation
> for NTSC broadcasts: an encoder and decoder that allows an NTSC station
> to broadcast two channels simultaneously from one transmitter. "You
> could tune to channel 4A or 4B using the decoder," Gerdes says. The
> FCC has already granted an experimental license for channel 11 in Tuscon,
> a Fox Network affiliate, to begin testing the system.
>

This technology is not new and has been used on satellite video channels for several years. Basically what they do is break apart two NTSC pictures and use field one from one picture and field two from the other. They then reverse the field sequence for the next frame. Then at the receiving end they use two framestores and a demultiplexer to reconstruct the two video signals. As you can tell from the description, they throw away half of each video frame. This causes some loss of vertical resolution (though they do frame to frame interpolation which recovers most of the resolution for stationary pictures). The resulting artifacts are most noticable on rapidly moving video.

One thing video freaks should know is that broadcasters have expressed a serious lack of interest in HDTV. In fact the use of minicams and small format tape has markedly reduced the quality of ordinary NTSC video being broadcast by networks and affiliates. The over the air broadcaster has seen a decline in viewership in the last several years due to low quality VCRs and poor quality NTSC cable channels being preferred by the average viewer. The broadcaster has responded by cutting costs to the bone by using cheaper equipment and reducing the technical requirements for his staff. It is estimated that it will cost over $50 million to changeover a broadcast plant to HDTV. With no market (no receivers in place) and the loss of NTSC viewers

(estimated $120 billion invested in NTSC infrastructure) the broadcaster would have to have deep pockets indeed to pioneer HDTV. Plus there is no HDTV product available to fill those 24 hours a day.

Gary KE4ZV
Senior Engineer WXIA-TV

3778. HR vs CQ magazines - Leaving only 73 Magazine

Newsgroup: rec.ham-radio
Date: 1990-06-26 22:21:41 UTC
From: Hugh_E._Wells.ElSegundo@XEROX.COM
Message-ID: <900626-152508-5672@Xerox>
Source record: 10774

Hi Gang,

Guess we all received a big disappointment upon receiving the latest copy of CQ. Years ago, I took CQ and enjoyed its technical content. Can't believe the change! Judging from the editorial, the magazine will never return to a technical format.

I've taken Ham Radio Magazine since its inception and have provided technical articles to it over the years. It was a fine magazine and I too, suffer the loss.

HR and 73 have been good "technical" friends, but at different levels. I hope 73 continues to survive as it is the only remaining "user" written technical magazine that we have. Hopefully, 73 will begin to publish some of the more technical articles that previously went to HR and now no longer have a home.

It would be my suggestion that subscriptions be pulled from CQ and placed with 73 along with a note indicating the need to pick-up technical articles from former HR authors. At the moment, this course of action may be the only way to save our technical forum. I recognize that it would be difficult for 73 to shift from the current less technical format, but perhaps one or more HR level technical articles in each issue would work out OK.

Hugh Wells - W6WTU
Manhattan Beach, CA

3779. Re: Re: How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-26 22:47:58 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880168@hpfcdc.HP.COM>
Source record: 10679

Re: 200 W maximum, beam antennas

While I agree in principle (the right tool for the job and all that), there are some realities that creep in -

1. Not everyone can erect a beam. High wind is a problem. Phased Omnis take more real estate than I have. There are also those pesky covenants.

2. I can think of many positionings of 2 receiver/transmitter pairs where a beam won't help.

3. It is sometimes necessary to use >200W on 40/80/160 to get over QRN, especially during summer.

4. The use of omnidirectional antennas is appropriate to a roundtable, which is typical of 40/80.

5. Ever see an 80 meter beam on a tower ? I've seen K0RF's. It looks tenuous.

Yes, one can do a lot with antennas. However, it isn't the technology that is the problem, it's the operator. Any power in excess of that required to make the contact is illegal. We already have the laws; where is the enforcement ? Maybe the problem is us - macho signal reports seem to be better than good operating skills.

When was the last time I asked someone to QRP ? I dunno. I'm part of the problem, too. S9+40 is real easy listening.

Perry
KF0CA

3780. db's and QRP

Newsgroup: rec.ham-radio
Date: 1990-06-26 23:15:47 UTC
From: oo7@ut-emx.UUCP
Message-ID: <32567@ut-emx.UUCP>
Source record: 10773

lewine@dg.dg.com (Don Lewine) claims that...

>>The difference between 20 watts and 1000 watts is 13 db or
>>about 2 S-units.

It's not, it's a factor of 50, which is 17 db, basically 3 S-points.
Face it, if you are called by someone who is S5 and someone who is S8
you are usually going to answer the S8 person. But if the only person
calling you is S5 then you hear and answer them. So yes, you can work
a lot of DX on low power if you know when to keep trying and when to
give up. In a recent contest I lowered the power to 5 watts and worked
all continents (those Big Stations have good antennas and good ops and
they will hear you eventually). But having done that, I admit that I
raised the power again and went searching for new countries.

QRP is fun, but it many cases QRO is funner :-)

(exit left dodging rotten fruit etc.)

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

3781. Re: FT-411E

Newsgroup: rec.ham-radio
Date: 1990-06-27 01:04:35 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880169@hpfcdc.HP.COM>
Source record: 10772

> Does anyone have information about the modifications made to the Yaesu
> FT-411E (versus the 411)?

No, but thanks to Mark Bramwell I have the 411 mods, and can forward if
anyone wants a copy. What's different about the 411E?

Anybody try the 411 mods, and if so, how did it go? Also, has anybody
adjusted the image filter to center at about 152MHz instead of 144MHz,
to improve the terrible sensitivity in the 155-166 range?

3782. CQ reviews

Newsgroup: rec.ham-radio
Date: 1990-06-27 04:52:27 UTC
From: oo7@ut-emx.UUCP
Message-ID: <32598@ut-emx.UUCP>
Source record: 10680

I dunno if it's true of the review of the loop antenna thingy discussed here, but a few issues ago there was a review of an HF amplifier in CQ, and an ad for the same thing in that issue as well. I remember noticing that the two were identical in places, as if someone had just reeled off the specs from the ad and called it a review. I remember thinking at the time that this was very poor practise, it was as if the mag had just given the guys selling the amp another page to say the same thing only not head it 'advertisement'. It may have been the same issue as the one with the loop thingy review, if anyone has more energy than I have and wants to go and check.

Interestingly, our Physics-Math-Astronomy library gets CQ Mag, perhaps a previous librarian was a ham. I'd never see it otherwise.

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
wills@utxvm (Bitnet)

3783. Re: Rumor of V31BB's death

Newsgroup: rec.ham-radio
Date: 1990-06-27 06:47:47 UTC
From: edw@wells.UUCP
Message-ID: <510@wells.UUCP>
Source record: 10683

In article <436@beguine.UUCP>, pswecker@uncmed.med.unc.edu (Peter St.Wecker, N4YRJ) writes:
> I have only heard this third hand, but rumor has it that Jim, V31BB, has
> died in Belize. For those unfamiliar with him, he was probably best known
> as the voice of the MFJ junk net, which was a nice platform for him to
> expound on the evils of buying equipment from the MFJ corp.
>
> Having only spoken to him once, but having listened to V31BB alot, this
> rumor is going to need lots of checking before it can truly be believed.
> One story is that his death was due to electric shock while working on his
> amplifier.
>
> If anyone knows any more about this, please give us the info!
>
> -- Peter St. Wecker

Yes, I have confirmation that he was found in bed on Wednesday morning, June 20th. He was suppose to meet another ham operator on Wednesday morning. When Jim didn't show up, he went looking for him and found him dead in bed. The exact cause of death is unknown at this time. I don't know where the electric shock story came from. I heard that there are a few rumors that are already floating around...this might be one of them.

If you want more information, try to contact KA2RRK (Jerry, Ft. Dix, NJ), on 28.305 USB after 22:00 EDT if the band opens.

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Edward E. Wells Jr., N3IAS, President Voice: (215)-943-6061
Wells Computer Systems Corp., Box 343, Levittown, Pa. 19058
{dsinc,francis,hotps,houxl,lgnp1,mdi386,pebco}!wells!edw

3784. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-27 09:45:05 UTC
From: edw@wells.UUCP
Message-ID: <512@wells.UUCP>
Source record: 10692

In article <38314@cci632.UUCP>, cep@cci632.UUCP (co-op) writes:
In article <26434@netnews.upenn.edu> depolo@eniac.seas.upenn.edu.UUCP (Jeff DePolo)
writes:
#
Radio shack has informed me that they have discontinued the SSI2102 touch
tone decoder IC from the retail line. They could not tell me whether
or not the part would be available on order.
#
It may be worthwhile for all hams to comb the local radio shack's now, as
any that are still left in stock will probably be half price ($5-6 range).
#
Unfortunately, these chips are not easy to come by ... DTMF decoders
...
What is so hard about getting DTMF chips? Try to call Motorola,
Signetics, National Semiconductor or others and ask them for the part
number to handle what you need. Then ask them for their local
distributor for the area.
...
--
Christopher E. Piggott, WZ2B (ex-N2JGW)
Computer Consoles, Inc. (an STC company) Rochester, NY
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

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Edward E. Wells Jr., N3IAS, President Voice: (215)-943-6061
Wells Computer Systems Corp., Box 343, Levittown, Pa. 19058
{dsinc,francis,hotps,houxl,lgnp1,mdi386,pebco}!wells!edw

3785. Re: How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-27 11:02:19 UTC
From: jay@splut.conmicro.com
Message-ID: <B96-Y-@splut.conmicro.com>
Source record: 10694

In article <1990Jun25.144036.27405@dg-rtp.dg.com> harrism@dg-rtp.dg.com writes:
>I, personally, wouldn't mind it if omnidirectional antennas were also illegal.
>Why should anybody expect to own a frequency in *every* direction. I'd be
>happy, though, to just have a lower power limit. One can do *so* much with
>antenna's - it's amazing.

I dwouldn't have a problem with lower power limits either. I think
you've missed the mark with the beam requirement, though:
1) The number of hams who can afford towers and beams is small.
2) Many hams can put up wire antennas, but can't put up a beam due to
city zoning rules, deed restrictions, etcetera.
3) What about 40 and 80??

Maybe you need to rethink this one.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"I don't usually do vicious; +--
I try to stick to depressing." -- Janis Ian, in concert, 6/6/90

3786. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-27 12:04:12 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <217@ultrix.uhasun.hartford.edu>
Source record: 10696

In article <810@ke4zv.UUCP>, gary@ke4zv.UUCP (Gary Coffman) writes:
> Some real world experience. We have been using PCs for packet switches
> on mountain tops for over two years. Hard disk drives have been the
> MOST reliable part of our installations. Of course we are using old
> 5 to 10 megabyte clunkers that have broad tracks and loose tolerances,
> but we have had absolutely zero failures in unconditioned radio huts.
> What does fail is the floppy drive. The diskette disintigrates in
> summer with the oxide peeling off and plating onto the heads. In
> winter the diskette gets so brittle that it fails. So don't leave
> a diskette at the site if you want it to survive.

Interesting. I've had a packet switch on a mountain top here for about a
year and the floppy hasn't experienced any problems. (One difference is
that I'm using disk drives with head load--the head isn't in contact
with the disk unless it's being used.) On the other hand, it only
accesses the disk to boot up, which it hasn't had to do for about six
months. Hmmm... maybe I had better check the disk that's in there!

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3787. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-27 12:39:25 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <221@ultrix.uhasun.hartford.edu>
Source record: 10697

In article <165@bongo.UUCP>, julian@bongo.UUCP (Julian Macassey) writes:
> > like us to do. I don't remember the exact numbers, but in the last ten
> > years the number of staff has stayed nearly constant while the membership
> > has increased by something like 40%. (That's probably not the right number,
> > but the point is the number has increased a lot.) So things are operating
> > about full-out at HQ.
> Let me see, same number of bods and 40% more members, that makes 40%
> more money.

Minus inflation, which unfortunately isn't trivial.

>
> So what is happening at HQ? Let the ARRL themselves tell us how
> these scarce resources paid for by our subscriptions (Yes, mine as
> well) are advancing the radio art and challenging the borders of
> engineering and science:

Ummm... I thought hams at large were supposed to do that. Are we leaving
it up to ARRL to do it all now?

> + ARRL LETTER - VOLUME 9 - NUMBER 12 - June 15, 1990 - Page 3 of 4
>
> + HQ HOSTS OPEN HOUSE
>
>
> +Lab supervisor Jon Bloom, KE3Z, demonstrated for visitors the League's setup
> +for measuring transmitter spectral purity, with a commercial 2 meter FM
> +transceiver and a Hewlett Packard spectrum analyzer. Visitors also got a
> +peek at a 20 meter transceiver being designed by staff member Zack Lau,
> +KH6CP, showing several stages of the development process. This rig is being
> +designed for production and donation to amateur societies in third world
> +countries.
>
> We are going to pay for the third world to get free U.S. Built
> radios? For 20M too no less.

Not the whole third world, Julian, just some parts of it that have no ham
radio to speak of. Why? Because by helping to promote ham radio in these
parts of the world we may influence the national administrations of these
countries to be more favorable to ham radio. And in the ITU, each country
has exactly one vote--Zaire's vote counts the same as ours. I don't think
tring to increase international support for ham radio is a waste of the
members' money. Do you? (BTW, this is not the only effort toward this goal.
Although I don't know much about some of the things ARRL is doing in this
area, I do know that every year we bring in 7-10 people who are telecomms
administrators in third-world countries for a class in amateur radio

administration. The class is held at ARRL HQ.)

I think 20m is appropriate technology for the intended purpose and
destination.

> + DXCC BEGINS MOVE TO DATA PROCESSING
>
> +DXCC automation has begun in earnest, with final testing of software
> +completed June 1. New applications and endorsements are entered into a mail
> +log for tracking through the system. This log helps staff members quickly
> +answer questions regarding the status of DXCC applications and endorsements
> +in progress. On June 11 "backfilling" began--the process of entering past
> +records into the computer on a priority basis. As endorsement applications
> +are received they are backfilled to bring the applicant's record up to date;
> +the endorsement is then processed.
>
> I wonder how many Microwave columns in QST this would pay for? But hey
> gotta keep proving to ourselves that with a modern equipment it is
> technically possible to talk to at least 100 countries, even if some
> of them are uninhabited reefs. What will we do when the contesters die
> off?

If this were the only thing going on at HQ I would agree with your complaint.
But it isn't. And a lot of people _are_ interested in this stuff, even if
you and I aren't. How about a little tolerance for other people's interests?
As for the microwave column, in my opinion good feature articles on microwave
do far more to promote those bands than that column ever did. I always
thought that column preached to the choir; if you weren't already "into"
microwave there wasn't much there for you. Nothing wrong with that if it
were the most effective way of doing it, but I think the feature articles are
better. I dunno all the reasoning why it was dropped, but I can't say I
miss it much. (Explain how 10-GHz DX records are any more relevant than
DXCC, not counting the fact that you personally are interested in one
and not the other.)

> + * The *RSGB Microwave Handbook Vol. 1* is the latest addition to the
> +ARRL library. Edited by G3PFR, it covers microwave theory and practice in
> +mostly non-mathematical language. Two additional volumes will follow. 224
> +pages.
> I recall a time when the ARRL produced manuals that were respected
> all over the world. Now we have to get the RSGB (1/10 size of ARRL) to
> produce books on Microwaves etc. The book probably has metric
> dimensions too.

Agreed. ARRL's microwave book efforts have been beset by problems,
largely having to do with turnover in the editorial staff, but also
because it simply wasn't a high priority item. (Note that this was
within the Tech Department--I'm not talking about policy here.) It
should be out soon, I hear. (I suggested the advertising for it
borrow from the old movie ads: "10 years in the making!" They were not
amused. :-)

On the other hand, what's wrong with ARRL making RSGB books available to
the members? Are we so xenophobic that we shouldn't distribute anything
that doesn't have "made in the USA" printed on it?

>
> --
> Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
> N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3788. Re: DELUGE THE ARRL WITH ARTICLE...

Newsgroup: rec.ham-radio
Date: 1990-06-27 13:35:54 UTC
From: saaf@joker.optics.rochester.edu
Message-ID: <SAAF.90Jun27093554@joker.optics.rochester.edu>
Source record: 10693

> ...about submitting technical articles to QST...

I don't think that the lack of technical articles appearing in QST is due to a lack of submissions. The recent publication of the second volume of the "Antenna Compendium" seems to indicate that QST has a SURPLUS of technical article submissions. I would rather have seen these articles appear in QST in place of the 20 treatises on building QRP SWR meters or 2-position antenna switches that permeate the magazine. QST makes a conscious decision to limit the number of technical articles. They represent the entire amateur community and have to present what they feel to be a balanced menu of articles. Of course, the readers of the UseNet forum are, in general, more technically inclined than the average ham and would like to see more technical articles in QST or anywhere.

In view of the demise of Ham Radio, wouldn't it be great if the ARRL raised the status of QEX to that of a sister publication of QST? Both could be nice and glossy (and crammed with ads). QST would be mandatory with ARRL membership and QEX optional, like the relationship between, say, Physics Today and Phys Rev Letters. QST could keep recycling the SWR meter material and QEX could publish very technical works without apology (as they, no doubt, do now).

Pie in the sky?

Len
NV2Z
--
| Len Saaf, The Institute of Optics, Univ. of Rochester, Rochester, NY |
| Internet: saaf@joker.optics.rochester.edu Bitnet: SAAF@UOROPT |

3789. Re: octopus

Newsgroup: rec.ham-radio
Date: 1990-06-27 13:43:15 UTC
From: jdn@casux4.uucp
Message-ID: <24695@bellcore.bellcore.com>
Source record: 10691

In article <38306@cci632.UUCP| cep@ccird7.UUCP (Christopher Piggott - co-op) writes:
|In article <24616@bellcore.bellcore.com> jdn@casux4.UUCP (jonathan nagy) writes:
|>
|>The idea is that you can have multiple band positions
|>active at the same time, but since the octopus prevents you from
|>putting more than one signal on the air at any given time, you can
|>submit your log as MULTI-SINGLE rather than MULTI-MULTI.
|
|Hmm. I thought that, once you transmitted on a band, you had to stay
|on that band for at least 15 minutes.
|
|WZ2B
The time limit is 10 minutes for the CQWW contests. This rule was
enacted specifically to address the use of an octopus.

After the initial posting, I discussed this with contesters N2AA and N2EA.
Gene was reminiscing about the days when the octopus was still
legal for field day. Apparently, he and K2SS were able to get into
quit a rhythm using the device and had a ball. Sounded like they
were sorry to see it go.

73, Jon NK2D
Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3790. Re: Re: How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-27 14:46:48 UTC
From: kb2glo@cbnewsj.att.com
Message-ID: <1990Jun27.144648.11928@cbnewsj.att.com>
Source record: 10712

In article <7880168@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Re: 200 W maximum, beam antennas
>
>1. Not everyone can erect a beam. High wind is a problem. Phased
> Omnis take more real estate than I have. There are also those
> pesky covenants.

Putting up a beam would be very difficult for me I plan on having one in
the future but just can't do it now for several reasons.

>3. It is sometimes necessary to use >200W on 40/80/160 to get over QRN,
> especially during summer.

This is a very good point but on the othter hand this past FD shortly after
sunrise there were alot of QRO nets that wiped out the band for our
40m dipole station.... Next year we know to QSY off 40m after sunrise.

>4. The use of omnidirectional antennas is appropriate to a roundtable,
> which is typical of 40/80.

Right on... maybe even on other bands like 10 meter nets but of course
NOT the 20 meter DX nets. As a matter of fact I've stayed of 20m since
I don't have a beam nor amp. 10m, 12m, 15m, 17m and 40m seem to suit
me just fine with 100 watts and an omni.

>5. Ever see an 80 meter beam on a tower ? I've seen K0RF's. It looks
> tenuous.

Hey anybody have a 160m beam in their back yard?

>Yes, one can do a lot with antennas. However, it isn't the technology
>that is the problem, it's the operator. Any power in excess of that
>required to make the contact is illegal. We already have the laws;
>where is the enforcement ? Maybe the problem is us - macho signal
>reports seem to be better than good operating skills.
>When was the last time I asked someone to QRP ? I dunno. I'm part
>of the problem, too. S9+40 is real easy listening.

Maybe whenever we give an S9+ report we should tell them to QRP but
some how I don't expect they would. Maybe they wouldn't even know how to!

--
Tom Kenny, KB2GLO
US mail: AT&T, 307 Middletown-Lincroft Rd, Lincroft NJ 07738
voice: 201-576-3888
uucp: att!lzatt!tek internet: kb2glo@cbnewsj.att.com

3791. QRP vs. the KW Monsters!

Newsgroup: rec.ham-radio
Date: 1990-06-27 15:06:03 UTC
From: enders@plains.NoDak.edu
Message-ID: <5169@plains.UUCP>
Source record: 10698

The problem with working QRP (IMHO) is that there are soooo many ops running their KW monsters all the time that anyone listening soon learns that he/she has to turn their RF gain down to keep from being blasted out of their chair. If everyone on 20 meters ran 5 watts (you probably don't even need that much most of the time) and depended a little more on operating SKILL, the nasty problems would be greatly reduced.

Of course we'll never get everyone to QRP to 5 watts on 20 anytime soon. Nor will we get rid of those folks who think they *own* a frequency and will defend their *claim* with every last milliwatt of power at their disposal.

I think the people on 30, 17, and 12 meters would attest to the fact that they really don't miss the old KW anyway. :-) I think the two things lacking in HF operation today are COURTESY and PATIENCE. Sadly, this is the root of just about all the trouble on 20 these days.

Todd Enders - WD0BCI ARPA: enders@plains.nodak.edu
Computer Center UUCP: ...!uunet!plains!enders
Minot State University or: ...!hplabs!hp-lsd!plains!enders
Minot ND 58701 Bitnet: enders@plains.bitnet

Comming Soon---------------------->AMPR: Todd@wd0bci.mot.nd.ampr.org
[44.114.0.12]

3792. Switched capacitor filters above 15 kHz

Newsgroup: rec.ham-radio
Date: 1990-06-27 15:10:23 UTC
From: dhp1@GTE.COM
Message-ID: <9354@bunny.GTE.COM>
Source record: 10695
Cross-posted to: sci.electronics,rec.ham-radio,rec.audio

I'd like to get in touch with anyone who has had direct experience with switched capacitor filters from roughly 15-40 kHz. Write back even if you've done work below this range (audio). Thanks.

--
Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com OR dhp1@gte.com
617-455-5704 | UUCP: ....!gte.com!edcd.dnet!pascoe

3793. Re: HDTV and Waveform Modulation

Newsgroup: rec.ham-radio
Date: 1990-06-27 16:23:51 UTC
From: bill@videovax.tv.tek.com
Message-ID: <5867@videovax.tv.tek.com>
Source record: 10686
Cross-posted to: rec.video,sci.electronics,rec.ham-radio

This is the GENESYS system that was first introduced about two years ago. As I recall, it stirred quite a controversy due to its "black magic" nature and sketchy details as to how the system worked. A lot of engineers were claiming it violated the laws of physics. I saw Mr. Geddes present a paper on the system at the 1989 NAB convention. My coworkers and I couldn't tell if it was real or snake oil. They also had a demonstration that wasn't working when I went to see it. A coworker said they sort of got it working the next day (apparently there was a lot of crosstalk between the two "channels").

At this year's NAB, another paper was presented that gave a lot more detail on the system and outlined plans for testing it on the air. This time around, it seemed more like a real system, but still had some "snake oil" aspects to it. However, the jury is still out at least until the tests are completed.

Personally, I think it would be great if the system works, but you don't get something for nothing. I think we'll have to give up something to get two video broadcasts on the same channel. Whether it's something we're willing to give up is another story.

--
Bill McFadden Tektronix, Inc. P.O. Box 500 MS 58-639 Beaverton, OR 97077
bill@videovax.tv.tek.com, {hplabs,uw-beaver,decvax}!tektronix!videovax!bill
Phone: (503) 627-6920 "The biggest difference between developing a missle component and a toy is the 'cost constraint.'" -- John Anderson, Engineer, TI

3794. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-06-27 16:33:06 UTC
From: tech@cs.AthabascaU.CA
Message-ID: <1966@aurora.cs.athabascau.ca>
Source record: 10701

hpcc01!col!bobw@hplabs.hpl.hp.com (Bob Witte) writes:

> Re: Goodbye Ham Radio Magazine

> * Wireless World is a really interesting magazine. It has a
> great mix of electrical engineering, amateur radio, general
> electronics hobbyist stuff, basic theory and pseudo-science.
> The downside is 1) ads are for UK products 2) prices are
> in pounds 3) words like color are spelled 'colour' 4) expensive

The problem with Ham Radio is that it spells colour as "color". You Americans
are so lazy. :)

--
Richard Loken VE6BSV : see I took it out!
Athabasca University : I can't afford Campy
Athabasca, Alberta Canada : anyhow.
tech@cs.AthabascaU.CA {alberta|decwrl}!atha!tech :

3795. QST, CQ, Tech Content, blah, blah

Newsgroup: rec.ham-radio
Date: 1990-06-27 16:54:56 UTC
From: pescatore_jt%ncsd.dnet@GTE.COM
Message-ID: <9006271654.AA18661@bunny.gte.com>
Source record: 10704

I've written a few articles that have been published in QST, and I can assure you that they do not have a flood of technical articles being held back because they want to fill QST with general interest articles. The published my article "How to Have Fun in Ham Radio" in the May 1990 issue, when it had been accepted for publication circa January 1989! The editor said that they had so many general purpose articles "on the hook" that the 18 month delay was not unusual.

I would bet that if people who complain about the lack of technical content, or the lack of microwave coverage, or the scarcity of pages dedicated to the Albanian 160M EME Amtor contest, were writing about these things instead of whining, there would be no reason to whine. Ahhh, I suppose then they'd whine that there wasn't enough room for ads.

As far as the ads in QST, objecting to the quantity of ads in a magazine doesn't make a hell of a lot of sense:

A. They keep the price of the magazine down.
2. NOBODY FORCES YOU TO LOOK AT THEM!!!!!!!!!!!!!!!!!!!!!!!!!!

I personally never really look to QST, CQ, or HR for deep technical content, anyway, just as I don't look at Popular Science for depth in robotics or solar power. There are zillions of great technical journals providing depth in just about any area you could desire. Most of the good technical articles in the journals are written by motivated people, and are oriented towards a narrow target audience. If you want to read about ducks, buy a book about ducks, not one about birds.

Two credos to live by:

1. If you are not part of the solution, you are the problem.
B. Lead or follow; in either case, get out of the way.

and my personal favorite (after STUFF HAPPENS):

III. Don't worry about the horse being blind, just keep loading up the wagon.

73 John WB2EKK PESCATORE_JT@NCSD.GTE.COM

3796. Re: cw rig recommendation

Newsgroup: rec.ham-radio
Date: 1990-06-27 17:12:01 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <66@thoreau.nsc.com>
Source record: 10706

Truly, find some deserving novice who is short on funds and
give the rig away. Not that an HW-101 is worthless, far from
the truth, IT IS WORTH MUCH...MUCH MORE GIVING some on the
air experiance to a deserving newcommer!

as for new rigs, drive on over to Burlingame and play with
the radios in your price range.

Ron Todd, K3FR

3797. Need Heath VF-1 VFO schematic

Newsgroup: rec.ham-radio
Date: 1990-06-27 17:31:00 UTC
From: MORRISTA%UCMCIC@UCBEH.SAN.UC.EDU
Message-ID: <72C5C7B0CEFFA09CC3@UCBEH.SAN.UC.EDU>
Source record: 10703

University
of I N T E R O F F I C E M E M O R A N D U M
Cincinnati
Date: 27-Jun-1990 13:27 EST
From: Theodore Morris
MORRISTA
Dept: MCIC/IR&D
Tel No: 513-558-6046 (Group)

TO: Remote PMDF User (_IN%INFO-HAMS@UCSD.EDU)

Subject: Need Heath VF-1 VFO schematic

...for a unit that I picked up at a recent hamfest--literally; the folks who were trying to sell it and some other junk left it behind to be trash-picked rather than load the box back into the truck to haul to another hamfest sometime.

The case is in pretty bad shape (dropped in a lake?) but, hey, how hard can it be to recondition, eh? (:-)) With the schematic, that is...

Thanks!
==========
Theodore Allan Morris |231 Bethesda Avenue, ML# 574
University of Cincinnati Med. Ctr. |Cincinnati, OH 45267-0574
Med. Ctr. Information & Communications|513-558-6046 W, 731-3451 H
Information Research and Development |WB8VNV NTS, U1091 AppleLink,
==========|MORRISTA@UCMCIC.OA.UC.EDU I'net
Call me up and I'll talk data to ya'! | - Go Bearcats! -
==========

3798. re: purchsed QSO's

Newsgroup: rec.ham-radio
Date: 1990-06-27 18:20:07 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990Jun27.182007.17776@ecn.purdue.edu>
Source record: 10705

>>From: price@marlin.NOSC.MIL (James N. Price)
>net discussions about limits on power. But the true DXer will do
>what he/she feels he/she HAS to do to get thru!

And that is precisely the problem! All too often this means crank up the KW (or more, as other posters here have pointed out) and clobber anybody and everybody in the process. It is this selfish attitude that is the root problem (bear in mind that I am *not* suggesting that James N. Price is in anyway an example of either THE problem OR of the selfish attitude - I am merely borrowing a segment of his posting because I think he hit the nail right on the head).

I have read a number of postings in this newsgroup about this subject. Some revolve around antennas, some revolve around power. I suspect that from the *hardware* side of the argument, it is more realistic to call for a reduced power level, arguments about noise levels on some bands notwithstanding, because from listening I know that it is true.

I can feel most comfortable discussing that part of the low bands which I can legally operate (and for which I actually own equipment for) - the Tech. segment of ten meters. It always used to gall the hell out of me as a Novice that high-power dudes would decide that my puny but legal 75 watts was just the right place to tune up. Now I'm sure that there were some occasions when an op. just *didn't* hear me and thus assumed that nobody was there to QRM. Fine, I can live with that. But it used to gall me that many of these clowns would then start transmitting on that frequency. Why does even a General (again, Advanced or Extra included) need to deliberately go into the novice segment of the band, tune up and then transmit with an absurdly high level of power? Isn't there enough spectrum available for Generals and up that the Novices *can't* use? AND, as a "Tech. on Ten", the same sort of question, by analogy, comes to mind. I don't have CFR47 right in front of my face, but I *think* I am limited to 250 watts from 28.3 to 28.5; if that is true, why not limit EVERYBODY using those freqs. to the same UPPER limit, 250 watts max.? Seems to me that this would be eminently fair - 250 can do an awful lot of good with a reasonable antenna. Then if those who CAN work above 28.5 or below 28.3 want to use a bunch o'power, at least outside of that measly .2 MHz they won't interfere with those who are legally stuck with the reduced power level.

Yeah, I know, "this will just complicate everybody's operating"....well, we Amateurs, by reasoning that we have to take a test that requires us to know how to read, are at least semi-literate and intelligent, right? :-)

A note: if the recent rumors about V31BB's passing are true, I would like to state (since I was one who was publically upset with his on-air

anti-MFJ rantings) that I am sorry to see this happen, albeit with details unknown. While I (and others, I'm sure) may have disagreed with what he was doing, as a human being I am saddened to hear of his (possible) demise.

Duane Mantick
WB9OMC

3799. ARRL books (was Re: Making ham radio known)

Newsgroup: rec.ham-radio
Date: 1990-06-27 19:08:23 UTC
From: iza@ecs.umass.edu
Message-ID: <10151.26890427@ecs.umass.edu>
Source record: 10699

I read on rec.ham-radio some criticism for the policy of ARRL to distribute
a book on Microwaves from RSGB and the lack of ability of the ARRL to
publish books on such subject.
My point of view is totally different and there I go with my 2 cents!
ARRL books are, to my knowledge, some of the best books on Ham Radio in
the world. I mean it, because I have a big collection of Spanish, Italian,
French, German, Dutch, English and American books and, even with the
problems involved on purchasing some of the components used on circuits,
the quality and the care put on explaining things are worth the money.
If you ask other hams around the world they all will tell you they have
at hand the ARRL Handbook. And in some Eastern European countries one
of the best presents was a current copy of THE handbook... as well as in
other parts of the globe.
Well, I think I make my point clear. ARRL books are a heck of ham books,
and I wish and expect there will be more. But they cover for now much of
my needs as a ham. Maybe if they publish a handbook on Coherent CW or
on Hellschreiber machines... :-)
73 for all.
Jon, W1/EA2SN iza@umaecs.bitnet / iza@ecs.umass.edu

3800. 60KHz receiver help wanted

Newsgroup: rec.ham-radio
Date: 1990-06-27 19:55:35 UTC
From: billp@col.hp.com
Message-ID: <24300019@col.hp.com>
Source record: 10700

I am building a WWVB (60 KHz) clock. I've designed the digital part
out of a 68701 single chip CPU. I need pointers to designs for everything
from the antenna to the AM detector, inclusive.

Thanks!

Bill Pherigo
WR0Y
(719) 590-3420

3801. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-27 20:25:04 UTC
From: john@anasaz.UUCP
Message-ID: <2577@anasaz.UUCP>
Source record: 10709

In article <853@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>Anyone recall the critical review that QST gave of the MFJ Multi-Mode
>Data Controller/TNC? MFJ got pissed, and made enough noise that QST
You mean the one that came out just after I bought the unit ;-(

>
>Then there was the great review of the bogus "automatic" antenna tuner,
>that achieved low SWR with big RESISTORS in the circuit....
That antenna tuner is still advertising in 73 magazine. I brought that
to the attention of Wayne Greene (I was also a 73 advertiser) and his
answer was essentially that if people are dumb enough to buy it, it's
their problem.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 FAX:602-861-7642 Advice: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3802. Re: HR vs CQ magazines - Leaving only 73 Magazine

Newsgroup: rec.ham-radio
Date: 1990-06-27 20:27:11 UTC
From: koning@koning.enet.dec.com
Message-ID: <12910@shlump.nac.dec.com>
Source record: 10707

>...
> HR and 73 have been good "technical" friends, but at different levels. I
> hope 73 continues to survive as it is the only remaining "user" written
> technical magazine that we have. Hopefully, 73 will begin to publish some
> of the more technical articles that previously went to HR and now no longer
> have a home.

I would not put it that way. I subscribed to 73 for about 5 years up
to about 3 years ago (when I switched to HR). Initially it was reasonably
technical though not significantly more so than QST -- just different.

Then about a year before I gave up, the technical content drifted downward
to the point where the MOST advanced articles were about at the Novice
level. Between that and the ever increasing amounts of NSD-ravings I called
it quits.

As for CQ, many earlier postings echo my opinion of that rag.

QST is, unfortunately, rapidly sliding downhill too. The first 2 or 3
"wonderful elmer" articles were fun, but enough already! it's sickening
to see 10 pages of that stuff every month. I've been maintaining an
on-line index of the technical articles from my QST collection; it's
very informative to compare the number of entries per month. It has been
dropping quite a lot. (Hm... I should graph it and submit an article!)

With HR gone, it seems that there are now NO technical magazines for hams
left in the USA. (I'm not counting QEX; it sometimes tries, but it's
rather small.)

Incidentally, in response to the statement that we shouldn't complain unless
we're submitting technical articles to the rags: that's baloney. The
STYLE of a magazine is set by the editorial staff, NOT by the article
writers. I can't imagine that the editors of a contest magazine would
suddenly start to accepts lots of highly technical articles; ditto for
Wayne Green.

paul

3803. Re: FT-411E

Newsgroup: rec.ham-radio
Date: 1990-06-27 20:35:11 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880171@hpfcdc.HP.COM>
Source record: 10702

PS:

> Anybody try the 411 mods...

I just wanted to make it clear, my interest in them is for emergency use only, such as reaching the National Park Service last weekend...

> ...adjusted the image filter to center at about 152MHz instead of
> 144MHz, to improve the terrible sensitivity in the 155-166 range?

...which is where weather, marine, and park service listening (and emergency transmit) would be.

3804. HAM RADIO MAGAZINE

Newsgroup: rec.ham-radio
Date: 1990-06-27 20:41:15 UTC
From: wayne_a._lightsey.RochXRC@XEROX.COM
Message-ID: <900627-134126-9424@Xerox>
Source record: 10708

Couldn't agree more. Cancelled CQ two years ago as it was and is junk mail. Fortunately, I am within 4 months of renewal of my subscription so will test CQ's ability to change their ways and have so informed Dick Ross, Publisher of CQ.

If CQ doesn't shape up, I suggest you take their offer and cancel for a refund. Lots of cancellations will certainly get their attention. Ham Radio may not have had a big circulation, but ten or twenty thousand cancellations and refunds will certainly put a dent in CQ's economic analysis of the acquisition.

73, Wayne Lightsey KB6CSP

3805. Digitrex Electronics Company

Newsgroup: rec.ham-radio
Date: 1990-06-27 21:16:23 UTC
From: bbiddle@tc.fluke.COM
Message-ID: <1990Jun27.211623.9706@tc.fluke.COM>
Source record: 10711

I ordered an MPX-MINI from Digitrex of Rochester, Minnesota.

After three months of waiting and calling, I am still in doubt
about whether I will ever receive the product. They have cashed
my check but lately I have been getting busy signals or no answer
when calling there number: 313-853-3326.

Letters have gone unanswered.

Am I the only person having this problem?

Any help would be dearly appreciated.
73,

Bruce Biddlecome, WA7SQD
206-356-6023 (work)
206-334-5501 (hme)

3806. Re: Kenwood TS440

Newsgroup: rec.ham-radio
Date: 1990-06-27 22:38:08 UTC
From: joeb@uswat.uswest.com
Message-ID: <9125@uswat.UUCP>
Source record: 10710

I know many hams that are using the TS440 as a mobile rig and like
it very much. A nice feature to include is the built in automatic
ant tuner. Another rig is the one I use, the Yaesu 757GX. It is a
little smaller than the 440 and is not quite as pricey.
Joe
KE0QA - Denver

3807. Re: DELUGE THE ARRL WITH ARTICLE...

Newsgroup: rec.ham-radio
Date: 1990-06-28 00:49:55 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <222@ultrix.uhasun.hartford.edu>
Source record: 10713

In article <SAAF.90Jun27093554@joker.optics.rochester.edu>,
saaf@joker.optics.rochester.edu (Lennart Saaf) writes:
> > ...about submitting technical articles to QST...
>
> I don't think that the lack of technical articles appearing in QST is
> due to a lack of submissions. The recent publication of the second
> volume of the "Antenna Compendium" seems to indicate that QST has a
> SURPLUS of technical article submissions. I would rather have seen
> these articles appear in QST in place of the 20 treatises on building
> QRP SWR meters or 2-position antenna switches that permeate the
> magazine. QST makes a conscious decision to limit the number of
> technical articles. They represent the entire amateur community and
> have to present what they feel to be a balanced menu of articles. Of
> course, the readers of the UseNet forum are, in general, more
> technically inclined than the average ham and would like to see more
> technical articles in QST or anywhere.

While there are only a specified number of pages of "technical" material
each month, I think the gripe I'm hearing has less to do with quantity
than with the level of technical sophistication. It is absolutely
intentional. Perhaps this extract from the ARRL Author's Guide will
help spell it out:

ARTICLE TYPES QST QEX
------------------- ------------------- ------------------------
Construction Projects easily Enough information for
reproduced by readers familiar with
majority of hams. common construction
Simple projects with techniques to duplicate
broad appeal. the project.
More complex, state-of-the-
art equipment

Theoretical/tutorial Help beginners learn Discussion of advanced
radio/electronics. topics.
Report new advances Theoretical analyses of
in technology, the radio/electronics topics.
latest designs and
constuction techniques.

So if "Another Look at Reflections" (remember? the mid-70's series
about transmission lines) were submitted today, it probably wouldn't
run at all ("too long"), and certainly not in QST. Things _have_
changed, no doubt about it. (Interestingly, there have been so many
requests over the years for reprints of that series--and the concluding

articles that the author, Walt Maxwell, never finished--that it is
being turned into a book. Walt and the editorial staff have been
working on it for a while now. So _somebody_ out there is interested.)

> In view of the demise of Ham Radio, wouldn't it be great if the ARRL
> raised the status of QEX to that of a sister publication of QST? Both
> could be nice and glossy (and crammed with ads). QST would be
> mandatory with ARRL membership and QEX optional, like the relationship
> between, say, Physics Today and Phys Rev Letters. QST could keep
> recycling the SWR meter material and QEX could publish very technical
> works without apology (as they, no doubt, do now).
>

There has been some spitballing about expanding QEX, but I don't know how
serious it is. Tell your Director what you want. That's the quickest
and best way to effect change.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3808. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-28 01:01:14 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250179@hpnmdla.HP.COM>
Source record: 10714

Re using PC's as repeater controllers:

Nobody has mentioned any potential problems with RFI. My XT causes
significant interference to my 2M rig. Seems like there would be a
potential problem placing an unshielded PC on a mountaintop in a vault
filled with dozens of repeaters at different frequencies.

Al N1AL

3809. Any FM in VHF Contests?

Newsgroup: rec.ham-radio
Date: 1990-06-28 03:08:35 UTC
From: bobw@col.hp.com
Message-ID: <24300020@col.hp.com>
Source record: 10632

After participating in the ARRL June VHF contest, I noted
again the absence of FM operation in the contest, at least
in my area (Colorado). It seems reasonable that most 'serious'
VHF contesters would have SSB capability and would tend to
make use of that rather than FM. But it also seems that there
are about 10 gillion ops with 2M FM rigs out there mobiling around or
whatever who would enjoy finding out how far a 2M simplex
signal can really go. (Colorado is especially well suited for this
with high mountains close to large plains.)

OK, so here are my questions:

1. Is the severe lack of FM activity in VHF contests
a fact in other parts of the country? If not, why not?
Can you characterize the type of operator (e.g. just out
driving around and works the contest, makes it a point to
get on the air for a few contacts, seriously pursues
the contest, etc.)?

2. What can be done to encourage more VHF contest activity,
particularly on FM? Or maybe this isn't a good idea at all?

Your opinions please.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY Packet: kb0cy@w0lkd
"Any mode, any band."

3810. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-28 04:53:52 UTC
From: <>
Message-ID: <1990Jun28.045352.8359@bellcore-2.bellcore.com>
Source record: 10715

On the subject of tekkies vs politicians:

I've given this subject quite a bit of thought over the past few years. Although I definitely consider myself a tekkie, I often take a strong interest in many of the political issues of the day -- and not just those of amateur radio.

The problem with politicians, and the usual reason I get interested in a particular political issue in the first place, is that they can cause a lot of damage with very little effort. Whether it's the ARRL Board in 1984 shooting down a perfectly reasonable no-code proposal or the US Congress in 1990 trying to abolish the First Amendment, the problem is almost always one of limiting the damage politicians can do.

Although it's very easy for politicians to drill holes in the dike, each of us has only ten fingers to use in plugging them. And while we're standing there with our fingers stuck in the dike, there's little in the way of *constructive* work we can be doing. I would much rather write code, build equipment and do other fun tekkie things than play politics. But when the politicians screw up, the rest of us have an obligation to try to stop them. In other words, getting involved in politics is a dirty job, but somebody's got to do it.

It would be nice if mechanisms could be set up to limit the power of those people who LIKE to play politics, so the rest of us wouldn't have to spend so much unproductive time keeping them in check. That was the original idea behind the US Constitution. I wonder how much longer it can last, given the pounding it has been taking lately...

Phil

3811. 6DQ6B specs

Newsgroup: rec.ham-radio
Date: 1990-06-28 05:48:43 UTC
From: pault@mlacus.oz
Message-ID: <536@mlacus.oz>
Source record: 10716

Can anyone supply me with specs for the 6DQ6B TV horizontal sweep tube?
The ones I have are made by GE. In particular...

- max plate, screen and grid voltages and currents,

- plate dissipation, capacitance.

Any tips for use in linear service.

73 de VK3BLY
--

Paul Taylor (VK3BLY), Australian Centre for Unisys Software (ACUS).
pault@mlacus.oz

3812. Re: octopus

Newsgroup: rec.ham-radio
Date: 1990-06-28 07:19:27 UTC
From: jay@splut.conmicro.com
Message-ID: <WY7-L+
Source record: 10627

In article <24695@bellcore.bellcore.com> jdn@casux4.UUCP (jonathan nagy) writes:
>In article <38306@cci632.UUCP| cep@ccird7.UUCP (Christopher Piggott - co-op) writes:
>|Hmm. I thought that, once you transmitted on a band, you had to stay
>|on that band for at least 15 minutes.
>The time limit is 10 minutes for the CQWW contests. This rule was
>enacted specifically to address the use of an octopus.

Hmmm...I understood the rule to mean (for FD, anyway) that a transmitter was considered to be transmitting on a given band for at least 15 minutes after the first QSO for purposes of determining transmitter class. I always wanted to see how high a transmitter class I could achieve with as few actual radios as possible - I think 18A or so is reasonably possible with two transmitters with careful planning and work. Much more than that runs the radio count up, since you have to get into VHF/UHF.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"I don't usually do vicious; +--
I try to stick to depressing." -- Janis Ian, in concert, 6/6/90

3813. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-28 11:06:11 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <224@ultrix.uhasun.hartford.edu>
Source record: 10717

In article <1250179@hpnmdla.HP.COM>, alanb@hpnmdla.HP.COM (Alan Bloom) writes:
> Re using PC's as repeater controllers:
>
> Nobody has mentioned any potential problems with RFI. My XT causes
> significant interference to my 2M rig. Seems like there would be a
> potential problem placing an unshielded PC on a mountaintop in a vault
> filled with dozens of repeaters at different frequencies.
>
> Al N1AL

Oddly enough, this is the one problem I expected to see that I _didn't_ see in setting up the packet switch here. (The packet switch is probably a worst-case problem; it has 3 computers: the PC and 2 TNCs.) Considering that the equipment is in a _wooden_ enclosure, so there's practically nothing between the equipment and the antenna, electrically speaking, and considering that the antenna is only about 30 feet away, I was amazed. Perhaps it's because a ground-plane antenna has very little response in the down direction? I don't think it's anything to do with the particular antenna, since I have a 2-meter antenna and a 220 antenna of different designs and neither one hears the computer. Maybe I'm just incredibly lucky. (Although other experiences on the mountain make me doubt that!)

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3814. RE: HAM RADIO MAGAZINE

Newsgroup: rec.ham-radio
Date: 1990-06-28 12:05:08 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9006281238.AA13287@ti.com>
Source record: 10723

> From: TILDE::"""wayne_a._lightsey.RochXRC""@XEROX.COM" 28-JUN-1990 00:56:31.10
> Subj: HAM RADIO MAGAZINE
>
> mail. Fortunately, I am within 4 months of renewal of my subscription so
> will test CQ's ability to change their ways and have so informed Dick Ross,
> Publisher of CQ.

Unfortunately, 4 months is not much lead time. If there were significant
changes to appear in that time frame, I might expect them to be really
pushing it in light of the H.R. acquisition.

In other words, they *-may-* change, but it *-will-* take time.

73,
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3815. Re: QST, CQ, Tech Content, blah, blah

Newsgroup: rec.ham-radio
Date: 1990-06-28 13:48:07 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <67@thoreau.nsc.com>
Source record: 10721

In article <9006271654.AA18661@bunny.gte.com>, pescatore_jt%ncsd.dnet@GTE.COM writes:
>
> If you want to read about ducks, buy a book about
> ducks, not one about birds.
>
BUT the problem is that now there are no more books about DUCKS!
The bird books just say that there are ducks and SOME of them
are: ... blah...de...blah...blah...

Ron Todd, K3FR

3816. Re: Dubious quality of CQ review of AEA IsoLoop

Newsgroup: rec.ham-radio
Date: 1990-06-28 14:00:33 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <68@thoreau.nsc.com>
Source record: 10725

In article <2577@anasaz.UUCP>, john@anasaz.UUCP (John Moore) writes:
> his
> answer was essentially that if people are dumb enough to buy it, it's
> their problem.

I always knew Wayne was a bit of a showman but to openly paraphrase
P. T. Barnum. Well, I guess we techies need to remember the great
driver ...Greenbacks...

K3FR

3817. Re: DELUGE THE ARRL WITH ARTICLE...

Newsgroup: rec.ham-radio
Date: 1990-06-28 14:06:05 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006281424.AA15063@ti.com>
Source record: 10718

I agree with Len (saaf@joker.optics.rochester.edu) almost 100 percent. Especially with his comment about QST being a mag for the entire amateur community. I feel that they address every segment and every interest at the moment. But I also agree that there aren't enough technical articles and maybe that's due to the emphasis placed on other areas. Len dropped a few good suggestions, and, in case anyone at ARRL is listening, here's another suggestion.

How about a separate technical section? It could be one of the "tear-out" types that you often see nowadays in other mags. These are usually a little smaller; they are separately saddlebound; and they are attached by a single (usually perforated) retainer that is bound with the magazine. In this manner they can either be left with the original magazine, or removed and saved separately. All the advertisements from parts and components suppliers could be placed in this "supplement", where the advertisers would be assured that their market would see them, even when they were removed from the mag.

Articles that required some special part or component would have to specify the source of such a part and more-or-less guarantee the availability of the part(s). Nothing will kill the credibility of a construction section quicker than the publishment of projects for which the specified parts can't be found.

I vote for a separate technical section, in which not only are state-of-the-art information published, but also advanced construction projects for radios, computer equipment and antennas. How about a series on the "third-world" radio that Julian McCassey mentioned that is under development at ARRL as a starter???

73,
Dube Todd N5PDK

3818. Re: DELUGE THE ARRL WITH ARTICLE...

Newsgroup: rec.ham-radio
Date: 1990-06-28 14:16:10 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <69@thoreau.nsc.com>
Source record: 10724

In article <222@ultrix.uhasun.hartford.edu>, jbloom@uhasun.hartford.edu (Jon Bloom) writes:
> There has been some spitballing about expanding QEX, but I don't know how
> serious it is. Tell your Director what you want. That's the quickest
> and best way to effect change.

YES, YES, the directors DO listen and they ARE ELECTED by us members. There are seven director posts up for election this year, that's more than HALF of the directorships. Let's tell them how we feel about this attempt to redirect our technical appetites. The director and vice-directorships up this year are: Central, Hudson, New England, Northwestern, Roanoke, Rocky Mountain, Southwestern and West Gulf Divisions. Those of you in clubs, get petitions signed or resolutions passed which state your feelings regarding QST technical content and QEX status, make these interests KNOWN to any and all candidates and then, (for members only) get statments from the candidates and VOTE when you get your ballot. It COULD work.

K3FR

3819. cw rig recommendation

Newsgroup: rec.ham-radio
Date: 1990-06-28 14:19:15 UTC
From: wayne_a._lightsey.RochXRC@XEROX.COM
Message-ID: <900628-071948-11669@Xerox>
Source record: 10719

agate!iodine.cchem.berkeley.edu!eric@ucbvax.Berkeley.EDU (eric peterson) writes: ...
*What, if any, of the new bells and whistles are really useful to the cw op (I do * use SSB at times too.). RIT seems handy, as does the notch filter. Does *variable passband and those sorts of controls help? I would like to have full *break-in. What are the memories used for? Are they mostly for the *general coverage mode of usage?
*
*Lastly, what rigs would you recommend and why? I seem to recall that *things like the Drake CR-7 were good, but they don't seem to exist *anymore. What if I reask this question with the stipulation that the price be *less than $1000. What could I sell the HW101 for?
*
*Thanks for your help!!
*
*Eric Peterson iodine.cchem.berkeley.edu
*Department of Chemistry
*University of CA, Berkely"

Eric:
Given the crowded conditions on the HF bands today, variable passband, i.f. shift, RIT, notch filters and narrow filters help tremendously at times to isolate the one signal you are trying to work. At other times, they are not needed at all. You will probably find your HW-101 useable but unsatisfactory during periods of high QRM due to the receiver bandwidth and lack of selectivity features. There are very sharp digitally-tuner capacitor based audio filters available on the market in the $140 price range that would assist the HW-101 tremendously in CW mode. Such a device would not help SSB, though.

Memories are used to store frequencies and on some radios mode and other operational parameters. They are very useful when you work nets, cross frequency within a band, cross band or just to have one set to WWV to save tuning time. I use them for all the purposes mentioned plus save one to store the freq. of a juicy DX station in who is buried under a pile-up while I look elsewhere in the bands for another. Usine one memory and two vfo's, I can rapidly switch between three if need be.

In your price range are a number of radios such as the Yaesu 747, Icom 725 , and Kenwood TS-140. Most are without power supply (another $140 and up depending upon whether you buy a generic power supply, e.g. Astron, or the manufacturer's supply - which is usually overpriced for what you get) and lack bandpass filters beyond one basic filter. Ten Tec also makes (domestically) a rig, Argosy, I believe, in this price range which is reputed to be very good but I have no experience with it. Some come with

antenna tuners, some without. An antenna tuner is a practical necessity for the solid state finals rigs. If you are a traditionalist, Kenwood also still sells the hybrid TS-530 and TS-830 lines, I think - very good and rugged rigs. Personally, I would receommend the Kenwood TS-140S or Icom 725 as they give you all the necessities and just enough amenities - i.e. bang for the buck. Additional bells and whistles (TS-940, TS-950, Icom 767, 781, etc.) rapidly drive the price up to that of a small car (slightly used car?).

Drake no longer manufacturers ham radio equipment but continues to service their products. Drake TR-7's and other models are generally available at Ham Fests and used equipment dealers for reasonable prices ($500 range). All the contemporary rigs are good and personal preference plays a large part in selection. Reputation-wise, Yaesu does not rate well in customer support, Kenwood and Icom seem about equal and generally good if slow. Ten Tec is said to have outstanding customer support My experiences with all three Japanese manufacturers have been satisfactory.

I suggest you go the your local ham radio emporiums (Ham Radio Outlet has a store in your area somewhere plus there are others) and try before you buy. Almost all of the stores have demo units set up so you can operate them. If you are not a subscriber to any ham radio magazines, do so. I recommend ARRL membership and QST. If you are interested in a used rig, you may also find one at vendors who advertise in QST as well as other journals or area ham fests. Equipment information on older gear can be obtained from fellow hams with collections of QST's, CQ's 73's & the late Ham Radio magazines.

CQ magazine publishes a Buyers Guide which may have some value but I would be skeptical of it based upon the lack of quality evident in their product evaluations - whic are more like editorial commercials. They never say anything black about a product, not even slightly gray. QST product evaluations appear the most rigorous and unbiased.

As far as ham radio equipment vendors are concerned, most are o.k. and reputable but operate on slim profit margins, so don't expect any freebies. I bought my TS-430 at HRO in Anaheim and received excellent service. I have since purchased equipment from a range of vendors coast to coast with generally satisfactory results. My current favorite is R&L Electronics in Hamilton, Ohio. My method is to decide what I want and get on the telephone utilizing their 800- numbers or direct-dialing if they don't have one. There will not be a lot of difference in price - expect 8-15% discount from advertised retail or so-called ham-net price. You have to consider the value of saving sales tax (6-8% of the price tag) by buying out of state , shipping charges and wait time. Sometimes, particularly if you are buying more than a basic rig, you can shave another 2-5% or more off the price, save the sales tax, and get the dealer to pay for the shipping if you buy all items from one vendor.

Value of your HW-101 depends upon condition but generally would be in the $200 range at a ham fest - lower on trade in, I suspect.

Good luck and best regards, Wayne, KB6CSP

3820. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-28 14:29:11 UTC
From: jta@hydra.Jpl.Nasa.Gov
Message-ID: <1990Jun28.142911.29632@elroy.jpl.nasa.gov>
Source record: 10720

In article <1250179@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>Re using PC's as repeater controllers:
>
>Nobody has mentioned any potential problems with RFI. My XT causes
>significant interference to my 2M rig. Seems like there would be a
>potential problem placing an unshielded PC on a mountaintop in a vault
>filled with dozens of repeaters at different frequencies.

Actually, Al, there are. That's why site owners throw hams off the hill first. Well, maybe not always first, but in the back of their minds, it's not a bad idea...

PC on hilltops need to be in fairly well-shielded cases, complete with feedthroughs and such, and preferably no outward indication that it's a pc.

'Course, on our local hilltop, the biggest problem is the guy who runs three GMRS radios, with no isolators on the transmitters; the transmitters also put out broadband hash that flames our own receiver on 440.

But, heck, for the few more years that it'll be in existence, ham radio's a great hobby...

- 73 -
jon nw6h
--
Jon Trent Adams, NW6H |"As nightfall does not come at once, neither
JTA@hydra.jpl.nasa.gov | does oppression... It is in such twilight that
"jpl don't know me from squat"| we all must be most aware of change in the air-
however slight- lest we become unwitting victims of the darkness." W.O. Douglas

3821. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-28 14:30:40 UTC
From: gary@ke4zv.UUCP
Message-ID: <817@ke4zv.UUCP>
Source record: 10628

In article <1250179@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>Re using PC's as repeater controllers:
>
>Nobody has mentioned any potential problems with RFI. My XT causes
>significant interference to my 2M rig. Seems like there would be a
>potential problem placing an unshielded PC on a mountaintop in a vault
>filled with dozens of repeaters at different frequencies.
>
>Al N1AL

There is a potential for real problems here. What we do is use standard
shielding techniques (that the manufacturers should have already done)
to solve this problem.

Here is roughly how to do it.

1. Choose a multilayer motherboard. The inherent shielding
of having ground and power planes in the motherboard is
your first line of defense.

2. Scrape ALL the paint off all mating surfaces of the case.
Add screws every three to four inches to every mating
surface.

3. Add copper tape or copper screening to all openings in the
case.

4. Ground the case to the radio ground using low inductance
copper strap.

5. Use shielded cables to and from the PC.

This should be all you need to do to quiet the noisest PC. Of course
if you are going to leave a monitor and keyboard at the site, then
you have to treat them too. I strongly recomend that you do not leave
a monitor or keyboard at the site as doing so invites theft.

A well engineered RF site will use good quality hardline for ALL RF
cabling including duplexer cabling. Thus RFI from controllers will
have to enter through the antenna which is way up the tower out of
the near field of the controllers. Of course those of you who maintain
repeaters know that most commercial installations are so sloppy that
they would embarrass the average ham.

Gary KE4ZV

3822. <$100 voice card

Newsgroup: rec.ham-radio
Date: 1990-06-28 15:45:00 UTC
From: BRUCEH@UTKVX3.BITNET
Message-ID: <9006281445.AA05789@ucsd.edu>
Source record: 10722

Someone mentioned that there was a voice card available for less than $100. I'm interested in such a card. Does anyone know the name of the company and a phone number?

Bruce Harrison WB4MJG
Univ. of Tennessee at Martin
BRUCEH@UTKVX (bitnet)

3823. Re: ARRL NR 21: FIELD DAY POINTS

Newsgroup: rec.ham-radio
Date: 1990-06-28 15:50:08 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720072@hplsla.HP.COM>
Source record: 10637

>/ hplsla:rec.ham-radio / lewine@dg.dg.com (Don Lewine) / 6:43 am Jun 25, 1990 /
>Does copying the ARRL message via usenet count?
>----------

I quote from the Field Day rules:

"7) W1AW message: A bonus of 100 points will be earned by copying a special ARRL Field Day bulletin sent ofver W!AW on its regularly announced frequencies just before and during Field Day. This message can be recieved directly from W1AW OR BY ANY RELAY METHOD..." (emphasis mine).

So I'd say usenet is fine, but I think the rules also imply that you have to recieve the message AT the field day site, DURING the contest period. Not 5 days later, at home.

3824. George N9JTD re: GQRP (de VE5VA)

Newsgroup: rec.ham-radio
Date: 1990-06-28 16:16:57 UTC
From: hardie@herald.usask.ca
Message-ID: <1990Jun28.161657.1586@dvinci.usask.ca>
Source record: 10629

Sorry to post this but all attempts to Email have been bounced.
G-QRP is the British QRP club. I joined it mainly because I am a Brit myself
(but not a ham when I lived there).
FYI there is also an active Michigan QRP club as well.
If you are interested in membership in either of them, let me know and
I'll dredge it up for you.
I tried mailing to you through bitnet @gargoyle.uchicago.edu and it bounced
and I also tried through uucp obdient!wheaton which also bounced. If you can
come up with a good bitnet path I can use that'll save me having to post.
The info I sent you about ARCI membership is from their most recent
QRP-Quarterly
magazine and is also the info I used a few days ago to renew my membership.
Hope you have fun with QRP and maybe I'll work you in one of the ARCI
contests or other QRP contest. The next ARCI contest is a ways off though,
October.

73 de Pete VE5VA
hardie@skyfox.usask.ca

3825. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-28 16:21:58 UTC
From: tad@ssc.UUCP
Message-ID: <860@ssc.UUCP>
Source record: 10642

In article <164@bongo.UUCP>, julian@bongo.UUCP (Julian Macassey) writes:
>
> public. The constituency of the ARRL is HF Contesting. Don't believe
> me? Read QST.

Funny....the contesters I know complain that it is dominated by traffic
and 2 meter types! I think the league has a tough time catering to an
increasingly factionalized hobby.

> Remember what happened to the Microwave column in QST? What happened
> to QEX?

I'm still receiving QEX. Did your subscription lapse?

Not a flame....just a couple of comments on a thoughtful posting by
Julian.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3826. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-06-28 16:29:27 UTC
From: flash@lopez.UUCP
Message-ID: <1990Jun28.162927.11300@lopez.UUCP>
Source record: 10638

brewer@anarky.enet.dec.com (John Brewer) writes:

> I have had the misfortune to listen to 14.300 and 14.313
>for the past few days, and wonder what *we* or the FCC can do to
>stop this mess.

Well John...

Speaking as someone who TRIED, let me say that there is not a whole lot we can do.

Those who remember my sig block from December might remember I was promoting a NEW net on 14.313. For over a month at 11:00 EST, several of us got together to discuss politics, humanity, etc. Believe it or not, we actually managed to quiet the entire mele for sometimes several hours. We got the topic OFF the phone patch and traffic issue, and ON to something else. While our stuff WAS controvercial to say the least, We ran a NET. Checkins were only acknowledged if they gave their callsigns. Comments without callsigns were totally ignored. A few of the known QRM'ers actually checked in with CALLSIGNS so they could be recognized in the discussions. Following the net, we often had some very good roundtables. Propogation at Christmastime was the best I can ever remember on 20 meters. It was glorious. You could hear EVERYBODY, with NO dead spots. From close in, out to europe.

Eventually due to work schedules, many of the folks dropped out of the net, but a few of us tried to stem the tide, and though the QRM did pick up, we stuck with it. The official net was on Saturday Only.

Then guess who showed up. THE DOG. He decided that he did not like our net. He especially picked on the NCS, NR9Q, who tried to maintain order, but gave up in disgust, and tore down his 20 meter antennas.

I just tuned there before I read your article, John. It was just total chaos, as it often is.

I don't think the FCC is going to do anything. My opinion is they have turned their back on 313 the same way they did with CB. Some of those QRM'ers have been there for over a year. The CW jamming is very organized. I believe that many of those doing the interference ARE people who should know better, but who are emotionally involved. Thing is, the people they love to hate, like KV4FZ, and the rest ARE operating LEGALLY. THEY give call signs, they do not use fowl language. You might not like their opinions about phone patching and net handling, but they have a right to those opinions, and I suppose they have a right to their "mission" as well.

The FCC has given all parties til July something to settle their differences. (Barf, MM, Intercon, etc) ...

I used to listen every day. Without fail. I am, I guess the one responsible for the 75 meter boys moving there and trying to make it into a ragchew frequency. We brought people from 3849.5 and 3950. Some of the 3868 crew also showed. Some of the "big gun" 75 meter personalities like Farmer Bob, Zimbabwe, OEC and the rest.

I made some very good friends on 14313 back in december during the time it was saner. I have some good warm memories about it. I even had "my own" qrmer, a guy who played back one line I had said while making fun of some of the other ops.

Well. THIS is a world wide forum, and we here on USENET can "KEY DOWN" and give our opinion on the situation, and not be QRM'ed.

I run a pretty powerful station on 313 with an omni pattern. If someone wanted to try again to bring order (don't even think about it unless you have some power to back up your ideas), I will participate. I will NOT, however, be discourteous to ANY operator who signs his call, and that includes the barf boys who everyone seems to hate. I had some nice talks with THEM also. They can be pretty reasonable if YOU are reasonable. What WE did was drag THEM into are net as participants, and that got them OFF talking about their "mission" and ONTO something else.

It could be done again.

Did anyone hear the net we ran back around Christmas time? Was it better than what is there TODAY?

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

3827. Re: Re: How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-28 17:17:43 UTC
From: winter@Apple.COM
Message-ID: <42447@apple.Apple.COM>
Source record: 10633

In article <1990Jun27.144648.11928@cbnewsj.att.com> kb2glo@cbnewsj.att.com (thomas.kenny) writes:
>
>As a matter of fact I've stayed of 20m since
>I don't have a beam nor amp. 10m, 12m, 15m, 17m and 40m seem to suit
>me just fine with 100 watts and an omni.

As long as the sunspots cooperate, bands like 10m and 15m are certainly the best for low-oomph stations. But let me encourage everyone not to give up on 20m just because you don't have a KW and a tribander. That's where I got the vast majority of my awning DXCC contacts. (10m and 15m weren't doing much at the time; the awning is a lousy antenna for 40m and 80m; and my radio doesn't have the WARC bands.)

If you're patient and clever enough to outwait or sneak around the big guns, 20m is fine for lower-powered stations. Contests are especially good; after the loud stations have worked the ones you want, you can jump in there and get them.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3828. How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-06-28 17:21:35 UTC
From: flash@lopez.UUCP
Message-ID: <1990Jun28.172135.11814@lopez.UUCP>
Source record: 10636

Tennesee Valley Indians. It is something all hams dread. AND if you have ever run more than 20 watts, YOU have first hand experience with it.

Those of us who run a bit more power (I want to see the hands of OTHER Henry owners!) have all had a lot of first hand experience dealing with RFI in its various and nasty forms. Over the years I personally have had many different occaisions to solve my own RFI problems, and I think perhaps we can all contribute to the overall body of knowledge on the subject. I think I have tried just about EVERYTHING, but perhaps I will leave out a few things because no one gets to be in ALL situations...

Here are some TVI tips from the Eccentric Old Hippie....

1. Buy a cheap TV set and put it in your shack. Mine is on a stand next to the linear. I keep it tuned to the Weather Channel, which also gives you the latest info, and ALL hams love to talk about weather. If you notice the wigglies where there were no wigglies before, it is an indication that something is letting loose. If you catch a problem BEFORE it affects your neighbors, you are ahead of the game.

2. Get some copies of the FCC TVI pamphlet. It is part of the standard handout I do when I visit a new neighbor. This will give them an understanding of what different types of interference look like. It is not always the guy with those funny antennas...

3. Check your ground system EVERY spring. Replace any fittings that look corroded. Don't be cheap about it, just replace them. Make sure everything makes good contact.

A good ground system is your first line of defense against TVI, so let's consider it for a moment. I used to have some terrible TVI problems when I first started running power. What worked for 100 watts was a joke of a ground system that was not effective at 1500. Your mileage may vary, but here is what I did...

a. Keep the runs to your ground system as short as possible. If you can have your station in the BASEMENT (where most hams wind up by default) so much the better.

b. Because of the skin effect, you will want to use a large outer diameter. Instead of spending a fortune on #4 copper, you can get the same effect by using the braid of a run of COAX. I use RG-59 for my ground run, and use the shield for my ground wire.

c. Beware of "floating ground". If you use a ground stake, it could wind up being at a different ground potential than your house wiring. For this reason, if you CAN, tie your ham station to the cold water pipes. This was the magic in my case, and though it involved drilling some holes in a wall (Send the XYL shopping first) you will find that the ground makes all the difference in ALL types of RFI.

d. Tie all the grounds in your shack together. This is where QST would say to be neat, but NO ham I ever met was neat. Just keep them short and try not to get them tangled with everything. Again I prefer to use COAX for the ground, but any good heavy wire will do fine.

e. If you pick up some official braided ground strap at a hamfest use it by all means, but coax works exactly the same, and we all have rolls of coax.

You might think I spent too much on the ground system, but since it is the first line of defense, I think it deserves it.

4. YOU make the first move. This might sound like asking for trouble, but when I bought my amplifier, I told my neighbors I was installing some new equipment and that I wanted them to tell me if they had any interference, and if so, mark it down as to type and time. Do not make the mistake of getting into the "it's their problem" mindset. Sure it is their problem, but if you can avoid a lynching party, you are ahead of the game. I also called the cable company, and talked to the chief engineer. Most cable engineers are also into electronic hobbies, and if you are lucky the CE at your cable outfit might be a ham. This will help them isolate problems in their system. Yes if your signal gets into the TV in a cabled community, it is usually the problem of the cable company.

In my case the cable company had to rewire the entire block with RG-6. They also gave me a roll of RG-6 to rewire my own house. When an cable amplifier on the pole in front of my house let go, I could take out the entire south side of town with 10 watts. I found the problem immediately, and saw it go the moment it did, (remember the TV on the stand next to the amp?) When I saw it trash out, I shut down and started checking my own gear first. I was smart enough to stay off the air til the next day when it was fixed.

I also bought a bunch of ferrite donuts and a slew of TVI filters. I gave them to the neighbors who reported problems. You do not have to do this, but PR goes a long way.

Most people value their TV the most, but you will also have problems with neighbors phones, stereos, and broadcast radios. I have found the hardest problem to fix is a cheap vcr, especially with 75 meter operations, since the video heads ARE a 3-4 mhz RECEPTION SYSTEM. The ferrite beads and cascaded TVI filters can help a little. My own JVC VCR in a nice metal case records and plays just fine with NO squiggles.

Of my own stuff, the only problem I have is that I trash out my dolby surround sound audio system. It took a lot of tinkering and rewiring and grounding, but you can cure just about everything but fundamental overload. (I also have some very long speaker runs because the dolby system feeds TWO different viewing sites in my home. Since I don't watch TV and ham it up at the same time, I just shut the thing off.

Cheapo plastic telephones may not respond to choking the phone lines, but since a phone is NOT designed to receive radio signals, if it DOES, the problem is usually the phone, ESPECIALLY of you are properly grounded to minimize local RF fields. I have been able to convince neighbors to get a "real" phone, and the problem went away.

I personally do the bulk of my high power operating after midnight. Your schedule may not permit this, but it is one way to keep everyone happy. If you don't know who to talk to after midnight, join our group on 3950.

Initially it was a lot of work getting my station and my neighborhood TVI proof, but the results are worth it.

And it is nice when you have just signed off the air with a rag chew on 20 to go outside to do a perimiter check and have the neighbors wave a friendly hello.

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

3829. Amateur Radio Software Programs

Newsgroup: rec.ham-radio
Date: 1990-06-28 17:49:25 UTC
From: reichert@motcid.UUCP
Message-ID: <3755@cocoa46.UUCP>
Source record: 10631

To any Ham out there that still has the itch to "Roll their Own" there's still help. New Software Programs aimed at the Amateur who are not fully technical are now available;

A.S.P. Version 1.2 is a fully documented Narrow Band Preamp Design Program utilizing > DOS 2.11 and CGA. Automatic or Interactive Designs, N.F. Optimization, Matching Circuits, and More! Auto Designs optimize for N.F. and output VSWR while maximizing gain or intermodulation distortion. Safe operating conditions for input protection are also provided.

Am-radio
:page=0
A.S.P. Version 2.0 the same as Version 1.2 but requires EGA. An added Screen Plotting Utlity shows Gain, N.F., and Output VSWR. Matching component values can be changed to optimize circuit.

T.A.P. Version 1.0 is a user friendly Triode Power Amplifier Program enabling design of Grounded Grid Amplifiers. Input/Output Matching, along with design parameters, documentation, and much more is provided. Requires > DOS 2.11 and CGA.

PLL3 Version 1.0 is a tool for designing 3rd Order Loop Filters. Documentation is provided. Provides BODE Plot of pertinent parameters and data display/ printout. User interactive program allows component value and system constant changes. Requires > DOS 2.11 and EGA.

For more information on any of these programs contact;

KD9JQ
Chuck Reichert
955 Concord Lane
Hoffman Estates, IL. 60195

3830. NASA Prediction Bulletin Format (for STEPHEN?)

Newsgroup: rec.ham-radio
Date: 1990-06-28 17:54:48 UTC
From: frank@ut-emx.UUCP
Message-ID: <32768@ut-emx.UUCP>
Source record: 10630
Cross-posted to: sci.space,rec.ham-radio

Folks, bear with me... I tried to send a reply to Stephen,
I believe was his name, it bounced so I'm posting hoping he'll
see this..
==========cut==========

From: tkelso@BLACKBIRD.AFIT.AF.MIL (TS Kelso)
Subject: NASA Prediction Bulletins

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical
to that used by NASA and NORAD. The format description is:

```
Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1)
```

```
Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
09-16 Inclination [Degrees]
```

18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.
==========cut==========

Hope this helps the original requestor...
frank
(Credit for the service of posting the NASA preditions goes, of course, to
Dr. Kelso...)

--
Frank Abernathy, University of Texas at Austin, frank@ut-emx.utexas.edu
Work: (512)-471-3216 Home: (512)-244-0625 (ans. mach always on...)

3831. Re: <$100 voice card

Newsgroup: rec.ham-radio
Date: 1990-06-28 18:49:47 UTC
From: cep@cci632.UUCP
Message-ID: <38395@cci632.UUCP>
Source record: 10648

In article <9006281445.AA05789@ucsd.edu> BRUCEH@UTKVX3.BITNET writes:
>Someone mentioned that there was a voice card available for less than
>$100. I'm interested in such a card. Does anyone know the name of the
>company and a phone number?

It's called the DVS-1 and there are a few different models...pick up
a copy of BYTE magazine (recent) and look in the advertiser's index
for COMPUTER AGE LTD. They have an 800 number. I bought two of them.
They're neat, and really easy to write software for.

WZ2B

3832. Re: making ham radio known (ARRL seems disinterested)

Newsgroup: rec.ham-radio
Date: 1990-06-28 18:52:38 UTC
From: stevew@wyse.wyse.com
Message-ID: <2774@wyse.wyse.com>
Source record: 10635

In article <1990Jun21.135514.2691@ka3ovk.uucp> albers@ka3ovk.uucp (Jon Albers) writes:
> Stuff deleted....
>If this is typical of the attitudes of
>the ARRL, then I must agree with Wayne Greene of 73 magazine -- it's time for
>the ARRL to have some competition from another ham radio orgainization. Maybe
>than amateur radio has a chance to survive in the U.S. Unless the hobby can be
>made visible to the public, and be attractive to the public in todays society,
>it is doomed. Honestly, I don't know how to do it, but I do know it needs to
>be done, and soon.
>
> Jon

Jon,

It seems to me the easiest way to fix it is to get involved. If you
don't like the attitude you see in your ARRL elected officials then
you have 2 options to fix the problem. 1) Vote for someone else that
shares your positions 2) Run for Director yourself! Its true that
one person can't change the whole world(over nite) but they can
have an effect. It just takes some pushing.

73's de Steve KA6S

3833. Re: Books on Early Electronics For Sale

Newsgroup: rec.ham-radio
Date: 1990-06-28 19:34:06 UTC
From: tad@ssc.UUCP
Message-ID: <861@ssc.UUCP>
Source record: 10643
Cross-posted to: misc.forsale,rec.ham-radio,sci.electronics

When I was at Dayton this year, I saw a book by H.P Maxim (ARRL founder) that was a real interesting piece of work. It was a bona-fide crackpot tome about using radio to communicate with extra-terrestrials! The book detailed some of Maxim's far-out philosophy, and was a real eye-opener concerning the "eclectic" interests of "our founder."

Anyone else run across this? I think it was titled something like "Worlds Beyond", although this recollection is vague.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3834. Re: Any FM in VHF Contests?

Newsgroup: rec.ham-radio
Date: 1990-06-28 22:44:56 UTC
From: cs00jmc@unccvax.uncc.edu
Message-ID: <2389@unccvax.uncc.edu>
Source record: 10639

In article <24300020@col.hp.com> bobw@col.hp.com (Bob Witte) writes:
>
> After participating in the ARRL June VHF contest, I noted
> again the absence of FM operation in the contest, at least
> in my area (Colorado). It seems reasonable that most 'serious'
.....stuff deleted....
> OK, so here are my questions:
>
> 1. Is the severe lack of FM activity in VHF contests
> a fact in other parts of the country? If not, why not?
> Can you characterize the type of operator (e.g. just out
> driving around and works the contest, makes it a point to
> get on the air for a few contacts, seriously pursues
> the contest, etc.)?
>

There are very few FM contacts in this part of the country. About
10 years ago there used to be lots more FM but with SSB equipment so
much more available now the serious contesters have switched to SSB.
Multipliers are the name of the game and you just don't get that many
extra multipliers from FM stations. Also most of the FM stations are
just not interested in learning how to give proper grid square exchanges.
10 years ago all you had to say was "59 North Carolina" so it was a little
easier to coax random stations to give you a contact.

It is usually worthwhile to listen once in a while on FM but in general
you don't get many contacts from it.

> 2. What can be done to encourage more VHF contest activity,
> particularly on FM? Or maybe this isn't a good idea at all?
>
> Your opinions please.
>

Local clubs or contest groups would need to explain how to give proper
exchanges and what frequencies to use. This would have to be done in advance
since it takes too much time to do it during a contest (time which could be
spent working other stations). If you are going to do this I suggest you
bring it up at the club meeting before the contest, explain how to work
a contest station and tell what TIME you are going to be listening on FM.
Set aside an hour or two to work FM Saturday evening and don't waste
any other time looking for FM contacts unless the band is wide open.
You can only operate one transmitter per band so if you switch to FM you
should make sure that it is going to be worth your while; you will have to
stop working SSB until you finish FM even if you have two transmitters

capable of operating on the same band.

In summary, set aside a specific time you will work FM, then publicize it along with instructions on how to give a proper contact.

Good Luck and 73
John

--
John Covington WN4BBJ Internet: cs00jmc@unccvax.uncc.edu
P.O. Box 217122 MCI Mail: JCOVINGTON 342-6957
Charlotte, NC 28221-7122 Packet Radio Mail: WN4BBJ @ W4BFB.NC.USA.NA
(704) 537-7653 "Give it back, Eric, it's not yours" (the ICOM)

3835. Re: Any FM in VHF Contests?

Newsgroup: rec.ham-radio
Date: 1990-06-29 01:32:51 UTC
From: gary@ke4zv.UUCP
Message-ID: <820@ke4zv.UUCP>
Source record: 10726

```
In article <24300020@col.hp.com> bobw@col.hp.com (Bob Witte) writes:
>
> After participating in the ARRL June VHF contest, I noted
> again the absence of FM operation in the contest, at least
> in my area (Colorado). It seems reasonable that most 'serious'
> VHF contesters would have SSB capability and would tend to
> make use of that rather than FM. But it also seems that there
> are about 10 gillion ops with 2M FM rigs out there mobiling around or
> whatever who would enjoy finding out how far a 2M simplex
> signal can really go. (Colorado is especially well suited for this
> with high mountains close to large plains.)
>
> OK, so here are my questions:
>
> 1. Is the severe lack of FM activity in VHF contests
> a fact in other parts of the country? If not, why not?
> Can you characterize the type of operator (e.g. just out
> driving around and works the contest, makes it a point to
> get on the air for a few contacts, seriously pursues
> the contest, etc.)?
>
> 2. What can be done to encourage more VHF contest activity,
> particularly on FM? Or maybe this isn't a good idea at all?
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
> Your opinions please.

Well you did ask. Many of the folks who moved to VHF did so partly to
get away from the endless contesting and DXing that have ruined the
HF bands.

Gary KE4ZV
```

3836. Re: making ham radio known (ARRL seems disinterested)

Newsgroup: rec.ham-radio
Date: 1990-06-29 02:51:02 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <228@ultrix.uhasun.hartford.edu>
Source record: 10644

In article <1990Jun21.135514.2691@ka3ovk.uucp>, albers@ka3ovk.uucp (Jon Albers) writes:
> were asked of him about what the ARRL was doing to advertize ham radio and
> as I worded it , "Put ham radio back on the kitchen table of America "(very
> patriotic, huh?). Anyhow, the answer was basically, the ARRL had no interest
> in doing that at all, and any elaboration was avoided by Hugh. It seems that

Did he say that specifically, or is that your interpretation? I find it
very hard to believe Hugh would say that. It certainly isn't the case
as I understand it. By the way... when was it exactly that ham radio was
on the kitchen table of America?

> the attitudes of the ARRL are largly one of a typical good-old-boys club,
> who don't want any of those new kids with unconventional ideas about the
> hobby get control of 'their' hobby. If this is typical of the attitudes of
> the ARRL, then I must agree with Wayne Greene of 73 magazine -- it's time for

Having spent a fair amount of time with several directors, I can say that
that's _not_ the way any of the ones I know look at things.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3837. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-06-29 02:55:07 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <26576@netnews.upenn.edu>
Source record: 10641

In article <817@ke4zv.UUCP> gary@ke4zv.UUCP (Gary Coffman) writes:
>In article <1250179@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>>Re using PC's as repeater controllers:
>>
>>Nobody has mentioned any potential problems with RFI. My XT causes
>>significant interference to my 2M rig. Seems like there would be a
>>potential problem placing an unshielded PC on a mountaintop in a vault
>>filled with dozens of repeaters at different frequencies.
>>
>>Al N1AL
>
>There is a potential for real problems here. What we do is use standard
>shielding techniques (that the manufacturers should have already done)
>to solve this problem.
>
>Gary KE4ZV

Some of the cheaper import PC's don't even have FCC approval, so the chances of getting a dirty computer are pretty high these days.

Cheap PC's are probably some of the worst polluters, espescially non-metal incased computers such as C64's. But along the lines of IBM PC-clones, they are typically noisy, but RFI leaking through cables or in other ways getting into the actual radios isn't as much of a problem as it may seem. Far field interference down the feedline through the antenna is highly unlikely, considering most repeaters have some sort of bp/br filters in addition to helical resonators on the front end of the receiver itself. A good repeater setup should have RG-214 or similar double-shielded coax connecting the receiver, transmitter, duplexers, filters, preamps, etc. inside the shack. Even the noisiest PC would have a hard time getting into this type of coax. At least I've never seen it happen. Take into consideration that most people have no problem using their PC and TNC with a 2m rig, even with the radio and computer sitting right next to each other, typically neither being particularly well shielded.

The only possible source of interference would be near-field RFI caused by poorly shielded radios located extremely close to the computer itself. Monitors and hard or floppy disk accesses seem to create the most RFI. But once the repeater is up, disk accesses should be nil and it's easy enough to shut off a monitor. Harmonics generated by square and sawtooth waves from inside the PC should be pretty well attenuated by the PC's cabinet itself, no to mention the radios' cabinets. I frequently use an HT in PC labs filled with 20+ PC's and also in a machine room filled with VAXes, Harris machines, DEC and Apollo workstations, etc. and rarely have anything break squelch, even on a wide-open hot-front ended HT. How bad can it really

be? Admittedly, I've never use a PC in a repeater installation, but use one all the time on packet and never have problems. Even with the 2m rig sitting on top of the computer and using a 1/4h mag mount next to it on a filing cabinet.

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

3838. Re: IRCs

Newsgroup: rec.ham-radio
Date: 1990-06-29 03:06:29 UTC
From: ash@mlacus.oz
Message-ID: <537@mlacus.oz>
Source record: 10634

jneher@tenorman.Eng.Sun.COM (Jonathan Neher X62863) writes:
>I have gathered from reading this newsgroup that IRC's are
>used to mail QSL cards internationally. I still don't know
>exactly what they are and how they should be used when QSL'ing.
Some countries have stopped selling IRCs and some never recognised them. One IRC can be cashed in the form of stamps at a post office but the postage is worth the going rate for a sea mail letter. Three IRCs are supposed to cover one air mail letter. If a Dx ham asks for IRCs then it is safe to send them when you want a QSL back. note that the IRC is only a coupon, not postage stamps. Ask your post office for one. You may have to go to a major post office if the local one has never heard of one.

>Where can you get them?
Apart from post offices, look in the classifieds in ham magazines. Many Dxers sell them for 25c and up - some coupons travel extensively! The going rate may be much higher now, as I last bought some about six years ago. The post office will charge the local amount of an internationally agreed fee.

>Which countries should you use them
for?

Many countries that are signatories to the Universal Postal Union - but as getting that list might be difficult, look for tips in Dx columns to be safe. In SWL magazines I sometimes see a marking after someone's QSL brag list that denotes whether an IRC or a stamp was sent.

>Do you always send one along with your QSL card if you
>expect the receive a reply from a station outside the U.S.

The safest bet is a Green Stamp, ie US$1 bill. Watch out when sending green stamps to Asian countries - it is illegal in some and encourages pilferage in others. Some of us still QSL via the Bureau :-)

de zl4lm/vk3cit
--
==========
Ash Nallawalla Tel: +61 3 823-1959 Fax: +61 3 820-1434
ZL4LM/VK3CIT Postal: P.O. Box 539, Werribee VIC 3030, Australia
ash@mlacus.oz.au Also: 3:635/507.

3839. Re: Your response to N8DGN's QST comments.

Newsgroup: rec.ham-radio
Date: 1990-06-29 03:54:31 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9006290354.AA01463@cmr.ncsl.nist.gov>
Source record: 10640

To Jon Bloom,
I think that, at least this time, you've missed the point.
I know that you don't set the ARRL editorial policy, so don't take this too personnally - but you did a "company line" response when you had better ammo. Many of the arguers against the current QST editorial emphasis (like N8DGN) clearly recognize that they themselves are NOT in the mainstream of ham radio. They complain that QST editorial policy has written-off their interests entirely. 'DGN seems to be a microwave enthusiast. What has QST shown him lately? It wasn't very useful for you to tell him that he is out of the ham radio mainstream - why didn't you point out the two-part feature article on 903 MHz linears? At least it was above the antenna-switch technical level.

**** SOAP-BOX MODE "ON" ****
Many of us DO feel that QST should have at least ONE article above the lowest-common-denominator level (technically) each month. There is a claim that QST is a publication for ALL HAMS... Don't leave out the 5 or 10% with some slight technical background. Twelve articles transplanted from QEX each year couldn't touch all the special-interest higher-tech aspects of hamdom - BUT THEY COULD ILLUSTRATE TO THE NON-HAM WHO PICKS UP QST THAT THERE IS STILL SOME TECHNICAL CONTENT IN HAM RADIO. I share your view that articles are more valuable than monthly non-news special-interest columns. Is there ever any real info in Rip's satellite column? I think the complaints against the coverage of operating news and events, DXCC, etc., are unrealistic. Ham radio wouldn't have any frequencies if we ALL sat in our labs building great new gear. ARRL/QST has to encourage USE of the gear (VHF/UHF/SHF operating events and the "World Above 50 MHz" -{Bill WANTS more microwave operating news}) and QST has to cover events of interest to a large number of hams (like HF DX and operating events).
**** SOAP-BOX MODE "OFF" ****

Most of the people in this mail-group are in fancy technical jobs/schools and can't imagine what technical dolts most amateurs are.
"Nobody ever went broke underestimating the intellect of the American public". Does our national ham society's journal have to follow this rule so closely?

73, Bob W3OTC

3840. FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-06-29 11:00:01 UTC
From: MROWEN@STLAWU.BITNET
Message-ID: <9006291408.AA19647@ucsd.edu>
Source record: 10655

Recently, Bob Witte, KB0CY, asked about the apparent absence
of FM in VHF contests. Here are a few comments:

1. FM is not very popular in VHF contests EXCEPT in California,
where it is the main mode on 2m, and almost the only mode on 220
and 432 (woops- 223 and 450).

2. About 10 years ago, the VHF contest rules permitted unrestricted
simplex FM activity. A few of the Big Gun multiops abused this rule
and "took over" the most popular simplex channels in metropolitan
areas. Consequently, stiff restrictions were eventually placed on
FM operation (no 146.52, for example) so the FM people who wanted to
communicate could do so without contest QRM.

3. Most FMers prefer repeaters and seldom spend much time on simplex.
As a result of the fact that contest stations can't solicit QSOs on
repeater frequencies, FMers may not be aware that a contest is in progress.

4. They may not care. Many FM-only (or FM-mainly) stations could not
care less about contesting. So it's only fitting that they should be left
alone. I think the FM restrictions are pretty reasonable.

W9IP/2
FN24 ... QRZed contest ...

3841. DEUTSCHLAND-RUNDSPRUCH DES DARC NR. 24/90 VOM 22.06.1990

Newsgroup: rec.ham-radio
Date: 1990-06-29 13:00:36 UTC
From: bpk@infoac.rmi.de
Message-ID: <868@infoac.rmi.de>
Source record: 10652
Cross-posted to: dnet.ham,rec.ham-radio

DEUTSCHLAND-RUNDSPRUCH DES DARC NR. 24/90 VOM 22.06.1990

HERNE:

Der naechste ZRO-Test ueber OSCAR 13 wird am 30.06. zu folgenden Zeiten durchgefuehrt: um 18:40 UTC in Mode JL, Elevation 63 Grad, Squintwinkel 7 Grad; um 19:30 UTC in Mode B, Elevation 62 Grad, Squitwinkel 2 Grad. Gute Signale sind bei hoher Elevation und geringen Squintwinkel zu erwarten. Die Frequenzen sind fuer Mode B 145,840 MHz und fuer Mode JL 435,845 MHz. Eine genaue Anleitung zur Teilnahme ist in der cq-DL 8/89, Seite 495, nachzulesen.

HAMBURG:

Am 14.06. legte ein OM im 81. Lebensjahr bei der OPD Hamburg die Amateurfunkpruefung Klasse C ohne Probleme ab. Der glueckliche Lizenzinhaber ist Hans Mueller, DG7XH. Er wurde 1909 geboren. OM Mueller beschaeftigt sich seit ueber 60 Jahren mit Funkempfang und Amateurfunk. Er baute in seiner Jugend Detektorenempfaenger und spaeter den legendaeren Roehrenempfaenger Lafayette selbst. OM Hans ist fachlich nicht vorbelastet und auch heute noch mit speziellen Kenntnissen in der Fotographie beruflich taetig. Wir wuenschen Hans noch viele Jahre als aktiven Funkamatuer. Herzlichen Glueckwunsch.

FRIEDRICHSHAFEN:

Vom 29.06.-01.07. findet die 15. HAM RADIO mit dem Bodenseetreffen statt. Das internationale Interesse ist weiterhin ausgesprochen gross. Die Unterbringung der vielen DARC-Gaeste aus dem Ausland bereitet den Organisatoren jedes Jahr immer groessere Anstrengungen.
Wie in den Vorjahren kann auch wieder das Messegelaende zum Zelten und Campieren in Anspruch genommen werden. Erstmals wird auch der RSV e.V., der Radio-Sport-Verband der DDR, mit einem Informationsstand vertreten sein. Mit Selbstbauexponaten, die den Funkamateuren bis vor kurzem in der DDR zur Verfuegung standen, soll den Besuchern gezeigt werden, unter welchen Bedingungen Amateurfunk in der DDR betrieben wurde.
Zu dem bereits traditionellen "Round-Table-Talk" werden sich wieder die Repraesentanten der auslaendischen Verbaende treffen. Welche Bedeutung diese Diskussionsrunden haben koennen, ist an dem Beispiel CEPT-Lizenz zu erkennen, dessen Idee in diesen Run-

den entstanden ist. Damit fuer den Amateurfunkdienst wichtige Themen effizienter besprochen werden koennen, werden nur ein bis zwei Repraesentanten eines jeden Verbandes an diesem Meeting teilnehmen.
Die naechste WARC wirft ihre Schatenn bereits voraus. Unter der Leitung von Wojiech Nietyksza, SP5FM, findet ein Meeting mit den Repraesentanten der anwesenden Amateurfunkverbaende zur Vorbereitung auf die naechste WARC statt. Das diesjaehrige Vortragsprogramm werden Referenten aus dem In- und Ausland gestalten. Zum Rahmenprogramm gehoeren selbstverstaendlich auch ein An- und Abreise-Mobilwettbewerb, Fuchsjagden und Treffen von Interessengruppen.

NIZZA:

Fuer die europaeischen Funkamateure ist der 25.06. ein denkwuerdiger Tag: Vor 5 Jahren, am 25.06.1985, hatte die Fernmelde-Kommission die "CEPT-Lizenz" fuer Funkamateure gebilligt - siehe cq-DL 8/85, Seite 49 und 6/86, Seite 478 -. Mit dieser Empfehlung war der CEPT ein grossartiger Wurf gelungen: Sie erlaubt Funkamateuren den zeitweiligen Betrieb mobiler und portabler Funkanlagen in beteiligten CEPT-Laendern aufgrund ihrer Heimatlizenzurkunde. In dieser muss die CEPT-Lizenzurkunde 1 - fuer alle im Gastland zugelassenen Amateurfunkfrequenzen - bzw. 2 - fuer die entsprechenden UKW-Frequenzen oberhalb 144 MHz eingetragen sein. Dabei duerfen beim Uebergang in ein anderes CEPT-Land die Privilegien der Heimatlizenz nicht ausgeweitet werden. Die Zuordnung der nationalen Lizenzklasen zu denen der CEPT-Lizenz bleibt dabei den nationalen Fernmeldeverwaltungen ueberlassen, denen die VO Funk Nr. 2736 die Festsetzung der jeweiligen Pruefungs- und Lizenzbestimmungen uebertragen hat. Mit dieser vom Geist der Liberalitaet und Toleranz gepraegten Regelung hat die CEPT 1985 Massstaebe gesetzt, die weithin und weiterhin Nachahmung verdienen.
Bis Juni 1990 haben folgende 16 der 26 CEPT-Laender die CEPT-Lizenz eingefuehrt: Belgien, Bundesrepublik Deutschland, Daenemark, Finnland, Frankreich, Grossbritannien, Liechtenstein, Luxemburg, Monaco, Niederlande, Norwegen, Oesterreich, Schweiz, Spanien sowie Griechenland - mit laendermaessigen Beschraenkungen - und Schweden - nur auf UKW -. Von den ueberschlaegig 280.000 im CEPT-Raum ansaessigen Funkamateuren koennen damit aber bereits rund 255.000, das sind 90 %, ein solches weltweit einzigartiges Privileg nutzen.
Nachdem sich auch die CEPT-Lizenz in der Praxis weitgehend bewaehrt hat, ist die CEPT nun bemueht, eine vergleichbare Regelung fuer laengerdauernde Aufenthalte an festen Wohnsitzen in anderen CEPT-Laendern zu entwickeln. Wuenschen wir ihr dabei eine aehnlich glueckliche Hand wie mit der CEPT-Empfehlung T/R 61-01.

RASTATT:

Schluss mit Verdruss ueber mangelnde elektromagnetische Vertrae-

glichkeit - EMV - einem haeufigen Problem in der Naehe von Amateursendeanlagen, stellt eine Firma in Aussicht. Ihr ozonunschaedliches Produkt ist ein neuer, hochleitfaehiger Schutzlack, der einfach auf das Kunststoffgehaeuse gesprueht wird und Eintritt wie Austritt elektromagnetischer Wellen verhindern soll.

FUNKWETTERBERICHT: (19.06.)

Am 12.06. begann ein heftiger Magnetstrum, dessen Ursache nicht bekannt ist. der Mittelwert der magnetischen Kennziffer Ak stieg an diesem Tag in unserem Gebiet auf 88 Einheiten; auch die beiden anschliessenden Tage waren mit Ak = 64 bzw. 68 noch erheblich gestoert. Waehrend des Sturmes kam es zu Aurora-Ausbreitung, die erst am 15.06. zu Ende ging. Seitdem hat sich die Magnetik beruhigt. Die F2-Grenzfrequenzen, die zwischen dem 12. und 14.06. stark abgefallen waren, haben ihr frueheres Niveau von maximal 9 MHz wieder erreicht. Der gegenwaertige Rueckgang der Sonnenaktivitaet, in dessen Verlauf die Sonnenflecken-Relativzahl und die 10-cm-Strahlung am 17.06. bis auf 148 bzw. 179 Einheiten abgesunken sind, wird voraussichtlich erst am Monatsende zum Stillstand kommen und von einem neuen Aktivitaetsschub abgeloest werden. Bis dahin kann mit normalen bis maessigen und nahezu stoerungsfreien Ausbreitungsbedingungen gerechnet werden.

Ende des DL-RS Nr. 24/90 vom 22.06.1990

Bearbeitung: DC7XJ @ DB0GR
...-.-

3842. Civil Air Patrol Mailing List

Newsgroup: rec.ham-radio
Date: 1990-06-29 13:06:54 UTC
From: aviator@athena.mit.edu
Message-ID: <1990Jun29.130654.11385@athena.mit.edu>
Source record: 10654
Cross-posted to: rec.aviation,misc.emerg-services,rec.ham-radio

1. Below is the latest version of the CAP mailing list.

2. I am still looking for someone who can provide a server/echo/alias
based on this list. The list has over 40 users. I believe that we could
a really interesting discussion going, if we could find out a good way
of communicating with each other.

...Joakim

*** CUT HERE ***

Civil Air Patrol Mailing List
Version 3.0 - 27 Jun 90
Mail changes and additions to aviator@athena.mit.edu

Name Rank Callsign
Chart. # Squadron Name Location
Preferred E-mail address

Barford, Lee 1Lt Eagle 618 Mobile
Jon E. Kramer Squadron 10 CA
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Barnes, Michael A. 1Lt
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Baumgartner, Gerry 1Lt Sparrow 933 Mobile
08337 Broward Senior Squadron FL
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Carpenter, Ward Cpt Nutmeg 264
06051 399 Composite Squadron Danbury, CT
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Karlsson, Joakim SM
19043 Hanscom Composite Squadron Hanscom AFB, Bedford, MA
aviator@athena.mit.edu

Kinzelman, Paul Cpt Freedom 686 Mobile
19075 Mt. Wachusett Composite Squadron Fitchburg, MA
kinzelman@ecadsr.enet.dec.com

Kirkpatrick, Ron 2Lt BeaverFox 151 Mobile
36034 Washington County Composite Squadron Hillsboro, OR
ronk@tektronix.tek.com

Larner, Joel 1Lt Pikes Peak 293 Mobile
05147 Thompson Valley Composite Squadron Fort Collins, CO
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Perkin, Brian M. 1Lt
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Ritter, Roger 2Lt
Manchester Cadet Squadron Manchester, NH
@

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27001 Nevada Wing HQ Reno, NV
ted@tahoe.unr.edu

Spitzmiller, Ted
Los Alamos Squadron Los Alamos, NM [?]
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Stacy, Christopher C.
NOT CAP
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19022 Worcester Cadet Squadron Worcester, MA
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Syriac, Diana L. SM Freedom 690 Mobile
19075 Mt. Wachusett Composite Squadron Fitchburg, MA
dls@genrad.com

Tabor, Dean Cpt
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sxdjt@alaska.bitnet

Tuiskula, Warren J. Cpt Freedom 684 Mobile
19075 Mt. Wachusett Composite Squadron Fitchburg, MA
warren_tuiskula@es.stratus.com

Van Horn [?], Robert SM
Los Alamitos, CA
rvanhorn@nrtc.northrop.com

Zarza, Luis
NOT CAP Puebla, Mexico
ie74443@udlapvms.bitnet
--
Joakim Karlsson | aviator@athena.mit.edu
Flying Fanatic in Training | Flying Status: 22.3 hrs dual and counting.
"Oh, I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings"

3843. Re: Your response to N8DGN's QST comments.

Newsgroup: rec.ham-radio
Date: 1990-06-29 13:27:54 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <231@ultrix.uhasun.hartford.edu>
Source record: 10657

In article <9006290354.AA01463@cmr.ncsl.nist.gov>, rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
> To Jon Bloom,
> I think that, at least this time, you've missed the point.
> I know that you don't set the ARRL editorial policy, so don't take this too
> personnally - but you did a "company line" response when you had better
> ammo. Many of the arguers against the current QST editorial emphasis
> (like N8DGN) clearly recognize that they themselves are NOT in the
> mainstream of ham radio. They complain that QST editorial policy has
> written-off their interests entirely. 'DGN seems to be a microwave
> enthusiast. What has QST shown him lately? It wasn't very
> useful for you to tell him that he is out of the ham radio mainstream - why
> didn't you point out the two-part feature article on 903 MHz linears?
> At least it was above the antenna-switch technical level.

Well, I say what I think. Sometimes that happens to coincide with the "company line." If I remember right, the posting was about the microwave column. I've mentioned in several recent postings that there are other things published by ARRL--including feature articles--that IMHO more than make up for the loss of that column. Guess I should have said so in that response, too.

> **** SOAP-BOX MODE "ON" ****
> Many of us DO feel that QST should have at least ONE article above the lowest-
> common-denominator level (technically) each month. There is a claim

What's your definition of "lowest common denominator?" Looking over the past few months, I see a two-part article on 902-MHz power amplifiers, a two-part article on a PC-based weather satellite receiving system, an analysis of aurora techniques, an article on short top-loaded verticals (including--gasp!--integral equations), and an article on CP quagis for satellite use, among others. Now, none of those is breaking new technological ground, I'll grant you, but aren't they at least above the lowest common denominator?

> that QST is a publication for ALL HAMS... Don't leave out the 5 or 10% with
> some slight technical background. Twelve articles transplanted from QEX
> each year couldn't touch all the special-interest higher-tech aspects of
> hamdom - BUT THEY COULD ILLUSTRATE TO THE NON-HAM WHO PICKS UP QST THAT THERE
> IS STILL SOME TECHNICAL CONTENT IN HAM RADIO. I share your view that articles

A good point, although I'm not sure who you are trying to get that message to. If it's the man on the street or the high-school kid, the present content of QST is sufficient to overwhelm them technically. If you are trying to impress the professional engineer, I think we'd have to go a lot further than you suggest. But maybe non-ham electronics hobbyists

would be drawn in by more technical content.

> are more valuable than monthly non-news special-interest columns. Is there
> ever any real info in Rip's satellite column? I think the complaints against

Well, Rip doesn't do it any more--see the title block on p. 68 of your
June QST.

> "Nobody ever went broke underestimating the intellect of
> the American public". Does our national ham society's journal have to
> follow this rule so closely?

Come now, Bob. It's not like it was the New York Post or the
National Enquirer. I'd like to see more techninal info in QST too,
because that's my particular interest. And who knows, if enough
people express an interest in having more technical info (and if
it's submitted for publication), maybe it'll happen.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3844. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-29 13:34:55 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006291350.AA09667@ti.com>
Source record: 10653

Somehow, Phil Karn fell off the string in "on the subject of tekkies vs politicians". What followed made no connection to the subject. How about we leave politics completely off this net so that it doesn't become the 313 of computerdom?

73,
Dube Todd N5PDK

3845. Re: Was How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-29 13:39:00 UTC
From: zslf0a@gpss5
Message-ID: <1774@apctrc.UUCP>
Source record: 10645

In article <42447@apple.Apple.COM> winter@Apple.COM (Patricia Winter) writes:
>That's where I got the vast majority of my awning DXCC contacts.......

Ok, come clean Patty..... Its common knowledge in contest circles that
you've been running a stacked, phased, microprocessor controlled *array*
of awnings on a fully rotatable building.

Why you 'big house' ops keep up this pretense of modesty is beyond me.

73's - WA5RPF

3846. Grounding a roof top station.

Newsgroup: rec.ham-radio
Date: 1990-06-29 13:54:00 UTC
From: EVERETT@HIARAS.NRC.CA
Message-ID: <715A27FB513F00008E@NRCNET.NRC.CA>
Source record: 10646

Greetings all,

I have a problem that I am sure that another fellow ham must have
encountered before and perhaps could help me out.
I operate the University of New Brunswick ARC station located in
Fredericton, NB, Canada. The station is current in the process of
relocating its tower and we have a bit of a problem. The station is
located on the 3rd floor of the EE building with a 50 foot coax run out
to the antennas. The tower and antennas are located on a wide flat
(as in none-sloping) roof. It is at least 100 ft to the ground from the
tower site. As a result there is little we can do to ground the tower.
(Gasp! We do have lighting in the Great White North) To make matters
worse we are located in the older section of the building and there is
no good earth ground we can latch onto within the station. The only thing
we have is the normal 120 ac lines. There are no water pipes, fire alarm
conduits or other devices nearby. The only thing metal is the staircase
that goes down three floors and we don't know if it terminates in the earth.
(Also I don't like the idea of killing off my fellow engineers who happen
to be on the stairwell when a strike happens.) A ground to earth from the
tower would be a very long distance with a sharp 90 degree bend as it goes
over the roof. I can't find any I beams within the super structure that
might serve the purpose. I am open to whatever suggestions anyone may have.

Thanks for the space.
...Jerry Everett VE1DE/VE3
Bitnet: HIARAS@NRC.CA
Packet: VE1DE@VE3JF
Herzberg Institute for Astro Physics, Ottawa, Ont.
=========>> Happy 123rd Birthday CANADA !!, July 1st 1990 <<==========

3847. Correction for Email address

Newsgroup: rec.ham-radio
Date: 1990-06-29 13:58:00 UTC
From: EVERETT@HIARAS.NRC.CA
Message-ID: <7159816C283F00008E@NRCNET.NRC.CA>
Source record: 10647

```
The correct Email address for Jerry Everett VE1DE/VE3 who posted
a request for station grounding is
Bitnet: EVERETT@HIARAS.NRC.CA
Boy I hate having my blunders broadcast to three continents.
...Jerry
```

3848. K1EA Contest Logging, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-29 15:07:08 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9006291507.AA02439@cmr.ncsl.nist.gov>
Source record: 10656

What is the current version of the K1EA software? Is it universal in being able to handle VHF contests as well as the HF ones?
Tnx Bob W3OTC

3849. Ham Station For Sale

Newsgroup: rec.ham-radio
Date: 1990-06-29 16:09:55 UTC
From: GRAY_S@DICKINSN.BITNET
Message-ID: <9006291613.AA25378@ucsd.edu>
Source record: 10658

The cost of school is such that I am going to have to get out of
ham radio until I am sure that I can meet the tuition (sigh).
Here's the list of my gear that I am going to have to get rid of:

Drake TX-4C/ R4-C/ AC-4.....just back (4 days ago) from being overhauled by
Drake; still in the factory sealed boxes, with Drake warranty.

Icom IC-2SA....with extras, under a year old.

Kenwood TH-215A...also with extras, about a year and a half old.

Cushcraft R5....about a year old, with recent Cushcraft design updates.

I am the original owner on the last three pieces of gear; all are in very good
to excellent condition, and function perfectly.

Drop me a line at gray_s@dickinsn.bitnet, or feel free to call at
(717)-258-5477 anytime (I have an answering machine). Thanks!

---Steve Gray
NR3B

3850. Re: 6DQ6B specs

Newsgroup: rec.ham-radio
Date: 1990-06-29 16:22:38 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250180@hpnmdla.HP.COM>
Source record: 10662

> Can anyone supply me with specs for the 6DQ6B TV horizontal sweep tube?
> The ones I have are made by GE. In particular...
>
> - max plate, screen and grid voltages and currents,
>
> - plate dissipation, capacitance.
>
> Any tips for use in linear service.
>
>
Paul

The mention of a 6dq6 brings tears to my eyes (oh no, guess it's just allergies). That was the final in my first transmitter.

My older handbook says:

plate dissipation 18 watts
Cin 1.2 pf
Cout 15 pf
Cgp .55 pf

Plate V 250
Grid bias -22.5V /*class C? */
Screen 150V
Screen Ma 2.4
Plate Ma 75
Transconductance 6600 micromhos

6.3V 1.2 A filaments

I don't think I ever ran this tube linear though I did screen modulate one for my first AM contact (Guys I worked thought I was a girl because my voice hadn't changed. Took me a couple of days to make the second QSO..)

Hope this helps...

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

3851. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-29 17:25:12 UTC
From: brian@ucsd.Edu
Message-ID: <14756@ucsd.Edu>
Source record: 10672

In article <9006291350.AA09667@ti.com> dube@cpdvax.csc.ti.com writes:
>How about
>we leave politics completely off this net so that it doesn't become the
>313 of computerdom?
>73,
>Dube Todd N5PDK

Ugh. Ick. Smells like politics, looks like politics, feels like politics, tastes like politics. Glad I didn't step in it.

Actually, this is one of the best places I can think of to argue ham radio politics. There's a wide, more-literate-than-elsewhere audience, and the free exchange of ideas not only encouraged, but not crippled by needless anachronistic impedimentia (callsigns, q-signals, morris crud, etc.) that somehow seems to accompany on-the-air discussions. Who knows? We might actually come up with a good idea or two!

Politics, you see, is what mankind evolved to replace battles.
- Brian

3852. Re: K1EA Contest Logging, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-29 17:57:22 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <12979@shlump.nac.dec.com>
Source record: 10659

In article <9006291507.AA02439@cmr.ncsl.nist.gov>, rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes...

>What is the current version of the K1EA software?

The release version of CT is now 6.14, which was first available at Dayton. Version 6 added true multioperator support which was not present in version 5. Of course, bug fixes and other improvements are also included. CT information can be obtained by sending an SASE (or $25 for the program) to:

BILL McGOWAN, KC1EO
33 TRUELL RD
HOLLIS, NH 03049

>Is it universal in being able to handle VHF contests as well as the HF ones?

What do you mean by universal? CT supports the ARRL VHF QSO Parties (June and Sept), I'm not sure about January (unless it's the same logging information and scoring).

jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

3853. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-06-29 18:14:30 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250181@hpnmdla.HP.COM>
Source record: 10666

Bob Atkins KA1GT writes:

> On the subject of technical article, submitting them is of course required
> to get them published, but also of great importance is the attitude of the
> editor of the magazine. There is probably little point in going through the
> effort (and believe me it requires effort) of writting a detailed technical
> article on say, a complete solid state 10 GHz transverter, if the editor is
> going to say "too long", or "too technical", or "not enough reader interest".
> I very much doubt that such an article would be accepted by 73, CQ or QEX. It
> might get into QST with enough lead time. I think our best hope for technical
> articles would be a new publication from the CQ stable. I'm keeping my
> fingers crossed.

I can tell you that it *didn't* get into QST when I gave them first
option on it in 1987 (By "it" I am referring to my all band all-mode microwave
station series that went into Feb/June/October 1988 HR which detailed a
complete 10368 MHz transverter). They did say "too long" and "too technical".
QST suggested that it could go into QEX in a million installments. Although
QEX had handled the 10 GHz filters article I did previously pretty well, I
wasn't excited about a 15 part article.
On the other hand HR didn't really seem too sure what the article was
about... maybe it was just my poor writing style.

I have the impression that Paul Rinaldo would like to see QEX expand a bunch
and I wonder if we shouldn't consider trying to support him in this. I
got my copy of CQ like everyone else and I see no particular reason that
the current advertisers should be particularly helpful to articles of
more technical depth. QEX at least has some of the "fringe" advertisers.

I know that a lot of us are frustrated with the current state of
amateur technical publications but maybe even those of here on Usenet
can have more impact than we think.
Could we possibly overcome our differences and frustration enough to
actually do something in a coordinated way?
In a sense I think this question is a microcosmic view into amateur radio's
future. A lot of us care and we are all different. Can we effectively
work as a group? This kind of cooperation is what saved amateur radio
after we lost all the "good" spectrum above 200M in the early 1900's,
I believe we need it again if we are going to survive in the 21st century.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

3854. Favorite PC logging programs?

Newsgroup: rec.ham-radio
Date: 1990-06-29 19:20:55 UTC
From: dls@ccird1.uucp
Message-ID: <DLS.90Jun29152055@ccird1.uucp>
Source record: 10649

Since there are so many logging programs availiable for the PC,
which ones are worth looking at. I am really interested in no-contest
loggers.
--

Darren Swartzendruber CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII
N2KTJ CC CC CC CC II II COMPUTER
CC CCC CC CC CCC CC IIII IIII CONSOLES,
cci632!dls@cs.rochester.edu CC CCCCCCC CC CCCCCCC IIII IIII INCORPORATED
rochester!rit!cci632!dls CC CCC CC CC CCC CC IIII IIII
uunet!ccicpg!cci632!dls CC CC CC CC II II An STC Company
uunet!rlgvax!cci632!dls CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII

3855. Re: QRP ARCI address

Newsgroup: rec.ham-radio
Date: 1990-06-29 19:21:13 UTC
From: hardie@herald.usask.ca
Message-ID: <1990Jun29.192113.13698@dvinci.usask.ca>
Source record: 10661

Tad Cook corrects my poor proof-reading:
>> Corrollton, TX 75007
>>
>
>actually, it is:
>CARROLLTON, TX 75007-3102
>Tad Cook
Thanks Tad, and MEA CULPA. I presume the zip code would have corrected any confusion at the post office. Also, the QRP Quarterly does not supply the extra -3102 on the end of the zip code.

73 de Pete VE5VA
hardie@skyfox.usask.ca

3856. B&W AP-10 -- Portable antenna for apartments...

Newsgroup: rec.ham-radio
Date: 1990-06-29 19:24:52 UTC
From: dls@ccird1.uucp
Message-ID: <DLS.90Jun29152452@ccird1.uucp>
Source record: 10650

I live in an apartment and have no access to the roof, nor can
I have a dipole strung across the lawn. I have come across the
B&W AP-10 in different mag and catalogs. I was wondering if anyone
has one or knows if it is worth the money.

--

Darren Swartzendruber CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII
N2KTJ CC CC CC CC II II COMPUTER
CC CCC CC CC CCC CC IIII IIII CONSOLES,
cci632!dls@cs.rochester.edu CC CCCCCCC CC CCCCCCC IIII IIII INCORPORATED
rochester!rit!cci632!dls CC CCC CC CC CCC CC IIII IIII
uunet!ccicpg!cci632!dls CC CC CC CC II II An STC Company
uunet!rlgvax!cci632!dls CCCCCCCCCCC CCCCCCCCCCC IIIIIIIIII

3857. Re: ARRL books (was Re: Making ham radio known)

Newsgroup: rec.ham-radio
Date: 1990-06-29 19:50:46 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880172@hpfcdc.HP.COM>
Source record: 10673

> We need all of that we can get.

Well not quite ALL, I mean, would you really want, for example, *every*
U.S. citizen to be licensed? There isn't that much bandwidth.

I agree, though, that moderately increasing the number of people I can
talk with wouldn't be such a bad thing. :-)

> Were those folks (since they were up on a mountain...) part of a club
> or organization...

Well, not those ones in particular, but I see (and sometimes even
participate in) Colorado Mountain Club trips.

> Is there a way you can arrange for a presentation at one of their
> meetings about ham radio?

Sounds like work! :-)

> Go try all the neat things you can do, and if you can do a favor for a
> friend or a stranger, let 'em know it was a HAM who did it!

Now that I can do and have been doing. Merely hiking with a radio on my
pack has generated lots of comments and questions. Thinking about it,
in my 13 years of Colorado mountaineering that's been a really rare
sight. I mention to people that if they have an emergency (very
unlikely), they should get ahold of me on up the mountain or whatever.

3858. Heath Dualband

Newsgroup: rec.ham-radio
Date: 1990-06-29 20:05:05 UTC
From: jpedley@RIA-EMH2.ARMY.MIL
Message-ID: <9006292004.AA17002@rutgers.edu>
Source record: 10660

I am looking for the mod to expand the frequency coverage on the Heath HW24 dualband mobile. I have looked in the mods database, but there is no listing. Does anyone on the net have this info? I'll take the mod info for the handheld if anyone has it also. (all discussion about type acceptance is duly noted) Thanks!

John Pedley, N0IPO
INTERNET: jpedley@ria-emh2.army.mil

3859. <None>

Newsgroup: rec.ham-radio
Date: 1990-06-29 20:07:29 UTC
From: lkay@ecs.umass.edu
Message-ID: <10167.268bb501@ecs.umass.edu>
Source record: 10579

Can anyone help me with a QSL route for ZB2JB? I worked him on a net awhile back and stupidly assumed he'd be in the GO list or the CB. Well, he's not. Any mail appreciated.

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

3860. Re: CB Channel 9 is for emergency traffic!

Newsgroup: rec.ham-radio
Date: 1990-06-29 20:19:12 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <286.268BBA4B@w8grt.fidonet.org>
Source record: 10668

In Message-ID: <6215@helios.TAMU.EDU> Bill Gunshannon sez:
> Well, I guess you didn't RTFM either. As it stands right now there is
> no way
> anyone using a CB radio is doing so legally and in accordance with PART
> 95.
>
> You see there is this little piece in there about identifying with your
> FCC
> assigned call-signs and being as the FCC doesn't assign them and enough
> time
> has elapsed that all previous licenses have expired, how do you propose
> to
> comply??

It was my understanding that the FCC sidestepped that issue by issuing a "group license" to all citizens and residents of the USA. If they cared at all about callsigns, they might have specified "tactical callsigns selected by users" or some such gimmick.

This is a different age, Bill. In "our day" people felt the need for the structuring and order provided by licensing and testing - rules and regs and proper procedures and all that good stuff. Today's young people especially feel comfortable in a world of semi-organized chaos.

In other words, we were born in a "Why?" world. Today's society is a "Why not?" world. I'm not saying that's better. It's just the way it is.

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____________________________________
| / "I wanna go to the ham radio National Park
/____ of the Mind and ride the NOS!"

3861. Re: cw rig recommendation

Newsgroup: rec.ham-radio
Date: 1990-06-29 20:50:47 UTC
From: jdn@casux4.uucp
Message-ID: <24831@bellcore.bellcore.com>
Source record: 10663

In article <900628-071948-11669@Xerox| "wayne_a._lightsey.RochXRC"@XEROX.COM writes:
| There are very sharp digitally-tuner
|capacitor based audio filters available on the market in the $140 price
|range that would assist the HW-101 tremendously in CW mode. Such a device
|would not help SSB, though.
|
Not so. I have used both the SuperScaf and the MSC switched capacitor
digital audio filters, and they both make quite a difference on SSB,
as well as CW and FSK.

|Additional bells and whistles (TS-940, TS-950, Icom
|767, 781, etc.) rapidly drive the price up to that of a small car (slightly
|used car?).
|
You must mean the Icom 765 here. But the 3 to 6 grand is much better
spent on any of these radios than a car! After all, you can't work
Bouvet with a used VW Bettle! :-)

|Good luck and best regards, Wayne, KB6CSP
Yes, shopping for the current crop of radios is fun.

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3862. Re: <$100 voice card

Newsgroup: rec.ham-radio
Date: 1990-06-29 20:54:00 UTC
From: jdn@casux4.uucp
Message-ID: <24832@bellcore.bellcore.com>
Source record: 10664

In article <9006281445.AA05789@ucsd.edu> BRUCEH@UTKVX3.BITNET writes:
>Someone mentioned that there was a voice card available for less than
>$100. I'm interested in such a card. Does anyone know the name of the
>company and a phone number?
>
Hmmm. Don't know anything about < $100 but COVOX makes a good
board with software for $150. Don't have their address offhand,
but they usually advertise in BYTE. Perhaps they are in Corvalis, Wash?
>
73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3863. Re: K1EA Contest Logging, etc.

Newsgroup: rec.ham-radio
Date: 1990-06-29 21:03:48 UTC
From: jdn@casux4.uucp
Message-ID: <24833@bellcore.bellcore.com>
Source record: 10665

In article <9006291507.AA02439@cmr.ncsl.nist.gov> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
>What is the current version of the K1EA software?
6.0
> Is it universal in being
>able to handle VHF contests as well as the HF ones?
No.
>Tnx Bob W3OTC

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3864. NJ "Scanner Law" PASSES in Senate!!!!!

Newsgroup: rec.ham-radio
Date: 1990-06-29 21:20:47 UTC
From: judice@oakisl.enet.dec.com
Message-ID: <9006292120.AA17957@decpa.pa.dec.com>
Source record: 10669

****
IMPORTANT NEWS FOR NEW JERSEY READERS!!!!!
****

There's good news and bad news... S-305 was PASSED by the New Jersey Senate. The bill has been referred to the Assembly Judiciary, Law and Public Safety committee. New Jerseyites are just two steps away from being able to legally use wideband receivers in their automobiles.

The bad news is that NJ's law enforcement community is complaining about the bill. I received a letter from Senator John Lynch (sponsor of S-305) urging supporters of the bill "to contact Assemblywoman Ford (Chairperson of the Assembly Committee reviewing S-305) to press for timely consideration of the bill by her committee and assure that the amendments to this legislation do address the legitimate concerns of law enforcement groups".

The address for The Honorable Marlene Lynch Ford is:

200 Main Street, Suite 2
Toms River, NJ 08753
201-240-2200

Senator Lynch attached a letter to Assemblywoman Lynch from P.O. Michael Brunson, chairman of the legislative committee of the NJ Police Traffic Officer's Association, urging ammendment of S-305. His concerns were:

- persons with the ability to receive police communications will interfere with emergency activities.

- they will try to avoid traffic tickets by ascertaining the location of patrols.

- And "many many more reasons that I could cite you and your committee" - though apparently he could not think of any at the time he wrote his letter.

I agree with Officer Brunson that anyone who uses a scanner to interfere with emergency activities should be ARRESTED. And that is exactly what S-305 provides for - misuse of radios is ILLEGAL, possesion is LEGAL. I disagree with his second point - having listened to police communications for a long time, there is little or nothing that would be of any use to speeders.

I strongly suggest readers WRITE or CALL Assemblywoman Ford TODAY, as well as your own assemblywoman.

Thanks,
Lou

3865. Remotely Tuned HF Beam Antenna

Newsgroup: rec.ham-radio
Date: 1990-06-29 21:22:17 UTC
From: gb@sunpix.East.Sun.COM
Message-ID: <3028@sunpix.East.Sun.COM>
Source record: 10651

Here's an idea for a remotely tuned beam for the HF bands. I'd like to hear about previous implementations, suggestions for implementation, reasons why it won't work, etc.

The plan is to put up a three element beam cut for 20 meters. At the center of each beam element there will be a tuning unit with a variable capacitor that can be controlled from the shack. By tuning the elements it should be possible to achieve optimum operation (gain or fb ratio, not both simultaneously) on any frequency on the band. Clearly some mechanism would be needed for measuring the performance to allow this adjustment.

If the tuning unit has sufficient range, it should be possible to operate the beam on 20, 17, 15, 12, and 10M by retuning the elements for proper resonance. The antenna would have increasing gain as frequency is increased.

This brings up several implementation questions for further research.

1) What sort of tuning unit?

I was thinking of a high-voltage variable capacitor constructed along the lines of one in the ARRL Antenna Compendium 2. The unit described there has two metal plates (one fixed and one moving) separated by a thin sheet of glass. The author claims greater than 10k volt breakdown and capacitance varying from 500pf to 10pf for a 4.5 inch square capacitor. I doubt I'd need more than 100pf maximum so I could reduce the size somewhat.

Anyone have other suggestions for a tuning unit? I'd like to avoid sliding electrical connections because of noise on receive. Commercial variable capacitors with high-breakdown voltages are very expensive. Any suggestions for sources of cheap ones?

2) What sort of remote control?

I was thinking of surplus stepper motors. They're pretty cheap, and compact. My impression is that you can know how far you've turned them by counting pulses so I wouldn't need another mechanism for determining tuner position. I've also heard that RC servos might be the right goods. Any suggestions?

3) What sort of performance feedback?

I thought about monitoring element currents with a small probe attached to each element. This wouldn't be too hard but requires putting a signal on the air (though maybe a small one) for adjustment

and it provides only an indirect indication of performance.

For a direct measurement, I thought of installing a few very
simple remote field-strength meters around the antenna. Using these I
could get a direct indication of relative gain and fb ratio. Again
this requires generating QRM for adjustment.

Maybe a few remotely controlled noise generators around in the
far field? This would allow adjustment with the receiver but other signals
might swamp a small noise source.

Any other ideas?

4) What sort of control in the shack?

I would probably start with simple manual controls (say a pot
for each) and maybe later try for computer control. A program with
some prestored tables could probably adjust the antenna very quickly.

Is anyone interested in discussing this?

gb wa4fut

3866. Technical information for mags.

Newsgroup: rec.ham-radio
Date: 1990-06-29 22:38:05 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006292251.AA21191@ti.com>
Source record: 10667

For all of those who are flaming QST and CQ for the lack of technical articles, here's a suggestion before I depart for vacation: WRITE A TECNICAL ARTICLE AND SUBMIT IT to the mag of your choice. In about 6 months, if we don't haven't noticed an increase and/or update of technical content then we'll know for sure..

In December, we'll look for a report from these folks about how many articles they submitted vs how many were published.

See, it's simple.

73, and CUL
Dube N5PDK

3867. unsubscribe

Newsgroup: rec.ham-radio
Date: 1990-06-29 22:38:50 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006292251.AA21195@ti.com>
Source record: 10671

unsubscribe
tnx
Dube

3868. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-06-29 23:26:29 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250182@hpnmdla.HP.COM>
Source record: 10577

> A good ground system is your first line of defense against TVI, so
> let's consider it for a moment. I used to have some terrible TVI
> problems when I first started running power. What worked for 100
> watts was a joke of a ground system that was not effective at 1500.
> Your mileage may vary, but here is what I did...

Could someone please explain to me through what magic a "good ground"
can cure/prevent TVI? I have seen this claim many times through the
years, sometimes in reputable ham publications, but I believe it to be
a total crock.

For one thing, unless your ham shack is sitting right at ground level
with a VERY short ground cable, the equipment won't be at RF ground in
any case (4 feet is 1/8 wavelength at 30 MHz). On VHF/UHF, where the
TV channels are, it's even worse.

For another thing, so what if you COULD get the station equipment right
at RF ground potential. It's the antenna that does most of the radiating,
if your antenna system is working correctly. If you have VHF/UHF leakage
from transmitter or coax cables, grounding them might change the radiation
pattern somewhat, but this would be as likely to increase TVI as decrease
it, depending on the specific location of ham equipment and TV.

Seems to me that shielding, filtering, and reducing the RF field in the
vicinity of the TV set and antenna are the things to try.
Grounding is a red herring.

Al N1AL

3869. Contesting from ZF8

Newsgroup: rec.ham-radio
Date: 1990-06-30 00:15:59 UTC
From: sawyer@twg.com
Message-ID: <7475@gollum.twg.com>
Source record: 10670

I recently returned from a diving vacation in Cayman Brac (ZF9), and on the way to and from our little 8-seater plane stopped on the island of Little Cayman (ZF8). This place was so beautiful, and the diving I did there so great, that I've decided to go back with the excuse of running a contest from ZF8. So here's the question I would pose to any other contesters out there: which one should I go for? I don't see where ZF8 would be much for CQWW (you have to get through the east coast wall for Europe), but it would be a great one for the ARRL contest in February. Trouble is, the water is cold enough by February that I'd have to wear a wet suit diving. Same thing for WPX. So...what contest (and I only want to run a CW contest) happens before the end of November and would be a good one with a ZF8 prefix? Any suggestions would be appreciated.

AA6KX

3870. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-06-30 02:26:12 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <290.268C0F50@w8grt.fidonet.org>
Source record: 10581

> From: dube@cpdvax.csc.ti.com
> Date: 29 Jun 90 13:34:55 GMT
> Organization: The Internet
> Message-ID: <9006291350.AA09667@ti.com>
> Newsgroups: rec.ham-radio
>
> Somehow, Phil Karn fell off the string in "on the subject of tekkies vs
> politicians". What followed made no connection to the subject. How about
> we leave politics completely off this net so that it doesn't become the
> 313 of computerdom?

That sounds good in theory, but I still have this nagging, haunting fear that when Phil and the other tekkies finally perfect their phantasmagorical packeting machinery, the politicians may have made off with all the bands to use it in.

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|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____________________________________
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

3871. 6DQ6B SPECS

Newsgroup: rec.ham-radio
Date: 1990-06-30 03:55:23 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9006300405.AA26340@ti.com>
Source record: 10676

My GE handbook gives these specs for the 6DQ6-B:

Fil Volts: 6.3
Fil Amps: 1.2
Pdis (Watts): 18
Max Ep: 770 (Supply volts, Design Maximum)
Max Screen Volts: 220 (Design Max)
Max Screen Watts: 3.6 (Design max)
Cin: 15 (without external shield)
Cout: 7.0 (without external shield)
Cg-p: 0.5 (without external shield)

In Horizontal Amp service (TV):
Ep: 250
Es: 150
Eg: -22.5
Ip: 65 mA
Is: 1.5 mA
Rp: 18,000 ohms
Gm: 7,300 uMho

A note says that in this service the design maximum positive plate pulse voltageis 6,500 and the design maximum dc cathode current is 175 mA.

73,
Dube Todd

3872. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-06-30 04:33:53 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9006300438.AA02868@ucsd.edu>
Source record: 10674

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #711 -
Alouette 1
1 00424U 62B-A 1 90168.70700584 .00000194 00000-0 22260-3 0 3291
2 00424 80.4632 285.5609 0022255 272.8130 87.0472 13.67357195382760
ATS 3
1 03029U 67111 A 90169.61083641 -.00000074 00000-0 99999-4 0 3900
2 03029 13.2048 21.2123 0013764 209.8859 150.0238 1.00272775 82805
Cosmos 398
1 04966U 71 16 A 90172.56085894 .00071779 17552-4 40041-3 0 9373
2 04966 51.5172 228.0287 2267954 155.4638 217.3728 11.06870828592180
Starlette
1 07646U 75010 A 90165.39663347 -.00000037 00000-0 18111-4 0 840
2 07646 49.8192 169.4922 0205777 181.9634 178.0466 13.82139069775396
LAGEOS
1 08820U 76039 A 90169.20473505 .00000002 00000-0 00000 0 0 840
2 08820 109.8514 355.4704 0044569 237.9393 121.6955 6.38664272 74004
GPS-0001
1 10684U 78020 A 90171.42595927 .00000007 00000-0 99999-4 0 4370
2 10684 63.7567 89.4642 0116043 207.9070 151.4739 2.00557530 75917
GPS-0002
1 10893U 78 47 A 90167.41385619 -.00000025 00000-0 00000 0 0 1963
2 10893 64.2968 330.3615 0166499 24.4299 336.3788 2.00545376 88651
SeaSat 1
1 10967U 78064 A 90169.43698656 .00000944 00000-0 36908-3 0 3462
2 10967 108.0231 322.7349 0003123 231.6281 128.4614 14.35714487626635
GPS-0003
1 11054U 78093 A 90167.20229175 -.00000024 00000-0 00000 0 0 2370
2 11054 63.9268 326.7216 0060143 118.4839 242.1302 2.00567124 85668
Nimbus 7
1 11080U 78098 A 90172.29012292 .00000099 00000-0 11768-3 0 6810
2 11080 99.1949 77.1237 0009855 72.1461 288.0767 13.83439362588605
GPS-0004
1 11141U 78112 A 90168.79787832 .00000007 00000-0 00000 0 0 3880
2 11141 63.7131 89.4147 0059976 316.9543 42.5789 2.00557226 84399
GPS-0005
1 11690U 80 11 A 90168.93914504 .00000008 00000-0 00000 0 0 9904
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2 11690 64.1783 91.5102 0116168 202.9906 156.4995 2.00556113 90255
GPS-0006
1 11783U 80 32 A 90172.73721227 -.00000024 00000-0 00000 0 0 1575
2 11783 63.7181 326.1110 0151057 60.7445 300.7515 2.00558097 74410
GOES 5
1 12472U 81049 A 90171.69289864 -.00000181 00000-0 99999-4 0 9370
2 12472 3.4898 75.8399 0002501 334.7230 24.8438 1.00218379 32264
DE 1
1 12624U 81 70 A 90172.04046719 .00000418 00000-0 19338-2 0 4557
2 12624 89.0435 147.8534 6203010 281.0048 19.1270 3.51022568262252
SME
1 12887U 81100 A 90171.68570105 .00037441 00000-0 63830-3 0 7097
2 12887 97.6316 219.3445 0002135 60.4469 299.6947 15.51272493481815
Salyut 7
1 13138U 82 33 A 90172.71892332 .00035407 00000-0 36358-3 0 3380
2 13138 51.6023 281.2703 0000769 286.6913 73.3632 15.64565311465562
Cosmos 1383
1 13301U 82 66 A 90171.83392220 .00000133 00000-0 14472-3 0 5801
2 13301 82.9300 298.1003 0027851 147.5363 212.7513 13.67832765398174
LandSat 4
1 13367U 82 72 A 90172.04304150 -.00000019 00000-0 79924-6 0 3683
2 13367 98.1657 234.4962 0004572 111.8541 248.3191 14.57131459421866
IRAS
1 13777U 83 4 A 90170.35291732 .00000351 00000-0 26764-3 0 7837
2 13777 99.0276 7.1173 0013724 24.5337 335.6467 13.98800581 47244
Cosmos 1447
1 13916U 83 21 A 90171.61779284 .00000125 00000-0 12142-3 0 7300
2 13916 82.9436 9.5226 0038531 127.7444 232.7212 13.74046222363144
TDRS 1
1 13969U 83 26 B 90171.00000000 .00000129 00000-0 99999-4 0 111
2 13969 4.4889 65.5696 0001571 54.4040 337.2530 1.00273914 93148
GOES 6
1 14050U 83 41 A 90171.84268055 .00000110 00000-0 99999-4 0 1917
2 14050 2.2403 78.2756 0001686 258.5217 100.8038 1.00292057 10309
OSCAR 10
1 14129U 83 58 B 90163.39968501 .00000001 00000-0 00000 0 0 5290
2 14129 26.0015 199.7252 5965020 150.6381 263.1683 2.05879628 24630
GPS-0008
1 14189U 83 72 A 90171.76556490 .00000006 00000-0 99999-4 0 7794
2 14189 63.3570 87.7585 0147119 219.2367 139.7100 2.00705477 50831
LandSat 5
1 14780U 84 21 A 90172.07059127 -.00000342 00000-0 -70770-4 0 2275
2 14780 98.2053 232.0831 0000567 126.6055 233.5200 14.57108316335283
UoSat 2
1 14781U 84 21 B 90169.58912495 .00001625 00000-0 30884-3 0 7509
2 14781 97.9489 222.0956 0011372 243.6577 116.3475 14.65432665336172
GPS-0009
1 15039U 84 59 A 90171.87469294 .00000006 00000-0 00000 0 0 9592
2 15039 63.1040 86.9135 0021949 234.3941 125.4108 2.00612104 44114
Cosmos 1574
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1 15055U 84 62 A 90170.17242414 .00000120 00000-0 11746-3 0 8903
2 15055 82.9570 60.8504 0027402 321.5786 38.3426 13.73360368300345
GPS-0010
1 15271U 84 97 A 90170.29128355 -.00000024 00000-0 00000 0 0 8621
2 15271 63.2121 325.7569 0105211 327.3740 31.9573 2.00556627 41192
Cosmos 1602
1 15331U 84105 A 90169.56775426 .00002778 00000-0 37866-3 0 3135
2 15331 82.5337 359.6328 0023773 332.6843 27.3135 14.78192508308298
NOAA 9
1 15427U 84123 A 90172.30266998 .00000542 00000-0 31393-3 0 5954
2 15427 99.1676 172.2267 0015327 1.9416 358.1810 14.12601877284563
Cosmos 1686
1 16095U 85 86 A 90171.95241643 .00059475 00000-0 60586-3 0 6726
2 16095 51.6080 285.1580 0001449 30.4940 329.4545 15.64534414266542
GPS-0011
1 16129U 85 93 A 90168.98579620 .00000007 00000-0 00000 0 0 5491
2 16129 63.8823 88.0120 0123333 149.0756 211.6528 2.00510602 34375
Mir
1 16609U 86 17 A 90172.76073718 .00026387 00000-0 30221-3 0 7515
2 16609 51.6147 307.7072 0011048 63.3425 296.7817 15.61859519248814
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1 16613U 86 19 A 90171.73687454 .00000175 00000-0 91107-4 0 9932
2 16613 98.7342 246.1317 0001539 139.2265 220.9022 14.20018663 64437
Cosmos 1766
1 16881U 90172.40737064 .00003774 00000-0 52156-3 0 370
2 16881 82.5184 56.0495 0023734 339.5473 20.4780 14.77697927209771
EGP
1 16908U 86 61 A 90171.37293989 -.00000016 00000-0 19101-3 0 2292
2 16908 50.0075 246.2041 0011767 202.8455 157.1857 12.44387676175252
NOAA 10
1 16969U 86 73 A 90172.28185337 .00000486 00000-0 22966-3 0 4442
2 16969 98.5967 200.1358 0012309 257.1591 102.8208 14.23643091195190
MOS-1
1 17527U 87 18 A 90171.65763325 -.00000039 00000-0 -15942-4 0 5840
2 17527 99.1100 244.1660 0001300 102.1264 258.0014 13.94860756169743
GOES 7
1 17561U 87 22 A 90161.65641300 .00000079 00000-0 99999-4 0 5521
2 17561 0.0121 301.7081 0063038 358.7262 59.0452 0.99317656 5353
Kvant-1
1 17845U 87 30 A 90171.86490762 .00082318 00000-0 92401-3 0 1727
2 17845 51.6121 312.2418 0010830 60.2337 299.6211 15.61852643184720
DMSP B5D2-3
1 18123U 87 53 A 90172.29971071 .00000556 00000-0 31126-3 0 6161
2 18123 98.8193 2.8470 0015029 15.0939 345.0682 14.14063679154986
RS-10/11
1 18129U 87 54 A 90171.81336743 .00000134 00000-0 13451-3 0 2299
2 18129 82.9264 325.8470 0013220 107.0326 253.2224 13.72095123149940
Meteor 2-16
1 18312U 87 68 A 90170.78557919 .00000218 00000-0 18868-3 0 4419
2 18312 82.5545 288.2315 0010939 243.6165 116.3872 13.83653719143343
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1 18820U 88 5 A 90172.89461377 .00000155 00000-0 12865-3 0 2960
2 18820 82.5438 346.7171 0015818 315.1391 44.8495 13.84348230120830
DMSP B5D2-4
1 18822U 88 6 A 90172.91794690 .00000546 00000-0 26678-3 0 5192
2 18822 98.6470 51.8560 0005414 260.4843 99.5722 14.21479670123497
AO-13
1 19216U 88 51 B 90169.21205142 .00000183 00000-0 99999-4 0 1323
2 19216 56.9974 149.9110 6972403 229.4910 45.2756 2.09695778 15428
OKEAN 1
1 19274U 88 56 A 90171.85654817 .00001538 00000-0 21411-3 0 8316
2 19274 82.5157 155.2035 0023875 109.2023 251.1799 14.77034684105460
Meteor 3-2
1 19336U 88 64 A 90171.30534747 .00000391 00000-0 99999-3 0 5075
2 19336 82.5318 275.2112 0015982 310.2493 49.7114 13.16899625 91363
NOAA 11
1 19531U 88 89 A 90172.98691171 .00000501 00000-0 29549-3 0 2950
2 19531 98.9822 121.3021 0011291 272.4805 87.5060 14.11633376 89649
TDRS 2
1 19548U 88 91 B 90161.76543195 .00000114 00000-0 99999-4 0 1357
2 19548 0.0907 88.8162 0003705 26.8285 244.3580 1.00274699 211
Cosmos 2001
1 19796U 89 11 A 90172.17907949 -.00001015 00000-0 99999-4 0 5179
2 19796 63.2395 92.3898 7085903 319.9032 5.2085 2.00642981 9887
GPS BII-01
1 19802U 89 13 A 90157.48846768 .00000016 00000-0 99999-4 0 1318
2 19802 55.0571 197.8390 0055238 165.2883 194.9589 2.00642175 9537
Akebono
1 19822U 89 16 A 90171.62976481 .00001860 00000-0 12435-3 0 6515
2 19822 75.1095 237.1597 4176621 219.6351 101.0174 7.11210961 89
Meteor 2-18
1 19851U 89 18 A 90171.63847248 .00000242 00000-0 20864-3 0 2422
2 19851 82.5192 225.7056 0016123 0.1614 359.9550 13.83985121 66048
TDRS 3
1 19883U 89 21 B 90162.00000000 -.00000234 00000-0 99999-4 0 1369
2 19883 0.1193 71.3863 0000120 162.1134 344.5358 1.00279466 74877
GPS BII-02
1 20061U 89 44 A 90157.19570991 -.00000032 00000-0 00000 0 0 1376
2 20061 54.7543 16.2374 0086335 172.7547 187.4207 2.00485469 7273
Nadezhda 1
1 20103U 89 50 A 90171.52293882 .00000134 00000-0 13087-3 0 1436
2 20103 82.9603 282.5371 0038892 31.0147 329.3288 13.73597098 48177
GPS BII-03
1 20185U 89 64 A 90171.09512743 .00000016 00000-0 99999-4 0 1293
2 20185 54.9291 198.1287 0023918 158.1710 202.0849 2.00625953 6126
Activnyi
1 20261U 89 80 A 90172.77756111 .00000694 00000-0 21547-3 0 5694
2 20261 82.5963 225.6521 1257611 328.0841 24.9618 12.43769122 33168
Activnyi RB
1 20262U 89 80 C 90169.28571788 .00000617 00000-0 19045-3 0 2447
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2 20262 82.5967 227.9224 1261030 336.1895 18.5383 12.43211102 32726
Magion 2
1 20281U 89 80 B 90172.74567304 .00000961 00000-0 29790-3 0 5647
2 20281 82.5950 225.5961 1257204 328.0091 25.0260 12.44028410 33162
GPS BII-04
1 20302U 89 85 A 90158.92932112 -.00000028 00000-0 99999-4 0 1328
2 20302 54.6414 317.4514 0032318 318.4744 41.2700 2.00374314 4682
Meteor 3-3
1 20305U 89 86 A 90171.63988592 -.00000036 00000-0 -10881-3 0 1487
2 20305 82.5517 215.5580 0015334 324.2236 35.7865 13.15858946 31406
COBE
1 20322U 89 89 A 90171.12317209 .00004297 00000-0 28182-2 0 1397
2 20322 99.0203 181.2994 0009659 8.1232 352.0103 14.02393286 29905
Kvant-2
1 20335U 89 93 A 90171.92889242 .00077875 00000-0 87509-3 0 2757
2 20335 51.6133 311.9040 0009997 55.3453 304.5187 15.61858512 32343
GPS BII-05
1 20361U 89 97 A 90156.17029847 .00000015 00000-0 99999-4 0 800
2 20361 54.9860 140.8057 0062556 46.6808 313.9547 2.00579991 3486
SPOT 2
1 20436U 90 5 A 90171.63135856 .00000294 00000-0 15603-3 0 2439
2 20436 98.7346 246.0829 0001128 82.2733 277.8573 14.20025623 21234
UO-14
1 20437U 90 5 B 90171.88813790 .00000563 00000-0 24025-3 0 1679
2 20437 98.6972 247.9857 0011417 139.1583 221.0451 14.28642103 21396
UO-15
1 20438U 90 5 C 90170.86188423 .00000376 00000-0 16638-3 0 958
2 20438 98.7014 246.9472 0010787 142.4110 217.7830 14.28382798 21247
PACSAT
1 20439U 90 5 D 90170.05686079 .00000584 00000-0 24775-3 0 851
2 20439 98.7039 246.2572 0012294 145.5192 214.6788 14.28745186 21138
DO-17
1 20440U 90 5 E 90168.79235554 .00000768 00000-0 32107-3 0 895
2 20440 98.7035 245.0046 0012120 148.5397 211.6509 14.28790263 20950
WO-18
1 20441U 90 5 F 90170.67209536 .00000633 00000-0 26654-3 0 911
2 20441 98.7035 246.9010 0012865 144.2589 215.9452 14.28889020 21229
LO-19
1 20442U 90 5 G 90170.52496173 .00000564 00000-0 23913-3 0 896
2 20442 98.7035 246.7695 0013515 145.3700 214.8365 14.28957434 21201
GPS BII-06
1 20452U 90 8 A 90147.83563653 .00000001 00000-0 99999-4 0 755
2 20452 54.5567 256.8002 0028456 44.6049 315.6465 2.00875970 2439
MOS-1B
1 20478U 90 13 A 90171.82820685 .00000075 00000-0 69125-4 0 3129
2 20478 99.1891 242.0325 0001262 77.7884 282.3441 13.94849028 18641
DEBUT
1 20479U 90 13 B 90169.17967046 .00000026 00000-0 87560-4 0 821
2 20479 99.0383 215.5008 0541780 46.3291 318.1420 12.83157754 16871
FO-20
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1 20480U 90 13 C 90171.05366904 .00000026 00000-0 10651-3 0 836
2 20480 99.0390 217.0162 0541731 42.1674 321.9813 12.83138036 17112
MOS-1B R/B
1 20491U 90 13 D 90172.04979028 .00000167 00000-0 36082-3 0 882
2 20491 99.0364 221.6026 0471052 22.3165 339.7787 13.02735227 16908
Soyuz TM-9
1 20494U 90 14 A 90171.86491347 .00097497 00000-0 10912-2 0 1716
2 20494 51.6135 312.2269 0010720 61.1127 298.7892 15.61855087 20244
LACE
1 20496U 90 15 A 90171.77264232 .00006771 00000-0 41401-3 0 1746
2 20496 43.1004 303.0383 0012850 9.5804 350.5267 15.10703885 19069
RME
1 20497U 90 15 B 90172.65878206 .00012556 00000-0 35337-3 0 1779
2 20497 43.1102 271.8856 0014057 4.2180 355.8485 15.36320503 19527
Nadezhda 2
1 20508U 90 17 A 90171.65378911 .00000142 00000-0 14101-3 0 1001
2 20508 82.9535 57.3535 0044591 338.7687 21.1580 13.73216180 15489
OKEAN 2
1 20510U 90 18 A 90171.86398912 .00002112 00000-0 32342-3 0 1805
2 20510 82.5267 94.3422 0017977 263.7789 96.1280 14.73199779 16614
INTELSAT-6
1 20523U 90 21 A 90172.28190577 .00007319 00000-0 51766-3 0 1846
2 20523 28.3450 236.7735 0016498 230.3449 128.4438 15.02917402 15065
GPS BII-07
1 20533U 90 25 A 90161.92445237 -.00000032 00000-0 00000 0 0 482
2 20533 55.0522 16.1760 0013220 57.8524 302.0320 2.00566529 1471
Offeq 2
1 20540U 90 27 A 90172.81744156 .01279835 -70756-4 15950-2 0 1601
2 20540 143.1802 183.2531 0443741 313.6997 42.8862 15.24811948 11539
PegSat
1 20546U 90 28 A 90172.56198062 -.00001710 00000-0 -10697-3 0 1238
2 20546 94.1201 217.4290 0148463 317.1437 41.8558 15.00457709 11497
HST
1 20580U 90 37 B 90171.52889924 .00002722 00000-0 29953-3 0 994
2 20580 28.4703 228.3351 0006133 166.0301 194.0409 14.84492270 8472
Cosmos 2075
1 20581U 90 38 A 90144.24709396 -.00004275 00000-0 -17923-3 0 877
2 20581 74.0254 356.0235 0023185 277.7210 82.1092 15.23022306 4379
Molniya1-77
1 20583U 90 39 A 90144.15730607 .00000070 00000-0 -16867-2 0 793
2 20583 62.7982 183.9973 7353596 288.2139 9.5835 2.00619305 573
1990 039B
1 20584U 90 39 B 90144.83967752 .03903616 41472-4 10039-2 0 1048
2 20584 62.7619 78.2685 0067648 125.7776 235.2487 16.21902308 4540
1990 39D
1 20586U 90 39 D 90143.60954820 .00000419 00000-0 68663-3 0 226
2 20586 62.8248 184.0281 7395335 288.1806 9.3720 1.96420289 535
Cosmos 2076
1 20596U 90 40 A 90151.40303225 -.00001233 00000-0 79009-3 0 438
2 20596 63.0666 334.8186 7375665 318.5072 4.4103 2.00587266 669
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1990 40B
1 20597U 90 40 B 90148.20589656 .39662252 43947-4 29451-3 0 822
2 20597 62.7886 226.6703 0013442 121.7004 238.9820 16.52106649 4698
1990 40D
1 20599U 90 40 D 90150.97163910 -.00000504 00000-0 -84377-3 0 296
2 20599 63.1771 334.5570 7351260 318.5828 4.4750 2.03474794 660
Cosmos 2077
1 20604U 90159.11959646 0.00895918 40743-4 30538-3 0 857
2 20604 62.8254 330.1747 0057360 101.0778 259.6824 16.20610237 5055
1990 043A
1 20607U 90 43 A 90154.58485080 .00001120 00000-0 20723-3 0 192
2 20607 89.8914 194.9155 0111658 193.2628 166.5623 14.60797763 3634
1990 043B
1 20608U 90 43 B 90163.07909590 .00000913 00000-0 16762-3 0 270
2 20608 89.8877 194.8050 0113706 163.3438 197.1583 14.60807011 4879
1990 043C
1 20609U 90 43 C 90171.49996653 .00002673 00000-0 49253-3 0 346
2 20609 89.8845 194.6763 0115406 134.7122 226.3597 14.61070356 6131
Cosmos 2078
1 20615U 90 44 A 90171.78867040 .00183402 60436-5 15216-3 0 1047
2 20615 69.9841 315.4552 0054706 133.3475 227.2649 16.10297192 5865
Cosmos 2079
1 20619U 90 45 A 90170.98085623 -.00000015 00000-0 99999-4 0 519
2 20619 64.8719 38.8869 0021352 211.0413 148.8961 2.13104966 685
Cosmos 2080
1 20620U 90 45 B 90170.62952013 -.00000015 00000-0 99999-4 0 507
2 20620 64.8743 38.9184 0008637 40.2121 319.9150 2.13103990 681
Cosmos 2081
1 20621U 90 45 C 90170.68787481 -.00000015 00000-0 99999-4 0 420
2 20621 64.8979 38.9113 0011765 200.8677 159.1381 2.13103485 680
1990 045E
1 20623U 90 45 E 90163.20436945 -.00000015 00000-0 99999-4 0 259
2 20623 64.8823 39.1778 0014747 338.6120 21.3945 2.13414211 527
Cosmos 2082
1 20624U 90 46 A 90171.39641548 .00000471 00000-0 27737-3 0 421
2 20624 70.9990 303.7385 0005429 0.8841 359.2281 14.12180135 4123
1990 046B
1 20625U 90 46 B 90165.28612832 .00000008 00000-0 14867-4 0 143
2 20625 70.9992 316.4299 0016110 313.0544 46.9234 14.13305988 3267
RESURS-F
1 20632U 90 47 A 90164.82233651 .00093889 29426-5 14473-3 0 407
2 20632 82.3338 5.1094 0009706 271.1520 88.9515 16.04091927 2491
Kristall
1 20635U 90 48 A 90171.80097653 .00027444 00000-0 31454-3 0 489
2 20635 51.6123 312.5532 0011873 60.8599 299.2947 15.61807758 3209
ROSAT
1 20638U 90 49 A 90172.05794610 .00004016 00000-0 36101-3 0 189
2 20638 52.9905 33.1186 0013920 358.2765 1.8155 14.97680491 2869
1990 049B
1 20639U 90 49 B 90172.04434621 .00013977 00000-0 61127-3 0 229
```

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2 20639 52.5253 23.5318 0075222 311.3412 48.1129 15.19808183 2910
1989 100N
1 20640U 89100 N 90164.84157702 .00302012 00000-0 12684-1 0 287
2 20640 73.5282 100.1213 0015575 186.1766 174.0874 15.21911966 25589
1990 051A
1 20643U 90 51 A 90170.02499123 -.00000056 00000-0 99999-4 0 34
2 20643 0.2125 274.8674 0024444 116.1052 329.4430 0.99973246 47
1990 051B
1 20644U 90 51 B 90171.36776106 .00390128 47406-4 10493-2 0 151
2 20644 27.2738 104.2768 0100070 215.0671 144.2514 15.84909865 1282
1990 051C
1 20645U 90 51 C 90170.83076531 .00144957 27220-4 10087-2 0 101
2 20645 27.1890 165.4801 7506130 183.1906 165.8885 2.05378272 143
1990 052A
1 20646U 90 52 A 90171.19925190 .00000331 00000-0 00000 0 0 85
2 20646 62.8438 226.5785 7426700 280.0455 11.0001 2.00423474 27
1990 052B
1 20647U 90 52 B 90171.42404771 .00873256 11572-4 11179-2 0 164
2 20647 62.8467 199.5626 0148143 126.4116 235.1676 15.88964493 1158
1990 052C
1 20648U 90 52 C 90170.90587622 .01241910 38417-4 91326-3 0 161
2 20648 62.8204 201.3552 0156234 118.3996 243.0484 15.94239816 1071
1990 052D
1 20649U 90 52 D 90169.19268561 -.00003756 00000-0 -23016-1 0 54
2 20649 62.8385 226.8468 7465608 280.0157 10.1759 1.96227319 115
1990 053A
1 20657U 90 53 A 90171.78996475 .00000042 00000-0 00000 0 0 86
2 20657 82.5910 64.1622 0084649 226.5671 132.6700 15.71279153 233
1990 053B
1 20658U 90 53 B 90172.01029418 .22936512 -65877-5 19941-3 0 89
2 20658 82.5792 63.8626 0008396 84.5802 277.3345 16.51835735 274
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
```

3873. NASA Prediction Bulletin Format

Newsgroup: rec.ham-radio
Date: 1990-06-30 04:34:38 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9006300436.AA02855@ucsd.edu>
Source record: 10675

As a service to the satellite user community, the following description of the NASA Prediction Bulletin's two-line orbital element set format is uploaded to sci.space on a monthly basis. The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical to that used by NASA and NORAD. The format description is:

```
Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1; plus sign = 2)
```

```
Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
```

09-16 Inclination [Degrees]
18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6
1 11416U 86 50.28438588 0.00000140 67960-4 0 5293
2 11416 98.5105 69.3305 0012788 63.2828 296.9658 14.24899292346978

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.

--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

3874. Re: Books on Early Electronics For Sale

Newsgroup: rec.ham-radio
Date: 1990-06-30 05:06:16 UTC
From: crisp@mips.COM
Message-ID: <39820@mips.mips.COM>
Source record: 10578
Cross-posted to: misc.forsale,rec.ham-radio,sci.electronics

In article <861@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>
>
>When I was at Dayton this year, I saw a book by H.P Maxim (ARRL
>founder) that was a real interesting piece of work. It was a
>bona-fide crackpot tome about using radio to communicate with
>extra-terrestrials! The book detailed some of Maxim's far-out
>philosophy, and was a real eye-opener concerning the "eclectic"
>interests of "our founder."

Many of you may be surprised to learn that Hiram Percy Maxim, son of
Sir Hiram Stevens Maxim was also the inventor of the world's first
practical firearm silencer. His father, H.S. Maxim was the inventor of the
first machine gun. His father's invention saw extensive use in the
hands of the Germans in WW1 in the form of the MG08. Son Hiram P's
invention was very popular with farmers, ranchers and mobsters until
1934 at which time Federal Law in the US made possession of his inventions
and his father's inventions subject to federal registration.

Hiram P's uncle, Hudson Maxim, was the inventor of smokeless gunpowder,
the self propelled torpedo, and a number of other explosive devices.

--
Richard Crisp crisp@mips.com
MIPS Computer Systems !decwrl!mips!crisp
928 Arques MS 2-02 (408) 524-8177
Sunnyvale, Ca 94086

3875. Re: Phonetic Alphabet

Newsgroup: rec.ham-radio
Date: 1990-06-30 10:31:19 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9006301031.AA04575@cmr.ncsl.nist.gov>
Source record: 10580

The phonetic alphabet can be found in the ARRL Operating Manual, which has loads of other useful info. Available by mail, at ham stores, etc.
Bob W3OTC

3876. Low cost spectrum analyzers

Newsgroup: rec.ham-radio
Date: 1990-06-30 14:23:31 UTC
From: rick@ameristar.uucp
Message-ID: <1990Jun30.142331.295@ameristar>
Source record: 10582
Cross-posted to: sci.electronics,rec.ham-radio

I am looking for a low cost (< US$10K) spectrum analyzer that covers as much of 10 kHz -> 3 gHz as possible. The two units I've looked at so far are the Tek 2710 and the Hameg box. Comments on the 2710 in particular would be appreciated, as well as any other units you know of.

Thanks,

Rick Spanbauer, wb2cfv
Ameristar

3877. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-06-30 15:08:12 UTC
From: jack@swlabs.uucp
Message-ID: <1990Jun30.150812.105@swlabs.uucp>
Source record: 10590

In article <1250181@hpnmdla.HP.COM> glenne@hpnmdla.HP.COM (Glenn Elmore) writes:
>Bob Atkins KA1GT writes:
> I got my copy of CQ like everyone else and I see no particular reason that
> the current advertisers should be particularly helpful to articles of
> more technical depth. QEX at least has some of the "fringe" advertisers.

It seems that the key is the advertisers. HR was driven out of business
by the lack of advertising revenue.

It seems that the advertisers have everything to lose by supporting
publications which help hams "roll your own". If I were in the business
of selling "rice boxes", it would be in my best interest to advertise in
a publication that encourages appliance operation. I am not putting my
product in competition with the article on the next page describing how
something similar can be home brewed. Nor am I trying to sell merchandise
to those likely to build it themselves.

If I were the paranoid type (which I am not), I would think that the
advertisers may have conspired to drive HR out of business. Any lawyer
types out there want to start a class action suit?

OK, :-)

Now back to reality. I think HRs demise is a result of the demographics
of the amateur radio population. Until we get a crop of operators that
think that there is something more to ham radio than getting a $10 or $20K
station and contesting (or DXing), there is little else we can do about
big monthly publications.

On the other hand, maybe the net is the perfect choice as a medium geared
toward technically oriented hams. We could standardize on .GIF or ORCAD
files to describe the circuits and distribute them in multipart articles.
Seems a bit like the comp.sources hierarchy here on Usenet.
--
Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612
uunet!swlabs!jack (UUCP)
jack@kc1uh (TCP/IP)
kc1uh@wb1cqo (AX.25)

3878. Re: Was How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-06-30 19:18:00 UTC
From: winter@Apple.COM
Message-ID: <42530@apple.Apple.COM>
Source record: 10583

In article <1774@apctrc.UUCP> zslf0a@gpss5 (Steven L. Farmer) writes:
>In article <42447@apple.Apple.COM> winter@Apple.COM (Patricia Winter) writes:
>>That's where I got the vast majority of my awning DXCC contacts.......
>
>Ok, come clean Patty..... Its common knowledge in contest circles that
>you've been running a stacked, phased, microprocessor controlled *array*
>of awnings on a fully rotatable building.
>
>Why you 'big house' ops keep up this pretense of modesty is beyond me.

Damn--I've been found out!

How did you do it, Steve? Did someone who was visiting the Bay Area
drop by my mobile home park and notice the network of coax connecting
all the houses and feeding back to a giant antenna switch on my porch?

Did he perhaps take a nighttime aerial photo in which he could see that
I had switched on just the right awnings to form an arrow of RF pointed
towards Albania??

Oh, well--guess it's time I fessed up. Would you like me to write an
article for Ham Radio--er, uh, QST?, er, uh, QEX?, explaining how
I built a simple homebrew 68030-based controller to control which awnings
are active at any given time?? As long as the cat is out of the bag, we
might as well use the opportunity to give people one of the state-of-
the-art technical articles they've been clamoring for.

:-) :-) :-)

73,
Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3879. Re: Denmark & Holland

Newsgroup: rec.ham-radio
Date: 1990-06-30 23:06:37 UTC
From: geertj@philica.ica.philips.nl
Message-ID: <618@philica.ica.philips.nl>
Source record: 10584

[This might be of general interest, so I'd better post. Something for Commonly Asked Questions :-)?]

In article <1990Jun21.044345.21793@cbnewsj.att.com> mea1@cbnewsj.att.com (michael.e.alterman) writes:
>Are there repeaters on 2M and 440 MHz around those countries as there are here,
>and will our current equipment be fine for accessing them, or do they have
>different requirements for access, such as special tones, or different offsets?

2M band runs from 144.0-145.99 in Europe. (so only 2MHz available)
Some interesting frequencies are:
145.200-145.575: FM simplex frequencies. 145.500=general calling frequency,
145.550=moble working frequency.
145.600-145.775: Repeater outputs. Inputs are 600 KHz lower.

Stay out of 144.8-145.0 (beacons), 145.8-146.0 (satelite).
Channel space is 25 KHz, sometimes 12.5 KHz (seldom).
Some countries still have repeaters on 145.8 or 145.825 (and apperently
don't care about disrupting satelite services :-(.

Working a repeater:
Don't know the American procedure, but in Europe most things are common:
For most repeaters, you need an oscillator of 1750 Hz to 'open' a repeater.
You send a burst of a few seconds, and the repeater will usually send its
callsign. Some repeaters are voice controlled, so 1750 Hz isn't required.
Subaudio etc not required, telephone access is never available.
All repeaters are open. Third party traffic forbidden.

70 CM situation is different in every country. For Holland: 70cm runs
from 430.0-440.0. Shift is +1.6 MHz, so input on 431.7, output on 430.1.
70cm is not as busy as 2M. If I remember correct, repeaters are from
430.0-430.2. Your best luck is to start on 2M. Note that repeater
allocation (as well as frequency allocation, which is the source of all
this trouble) is different in every country. Some lack 430-432, some
438-440, some both. Repeater shift is sometimes -1.6 Mhz, sometimes
7.6 (don't know the sign). As said, best start is on 2M.

Please don't take the situations on repeaters as representative for the
Ham community. You won't find me at those frequencies, for good reasons.

>Are the operating procedures on VHF/UHF repeaters similar to in the USA?
Don't know the American procedure. Just mention your call (_slowly_, English
is a second language for us) and tell what you want.

>Can we obtain directories of repeaters, before we leave home.
Send me your FAX number and I'll see what I can do (lists I have are a little
aged, but things don't change much)

>What is the required procedure for reciprocal operating privileges?
Contact for Holland:
Hoofddirectie Telecommunicatie en Post
Directie Operationele Zaken
Postbus 450
9700 AL Groningen
HOLLAND
Telephone: +31 50 22 21 20

You might be late for your application.

73, Geert Jan PE1HZG

--8<--nip-nip----------

Geert Jan de Groot, Email: geertj@ica.philips.nl
Philips ICA, ..!hp4nl!philica!geertj
Weisshausstrasse, Ham: PE1HZG
5100 Aachen, West-Germany

phone: +49 241 6003 714 "Programs are like waffles:
fax: +49 241 6003 709 you should always throw the first one out"
[Standard disclaimers apply] - Sutherland

3880. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-01 04:03:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500577@ux1.cso.uiuc.edu>
Source record: 10585

> Further, a random kerchunk is no longer illegal, since hams are now only
> required to ID at the termination of a series of transmissions. For
> someone trying to find a hot spot to get into the machine with his
> handheld, a series of kerchunks preparatory to IDing is neither illegal
^^^^^^ ^^ ^^^^^^^^^
> nor improper.
^^^ ^^^^^^^^

It is ANNOYING! Why do you need more that one? Why do you even need to kerchunk at all? Just transmit, state your purpose, ID, and let up.

If you don't normally hear a tail on this repeater, kerchunking isn't going to get you anything anyway, so just listen for someone to answer.

If you do normally hear a tail (either a BEEP or just a noise burst) then you know you got in. If not, you might not have, or was seriously choppy.

If it is a test in and of itself, it is a complete transmission and needs and ID at the end of it, that means when the testing is done, ID it. Since a series of kerchunks give you no more information that ONE does, you only need one, and you need to ID at the end of it.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3881. Re: FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-07-01 04:15:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500578@ux1.cso.uiuc.edu>
Source record: 10586

Contesting annoys a lot of people. Maybe if the contesters would voluntarily limit themselves to a portion of the band, the attitudes people have against contesting and contesters would ease up. Maybe the contest promoters could improve the situation. I think I'll hang on to my "new" subscription to CQ just long enough to ask them to make their contests off limits to certain frequencies on all bands.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3882. Re: NJ "Scanner Law" PASSES in Senate!!

Newsgroup: rec.ham-radio
Date: 1990-07-01 04:34:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500580@ux1.cso.uiuc.edu>
Source record: 10587

> **
> IMPORTANT NEWS FOR NEW JERSEY READERS!!!!!
^^^^^^^^^^^^^^^^^^
> **
>
> There's good news and bad news... S-305 was PASSED by the New Jersey
> Senate. The bill has been referred to the Assembly Judiciary, Law
> and Public Safety committee. New Jerseyites are just two steps away
^^^^^^^^^^^^^^
> from being able to legally use wideband receivers in their automobiles.

Does this bill only exempt residents of New Jersey from the anti-scanner law?

Actually I suspect it is being written to exempt all hams, but the first point I am trying to bring up is that residents of New Jersey are NOT the only people affected by this bill. I want to urge anyone and everyone who has important postings on this to NOT restrict the distribution.

Now, maybe this time you will realize the matter in New Jersey is of a national concern, not just in New Jersey.

> The bad news is that NJ's law enforcement community is complaining
> about the bill. I received a letter from Senator John Lynch (sponsor
> of S-305) urging supporters of the bill "to contact Assemblywoman
> Ford (Chairperson of the Assembly Committee reviewing S-305) to
> press for timely consideration of the bill by her committee and assure
> that the amendments to this legislation do address the legitimate
> concerns of law enforcement groups".

We definitely need to write. And people from out of state can be just as important as people from in state. Remember to mention that without this change in law, for many hams the very act of crossing the New Jersey state line is a violation of state law in New Jersey. It isn't simply a matter of hams doing things like boycotting New Jersey, but rather that because it is a matter of law, we simply cannot go to New Jersey without risking arrest. Of course then our dollars are not spent in New Jersey, are they?

> The address for The Honorable Marlene Lynch Ford is:
>
> 200 Main Street, Suite 2
> Toms River, NJ 08753
> 201-240-2200

Write, even from out of state... ESPECIALLY from out of state.

> Senator Lynch attached a letter to Assemblywoman Lynch from P.O.
> Michael Brunson, chairman of the legislative committee of the NJ

> Police Traffic Officer's Association, urging ammendment of S-305.
> His concerns were:
>
> - persons with the ability to receive police communications
> will interfere with emergency activities.

This seems to reflect an attitude problem on the part of the Police
in New Jersey. Notice the word "will". An attitude of the assumption
of guilt has no place in law enforcement in any state.

> - they will try to avoid traffic tickets by ascertaining
> the location of patrols.

Again, that nasty word "will". Can someone verify if in fact the
word "will" really was used?

> - And "many many more reasons that I could cite you and your
> committee" - though apparently he could not think of
> any at the time he wrote his letter.

I bet these are ficticious.

> I agree with Officer Brunson that anyone who uses a scanner to
> interfere with emergency activities should be ARRESTED. And that is
> exactly what S-305 provides for - misuse of radios is ILLEGAL, possesion
> is LEGAL. I disagree with his second point - having listened to police
> communications for a long time, there is little or nothing that would
> be of any use to speeders.

I agree, as well, about the actual criminal acts... arrest is warranted
if they occur.

> I strongly suggest readers WRITE or CALL Assemblywoman Ford TODAY, as
> well as your own assemblywoman.
^^^^^^^^^^^^^^^^^

For those of you from out of state, you need to write to the governor of
New Jersey to make sure this bill is signed. Lou, please get us the proper
address to write to.

> Thanks,
> Lou

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3883. Re: Phonetic Alphabet

Newsgroup: rec.ham-radio
Date: 1990-07-01 06:25:29 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007010635.AA14746@ti.com>
Source record: 10589

From: TILDE::"rc@CMR.NCSL.NIST.GOV" "Robert Carpenter" 30-JUN-1990 12:52:49.16
To: info-hams-incoming
CC:
Subj: Re: Phonetic Alphabet

The phonetic alphabet can be found in the ARRL Operating Manual, which has
loads of other useful info. Available by mail, at ham stores, etc.
Bob W3OTC

3884. RUSSIAN PHRASES FOR AMATEUR RADIO

Newsgroup: rec.ham-radio
Date: 1990-07-01 08:15:15 UTC
From: jeffb@music.asd.sgi.com
Message-ID: <9814@odin.corp.sgi.com>
Source record: 10588
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

I am posting this message for Len. You can e-mail to him at
73147,3073@compuserve.com. Since I am not a ham radio operator, and know
very little about this project, please contact him with any questions. Also,
please mention where the information you received about this project came from.

RUSSIAN PHRASES FOR AMATEUR RADIO: UPDATE

This is a new 20-page syllabus compiled by W6HJK to help amateurs
better communicate with their Soviet colleagues. A 90-minute audio
cassette has been added to help with pronunciation. You need not be
an expert in Russian, only interested in "trying."

The booklet provides (1) English words and phrases for QSOs,
accompanied by (2) the Russian translation and (3) the English
transliteration, to assist you in pronouncing the Russian.

The syllabus follows the natural sequence of a QSO. There are
additional sections on the Russian alphabet, phonetics, CW characters,
numerals, and given names. Suggestions are made for addressing mail
to the Soviet Union.

The author undertook this project out of a personal interest in
improving the quality of his QSOs with Soviet hams and to enhance USA-
USSR relations. A nominal cost of $5 ($7 international) for the
booklet, and $6 ($8 international) for the audio cassette, are payable
to the Beyond War Foundation, the original sponsor and an educational
endeavor to build global dialogue and cooperation.

Requests should be sent to: RUSSIAN PHRASES FOR AMATEUR RADIO
Len Traubman, W6HJK
1448 Cedarwood Drive
San Mateo, California 94403, USA
Telephone: 415-574-8303
FAX: 415-573-1217

--

Jeff

3885. Re: Grounding a roof top station.

Newsgroup: rec.ham-radio
Date: 1990-07-01 12:12:45 UTC
From: vern@zebra.UUCP
Message-ID: <211@zebra.UUCP>
Source record: 10595

In article <715A27FB513F00008E@NRCNET.NRC.CA> EVERETT@HIARAS.NRC.CA writes:
>Greetings all,
>
>I have a problem that I am sure that another fellow ham must have
>encountered before and perhaps could help me out.
>I operate the University of New Brunswick ARC station located in
>Fredericton, NB, Canada. The station is current in the process of
>relocating its tower and we have a bit of a problem. The station is
>located on the 3rd floor of the EE building with a 50 foot coax run out
>to the antennas. The tower and antennas are located on a wide flat
>(as in none-sloping) roof. It is at least 100 ft to the ground from the
>tower site. As a result there is little we can do to ground the tower.

First, find out from the Facilities Engineering group how the
building is protected from lightning. Many buildings use the steel of
the building frame or the the reinforcing rods is the building columns.
These are supposed to be welded together and connected to a ground plane
established before the building was constructed. Otherwise, external
grounding cables are run down the outside of the building.

When running grounding cables for lightning protection, consider
lightning to run downhill like water. Loops and dips in the grounding
wire will fail to usher the lightning bolt to the desired sink. The
reasoning in considering that lightning runs downhill is that the
extreme voltage gradients present in the atmosphere during lightning
activity will also be established in the grounding wire and are a
function of the distance above the level of your grounding sink.
"Uphill" loops in the grounding wire will have the internal voltage
gradient overcome by the more intense lightning field and the conductor
will be blocked from carrying the bolt current away from the protected
structure, antenna or what have you.

There are also considerations that the 'down wires' can produce
side flashes through a building wall if there is a lower voltage path
within the building than there is in the lightning grounding wire. All
down wire paths should be inspected for possible alternative pathes
within the building. If you don' find them, the lightning bolt is sure
too.

Check with the Architectural plans for the building you are in and
consult with people who are learned in the lightning protection field.
Here in the US, our National Fire Protection Association (NFPA) has
a separate section of the code addressed specifically to lightning
protection which is separate from the normal wiring code.
--

Vernon C. Hoxie {ncar,nbires,boulder,isis}!scicom!zebra!vern
3975 W. 29th Ave. voice: 303-477-1780
Denver, Colo., 80212 TB+ uucp: 303-455-2670

3886. h-t battery pack meltdown!

Newsgroup: rec.ham-radio
Date: 1990-07-01 15:05:52 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <49407@iuvax.cs.indiana.edu>
Source record: 10591

Last week, a friend was carrying a large aftermarket NiCd battery pack for an Icom IC-02AT in his pants pocket. He bought something at a store, and dropped the change into the same pocket. A coin shorted the terminals on the top of the battery. The plastic case caught fire, burning a one-inch hole in itself and setting the owner's pants on fire. He escaped injury.

This was NOT an Icom product: Those have internal fuses (tiny wires). I don't know the brand; it was larger than Icom's BP-8.

I heard about a cop whose Motorola radio battery was shorted by loose pistol ammunition in his pocket-- A cartridge fired and the bullet went into his leg.

--

Frank Reid W9MKV @ K9IU reid@ucs.indiana.edu

3887. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-01 15:26:32 UTC
From: gary@ke4zv.UUCP
Message-ID: <824@ke4zv.UUCP>
Source record: 10596

In article <1250182@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>
>> A good ground system is your first line of defense against TVI, so
>> let's consider it for a moment. I used to have some terrible TVI
>> problems when I first started running power. What worked for 100
>> watts was a joke of a ground system that was not effective at 1500.
>> Your mileage may vary, but here is what I did...
>
>----------
>
>Could someone please explain to me through what magic a "good ground"
>can cure/prevent TVI? I have seen this claim many times through the
>years, sometimes in reputable ham publications, but I believe it to be
>a total crock.
>
>For one thing, unless your ham shack is sitting right at ground level
>with a VERY short ground cable, the equipment won't be at RF ground in
>any case (4 feet is 1/8 wavelength at 30 MHz). On VHF/UHF, where the
>TV channels are, it's even worse.
>
>For another thing, so what if you COULD get the station equipment right
>at RF ground potential. It's the antenna that does most of the radiating,
>if your antenna system is working correctly. If you have VHF/UHF leakage
>from transmitter or coax cables, grounding them might change the radiation
>pattern somewhat, but this would be as likely to increase TVI as decrease
>it, depending on the specific location of ham equipment and TV.
>
>Seems to me that shielding, filtering, and reducing the RF field in the
>vicinity of the TV set and antenna are the things to try.
>Grounding is a red herring.
>
>Al N1AL

Ok the reason grounding is necessary is that your transmitter uses single ended unbalanced filters for interstage and output coupling. These filters are the primary method of suppressing out of band radiation. It does no good for these filters to bypass out of band energy to the chassis if the chassis is not at true RF ground. All you get is a "hot" chassis and radiation down the OUTSIDE of your coax.

It is relatively simple to get a good RF ground at your equipment. First, use several ground leads of different lengths between your equipment and your ground system. This breaks up any resonances in your ground leads at the frequencies you are trying to suppress. Second, I like to use the shielded ground trick. I use coax for ground runs with

the shield and center connected to ground and only the center connected to the radio. This prevents any ground lead that happens to be at a high impedance at the frequency of interest from radiating. This technique works sucessfully even if your shack is on the second floor as mine is.

Gary KE4ZV

3888. Subscribe to QEX ?

Newsgroup: rec.ham-radio
Date: 1990-07-01 17:34:02 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007011734.AA05107@cmr.ncsl.nist.gov>
Source record: 10601

Glenn Elmore convinced me to subscribe to QEX.

So I've gone to the July 1990 issue of QST to find the subscription info. I've found 11.9 pages of advertising for League publications, BUT NOT ONE SINGLE MENTION OF QEX. Call that pushing the tech interests! OK, many of the publications being pushed ARE technical, at least to some extent.

Can anyone help by telling me the price of QEX?

73, Bob W3OTC

3889. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-07-01 18:18:33 UTC
From: kchen@Apple.COM
Message-ID: <42548@apple.Apple.COM>
Source record: 10592

jack@swlabs.uucp (Jack Bonn) writes:

>On the other hand, maybe the net is the perfect choice as a medium geared
>toward technically oriented hams. We could standardize on .GIF or ORCAD
>files to describe the circuits and distribute them in multipart articles.
>Seems a bit like the comp.sources hierarchy here on Usenet.

Let's give it a try!

This will not just benefit Usenet, imagine what it will do for the
amateur packet world too.

The last time schematic exchange was discussed in sci.electronics, no
one agreed on a format and the idea simply died. Some folks wanted CAD
readable format, some wanted their IMSAI to be able to display it, and
so on and on. Personally, I don't believe we need more than what we get
from magazines, for now - i.e., hardcopy diagrams.

There is also an attempt currently by Glenn Reid on finding an interchange
format for fancy email (i.e., including diagrams, and fancy fonts) around
PostScript. IMHO, even that would work for us. Heck, how about posting
a compressed version of PCL, even.

Are us Hams more rational and willing to compromise than the more general
sci.electronics community? I myself am willing to barf out code for the
Mac or the PC in whatever format the majority agrees on to make this
interchange a reality. Since I am with Printing here, I certainly would
volunteer to do a "Whatever-to-PostScript" translator and a "Whatever-to-PCL"
translator (although someone at HP can do the second job much better than
I can :-) for the project.

We can then stop posting ASCII J-poles :-). Someone gonna start with an
SWR meter or a Grid-dip meter??? :-) :-) :-)

Perhaps there is a silver lining behind CQ's takeover of HR, afterall; if
it will move us collectively to do something.

Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

3890. the Winnebiko 3's Brain-interface Unit

Newsgroup: rec.ham-radio
Date: 1990-07-01 18:31:23 UTC
From: wordy@cup.portal.com
Message-ID: <31319@cup.portal.com>
Source record: 10593

The Brain Interface Unit (BIU)
by Steven K. Roberts, N4RVE
Nomadic Research Labs
(from Nomadness, issue #9)

This issue's cover photo shows the Grand Turing Machine's bio-controller embedded in its interface shell, linked through visual, aural, and kinesthetic channels to on-board silicon-based systems. As shown in the photograph, every effort has been made to maximize communication bandwidth with the neuron-based system inside the flesh-shrouded head assembly. A 720 X 280-pixel display presents an apparent graphic overlay upon the system's binocular view of the world, spectrally peaked at 720 nanometers to minimize any ambiguity with reality and adjustable in apparent focus to minimize attention-switching stress. A second visual sub-window is provided by a circular optical reflector mounted on the solar attenuation shield, giving the controller a steerable view of conditions aft. Optional visual attenuation filters are shown installed, softening specular reflections while diverting airflow-borne particulates from the moist and delicate components of the image-acquisition optics.

Both of the rider's aural channels are coupled to transducers that allow transmission into the brain of synthesized human language, long-range bidirectional RF communication with others of the same species, alert messages, or any of a number of complex stereophonic wavefronts selected for relaxation, stimulation, motivation, or subjective time-compression purposes. Note that these transducers are of limited bandwidth, but can be augmented by miniature units inserted directly into the auditory canals, or alternatively by high-power acoustical drivers located behind the entire brain packaging system. Human speech utterances are converted into analog data by an input transducer, and are coupled through the audio network to speech recognition, recording, or communication subsystems as required.

Due to the human visual system's insensitivity to infrared and other useful wavelengths, the BIU incorporates powerful directional parabolic light transmitters, with two different degrees of collimation to accommodate varying road conditions. This has been proven more effective than constraining the beam's axis to that of the bike, since the bio-system is capable of rotating the entire head assembly to center the region of interest in its visual frame of reference (which is not necessarily co-axial with the bike's current physical trajectory). Whenever the system is traversing a region of the planet that is devoid of sunlight, reflections of these beams from landscape

features allow real-time decision-based navigation at normal velocities. A future version will reduce power requirements by overlaying an image-intensification system upon the visual field, but this is not a standalone solution (since it is beneficial for other autonomous wetware systems -- especially those piloting petroleum-based land vehicles -- to recognize the presence of the Megacycle and take appropriate evasive action).

The ability of the bio-system to track objects of interest through precise 3-axis positioning of the head assembly enables an additional level of interface with the on-board computer network. Three 40 kHz ultrasonic receivers positioned on the BIU's crown and temples receive a reference beam transmitted from the console. Pitch and yaw angles are derived from raw phase and doppler information, and are used by a dedicated processor to determine precise head pointing angle. This data, in quadrature form, is converted to conventional ADB events and passed to the Mac, yielding an apparent link between the rider's nares and the on-screen cursor. All mouse pointing is done with head movement; clicking and dragging are accomplished via handlebar contact closures antipodal to the data-entry keys associated with the user's phalanges.

The BIU is designed to cushion the relatively delicate host organism upon occurrence of rapid deceleration associated with impact. Should the human system separate from the Megacycle and become launched upon a divergent ballistic trajectory, the twin coiled cables carrying all interface lines will achieve full extension, actuating lanyard-release connectors. This is designed to prevent abrupt cervical misalignment or separation in high-velocity emergency situations.

Wetware temperature rise resulting from the accumulated losses of propulsion workload (exacerbated by the low thermal conductivity of the shock-isolating foam shell, especially under conditions of elevated ambient) can be controlled through a fluid heat exchanger closely coupled to the scalp and thermally pumped by a remote 50 watt Peltier-effect module. Continuous bio-system hydration is managed by the same fluid loop via a small sip tube to be positioned next to the speech output device (which doubles as the input port of the human alimentary tract and twin oxygen-uptake units).

Since the osseocarnisanguineoviscericartilaginonervomedullary system is essentially dependent upon fluid-evaporative cooling (despite significant augmentation by the heat-exchanger), there is potential for heavy accumulation of concentrated saline exudate within the BIU interface layer. This is reduced through an absorptive accumulator that can be manually cleared, as well as a circumferential fluid-removal channel that carries waste coolant back to the occipital region and thence into an overflow tube. These measures insure a minimum of irritation to the delicate ocular membranes under heavy load (the wetware information system, though only dissipating about 10 watts, is unfortunately dependent

upon the same metabolic processes that support the bio-engine's
fuel, waste, and heat management facilities).
In short, the BIU is the key interface link between the
Megacycle and all aspects of its biological host organism. It provides
crash safety, cooling, hydration, sweat removal, visual graphics
display, luminance attenuation, communication and entertainment
audio, a voice control channel, a view of the road behind, a steerable
light source, and a mechanism for hands-free mouse control.
And I never ride anywhere without it.

3891. Preliminary Agreement on 7 MHz for WARC-92

Newsgroup: rec.ham-radio
Date: 1990-07-01 19:00:57 UTC
From: rh@well.sf.ca.us
Message-ID: <18826@well.sf.ca.us>
Source record: 10594
Cross-posted to: rec.radio.shortwave,rec.ham-radio

A tentative agreement was reached on June 29th at a meeting of the informal working group concerned with shortwave reallocations at WARC-92. If it sticks, it could resolve the current (suboptimal) situation in which hams in North and South America share part of the 7 MHz band with international broadcasters.

The Industry Advisory Committee working group tentatively agreed to propose to the FCC that hams be allocated 6950-7250 kHz on an exclusive basis worldwide, while broadcasters get 7250-7750 kHz on an exclusive worldwide basis.

There will be a follow-up meeting early in July, and in a few months, the FCC will get together with US Government spectrum users and put together the US positions to take to WARC. So the above proposal is quite preliminary. But it was agreed to rather quickly, and no opposition was voiced within the group (pending successful reaccommodation of certain fixed services).

For in-depth and ongoing coverage of preparations for WARC-92, visit the "Airwaves" conference of Capital Online, a new computer conferencing system based in Washington, DC (202-833-1591; 300/1200/2400 baud, 8-N-1; hit the spacebar and type preview at the prompt).

--
%^%
Robert Horvitz 1122-1/2 E St. SE Washington, DC 20003-2232 USA
rh@well.sf.ca.us ...{apple,pacbell,hplabs,ucbvax}!well!rh

3892. AMSAT News, 6/30/90

Newsgroup: rec.ham-radio
Date: 1990-07-01 22:00:06 UTC
From: tad@ssc.UUCP
Message-ID: <870@ssc.UUCP>
Source record: 10597

Here it is, for June 30th. This is formatted so that you can upload
it directly to packet.

Could anyone uploading this to the packet network send me a note
via packet? My address is KT7H @ N7HFZ.WA.USA.NA.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

SB ALL @ AMSAT $ANS-181.01
SPECIAL EVENT STN ON AO-13

HR AMSAT NEWS SERVICE BULLETIN 181.01 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990
TO ALL RADIO AMATEURS BT

Special Event Station W90ES To Be Heard On AO-13 July 7-12th

Richard Gilbert (W5UMZ) of Clute, TX has informed AMSAT News Service (ANS)
that the M.D. Anderson Hospital club station (KK5W) has been made available
for operation as a Special Event Station during the Economic Summit to be
held in Houston, Texas, July 7-12, 1990. The call KK5W/W90ES has been
requested and granted from the FCC for this operation. Operations are
planned on all the HF bands and AO-13 Mode B for this period. Amateurs who
make a contact with W90ES and wish to receive a beautifully colored
certificate that will display the flags of all the countries participating in
this Economic Summit should send their QSL card to:

W90ES
M.D. Anderson Cancer Center
1515 Holcombe Blvd.
Houston, TX 77030
/EX
SB ALL @ AMSAT $ANS-181.02
OSCAR FD OPS A MAJOR SUCCESS

HR AMSAT NEWS SERVICE BULLETIN 181.02 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990
TO ALL RADIO AMATEURS BT

Field Day OSCAR Operations A Major Success

As many radio amateurs ponder last week's Field Day simulated emergency exercise, many a devoted FD operator will exclaim that they made their most contacts on 20M. While others will be inclined to say that 15M was the "hottest" band this year. However, for one day this year, those operating OSCAR stations at FD sites can say that AO-13 and AO-10 sounded, in many ways, like 20M! One operator that was surprised by the enormous activity while participating in FD '90 was AMSAT-NA President Doug Loughmiller (KO5I). Doug reported that he had never heard a day when there was so much activity on the birds. And most of the stations he heard were working from FD sites using emergency power. Another AMSAT stalwart, Jim White (WD0E), reports that he made 77 contacts during the first 2 hours of the Mode B segment from his battery powered FD station. Jim said that just when he thought that Mode B had "dried up," more new stations showed up on Mode JL for him to work. After FD was over, Jim remarked that he wondered why he doesn't hear these stations on the OSCARs more often. Still more reports have come in this week to the AMSAT News Service (ANS) about FD activity. W5IU, N8DUY, W0CY, and N5BF all expressed their satisfaction at working plenty of stations on AO-10 and AO-13 from their FD sites.

More than just a novel thing to do on FD, these satellites display their potential in providing another reliable means to move emergency message traffic out of a disaster area. Many of these FD stations mentioned above were using simple stations set up and operated under "less-than-optimium" conditions in the spirit of the FD event. AMSAT congratulates all those who undertook satellite operations during FD '90. If you didn't think it was worth it to set up an OSCAR station in order to make that one necessary satellite contact for a hundred bonus points for FD, think again. "QRZ FD, this is ...."
/EX
SB ALL @ AMSAT $ANS-181.03
AMSAT-NA BOD SLATE SET

HR AMSAT NEWS SERVICE BULLETIN 181.03 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990
TO ALL RADIO AMATEURS BT

Eight Candidates Run for Three Seats on the Board-of-Directors For AMSAT-NA

The following slate of Candidates has been nominated to run for the Board-of-Directors. They are:

1) Joe Kasser (G3ZCZ)
2) Jack Crabtree (AA0P)
3) John Champa (K8OCL)
4) Junior De Castro (PY2BJO)
5) Doug Loughmiller (KO5I)
6) Tom Clark (W3IWI)
7) Courtney Duncan (N5BF)
8) Ray Soifer (W2RS)

Ballots will go out in September and the three candidates receiving the most votes will take their seats on the Board for its Annual Meeting this October at the AMSAT-NA Space Symposium & BOD Annual Meeting. The three elected

Board members will serve for a two year period in accordance to the AMSAT-NA Bylaws.
/EX
SB ALL @ AMSAT $ANS-181.04
FIRST CALL FOR PAPERS

HR AMSAT NEWS SERVICE BULLETIN 181.04 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990
TO ALL RADIO AMATEURS BT

Deadline For Summaries Of Papers For AMSAT Symposium Nears

The AMSAT-NA Space Symposium and Annual Meeting will be held October 19-21, 1990 at the Johnson Space Center (JSC) in Houston, Texas. Coming as it does during a year in which two Shuttle missions were scheduled to carry licensed amateurs, this should be an exciting site for the meeting. With the added attraction of the Center's extensive museum and fascinating tours available, the attendance could easily break all records.

However, in order to have a successful meeting, quality papers must be presented. This announcement is to solicit appropriate papers. The AMSAT-NA Space Symposium, to be held in the JSC Visitors' Center Auditorium, is intended to feature talks on the latest in technology in both the manned and unmanned aspects of the Amateur Space Program. Talks on the MICROSATs and their use, Phase IIID, Phase IV, and SAREX are particularly invited. The session Sunday morning at the Ramada Kings Inn will feature presentations aimed at the beginning satellite users and including those wishing to try their hand with the RS birds, AO-13 and the MICROSATs.

Those wishing to present papers are requested to send summaries to the AMSAT-NA office 850 Sligo Ave., Suite #600 Silver Spring, MD, 20910 by July 15, 1990. Those selected for presentation will be notified by August 1, 1990. Final texts will be due in electronic form, either E-mail or floppy disc, by September 1, 1990. Reproducible figures and photographs will be due at the same time.

Let's make this the best AMSAT-NA Symposium ever. Get your summaries in right away.
/EX
SB ALL @ AMSAT $ANS-181.05
SAREX FULL HOUSE

HR AMSAT NEWS SERVICE BULLETIN 181.05 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990
TO ALL RADIO AMATEURS BT
STS-37 Mission to have Four Licensed Amateurs Aboard

It appears that when STS-37 is launched there will be a pile-up on both ends of the QSOs. When the crew for STS-37 was chosen, Ken Cameron KA5EWP was the only licensed amateur on the list. Since then, Ken has been very busy promoting amateur radio to his crew. In May, Mission Specialist Jay Apt passed the Technician Class license test. Recently, Ken has upgraded to General Class and Mission Commander Steven Nagel and Mission Specialist Linda

Godwin passed the Technician Class. Stay tuned to ANS for further updates on the STS-37 Mission.

Word received just prior to press time is that the space shuttle Atlantis, which was being prepared for a secret military launch shortly, is experiencing the same hydrogen leak problem that caused an indefinite postponement of STS-35. As a result, the entire shuttle fleet has been grounded by NASA until further notice. ANS will provide additional news on the STS-35 Astro-1 Mission as it becomes available.
/EX
SB ALL @ AMSAT $ANS-181.06
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 181.06 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

09 Jul 90 0000 184 B N5BF Sunday
16 Jul 90 0115 130 B N5BF Sunday
27 Jul 90 0030 130 B N5BF Thursday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your nearby AMSAT Regional Coordinator listed below. Pick the Regional Area Coordinator nearest you and they can give you a list of AMSAT Area Coordinators who may be closer to where you live.

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David L Filmer, WB9QPG, Box 2077 West La Fayette, IN 47906 317 497-3007
Ron Curry, WA4GSS, 229 W. Green Hill Rd. Ashland, KY 41101 606 928-6672
Byron Lindsey, W4BIW, 1356 Vista Leaf Dr. Decatur, GA 30033 404 636-7452
Keith Pugh, W5IU, Box 121576 Fort Worth, TX 76121 817 292-5633
Jim McKim, W0CY, 1721 Glen Ave. Salina, KS 67401 913 827-2927
Gar Anderson, K0GA, 5820 Chowen Ave. So. Minneapolis, MN 55410 612 922-1160
Joe Holman, KA7LDN, 22909 N.E. 24th Place Redmond, WA 98052 206 868-1040
David Cowdin, WD0HHU, 8325 S. Yukon St. Littleton, CO 80123 303 972-0648
Gene Davies, AA6NP, 3450 Ben Lomond Pl. Los Angeles, CA 90027 213 937-7942
Bob Gobrick, WA6ERB, 8825 Etcheverry Dr. Tracy, CA 95376 209 836-9160
/EX
SB ALL @ AMSAT $ANS-181.07
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 181.07 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990

TO ALL RADIO AMATEURS BT

Transponder Schedule for AO-13 Effective 05MAY90

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 000 to MA 100
Mode-JL : MA 100 to MA 125
Mode-LS : MA 125 to MA 130 (Mode S Beacon only)
Mode-S : MA 130 to MA 135
Mode-BS : MA 135 to MA 140
Mode-B : MA 140 to MA 256
Omnis : MA 220 to MA 040

Cross mode B and S QSOs are possible during MA 135 to 140.

The current attitude is:

BLON = 179.6 and BLAT = -4.7 for 02 Jul 90

Magnetorquing of AO-13 is scheduled to begin 02Jul90 and will extend for a few days. It can be expected that the transponders will be turned off during the magnetorquing period (which occurs toward the perigee end of the orbit). Once magnetorquing has been completed, BLON is expected to be 210 and BLAT is expected to be 0. Check the PSK, RTTY and CW bulletins on AO-13 beacons (145.813 and 435.651 MHz) for up to the minute Magnetorquing information.

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.
/EX
SB ALL @ AMSAT $ANS-181.08
AO13 TRNSPNDR SKED EXPLAINED

HR AMSAT NEWS SERVICE BULLETIN 181.08 FROM AMSAT HQ
SILVER SPRING, MD JUNE 30, 1990
TO ALL RADIO AMATEURS BT

As a point of explanation, the space industry uses the parameter Mean Anomaly (MA) as a term that describes a satellite's position in its orbit. An orbit of any satellite is broken down into 256 equally spaced (from an angular perspective) segments. Mean Anomaly 000 is the point in the orbit which is closest to the earth (perigee). Mean Anomaly 128 is the point in the orbit which is farthest away from the earth (apogee).

AO-13 can operate in a number of different modes:

Mode B: 435 MHz uplink 145 MHz Downlink
Mode L: 1269 MHz uplink 435 MHz Downlink
Mode J: 145 MHz uplink 435 MHz Downlink
Mode S: 435 MHz uplink 2400 MHz Downlink

In addition, AO-13 has two sets of antennae: High Gain and Omni-directional.
Except when noted in the schedule, the High Gain antenna are normally used
(they are configured for Right Hand Circular Polarization (RHCP).

The AO-13 Transponder schedule will indicate over what portion of AO-13 's
orbit you should expect a particular transponder to be operational.
/EX
SB ALL @ AMSAT $ORBS-181.O
Orbital Elements 181.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JUNE 30, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90177.47365881
Element set: 530
Inclination: 26.0107 deg
RA of node: 197.5005 deg
Eccentricity: 0.5961085
Arg of perigee: 154.3991 deg
Mean anomaly: 254.3150 deg
Mean motion: 2.05881318 rev/day
Decay rate: -4.10e-07 rev/day^2
Epoch rev: 5292

Satellite: UO-11
Catalog number: 14781
Epoch time: 90179.69452449
Element set: 753
Inclination: 97.9469 deg
RA of node: 231.8719 deg
Eccentricity: 0.0011941
Arg of perigee: 207.5607 deg
Mean anomaly: 152.4938 deg
Mean motion: 14.65453597 rev/day
Decay rate: 9.34e-06 rev/day^2
Epoch rev: 33765

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90179.90773324
Element set: 238
Inclination: 82.9283 deg
RA of node: 319.8661 deg
Eccentricity: 0.0013376
Arg of perigee: 87.0326 deg
Mean anomaly: 273.2341 deg
Mean motion: 13.72095330 rev/day
Decay rate: -5.60e-07 rev/day^2
Epoch rev: 15105

Satellite: AO-13
Catalog number: 19216
Epoch time: 90174.93372292
Element set: 134
Inclination: 56.9983 deg
RA of node: 149.0016 deg
Eccentricity: 0.6976006
Arg of perigee: 229.8967 deg
Mean anomaly: 44.7257 deg
Mean motion: 2.09704096 rev/day
Decay rate: -1.47e-06 rev/day^2
Epoch rev: 1554

Satellite: FO-20
Catalog number: 20480
Epoch time: 90179.39384981
Element set: 89
Inclination: 99.0362 deg
RA of node: 223.7859 deg
Eccentricity: 0.0541315
Arg of perigee: 23.2217 deg
Mean anomaly: 341.1623 deg
Mean motion: 12.83159377 rev/day
Decay rate: 2.63e-06 rev/day^2
Epoch rev: 1818
/EX
SB ALL @ AMSAT $ORBS-181.D
Orbital Elements 181.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JUNE 30, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90179.87228195
Element set: 170
Inclination: 98.6977 deg
RA of node: 255.9484 deg
Eccentricity: 0.0012719
Arg of perigee: 121.2476 deg
Mean anomaly: 238.9942 deg
Mean motion: 14.28641645 rev/day
Decay rate: -7.04e-06 rev/day^2
Epoch rev: 2253

Satellite: AO-16
Catalog number: 20439
Epoch time: 90176.98995664
Element set: 89
Inclination: 98.7039 deg
RA of node: 253.1757 deg

Eccentricity: 0.0012780
Arg of perigee: 126.8009 deg
Mean anomaly: 233.4351 deg
Mean motion: 14.28748649 rev/day
Decay rate: 3.38e-06 rev/day^2
Epoch rev: 2212

Satellite: DO-17
Catalog number: 20440
Epoch time: 90176.98575389
Element set: 92
Inclination: 98.7042 deg
RA of node: 253.1816 deg
Eccentricity: 0.0012826
Arg of perigee: 126.4283 deg
Mean anomaly: 233.8075 deg
Mean motion: 14.28794921 rev/day
Decay rate: 4.31e-06 rev/day^2
Epoch rev: 2212

Satellite: WO-18
Catalog number: 20441
Epoch time: 90176.97428078
Element set: 94
Inclination: 98.7032 deg
RA of node: 253.1910 deg
Eccentricity: 0.0013374
Arg of perigee: 127.5597 deg
Mean anomaly: 232.6799 deg
Mean motion: 14.28891914 rev/day
Decay rate: 2.53e-06 rev/day^2
Epoch rev: 2212

Satellite: LO-19
Catalog number: 20442
Epoch time: 90176.96688536
Element set: 93
Inclination: 98.7032 deg
RA of node: 253.1992 deg
Eccentricity: 0.0013755
Arg of perigee: 127.1591 deg
Mean anomaly: 233.0849 deg
Mean motion: 14.28960542 rev/day
Decay rate: 3.28e-06 rev/day^2
Epoch rev: 2212

/EX
SB ALL @ AMSAT $ORBS-181.M
Orbital Elements 181.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JUNE 30, 1990

TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90179.93561358
Element set: 350
Inclination: 51.6021 deg
RA of node: 244.6918 deg
Eccentricity: 0.0001214
Arg of perigee: 347.8774 deg
Mean anomaly: 12.2286 deg
Mean motion: 15.64971553 rev/day
Decay rate: 3.4529e-04 rev/day^2
Epoch rev: 46669

Satellite: MIR
Catalog number: 16609
Epoch time: 90179.92615156
Element set: 762
Inclination: 51.6130 deg
RA of node: 271.5432 deg
Eccentricity: 0.0011071
Arg of perigee: 86.8472 deg
Mean anomaly: 273.3863 deg
Mean motion: 15.62171774 rev/day
Decay rate: 2.5356e-04 rev/day^2
Epoch rev: 24993

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 90179.73122252
Element set: 109
Inclination: 28.4656 deg
RA of node: 176.1458 deg
Eccentricity: 0.0006074
Arg of perigee: 247.5346 deg
Mean anomaly: 112.4613 deg
Mean motion: 14.84512505 rev/day
Decay rate: 1.136e-05 rev/day^2
Epoch rev: 969

/EX
SB ALL @ AMSAT $ORBS-181.W
Orbital Elements 181.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JUNE 30, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90179.17320586

Element set: 598
Inclination: 99.1681 deg
RA of node: 179.2569 deg
Eccentricity: 0.0014941
Arg of perigee: 342.3271 deg
Mean anomaly: 17.7373 deg
Mean motion: 14.12606048 rev/day
Decay rate: 3.96e-06 rev/day^2
Epoch rev: 28553

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90179.59119274
Element set: 445
Inclination: 98.5968 deg
RA of node: 207.2805 deg
Eccentricity: 0.0012484
Arg of perigee: 234.8151 deg
Mean anomaly: 125.1831 deg
Mean motion: 14.23647950 rev/day
Decay rate: 3.24e-06 rev/day^2
Epoch rev: 19623

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90179.68009381
Element set: 447
Inclination: 82.5548 deg
RA of node: 281.1812 deg
Eccentricity: 0.0011050
Arg of perigee: 217.3573 deg
Mean anomaly: 142.6811 deg
Mean motion: 13.83656833 rev/day
Decay rate: 2.19e-06 rev/day^2
Epoch rev: 14457

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90179.97773829
Element set: 305
Inclination: 82.5437 deg
RA of node: 341.0854 deg
Eccentricity: 0.0015613
Arg of perigee: 294.7073 deg
Mean anomaly: 65.2460 deg
Mean motion: 13.84349124 rev/day
Decay rate: 7.60e-07 rev/day^2
Epoch rev: 12181

Satellite: MET-3/2
Catalog number: 19336

Epoch time: 90179.28285918
Element set: 514
Inclination: 82.5439 deg
RA of node: 269.5748 deg
Eccentricity: 0.0015832
Arg of perigee: 286.5240 deg
Mean anomaly: 73.4129 deg
Mean motion: 13.16898153 rev/day
Decay rate: 3.91e-06 rev/day^2
Epoch rev: 9241

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90180.21659523
Element set: 299
Inclination: 98.9819 deg
RA of node: 128.5381 deg
Eccentricity: 0.0011009
Arg of perigee: 248.7381 deg
Mean anomaly: 111.2663 deg
Mean motion: 14.11635539 rev/day
Decay rate: 5.48e-06 rev/day^2
Epoch rev: 9066

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90179.59100063
Element set: 249
Inclination: 82.5206 deg
RA of node: 219.3696 deg
Eccentricity: 0.0013907
Arg of perigee: 340.2395 deg
Mean anomaly: 19.8228 deg
Mean motion: 13.83985534 rev/day
Decay rate: 1.05e-06 rev/day^2
Epoch rev: 6714

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90180.07986042
Element set: 156
Inclination: 82.5534 deg
RA of node: 209.6047 deg
Eccentricity: 0.0014766
Arg of perigee: 303.7751 deg
Mean anomaly: 56.1898 deg
Mean motion: 13.15860469 rev/day
Decay rate: 7.00e-08 rev/day^2
Epoch rev: 3251
/EX

3893. 2m antenna in the attic, bad?

Newsgroup: rec.ham-radio
Date: 1990-07-02 03:05:54 UTC
From: rfc@briar.Philips.Com
Message-ID: <101706@philabs.Philips.Com>
Source record: 10618

Got a question: Is it a bad thing to use a 2m antenna in the attic of the house? Does the roof and walls of the house attenuate the RF signal greatly? I had been using an antenna in the attic for packet. I noticed that my ability to connect to my local BBS (KD6TH) goes bad in the summertime. Thought it was tree leaf attenuation. Someone said to try an outdoor antenna. So, I did, and it made a big difference. Even though the outdoor antenna was one my brother used for his VHF scanner. A groundplane mounted 5 feet above the ground, on a pole in the middle of the garden filled with trees and bushes. (the pole used to hold a bird feeder!). Fed by about 50 feet of RG58 mostly buried under the lawn. This worked better than a DDRR antenna in the attic (about 20 feet higher than the garden antenna), fed by 40 feet of RG8 coax. (maybe the DDRR antenna is no good?).

I can see these possibilities:
a) antennas inside the house are a bad idea.
b) maybe the position of the attic antenna happened to be in a null
c) DDRR antennas are poor.

Don't have time to make a scientific test. Anyone know what is going on?

73 de WA2ISE

3894. Re: Preliminary Agreement on 7 MHz for WARC-92

Newsgroup: rec.ham-radio
Date: 1990-07-02 12:59:41 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <70@thoreau.nsc.com>
Source record: 10602
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Do I hear a new list of WARC-rigs comming to the dealers shelves??

3895. Convert Icom IC255E -> 255A?

Newsgroup: rec.ham-radio
Date: 1990-07-02 13:03:52 UTC
From: eakin@rsmas.miami.edu
Message-ID: <7809.268f0df8@rsmas.miami.edu>
Source record: 10599

I'm working on trying to repair an Icom IC-255E for use on packet. It has a range fixed at 144-146Mhz. While this will work fine on packet, I'd like to be able to use it for occasional repeater use & most of our repeators are 146+.

Does anyone have information on the modification that separates the 255E from the 255A?

Tnx & 73.
Mark

--
C. Mark Eakin
Internet: Eakin@RSMAS.miami.edu
Amateur Radio: N4SYK Packet Radio: N4SYK@AB4LU.FL.USA.NA
USnail: Univ. of Miami, RSMAS-BLR, 4600 Rickenbacker Cswy. Miami, FL 33149-1098

3896. Re: Operation from ZF8

Newsgroup: rec.ham-radio
Date: 1990-07-02 13:27:30 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007021327.AA05846@cmr.ncsl.nist.gov>
Source record: 10600

Bruce Sawyer enthusiases about Caymanm Brac, etc., etc.

Here's a suggestion: go back there in late October or in November, 1990.
Take a good 6-meter SSB station and at least a 5-el beam.
Work the world. Lots of people on the West Coast, in Europe, etc., need
nearly all the Caribbean countries. For the East Coast, ZF8 has been pretty
common on Es.

Go to it.... 73, Bob W3OTC

3897. Info-Hams Digest V1 #56

Newsgroup: rec.ham-radio
Date: 1990-07-02 13:50:59 UTC
From: rbarth@TUMTUM.CS.UMD.EDU
Message-ID: <9007021350.AA09323@tumtum.cs.umd.edu>
Source record: 10598

I just picked up a second-hand Bearcat 210 scanner. Elderly, but functional.
No documentation, of course. Can anyone provide a Xerox copy of the paper
(I'll happily pay costs) or at least some idea of scanning range, possible
mods, hints, kinks, etc.?

Any help appreciated.

Richard Barth, W3HWN, rbarth@tumtum.cs.umd.edu
Handicapped Educational Exchange... (301) 593-7033 (TDD & 300 baud ASCII)
(301) 593-7357 (300/1200 baud, 8N1)

3898. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-07-02 14:54:07 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007021518.AA07111@ti.com>
Source record: 10606

> From: TILDE::"swlabs!jack" "Jack Bonn" 2-JUL-1990 02:29:03.47
> Subj: Re: Ham Radio, CQ etc .....
>
> On the other hand, maybe the net is the perfect choice as a medium geared
> toward technically oriented hams. We could standardize on .GIF or ORCAD
> files to describe the circuits and distribute them in multipart articles.
> Seems a bit like the comp.sources hierarchy here on Usenet.

There are also a <<lot>> of folks out there who have never even heard of
this network.

I think the number of hams who either know about or have access to this
net is a small minority.

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3899. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-02 15:36:01 UTC
From: mikey@pnet01.cts.com
Message-ID: <3379@crash.cts.com>
Source record: 10605

brian@ucsd.Edu (Brian Kantor) writes:
>In article <1990Jun26.193308.10963@msuinfo.cl.msu.edu> eddy@jafus.mi.org (Eddy J. Gurney) writes:
>>Knowing what the 850 is
>>capable of, it's one HECKUVA controller, and I can understand why when I talked
>>to them in Dayton, they didn't worry too much about "other repeater control-
>>lers." :-) Seriously, though, there isn't much the 850 can't do.
>
>Except sound like a repeater. Every single machine I've ever heard that
>had one of these things in it sounded like a pinball machine. I'll bet
>the ham who designed it drives a 1959 Buick with 400 pounds of chrome
>tailfins and a push-button automatic transmission.
>
Our repeater group has an 850 running here in Sandy Eggo. While the pinball machine may be descriptive on occation, it is not necessarily the norm.

When you have up to four link/remote bases online, it's very easy to get lost as to which reciever(s) are active and which transmitters are enabled (especially in cross-band operation). The 850 allows no courtesy tones or voice to id the carrier/PL closures. I prefer the tones, low level, low freq and of short duration. I think that a few seconds of hang-time go hand in hand with the voice-delay/kerchunk eliminator lash-up (on 220 anyway due to lack of Commercial surplus equipment). I don't like bursts of white noise, twice on each conversation turn-around on a simple Ker-Chunk repeater. And with the junky (aka SLOW PL decoders) on 220 radios, I think the voice delay is a SLIC way around the problem.

But the 850 is not without some bummer bugs, of which ACC, won't acknowledge, fix, or even tell you of. But that's another story (a long story). Basicly, to each his own. If you have one repeater on a clear (more or less, mostly less here in SoCal) let's have hang-time and telemetry. Zero hang-time for multiple repeater/remote base combinations with duplicate coverage.

****
Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
PO Box 460 ARPA: crash!pnet03!mikey@nosc.mil
Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet03!mikey
****

3900. (none)

Newsgroup: rec.ham-radio
Date: 1990-07-02 16:10:11 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9007021610.AA06343@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 10604

Subject: Re: DTMF decoder chip

As for a simple digital pager circuit, I designed and built a slightly more sophisticated unit several years ago. I was in the process of writing it up when QST published one like it. I don't know the year let alone the month any more. One problem I encountered was due to the skew spec for the decoder chip. My design worked great with a direct path (ht to receiver to decoder). However, repeaters caused problems. Repeaters have low frequency audio filtering that tends to alter the levels of the DTMF tones. Typically, that changes the relative amplitudes such that the tones no longer meet the chip specs. I used some heavy filtering in front of the chip to compensate, however, that significantly reduces the ability of the chip to ingore speach. I get fairly regular false alarms out of the unit.

-- Doug

3901. Re: Remotely Tuned HF Beam Antenna

Newsgroup: rec.ham-radio
Date: 1990-07-02 16:29:51 UTC
From: halbert@crl.dec.com
Message-ID: <1990Jul2.162951.10999@crl.dec.com>
Source record: 10624

In article <3028@sunpix.East.Sun.COM>, gb@sunpix.East.Sun.COM (Gary Bishop - Sun Visualization Products) writes:

>The plan is to put up a three element beam cut for 20 meters. At the
>center of each beam element there will be a tuning unit with a
>variable capacitor that can be controlled from the shack. By tuning
>the elements it should be possible to achieve optimum operation (gain
>or fb ratio, not both simultaneously) on any frequency on the band.

G6XN in his book "HF antennas for all locations" discusses simple beam reversing schemes using relays that short out capacitors in the centers of elements. I'd guess a similar technique could be used to vary the capacitance for the kind of beam you're talking about. A stepping relay with a few caps could be used. For just one band, I don't think the fine control you would get would really be that noticeable. A few coarser adjustments would probably suffice.

>If the tuning unit has sufficient range, it should be possible to
>operate the beam on 20, 17, 15, 12, and 10M by retuning the elements
>for proper resonance. The antenna would have increasing gain as
>frequency is increased.

As an existence proof of something easier, Austin Custom Antennas has some multi-band beams fed with open-wire line. You can do the tuning in the shack.

--Dan, KB1RT

3902. Re: '89 nissan truck - ignition noise

Newsgroup: rec.ham-radio
Date: 1990-07-02 16:32:54 UTC
From: sawyer@twg.com
Message-ID: <7479@gollum.twg.com>
Source record: 10608

In article <400023@techsup> kenb@techsup.UUCP (N5LPI) writes:

>does anyone have experience with ignition noise in nissan
>hardbody pickups? i have a 1989 truck that seems to radiate lots
>of ignition noise. i'm pretty sure that the dc from the battery
>is clean -- i can unhook the antenna from the radio and the noise
>is eliminated. transmit audio is clean with the engine running
>-- receive is clean on very strong signals.
>
I have a 1986 Nissan hardbody and have exactly the same problem. I went
through the entire ignition system and cleaned it up--new plug wires, rotor,
distributor cap, etc. Then started bonding all the metal with braid. Each
step seemed to help a little, but the noise is still there. If anybody
knows a good trick to clean up this, I (along with Ken) would surely appreciate
any info. I have heard that running the power lead through the primary of a
13v transformer will help, but I haven't tried it yet. In my case, the rig
is an Icom 228H.
AA6KX

3903. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-07-02 17:10:23 UTC
From: ka1gt@cbnewsm.att.com
Message-ID: <1990Jul2.171023.14656@cbnewsm.att.com>
Source record: 10623

In article <1990Jun30.150812.105@swlabs.uucp>, jack@swlabs.uucp (Jack Bonn) writes:
> In article <1250181@hpnmdla.HP.COM> glenne@hpnmdla.HP.COM (Glenn Elmore) writes:
> >Bob Atkins KA1GT writes:
> > I got my copy of CQ like everyone else and I see no particular reason that
> > the current advertisers should be particularly helpful to articles of
> > more technical depth. QEX at least has some of the "fringe" advertisers.
>
> It seems that the key is the advertisers. HR was driven out of business
> by the lack of advertising revenue.
>
>
The above quote attributed to me (KA1GT) is actually what Glenn said. Please
be careful in editing. Also, from conversations with HR staff, including
Skip Tenney, I was under the impression that HR's sale was due to Skip wanting
to retire and had nothing to do with advertizing revenues. If you have other
information I would like to know (please quote your sources). The only way
to get your money out of a buisness if you want to retire is to sell it. There
are not many buyers out there for ham radio publications. I'm sorry HR had to
be sold, but Skip did a good job for many years and I would not blame hime
for doing what he did.

Bob Atkins KA1GT

3904. Re: Was How to buy a QSO, 20 M mess, etc...

Newsgroup: rec.ham-radio
Date: 1990-07-02 17:16:16 UTC
From: stevew@wyse.wyse.com
Message-ID: <2778@wyse.wyse.com>
Source record: 10611

In article <1774@apctrc.UUCP> zslf0a@gpss5 (Steven L. Farmer) writes:
>In article <42447@apple.Apple.COM> winter@Apple.COM (Patricia Winter) writes:
>>That's where I got the vast majority of my awning DXCC contacts.......
>
>Ok, come clean Patty..... Its common knowledge in contest circles that
>you've been running a stacked, phased, microprocessor controlled *array*
>of awnings on a fully rotatable building.
>
>Why you 'big house' ops keep up this pretense of modesty is beyond me.

I've always wondered what that big metal contraption off of 237 was....

Now I know! And all this time I thought you were doing it with
a single element awning!!

Steve KA6S

3905. Battery Pack Meltdown

Newsgroup: rec.ham-radio
Date: 1990-07-02 17:33:51 UTC
From: wejones@CRDEC7.APGEA.ARMY.MIL
Message-ID: <9007021333.aa09634@crdec7.apgea.army.mil>
Source record: 10607

> Last week, a friend was carrying a large aftermarket NiCd battery pack
> for an Icom IC-02AT in his pants pocket. He bought something at a
> store, and dropped the change into the same pocket. A coin shorted
> the terminals on the top of the battery. The plastic case caught
> fire, burning a one-inch hole in itself and setting the owner's pants
> on fire. He escaped injury.

This is not uncommon. A few years back I worked on a project
for the Library of Congress, Library for the blind. They had tape
recorders with NiCd battery packs which kept going up in smoke
(in the faces of the blind users who couldn't see the fire starting).
It turned out that some NiCd packs route the + and - through strips
of foil separated by only a thin layer of teflon tape. On overload or
heavy use, the teflon tape melted resulting in an internal short which
would then result in a dramatic meltdown. The interesting implication
being that even a momentary external short could cause an internal
short which could not be stopped. At that time, the battery pack
covers contained a polybromophenol fire retardent which while
preventing actual flames, resulted in an extremely unpleasantly
smelling smoke.

3906. Looking for February 1985 QST Magazine article

Newsgroup: rec.ham-radio
Date: 1990-07-02 17:40:00 UTC
From: john@frog.UUCP
Message-ID: <16169@frog.UUCP>
Source record: 10603
Cross-posted to: rec.ham-radio,sci.electronics

I am looking for a copy of an article in the February 1985 QST magazine
on the topic of a direct digital frequency synthesizer using the TRW
TDC1016B7C8 Video DAC. Also, does anyone have a data sheet for this part?
I'll be more than happy to pay for copies and postage for either.

Thanks,
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

3907. Crossposts

Newsgroup: rec.ham-radio
Date: 1990-07-02 17:55:45 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <307.268F8B25@w8grt.fidonet.org>
Source record: 10617
Cross-posted to: rec.radio.shortwave,rec.ham-radio.swap,rec.ham-radio.packet,rec.ham-radio

I apologize to the net for the accidental crossposts that 'escaped' from my site during the course of reconfiguring software parameters.

```
--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____________________________________________
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"
```

3908. Scanners

Newsgroup: rec.ham-radio
Date: 1990-07-02 19:38:38 UTC
From: ken.evans@weyr.FIDONET.ORG
Message-ID: <716.26908B25@weyr.FIDONET.ORG>
Source record: 10609

I just recently picked up a PRO-2021 scanner and was looking for some modifications for it.I had heard that it's capable of receiving more freg. than it does from the factory.Anybody that has any knowledge of this scanner leave me a message.
THANX
73's
Ken Evans
>>>>>>>>>

--
ken evans - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!ken.evans
Internet: ken.evans@weyr.FIDONET.ORG
Standard Disclaimers Apply...

3909. Re: h-t battery pack meltdown!

Newsgroup: rec.ham-radio
Date: 1990-07-02 20:22:41 UTC
From: elliott@optilink.UUCP
Message-ID: <3944@optilink.UUCP>
Source record: 10610

In article <49407@iuvax.cs.indiana.edu>, commgrp@silver.ucs.indiana.edu (BACS Data Communications Group) writes:
>
> Last week, a friend was carrying a large aftermarket NiCd battery pack
> for an Icom IC-02AT in his pants pocket. He bought something at a
> store, and dropped the change into the same pocket. A coin shorted
> the terminals on the top of the battery. The plastic case caught
> fire, burning a one-inch hole in itself and setting the owner's pants
> on fire. He escaped injury.
>
> This was NOT an Icom product: Those have internal fuses (tiny wires).
> I don't know the brand; it was larger than Icom's BP-8.
>
> I heard about a cop whose Motorola radio battery was shorted by loose
> pistol ammunition in his pocket-- A cartridge fired and the bullet
> went into his leg.

This can easily happen with NiCd battery packs. I will now proceed to relate an anecdote, followed by some suggestions... (nothing up my sleeve)...

Many years ago I was involved in the design of a wireless "auditory trainer", essentially a VHF FM hearing-aid for classroom use. It used an 8-cell NiCd pack. The battery was charged while in the trainer, and we included a diode in the charge path to prevent (catastrophic) discharge if a kid stuck a paper clip into the charging jack. We thought that we had covered all the bases as far as battery safety was concerned...

Well, we received a batch of Tantalum capacitors that tended to short-circuit after some months of use. The battery had a capacitor across it (after the power switch), and, perhaps triggered by the inrush current, the capacitors would short out, start smoking, catch fire, and melt through the plasitc case of the trainer.

Many of the hearing-impaired children who use this equipment have other disabilities as well. One child was confined to a wheelchair, having little or no mobility, with one of our radios strapped to his chest, when the radio proceeded to start smoking, then melting. Fortunately the teacher was able to remove the unit before the child was injured.

We (very quickly, believe me) identified the problem, and placed fuses in the battery packs. These worked, but did have a non-zero nuisance failure rate. At this time, the Raychem company was introducing a product called the "Polyswitch" (probably t.m.) This is the equivalent of a self-resetting circuit-breaker, or a very sharp-kneed PTC (Positive Temperature Coefficient) thermistor. We had Raychem make a unit that would fit into the battery case, and the problem was solved. I believe that it is still being used.

My recommendation: Remember that NiCd battery packs contain potentially catastrophic quantities of energy. Protect them against common fault conditions. I personally recommend the Raychem Polyswitch for this application. (I have no connection with Raychem).

-- Paul Elliott (wb6cxc)

--
Paul M. Elliott Optilink Corporation (707) 795-9444
{uunet, pyramid, tekbspa}!optilink!elliott
"an archetypal entity..., superimposed on our culture by a cosmic template."

3910. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-02 22:14:37 UTC
From: jay@splut.conmicro.com
Message-ID: <:6=&.Y-@splut.conmicro.com>
Source record: 10619

In article <30500577@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>[I wrote:]
>> Further, a random kerchunk is no longer illegal, since hams are now only
>> required to ID at the termination of a series of transmissions. For
>> someone trying to find a hot spot to get into the machine with his
>> handheld, a series of kerchunks preparatory to IDing is neither illegal
> ^^^^^^ ^^ ^^^^^^^^^
>> nor improper.
> ^^^ ^^^^^^^^
>It is ANNOYING! Why do you need more that one? Why do you even need to
>kerchunk at all? Just transmit, state your purpose, ID, and let up.

OK, let's try it from my bedroom with a low-powered handheld, into my
favorite repeater:
"K5ZC monitoring."
If I haven't found a hot spot yet, all a listener will hear is:
"hissstorssssss".

Really useful. I probably won't get a response, and have learned
absolutely nothing.

>If you don't normally hear a tail on this repeater, kerchunking isn't
>going to get you anything anyway, so just listen for someone to answer.

How do I know whether it's worth it to move a few inches and try again?

>If you do normally hear a tail (either a BEEP or just a noise burst) then
>you know you got in. If not, you might not have, or was seriously choppy.

...exactly why I feel a hang timer is mandatory.

>If it is a test in and of itself, it is a complete transmission and needs
>and ID at the end of it, that means when the testing is done, ID it. Since
>a series of kerchunks give you no more information that ONE does, you only
>need one, and you need to ID at the end of it.

Ah, but a series sometimes DOES provide more information, especially
with the "handheld on the fringe" scenario: you can find out where the
hot spot is. (No, it's not always where the receiver S-meter peaks, and
not all radios have S-meters.) The objective is to determine when you're
likely to get into the repeater; when you find that out, I agree that an
ID is necessary.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--

software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

3911. Re: Preliminary Agreement on 7 MHz for

Newsgroup: rec.ham-radio
Date: 1990-07-02 22:32:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500581@ux1.cso.uiuc.edu>
Source record: 10614

6950-7000 and 7300-7750 are surely allocated to other services, some of which probably no longer have so much need for this spectrum. But have they been consulted yet?

I am glad to see hams keeping, or getting, 300 khz of spectrum, and am also glad to see an expansion of the SWBC service in the portion of the spectrum. I would hope something like this goes through. We need to support it.

Now the tough parts. Do we just shift the band structure down 50 khz? What about extra class CW ops who's rigs won't go below 7000? Considering that the current band structure is based on the fact that most of the rest of the world has LESS, and if this proposal becomes the new allocation, they will have MORE (the same as the US) then we need to probably redesign the whole structure. I might suggest leaving the extra-only 25 khz righ where it is, and open up 6950-7000 for other things. This will depend greatly also on what other countries want to do. It needs to be done cooperatively once this proposal comes to be.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3912. Starting a car with NiCd's

Newsgroup: rec.ham-radio
Date: 1990-07-02 22:38:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500582@ux1.cso.uiuc.edu>
Source record: 10615

Has anyone ever tried starting a car with NiCd batteries? If you could validly assert that a certain number of cells of a certain size were able to start a car (even if they self destructed in the process) that might be significant enough to convince some people of the hazard.

Also, I am curious if anyone has ever tried to charge a regular (but low) car battery from alkaline cells. I would think it would require a number of them in series to get above the car battery voltage. Perhaps 10 D cells in series could, in the course of 1-4 hours, charge a car battery up enough to start it.

Then again, they do make those nifty solar cell battery chargers. They don't have much current, but a big one might get the job done, whereas the little one keeps the battery trickle charged if you don't leave your radio on.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3913. Carrying NiCd packs on airplanes

Newsgroup: rec.ham-radio
Date: 1990-07-02 22:45:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500583@ux1.cso.uiuc.edu>
Source record: 10616

Be sure to take EXTRA SPECIAL precautions when carrying NiCd battery packs aboard commercial aircraft. I would not want to see an FAA rule banning them.

I usually take a spare or two battery packs with me when travelling. I cover the open ends with a heavy plastic insulator, usually made from a expired credit card, and then wrap the whole thing in electrical tape to cover the charging terminals and hold the insulator in place so it cannot slide out.

I also do NOT use the insulators Periphex sent with my packs that says "battery may explode if shorted". Even if all the precautions are taken, some security checkpoint person is liable to prohibit them out of ignorance of all the work I did to prevent the problems, if they read that. So I just use a plain credit card plastic insulating tab. Besides, the ones I made fit much better anyway.

FYI, I have Icom HT's.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3914. Re: 20 meter mess

Newsgroup: rec.ham-radio
Date: 1990-07-02 23:15:05 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880173@hpfcdc.HP.COM>
Source record: 10612

>I don't think the FCC is going to do anything.

Good attitude.

>I run a pretty powerful station on 313 with an omni pattern. If someone
>wanted to try again to bring order (don't even think about it unless you
>have some power to back up your ideas), I will participate.

I'm afraid this is the unfortunate truth of the matter. The net control
will have to have full power into an omni. It wouldn't hurt if there
were a few other strategically placed backup net controls, such as in
Fla and Cal.

>I will NOT,
>however, be discourteous to ANY operator who signs his call, and that
>includes the barf boys who everyone seems to hate.

This is the right way to operate. It would only increase the chaos to
do otherwise. What is needed is a couple strong stations with the
discipline and skill required to run the net.

>It could be done again.

Maybe after I get my linear built. :-)

Perry/KF0CA

3915. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-07-02 23:44:29 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880174@hpfcdc.HP.COM>
Source record: 10613

>On the other hand, maybe the net is the perfect choice as a medium geared
>toward technically oriented hams. We could standardize on .GIF or ORCAD
>files to describe the circuits and distribute them in multipart articles.
>Seems a bit like the comp.sources hierarchy here on Usenet.
>--
>Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612

I think this idea has merit. With the gateways from usenet into packet,
we have everything we need to reach all of hamdom.

Perry/KF0CA

3916. Re: Your response to N8DGN's QST comments.

Newsgroup: rec.ham-radio
Date: 1990-07-03 00:18:10 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul3.001810.25301@bellcore-2.bellcore.com>
Source record: 10621

In article <9006290354.AA01463@cmr.ncsl.nist.gov>, rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
the schematics.|> "Nobody ever went broke underestimating the intellect of
|> the American public". Does our national ham society's journal have to
|> follow this rule so closely?

I think this is getting closer to the crux of the problem. The ARRL says that it is only providing what the members want in QST, and how can anyone argue with that?

Perhaps. But I think there's also some merit in the position that says that the League, as the primary organization of radio amateurs in the US, should also provide some occasional leadership by exposing its members to new ideas and technologies. It doesn't have to be 100% of QST, but it shouldn't be 0% either. But you'll never know if they'll be interested unless you try. Take a look at CQ-DL (Germany) or CQ (Japan). You don't need to read either German or Japanese to immediately see that neither magazine has anything to do with their American namesake. Just count the schematics!

Consider that American commercial television is also a product of the "we only give 'em what they say they want" philosophy. And consider also that cocaine dealers probably have a similar rationalization... :-)

Phil

3917. Re: Making ham radio known

Newsgroup: rec.ham-radio
Date: 1990-07-03 00:39:59 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul3.003959.25393@bellcore-2.bellcore.com>
Source record: 10622

> Somehow, Phil Karn fell off the string in "on the subject of tekkies vs
> politicians". [...]

Sorry you felt that way. Here's a little quote I discovered last week
that expresses my feelings about politics and politicians (including
amateur radio politicians) that may do it better.

"La politique et le sort des hommes sont formes par des hommes sans ideal
et sans grandeur. Ceux qui ont une grandeur en eux ne font pas de politique."
-Albert Camus

I figure that if I don't give the English translation you may pay more
attention to it as you attempt to translate it yourself. Consider this
to be akin to the tradition of posting Morse Code phrases to rec.ham-radio.
:-)

Phil

3918. Re: Subscribe to QEX ?

Newsgroup: rec.ham-radio
Date: 1990-07-03 01:13:53 UTC
From: kchen@Apple.COM
Message-ID: <42578@apple.Apple.COM>
Source record: 10620

rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:

>Glenn Elmore convinced me to subscribe to QEX.
>
>So I've gone to the July 1990 issue of QST to find the subscription info.
>I've found 11.9 pages of advertising for League publications, BUT NOT ONE
>SINGLE MENTION OF QEX. Call that pushing the tech interests! OK, many of the
>publications being pushed ARE technical, at least to some extent.

As a more recent member of the ARRL (< 6 mo.), I received, a few
weeks ago, a literature list of what can be ordered from Newington.
I scanned it over and over and could *not* find QEX.

Unbelievable, eh? Sigh.

Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

3919. Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-03 01:42:07 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <22480003@hpcuha.HP.COM>
Source record: 10531

Hi. I've got some questions that maybe the net hams could answer, at least those with experience in CW. I'm new to this hobby and have been learning about and making some CW contacts in the HF bands. I hear all kinds of CW procedures being used, and am wondering what procedures are the correct ones.

I hear lots of variation in the use of things like:
- BT vs. periods for punctuation,
- one or two BT's at a time,
- R R R vs. FB,
- R R R before or after the callsigns,
- 559 vs 55N for the 2nd RST report,
- differing amounts of abbreviations,
- BK vs. BK TU vs. callsigns DE callsign KN,
- when to use AR (I've only heard it used twice),
- leaving out one callsign and just send DE callsign,
- just ending with BK and no callsigns,
- SK before or after the closing callsign,
- the dit dit at the end of contacts.

Also, could someone post or email me some transcripts of some basic CW QSO's, including things like a contest contact, a short DX QSO and a typical novice interchange (name is, rig is, ...).

Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>
N6YWU private pilot ASEL 151 hours

3920. Scanner Antenna / Discone / Technical questions

Newsgroup: rec.ham-radio
Date: 1990-07-03 02:58:21 UTC
From: gary@ellis.uchicago.edu
Message-ID: <1990Jul3.025821.8189@midway.uchicago.edu>
Source record: 10527
Cross-posted to: rec.ham-radio,rec.shortwave

I recently purchased a Discone scanner antenna from (ug) Radio Shack. This antenna has 8 horizontal radial elements and 8 radial elements at about a 30 degree angle with the vertical. It comes with a support tube and U bolts to attach to a mast or tripod but its pretty much free standing as it is for living room / portable use.

As far as performance goes - its much better than the rubber duck antenna on my Uniden BC100XLT. I pick up stuff clearly with the Discone that I can't even hear with the rubber duck - (esp useful when giving RST reports to your neighbors on their cordless phone transmissions - if you're in to that :))

But, its not better than my 45ft mult-band dipole. The discone is a bit "noisly" without a good ground connection. The dipole is clear as a bell but slighly less portable.

So thats that.

Here's the question(s)

1) The "users guide" cliams that the discone recieves 25MHz -> 1.3GHz. So what does this mean? A paper clip can recieve 25MHz - 1.3GHz. Is this hype or does it actually mean something ?

2) The claim is that it has a 1.5 SWR or better across 144,220,440 and 1296 MHz. Anyone use the Discone for transmitting ? How well does it work ?

3) I have a handfull of books on antennas but none discuss an antenna quite like the Discone. Can someone tell me qualitatively how this antenna with its double set of 8 radials "works"

Thanks
Gary

3921. Worldwide network of HF propagation beacons. . .

Newsgroup: rec.ham-radio
Date: 1990-07-03 03:00:49 UTC
From: gary@ellis.uchicago.edu
Message-ID: <1990Jul3.030049.8312@midway.uchicago.edu>
Source record: 10626
Cross-posted to: rec.ham-radio,rec.shortwave

I picked up a copy of the ARRL Operating Manual(copyright 1988). On page 2-17 there is some discussion of the NCDXF worldwide propagation beacon network on 14.100 MHz.

There are 9 transmitter sites - in NY, CA, HI, Japan, Israel, Finland, Madeira Island, South America and Buenos Aires. These stations signon and transmit for 1 minute each on power of 100 watts down to 1/10 watt. Each station takes its turn - 1 minute each - 9 stations - with the last minute silent. This cycle of 10 minutes repeats.

So says the ARRL Operating Manual. However, I've tuned into this 14.100 net for several days now and at various times and really haven't heard anything but background noise. I'm using a Kenwood TS-140S with a 45ft multi-band dipole. I can hear plenty of DX out there so I very much doubt its my radio - here in Chicago.

==> The question is this. My ARRL guide is from 1988. Is this beacon still
==> in operation ?

==> Also, I'd be very much interested in any other such propogation nets on
==> other ferequencies - or how people generally get "dynamic" propagation
==> information (ie other than looking at published LUF,MUF charts)

Thanks,
Gary

3922. Re: Starting a car with NiCd's

Newsgroup: rec.ham-radio
Date: 1990-07-03 03:35:34 UTC
From: commgrp@silver.ucs.indiana.edu
Message-ID: <49599@iuvax.cs.indiana.edu>
Source record: 10625

phil@ux1.cso.uiuc.edu (Phil Howard, KA9WGN) writes:

>Has anyone ever tried starting a car with NiCd batteries? If you
>could validly assert that a certain number of cells of a certain size
>were able to start a car (even if they self destructed in the
>process) that might be significant enough to convince some people of
>the hazard...

In the '60s there were LOTS of wet-cell NiCd batteries available, surplus from obsolete Nike Ajax surface-to-air missiles. Their energy density was somewhat less than that of modern NiCd's, but they could supply enormous current for a short time. I went caving with some guys who used those to power their lights. Their Volkswagen's 6-volt battery was dead when it was time to go home. We were wet, and it was well below freezing. As our clothes began to solidify, we disconnected the car battery, paralleled two (partially discharged) 6v surplus NiCd batteries, connected them to the car, and the engine started! NiCd's work better than lead-acid at low temperature. It didn't seem to hurt the batteries.

--

Frank Reid W9MKV NSS 9086 reid@ucs.indiana.edu

3923. Re: Preliminary Agreement on 7 MHz for

Newsgroup: rec.ham-radio
Date: 1990-07-03 04:20:49 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <242@ultrix.uhasun.hartford.edu>
Source record: 10529

In article <30500581@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> 6950-7000 and 7300-7750 are surely allocated to other services, some of which
> probably no longer have so much need for this spectrum. But have they been
> consulted yet?
>

Before we go off the dep end with this, keep in mind that the original
posting is about one working group _advising_ on what the US position
should be. (And my information is that the agreement within this
WG is less cast in concrete than might have been implied.) There are
other WG's with differing ideas, and the US position will be an amalgam
of the recommendations of these various groups (and other influences).
So we are a long way from seeing this made into an official US position.
And even if that happens, that's one vote among many countries at the
WARC. Not only aren't the chickens hatched, the eggs aren't even laid yet.

(Still, we can dream, can't we? :-)

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3924. Re: Subscribe to QEX ?

Newsgroup: rec.ham-radio
Date: 1990-07-03 04:28:28 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <243@ultrix.uhasun.hartford.edu>
Source record: 10530

In article <42578@apple.Apple.COM>, kchen@Apple.COM (Kok Chen) writes:
> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
> >I've found 11.9 pages of advertising for League publications, BUT NOT ONE
> >SINGLE MENTION OF QEX. Call that pushing the tech interests! OK, many of the
> As a more recent member of the ARRL (< 6 mo.), I received, a few
> weeks ago, a literature list of what can be ordered from Newington.
> I scanned it over and over and could *not* find QEX.

First thing tomorrow morning, copies of this thread will be posted
on the main bulletin board in the hall at ARRL. Maybe that'll wake
some people up.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3925. Rumor of V31BB's death resolved

Newsgroup: rec.ham-radio
Date: 1990-07-03 04:45:07 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <26653@netnews.upenn.edu>
Source record: 10528

Here's the straight story. It comes from a friend of Jim's family who got the news from Jim's uncle.

Jim passed away at the mic while working DX. The cause of his death was NOT caused by electrocution as was previously rumored. Apparently he died of a heart attack. Approximately 3 days after he died, he was found in front of the 781, log book page half filled, radio still on, etc.

That's the whole story.

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

3926. Re: DELUGE THE ARRL WITH ARTICLE...

Newsgroup: rec.ham-radio
Date: 1990-07-03 06:34:19 UTC
From: tad@ssc.UUCP
Message-ID: <871@ssc.UUCP>
Source record: 10532

In article <9006281424.AA15063@ti.com>, dube@cpdvax.csc.ti.com writes:
>
> How about a separate technical section? It could be one of the "tear-out"
> types that you often see nowadays in other mags. These are usually a little
> smaller; they are separately saddlebound; and they are attached by a single
> (usually perforated) retainer that is bound with the magazine. In this manner

One thing that hold back increasing more of one type of article is expense.
Having a special tear out section with different binding is going to be
even MORE expensive. So you can figure that with the same budget, you
would get LESS articles.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

3927. Phone number for Grove

Newsgroup: rec.ham-radio
Date: 1990-07-03 11:51:16 UTC
From: sra@linus.mitre.org
Message-ID: <112338@linus.mitre.org>
Source record: 10533

Can someone please semd me the current phone number for Grove Electronics
in I believe New Jersey.

Is this still the best place to purchase scanners?

Stan Ames

3928. Re: Scanner Antenna / Discone / Technical questions

Newsgroup: rec.ham-radio
Date: 1990-07-03 13:18:10 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <245@ultrix.uhasun.hartford.edu>
Source record: 10534

In article <1990Jul3.025821.8189@midway.uchicago.edu>, gary@ellis.uchicago.edu (gary buchholz) writes:
>
> 1) The "users guide" cliams that the discone recieves 25MHz -> 1.3GHz. So what
> does this mean? A paper clip can recieve 25MHz - 1.3GHz. Is this hype or
> does it actually mean something ?

Yes, it means something. According to the ARRL Antenna Book, 15th edition,
"A discone antenna acts as a high-pass filter. Below some cutoff
frequency, the SWR will increase rapidly. Above this frequency, the
antenna SWR remains low up to a maximum of 10 times the cutoff frequency
value, depending on the design proportions."

> 2) The claim is that it has a 1.5 SWR or better across 144,220,440 and 1296
> MHz. Anyone use the Discone for transmitting ? How well does it work ?

Just yesterday I talked on the phone to a fellow in central PA who is
using one on 220. He seemed to be having success with it. I've heard
of other people using it, too.

> 3) I have a handfull of books on antennas but none discuss an antenna quite
> like the Discone. Can someone tell me qualitatively how this antenna with
> its double set of 8 radials "works"
>

It's described in the ARRL Antenna Book, both 14th and 15th (the newest)
editions. The 15th edition devotes 5 pages to it. Maybe you have the
wrong antenna book :-)

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

3929. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-03 13:51:06 UTC
From: gary@ke4zv.UUCP
Message-ID: <825@ke4zv.UUCP>
Source record: 10560

In article <:6=&.Y-@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>In article <30500577@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>>[I wrote:]
>>> Further, a random kerchunk is no longer illegal, since hams are now only
>>> required to ID at the termination of a series of transmissions. For
>>> someone trying to find a hot spot to get into the machine with his
>>> handheld, a series of kerchunks preparatory to IDing is neither illegal
>> ^^^^^^ ^^ ^^^^^^^^^
>>> nor improper.
>> ^^^ ^^^^^^^^
>>It is ANNOYING! Why do you need more that one? Why do you even need to
>>kerchunk at all? Just transmit, state your purpose, ID, and let up.
>
[stuff deleted]
>
>Ah, but a series sometimes DOES provide more information, especially
>with the "handheld on the fringe" scenario: you can find out where the
>hot spot is. (No, it's not always where the receiver S-meter peaks, and
>not all radios have S-meters.) The objective is to determine when you're
>likely to get into the repeater; when you find that out, I agree that an
>ID is necessary.
>
OK, I can accept a "this is KA5XXX testing to find the "hot spot" for
my handie scratchie", but repeated and continuing unmodulated kerchunking
followed by BLEEP-BLOOP all day long wears the nerves of monitoring stations
VERY thin. It seems that nearly every operator MUST do this EVERY time
he turns on his radio. You can stand up at club meetings and ASK that
they don't do this, but still it continues day in and day out. The
ONLY thing that seems to stop this kerchunking is to take away the feedback
by going to no squelch tale.

Gary KE4ZV

3930. What do people use for sweep generators?

Newsgroup: rec.ham-radio
Date: 1990-07-03 14:18:12 UTC
From: charlie@oakhill.UUCP
Message-ID: <3478@radio.oakhill.UUCP>
Source record: 10535
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

When it comes to aligning receiver front ends and other tuned circuits
a sweep generator seems very useful. Strangely enough, these beasts
are hard to find at hamfests. What do people do for sweeping i.f.'s
and front ends? Does anyone remember this apparent lost art?
Anybody out there have a sweep generator they use regularly that
would like to comment?

-Thanks in advance,
Charlie Thompson WB4HVD

3931. Re: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-03 15:27:37 UTC
From: jdn@casux4.uucp
Message-ID: <24940@bellcore.bellcore.com>
Source record: 10536

In article <22480003@hpcuha.HP.COM> nicholso@hpcuha.HP.COM (Ron Nicholson) writes:
>I hear all kinds of CW procedures being used, and am wondering what
>procedures are the correct ones.
>
>I hear lots of variation in the use of things like:
>- BT vs. periods for punctuation,
Periods are wrong. Use BT for a break in thought
>- one or two BT's at a time,
Use one BT
>- R R R vs. FB,
Send one R only
>- R R R before or after the callsigns,
Send one R only either after your callsign or immediately
after the other station sends BK. IMPORANT! Send R only
if you recieved everything without error. Nothing ticks me
off more than the following:

NK2D de KA4XXX R R R FB OM AND TNX FER INFO
BUT MISSED UR NAME AND PSE RPT MY REPORT AND
YOUR QTH.

GRRRRR!

>- 559 vs 55N for the 2nd RST report,
Either way is OK
>- differing amounts of abbreviations,
The more the better
>- BK vs. BK TU vs. callsigns DE callsign KN,
Both are OK, but you should get in the habit of using BK
instead of identifying each time. The rules require identification
every 10 minutes, so sending BK instead saves time and leads to
a more conversational qso. BTW, why add the kn after your callsign?
you should just use k, especailly on domestic qsos.

>- when to use AR (I've only heard it used twice),
At the end of your transmission prior to sending:
KA4XXX de NK2D K

>- leaving out one callsign and just send DE callsign,
This practice is OK.
>- just ending with BK and no callsigns,
See above. This is generally best.
>- SK before or after the closing callsign,
SK goes after the callsign.
>- the dit dit at the end of contacts.
This has become quite common and is OK.

>
>Also, could someone post or email me some transcripts of some basic CW
>QSO's, including things like a contest contact, a short DX QSO and a
>typical novice interchange (name is, rig is, ...).

Try to get a hold of the arrl operators manual. It is basically
sound and has a listing of useful cw abbreviations and Q signals.

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3932. Re: Scanner Antenna / Discone / Technical questions

Newsgroup: rec.ham-radio
Date: 1990-07-03 15:31:23 UTC
From: bray@image.soe.clarkson.edu
Message-ID: <1990Jul3.153123.21682@sun.soe.clarkson.edu>
Source record: 10537

From article <245@ultrix.uhasun.hartford.edu>, by jbloom@uhasun.hartford.edu (Jon Bloom):
> In article <1990Jul3.025821.8189@midway.uchicago.edu>, gary@ellis.uchicago.edu (gary buchholz) writes:
>>
>> 1) The "users guide" cliams that the discone recieves 25MHz -> 1.3GHz. So what
>> does this mean? A paper clip can recieve 25MHz - 1.3GHz. Is this hype or
>> does it actually mean something ?
>
> Yes, it means something. According to the ARRL Antenna Book, 15th edition,
> "A discone antenna acts as a high-pass filter. Below some cutoff
> frequency, the SWR will increase rapidly. Above this frequency, the
> antenna SWR remains low up to a maximum of 10 times the cutoff frequency
> value, depending on the design proportions."
>
>> 2) The claim is that it has a 1.5 SWR or better across 144,220,440 and 1296
>> MHz. Anyone use the Discone for transmitting ? How well does it work ?
>
> Just yesterday I talked on the phone to a fellow in central PA who is
> using one on 220. He seemed to be having success with it. I've heard
> of other people using it, too.
>
>> 3) I have a handfull of books on antennas but none discuss an antenna quite
>> like the Discone. Can someone tell me qualitatively how this antenna with
>> its double set of 8 radials "works"
>>
>
> It's described in the ARRL Antenna Book, both 14th and 15th (the newest)
> editions. The 15th edition devotes 5 pages to it. Maybe you have the
> wrong antenna book :-)
>
I am using a RS discone on both 2 meters and 70 cm. The SWR is about
1.1 on both bands. It works well. The gain is, of course, no better
than a dipole (possibly a little worse), but I am able to work a
repeater 70 miles away with 2 watts.

The antenna was designed many years ago and I believe first produced by
Hy Gain, but I don't see them advertising it any more.

D.W. Bray, K2LMG
Clarkson University
email: bray@sun.soe.clarkson.edu

3933. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-03 15:48:53 UTC
From: john@anasaz.UUCP
Message-ID: <2617@anasaz.UUCP>
Source record: 10547

In article <:6=&.Y-@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
]>If it is a test in and of itself, it is a complete transmission and needs
]>and ID at the end of it, that means when the testing is done, ID it. Since
]>a series of kerchunks give you no more information that ONE does, you only
]>need one, and you need to ID at the end of it.
]
]Ah, but a series sometimes DOES provide more information, especially
]with the "handheld on the fringe" scenario: you can find out where the
]hot spot is. (No, it's not always where the receiver S-meter peaks, and
]not all radios have S-meters.) The objective is to determine when you're
]likely to get into the repeater; when you find that out, I agree that an
]ID is necessary.

Actually, there is a problem with this. When you are hunting for hot spots, you are listening on the receive frequency. But... you need a hot spot for the transmit frequency also. Since hot spots are usually caused by multipath, the transmit and receive hot spots are often not in the same place. Most repeaters don't give you any indication of how strong your ker-chunk is. Micor's, I notice, do give you some hint - the squelch tail is slightly longer on a weak signal.
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 FAX:602-861-7642 Advice: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

3934. Re: Technical articles

Newsgroup: rec.ham-radio
Date: 1990-07-03 16:35:09 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250183@hpnmdla.HP.COM>
Source record: 10553

Bob Atkins KA1GT writes:

> I would make a comment on the ongoing discussion about where "technical"
> articles should appear. I have mixed feelings about specialist publications
>
> <text deleted>
>
> and so would never have been exposed to other aspects of ham radio. It is
> important to try to keep up some presence in the major magazines and not
> relegate articles to QEX or other minority publications.
>
> ----------

Bob,
I agree that we need to keep technical interests in view of the masses
who don't yet know about them but it seems to me that we will have a hard
time getting both general and in-depth coverage in a single publication
of high circulation. Circulation and the resulting advertisement seems
to buy the pages. It may come down to "how much money does the
'technical amateur community' spend?".
I'm wondering if we (those of us desiring greater technical content) don't
need to band together a bit and support something. That was my reference to
QEX in a previous posting. I'm not partial to one medium over the other
at the moment, I just think we need to act as a group in support of
something.
I would love to see QEX (or what ever other forum becomes the main
technical one) become something *other* than a minority publication.
As far as I can tell Paul Rinaldo would too, but I can't speak for him
or the ARRL board.
I think I may myself be guilty of adding to the problem. The discretionary
money I spend into amateur radio pursuits tends to be for components
and materials rather than products from the main amateur manufacturers.
I'm not sure that my activities pay for many magazine pages. I probably do
pay more attention to QEX "fringe" advertisements than QST glossy ones.
Maybe if enough of us support a coomon forum those "fringes" can support
a significant number of solid technical pages. I hope so anyway.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

3935. Re: ICOM R71A vs KENWOOD R5000

Newsgroup: rec.ham-radio
Date: 1990-07-03 16:38:09 UTC
From: flash@lopez.UUCP
Message-ID: <1990Jul3.163809.21683@lopez.UUCP>
Source record: 10544

The kenwood is the better rig, but don't take my word for it. Check out Passport to workd band radio, or other reviews that pit the two. I have a kenwood 440, the same thing only with transmit. Have had it for 4 years, and you could not give me the equivalent icom.

Icom used to have passband tuning, but they removed it from the current version of the R-71. This is a very needed feature, and without it you might as well keep your 2010 (I have one of those also, and like you I upgraded, but still use the sony for some listening).

The kenwood has MUCH better audio. Especially if you run it through an amplifier, or hook up an external speaker. The icom sounds like a bucket of tin.

The icom is touted as a DX machine. DX'ers do not care about audio quality, they just want an ID. BUT without the passband tuning, I think the icom suffers even in that aspect.

Kenwood calls their system IF shift. It works just beatifully. I have used it (In combination with usb) to pull out Pirate Stations that would have been lost on a rig without it.

There is no contest at all. The KENWOOD is the winner.

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

3936. Re: Technical articles

Newsgroup: rec.ham-radio
Date: 1990-07-03 17:21:20 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9007031721.AA12000@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 10539

Most of the "technical" articles have been a how to build it. While there needs to be such articles, I think people will only become interested in technical articles if those articles provide new understanding of the issues. When I was just entering the field, I wanted, and looked everywhere, foor articles that explained how the design was derived. Not just why a bypass capacitor was used, but how its value and type was determined. When I want to build something, I don't go out and buy the exact parts and create a clone. Usually I want some mods and to use some parts that are available from cheaper sources. Without an understand of the real design techniques, indescriminate part substitution will most likely lead to project failure and loss of interest in designing and building your own equipment.

-- Doug WA6VVV

3937. Re: Scanner Antenna / Discone / Technical questions

Newsgroup: rec.ham-radio
Date: 1990-07-03 17:36:06 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul3.173606.27918@bellcore-2.bellcore.com>
Source record: 10541

>Anyone use the Discone for transmitting ? How well does it work ?

Discones work just fine for transmitting. The only problem is that because they're so broadband, they will gladly radiate any and all harmonics and spurs generated by your transmitter -- no "free filtering" at the antenna.

Phil

3938. Re: Starting a car with NiCd's

Newsgroup: rec.ham-radio
Date: 1990-07-03 17:53:10 UTC
From: ghg@ecn.purdue.edu
Message-ID: <1990Jul3.175310.22230@ecn.purdue.edu>
Source record: 10542

In article <30500582@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>Has anyone ever tried starting a car with NiCd batteries? If you could
>validly assert that a certain number of cells of a certain size were able
>to start a car (even if they self destructed in the process) that might
>be significant enough to convince some people of the hazard.
>
>Also, I am curious if anyone has ever tried to charge a regular (but low)
>car battery from alkaline cells. I would think it would require a number
>of them in series to get above the car battery voltage. Perhaps 10 D cells
>in series could, in the course of 1-4 hours, charge a car battery up enough
>to start it.

I have done it twice. I built a portable computer (Z-181 laptop +
Telebit Trailblazer plus + Motorola 8000 series cell phone portable +
17 "D" (Radio shaft 4 AH nicads) a couple of years back. Left the
flashers on for 45 mins on my '90 Pontiac Transsport once..After being
used to a DieHard for years, I didnt realize how weenie those modern
sealed Delco batteries are these days. All the solenoid did was chatter.
Let stand with no load for 15 mins.. same thing. I patched up the
battery back from the suitcase terminal to the cigarette lighter, and
put a 12V 55W halogen bulb in series with it (around 21V on the terminal)
This "charged" the car battery at a couple of amps or so.. In 5 mins,
it started on the first try.

2nd time battery was totally dead (left the dome light on)., Did the same
trick, but let it charge for 45 mins and started fine.

I have heard of a form of lithiums (thoicynional?? sp?), which can short
circuit in the hundreds of amps. Four "C" cells can start a car.
They are not available to the public for obvious reasons.

--ghg

3939. V31BB

Newsgroup: rec.ham-radio
Date: 1990-07-03 17:54:23 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990Jul3.175423.12840@ecn.purdue.edu>
Source record: 10540

Well, dying at the mic is really dramatic - the kind of stuff that the Hollywood "glop factories" make mega-buck movies out of.

I just hope we don't have some morons come around and say that MFJ did it out of revenge. That would really be a sick suggestion......

So long V31BB - hope you're in ham heaven!

Duane
WB9OMC

3940. Re: Earmike query

Newsgroup: rec.ham-radio
Date: 1990-07-03 18:08:09 UTC
From: paul@hpldola.HP.COM
Message-ID: <12120040@hpldola.HP.COM>
Source record: 10538

I have one of the Maxon ear-mic tranceivers. The ear-mic is very convenient when the external noise is low. When high it can trigger the VOX and cause all sorts of grief. The Maxon literature suggests these things are OK for use in high-noise environments like airport areas - used *underneath* the approved hearing-protection headsets. I haven't tried it but it should work fine.

-Paul "Spice is the Variety of Life"
paul@hpldola.hp.com N0KCL

3941. A primer on grounding

Newsgroup: rec.ham-radio
Date: 1990-07-03 18:18:38 UTC
From: gary@ke4zv.UUCP
Message-ID: <827@ke4zv.UUCP>
Source record: 10559

Grounding Techniques for Radio Installations
by Gary Coffman KE4ZV

There are three main reasons to ground radio equipment.

1. Safety grounding to protect operators from accidental
electrical shock.
2. RF grounding to prevent spurious and harmonic radiation
and to enhance antenna efficency.
3. Lightning protection.

Each of these require different grounding technique. A careful analysis
of the ground methods used is required to determine if all three objectives
are met.

Safety grounding is in many ways the easiest criteria to meet. Simply
bonding all equipment cabinets to the power company ground with conductors
of low resistance and adequate current carrying capacity to blow the
circuit breakers will meet safety requirements.

Effective RF grounding is often much harder to achieve. The ground
path must not offer any significant impedance at the frequencies of
interest. Since the frequencies of interest are often octaves apart,
this is challenging. The frequencies of interest are the fundamental
frequency of the transmitter, the harmonic frequencies of the transmitter,
and any spurious frequencies the transmitter may generate. The latter
is usually the toughest.

Grounding for lightning protection is difficult due both to the
magnitudes of the voltages and currents involved and to the fact
that the lightning waveform is a step function and has considerable
RF energy.

Probably the WORST problem one faces in designing an effective
grounding system is the prevention of GROUND LOOPS. Ground loops
will cause unintended currents to flow in circuitry, often with
disasterous effects. Either damage or degraded operation will
inevitably be the result of a ground loop.

The best method of securing a good ground for a radio installation
is to use a GROUND WINDOW. The ground window technique requires
that every cable that enters or leaves the radio room pass through
one small area where all ground connections are made.

The power company ground must be bonded to the ground window and
surge suppressors such as those marketed by Lightning Protection
Associates should be installed in series with the hot wires. Note

that simple shunt protectors will not be sufficient to protect the equipment in the event of a direct lightning strike. Series protectors are designed to open the circuit under severe overload.

All coaxial cables must have their shields attached to the ground window and have their inner conductors clamped with an arc cartridge designed to fail shorted. In addition the inner conductor should be fused in a manner that will open the line when the arc cartridge fails.

Telephone cables must enter through the ground window and have their leads clamped with MOVs and arc cartridges that are designed to fail shorted. In addition all leads must be fused in a manner that will open the line when the arc cartridge fails.

Each piece of equipment in the radio room must be attached to the ground window by a wide heavy strap installed so as to be as short and straight as possible. Neatness definitely does not count here. Don't "dress" the ground cable, make it short and direct. Do not "daisy chain" grounds. Make sure that the only path from one piece of equipment to another is via the ground window. This means that interconnecting shielded cables should go from the equipment out to the ground window, have the shield bonded to the ground window, then return to the next piece of equipment. This is the only sure way to prevent circulating ground currents.

Now that every piece of equipment in the radio room is at the same potential as the ground window, the ground window must be brought to true earth ground. This is fairly easy for DC and low frequency AC, just make sure the cable is heavy enough to have the smallest possible voltage drop across it. For RF, inductance and resonance effects must be considered as well as skin effect. A wide flat copper strap that is routed as straight as possible to earth ground is preferred. For maximum lightning protection, the ground strap must never travel upward because the space charge will resist the current flow. Sharp bends will act as single turn inductances and should be avoided. Since a single ground cable will exhibit resonance at certain frequencies due to it's length, several ground cables should be used with each a different length. The lengths should be chosen such that a cable that is near a quarter wavelength at a given frequency will be paralleled by a cable that is near a half wavelength. In practice, several cables varying from the shortest possible length to twice the shortest length should be paralleled so that at least one will present a low impedance at any frequency. Do not coil the longer cables, instead fan them at the center point.

The method used to route cables down the tower will effect the degree of lightning protection achieved. If possible use a plumber's delight type of antenna that is dc grounded to the tower. Route the coax down the inside of the tower, and ground the shield of the coax to the tower at several points. This last will short out the single turn transformer formed by the tower

and the shield of the cable. Unless this transformer is shorted, currents flowing in the tower to ground will induce currents in the shield of the coax.

The true ground must be more than a single stake driven into the earth. If the tower is ground mounted, use the base of the tower as the center of the ground field, otherwise drive an eight foot ground rod to form the center point of the ground field. Run radials out from the center of the ground field to a buried loop connecting a series of ground rods separated from each other by no less than eight feet. A minimum of eight rods should be used. If possible, the radials should continue outward for one quarter wavelength at the lowest frequency of operation. If your tower is not ground mounted, bring it's base ground back to the ground window using multiple lengths of cable as discussed above. Do not run a ground cable directly from the isolated tower to the true ground or a ground loop will surely be created that can allow damaging circulating currents to develop.

This all sounds like a lot of work and expense, but field experience has proven that a system like the one described will withstand direct lightning hits without loss of equipment, air time, or lives.

3942. KA9Q installation on MFJ 1270

Newsgroup: rec.ham-radio
Date: 1990-07-03 18:31:37 UTC
From: wjh0265@helios.tamu.edu
Message-ID: <6319@helios.TAMU.EDU>
Source record: 10543

I was thinking about installing the KA9Q net pkg. for an MFJ 1270 with 1.1.2 ROM. I was going to burn a new ROM with the patch supplied with the pkg., but I have heard there is a new ROM available that may make that a moot point. I would like dual operability for standard AX.25 and KA9Q. I downloaded the stuff from louie.udel.edu, but it seems to be the same stuff I saw there 2 years ago. Is there new code and docs elsewhere that I don't know about? Any help would be appreciated!

3943. Standard C528 Twinbander? Experiences?

Newsgroup: rec.ham-radio
Date: 1990-07-03 19:31:21 UTC
From: hks@funet.fi
Message-ID: <1990Jul3.193121.6767@funet.fi>
Source record: 10545

I've been offered by a local ham dealer (ELSTAR Oy) a Standard (Radio Co) Model C528 "Twin bander" which has more features than I have seen in others (ICOM-24ET, YEASY-470,Kenwood-75E) like dual/separate SQL,VOL,displays (including S-meter and memories), dual speaker jacks (maybe I could put TNC on main band and listen the other?), scan functions etc. Also it's supposed to have CODE scuelch/paging, tone scuelch (option), lots of scanning, dual watch etc. functions (a la ICOM) with wide extended coverage, PTT lock, Freq lock, squeclh off, APO etc. Only receiver specification is the sensitivity of 0.16uV at 12dB SINAD which sounds good. Of course it's also supposed to provide 2-5W, fit in to pocket and be raindrop proof. Price is a bit more expensive than ICOM, Heath or YEASY but so is nearly everything here due to low volumes and high taxes :-(

What I'd like to know has anyone any real experience on this Unit (or Standard in general). Can you trust it (them?)? Is it high quality and rugged construction? Any caveats? I or my friends have hardly even heard of the company and I've seen only a very small announcement in a UK ham paper but not in any major ones etc. Also the English grammar is horrible in their brochure (even to a non native speaker :-) although I don't hold that as an evidence of a bad product but bad marketing. Am I missing something or have most others missed an excellent dualbander?

Regards,

Harri Salminen

hks@funet.fi (please reply directly too because news distribution here might have some problems due to rearrangements)
OH2LGE (@OH2TI)

--
Harri K Salminen - Finnish University & Research Network project
hks@funet.fi, LK-HS at FINHUTC, tut!hks, hks@fscc.funet, OPMVAX::hks
FUNET c/o VTKK/TLP, PL 40, 02101 Espoo, Finland - +358-0-4572288
"Virtually, I don't work, I just netWORK :-)"

3944. Re: h-t battery pack meltdown!

Newsgroup: rec.ham-radio
Date: 1990-07-03 19:52:22 UTC
From: scotto@crash.cts.com
Message-ID: <3388@crash.cts.com>
Source record: 10550

In article <3944@optilink.UUCP> elliott@optilink.UUCP (Paul Elliott x225) writes:
>In article <49407@iuvax.cs.indiana.edu>, commgrp@silver.ucs.indiana.edu (BACS Data Communications Group) writes:
>>
>
>We (very quickly, believe me) identified the problem, and placed fuses in
>the battery packs. These worked, but did have a non-zero nuisance failure
>rate. At this time, the Raychem company was introducing a product called
>the "Polyswitch" (probably t.m.) This is the equivalent of a self-resetting
>circuit-breaker, or a very sharp-kneed PTC (Positive Temperature Coefficient)
>thermistor. We had Raychem make a unit that would fit into the battery case,
>and the problem was solved. I believe that it is still being used.
>
>My recommendation: Remember that NiCd battery packs contain potentially
>catastrophic quantities of energy. Protect them against common fault
>conditions. I personally recommend the Raychem Polyswitch for this
>application. (I have no connection with Raychem).
>
>-- Paul Elliott (wb6cxc)

I know that Alexander Batteries use the Polyswitch in their premium line
of replacement batteries. I don't know about the others, like W&W, etc.
--
Scott O'Connell - N6ZEK UUCP: {nosc, hplabs!hp-sdd}!crash!ipars!scotto
ARPA: crash!ipars!scotto@nosc.mil
INET: scotto@ipars.cts.com

3945. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-03 19:59:12 UTC
From: brian@ucsd.Edu
Message-ID: <14954@ucsd.Edu>
Source record: 10546

People stop kerchunking the repeater when
a) they own radios they trust never to break
b) they use a repeater they trust never to break
c) you kill them
d) the repeater drops off the air so fast they can't hear the kerchunk

Which do YOU think is the most achievable?

(Recall that if you have a real radio, IT won't make any noise when the signal comes and goes either, so if the repeater also lacks pinball machine noises, it could be kerchunked all day long and nobody'd care.)
- Brian

3946. Re: Technical articles

Newsgroup: rec.ham-radio
Date: 1990-07-03 20:49:27 UTC
From: perley@trub
Message-ID: <9275@crdgw1.crd.ge.com>
Source record: 10548

In article <9007031721.AA12000@KRONOS.NISD.CAM.UNISYS.COM>, doug@NISD (Doug Hardie) writes:
>Most of the "technical" articles have been a how to build it. While there
>needs to be such articles, I think people will only become interested in
>technical articles if those articles provide new understanding of the issues.
>When I was just entering the field, I wanted, and looked everywhere, foor
>articles that explained how the design was derived. Not just why a
>bypass capacitor was used, but how its value and type was determined.

Giving that level of detail would put a severe limit on project complexity
given that they can't devote a whole issue to one article.

Usually they give you some clues such as "the next stage is an emitter-follower"
which you can then look up in the Radio Handbook or some other text
for generic parameter info.

Another explanation is that the size and type was determined by the author's
junk box. The author has developed a "feel" for what works for af or
rf bypass, etc, but is not up to a quantitative analysis.

On the other hand, if the author says that xxx or anything in the
range yyy-zzz will work just as well, and hasn't actually tried them, he
may end up with a bunch or irate letters if it doesn't work for some
unforseen reason.

> When
>I want to build something, I don't go out and buy the exact parts and create
>a clone. Usually I want some mods and to use some parts that are available
>from cheaper sources. Without an understand of the real design techniques,
>indescriminate part substitution will most likely lead to project failure
>and loss of interest in designing and building your own equipment.

For beginners, I think it would be best to build a couple of projects
as described. Then try some "educated" substitutions to see how it
changes things.

-don perley ke2tp

perley@trub.crd.ge.com

3947. Re: Subscribe to QEX ?

Newsgroup: rec.ham-radio
Date: 1990-07-03 21:21:25 UTC
From: geertj@philica.ica.philips.nl
Message-ID: <621@philica.ica.philips.nl>
Source record: 10555

In article <42578@apple.Apple.COM> kchen@Apple.COM (Kok Chen) writes:
[trouble about subscribing QEX]

Since I have had trouble subscribing QEX, and so far nobody mentioned the address (which took me a month to get), I guess it is appropiate to give some data:

ARRL, (yep, that address isn't easy to find in Europe, I'd better include it)
225 Main Street, Newington, CT 06111 USA
Phone +1 203 666 1541, FAX +1 203 665 7531

I have had trouble getting the subscription money over to the ARRL. The person who helped me (thanks!) was Chetty Tardette. You might want to contact her for difficult situations (overseas, etc).

Subscription rates:
USA third class mail: member $10, nonmember $20
USA, Canada and Mexico first class mail: member $18, nonmember $28
Elsewhere Airmail: member $38, nonmember $48

I hope this is sufficient. Disclaimer: I am just subscribed to QEX. It took me quite some time to get this info. Maybe it helps others under similar circumstances.

73,
Geert Jan, PE1HZG

3948. Kenwood TS930 PROBLEM

Newsgroup: rec.ham-radio
Date: 1990-07-03 21:31:55 UTC
From: svec@motcid.UUCP
Message-ID: <3822@feldspar2.UUCP>
Source record: 10551

Kenwood TS930 Problem

(I am posting this for Jim-W9NB but you should direct
replies either to me or rec.ham-radio)

KENWOOD TS930 PROBLEM
I have been having an intermittent problem with tuning...
the frequency will not change with inputs from the main tuning
control knob. I can turn off the unit and come back to it later
and the problem disappears! I have tried touching up through-
holes on the synthesizer board but the problem reappears
about a month later. Does anyone have any ideas? The
control processor may be getting into the act. One friend
suggested I reset when I see the problem.

Thankyou,
Jim-W9NB
--
Larry Svec - KD9OF (good in 1987 or newer callbooks)
home: 708-526-1256
work: 708-632-5259 fax: 708-632-2413, -3741
e-mail: uunet!motcid!svecl

3949. COLLINS KWM380 INFO/EQUIPMENT WANTED

Newsgroup: rec.ham-radio
Date: 1990-07-03 21:33:47 UTC
From: svec@motcid.UUCP
Message-ID: <3823@feldspar2.UUCP>
Source record: 10552
Cross-posted to: rec.ham-radio.swap,rec.ham-radio

Wanted- Collins KWM380 info/equipment

(I am posting this for Jim-W9NB but you should direct
replies either to me or rec.ham-radio)

COLLINS KWM380 INFO and EQUIPMENT WANTED
Does anyone know where I can buy or swap modules for
the KWM380? Is there a KWM380 net or club? I have a
speech processor board and need a noise blanker.
Also...
Does anyone have any info on the new modifications for the
KWM380? (I checked mods-database and found nothing)
Thankyou,
Jim-W9NB
--
Larry Svec - KD9OF (good in 1987 or newer callbooks)
home: 708-526-1256
work: 708-632-5259 fax: 708-632-2413, -3741
e-mail: uunet!motcid!svecl

3950. Re: Worldwide network of HF propagation beacons. . .

Newsgroup: rec.ham-radio
Date: 1990-07-03 21:45:16 UTC
From: winter@Apple.COM
Message-ID: <42620@apple.Apple.COM>
Source record: 10549
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jul3.030049.8312@midway.uchicago.edu> gary@ellis.uchicago.edu (gary buchholz) writes:
>I picked up a copy of the ARRL Operating Manual(copyright 1988). On pages
>2-17 there is some discussion of the NCDXF worldwide propagation beacon
>network on 14.100 MHz.
>==> The question is this. My ARRL guide is from 1988. Is this beacon still
>==> in operation ?

They sure are. In fact, the Stanford beacon now operates on three bands. When it finishes on 20m, it switches to 21.150MHz. Then during the next minute, it's on 28.200MHz. Then it's silent until its next turn on 20m.

Herewith the full scoop (obviously Gary has it, but others might appreciate the information):

**********(cut here)**********

Here's a list of the beacon stations supported by the Northern California DX Foundation on 14.100 MHz.

Schedule: Each beacon occupies a one-minute time slot on a rotating basis with the others. For example, 4U1UN/B at the U.N. headquarters in New York City is on the air at every "0" minute; i.e. at the top of the hour, at 10 minutes after, at 20 minutes after, etc. As yet, there is no beacon in the "9" slot.

Output sequence: Each message begins and ends with a CW id at 100 watts. In between, the beacon broadcasts a series of continuous tones at 100, 10, 1, and 0.1 watts.

TIME CALL SIGN LOCATION
00 4U1UN/B New York
01 W6WX/B California
02 KH6O/B Hawaii
03 JA2IGY Japan
04 4X6TU/B Israel
05 OH2B Finland
06 CT3B Madeira Island (off NW coast of Africa)
07 ZS6DN/B South Africa
08 LU4AA Argentina

Also, at 02, the W6WX beacon broadcasts on 21.150 MHz. At 03, it transmits on 28.200 MHz.

Reports: The DX Foundation is eager to get reception reports. They've even worked up a way for individual stations to best evaluate day-to-day

propagation changes. (It's based on assigning numbers to the different
power levels and adding up the total you can hear.)

For more information, contact the Northern California DX Foundation,
P.O. Box 2368, Stanford, CA 94309. I'd suggest you put "Beacon Info"
or some such on the envelope so it will immediately be routed to the
beacon manager. You can also request information about the Foundation's
other activities (such as DXpedition support and free slide shows).

Happy beaconing!

Patty N6BIS

**********(cut here)**********

>There are 9 transmitter sites - in NY, CA, HI, Japan, Israel, Finland,
>Madeira Island, South America and Buenos Aires.
^^^^^^^^^^^^
I think you meant "South Africa" there, unless Buenos Aires has moved
and can no longer be considered part of South America. :-)

>==> Also, I'd be very much interested in any other such propagation nets on
>==> other frequencies - or how people generally get "dynamic" propagation
>==> information (ie other than looking at published LUF,MUF charts)

There are about a gizillion 10m beacons, but I'll let someone else
discuss them because I don't have the list.

73,
Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

3951. Re: oh-oh!

Newsgroup: rec.ham-radio
Date: 1990-07-03 22:28:35 UTC
From: jack@swlabs.uucp
Message-ID: <1990Jul3.222835.16205@swlabs.uucp>
Source record: 10565

In article <12709@cadnetix.COM> rusty@cadnetix.COM (Rusty Carruth) writes:
>Well, folks, there is a greater than 50-50 chance that I will be
>losing net access Real Soon Now. If mail suddenly bounces when
>sent to me, my apologies, I had absolutely nothing to do with it!
>
>73, and its been a blast! de rusty n7ikq (aka 'Mr Callsign Project')

Well Rusty, I for one have enjoyed your postings. I think you have
been a net asset, both regarding the callsign project and with the
usenet un-net.

I hope you get net access again soon. I trust that the un-net will
be continuing to function.

-Jack
--
Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612
uunet!swlabs!jack (UUCP)
jack@kc1uh (TCP/IP)
kc1uh@wb1cqo (AX.25)

3952. Re: FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-07-03 22:50:32 UTC
From: cb@cci632.UUCP
Message-ID: <38479@cci632.UUCP>
Source record: 10563

After reading some of the comments about fm vhf contesting, I was
compelled to say a few words. FM only is not dead here in WNY,
Fn02/03/12/13. The local vhf/uhf group has resurrected this
mode of operation. As a club they have provide incentive for
contacts by providing competion between groups and individuals
for FM only competition.
For example I made about 255 QSO's on 2.5 bands FM (my 220 was getting
into the local 442.0 machine) and came in an astounding 4th place!
(which was embarassing since I came in 3rd the previous year :-).
The local DX club won top honors for the second year in the interclub
competion (not bad for bunch of 2m maybe kind of guy :-).

Anyway to make a long story short, those fm contacts do help the club,
at least from looking at the January results.

Maybe next year I'll have 4 bands no better have 5 Rich just added
20 more feet to his tower :-).

FM contesting is FUN, thanks Rochester VHF group....

--

email: cb@cci632 or !rochester!kodak!n2hkd!curtis
Curtis Braun, N2HKD, Computronics, PO Box 1002 Fairport NY, 14450

3953. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-07-03 22:57:19 UTC
From: jack@swlabs.uucp
Message-ID: <1990Jul3.225719.16615@swlabs.uucp>
Source record: 10564

In article <1990Jul2.171023.14656@cbnewsm.att.com> ka1gt@cbnewsm.att.com (robert.m.atkins) writes:
>
> (quote removed to prevent further flare ups)
>
>The above quote attributed to me (KA1GT) is actually what Glenn said. Please
>be careful in editing.

My mistake. Apologies to both you and Glenn.

>Also, from conversations with HR staff, including
>Skip Tenney, I was under the impression that HR's sale was due to Skip wanting
>to retire and had nothing to do with advertizing revenues. If you have other
>information I would like to know (please quote your sources).

No, I have no such data. Just idle musing. I thought that would be obvious from the fact that my diatribe ended with the call for a class action suit against the advertisers who did not place ads in Ham Radio.

Maybe a :-) or two would have helped. :-)

[Sorry to bother the net with this. Both the flame and the reply would have been better handled by private e-mail, but having been chastised publicly, it seems that a public reply is in order.]

Now back to the business at hand. What would get us off top dead center regarding the proposal to publish technical articles here (including graphics, schematics, etc.). Would uuencoded GIF files do the job? (or would it be too large?) Is a DOS based reader readily available? Once the DOS based reader is available, the Amiga and X11 people will follow.

Another pertinent question, I think, is whether the authors normally make enough money off their articles that the lack of remuneration would be a deterrent. Or is the payment small enough that it is just a formality that authors would be willing to do without?

I think exposure would be no problem. Already articles from this newsgroup make it onto Fido/Opus, packet (ax.25), and TCP/IP. Hopefully these would too. I think we would then be reaching a good portion of the technically active hams.

Or is the net happier with discussion of ordering pizza over the repeater's phone patch?
--
Jack Bonn, KC1UH, <> Software Labs, Ltd, Box 451, Easton CT 06612
uunet!swlabs!jack (UUCP)
jack@kc1uh (TCP/IP)

kc1uh@wb1cqo (AX.25)

3954. MIR 2m

Newsgroup: rec.ham-radio
Date: 1990-07-03 22:59:28 UTC
From: joehol@microsoft.UUCP
Message-ID: <55629@microsoft.UUCP>
Source record: 10556

has anybody communicated w/ MIR lately ?

wondering what times they are likely to be on
the air on 2m ?

joe holman, ka7ldn
microsoft!joehol
joehol@microsoft.uucp

3955. Re: Preliminary Agreement on 7 MHz for WARC-92

Newsgroup: rec.ham-radio
Date: 1990-07-03 23:36:45 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880175@hpfcdc.HP.COM>
Source record: 10554

... and do I hear the deluge of "how to mod" postings coming. I vote for "rec.ham-radio.mods".

:-)

Seriously, this sounds exciting. This 40-meter fossil would really like to be able to fit 3 SSB QSOs into 10Khz, rather than 2. The absence of over-the-pole QRM would make everyone's life easier.

Perry/KF0CA

3956. Re: Starting a car with NiCd's

Newsgroup: rec.ham-radio
Date: 1990-07-04 00:16:05 UTC
From: larson@unix.SRI.COM
Message-ID: <13814@unix.SRI.COM>
Source record: 10561

In article <30500582@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:

>Has anyone ever tried starting a car with NiCd batteries? If you could
>validly assert that a certain number of cells of a certain size were able
>to start a car (even if they self destructed in the process) that might
>be significant enough to convince some people of the hazard.

Start a car? No. But I have been present for the starting of
a Mitsubishi MU-2, which pulls about 2000 amps at 24 volts during
the start cycle. It requires spinning the single shaft turbine
and the coupled prop up for a suprisingly long time before the
engine is ready to run. As I recall, it used wet cell NiCad batteries.

Even the little X sized (slightly larger than D cell) lead acid
batteries will give a lot of current. At a trade show, it was claimed
that 6 of them would start a car. (Yes, they deliver 100 - 200 amps.)

Alan

3957. Re: What do people use for sweep generators?

Newsgroup: rec.ham-radio
Date: 1990-07-04 01:10:22 UTC
From: mikew@hpsadpe.HP.COM
Message-ID: <1530046@hpsadpe.HP.COM>
Source record: 10566

I don't think you want to hear what I use when I align IFs! (doesn't
everybody have a pair of HP8340Bs and an 8662, 8562, 8753B and 3325 nearby?)

-mike

****
Mike Weihman n1dje: RACES, CDF-VIP
mikew@hpsadmjw.hp.com
mikew%hpsad@hp-sde.sde.hp.com

Hewlett-Packard Co. Volunteer firefighter/EMT
Signal Analysis Division Penngrove Fire Prot. Dist.
1212 Valley House Drive Penngrove, CA
Rohnert Park, CA 94928
(707)794-4454
****

3958. Re: Subscribe to QEX ?

Newsgroup: rec.ham-radio
Date: 1990-07-04 01:41:44 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007050147.AA11422@ti.com>
Source record: 10557

> From: TILDE::"jbloom@uhasun.hartford.edu" "Jon Bloom" 3-JUL-1990 16:00:09.99
> Subj: Re: Subscribe to QEX ?
>
> First thing tomorrow morning, copies of this thread will be posted
> on the main bulletin board in the hall at ARRL. Maybe that'll wake
> some people up.

Jon,
Are you the only one from HQ who reads this net?

It might be interesting if some of the folks there saw some of these
opinions/flames/catterwallling/etc/

Hope you get a nibble!

73,

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3959. RE: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-04 02:40:28 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007050147.AA11447@ti.com>
Source record: 10480

> From: TILDE::"nicholso@hpcuha.HP.COM" "Ron Nicholson" 3-JUL-1990 17:25:05.78
> Subj: Some CW procedure questions

Ron,

Good luck with it. PROCEDURE is really intended for formal situation, like emergency traffic anmd directed nets. What you find ON THE AIR is more in the realm of CUSTOMARY.

If you have access to ARRL books, I would recommend "The ARRL Operating Manual" and "Operating and Amateur Radio Station". Both give formal and informal examples.

Here, I have commented on your question, to the best of my awareness. As a code instructor, I try to at least keep aware of what's going on out there.

I am sure you will get other responses, and I hope this and those will help answer your questions.

> I hear lots of variation in the use of things like:
> - BT vs. periods for punctuation,
BT is a "double dash" and might be analogous to an "uhhhh..." is speech. It is supposed to be a separator between segments, but some folks send BT just to waste time until their brain catches up with their fingers. Punctuating takes a little thought. It sounds formal, too. BT sounds quick and informal, and is nice and easy to send.

> - one or two BT's at a time,
They really can't think of what to say.

> - R R R vs. FB,

Partly as before, while gearing up thinking what to say, some folks send R R R just to waste time. One is probably enough. Imagine on voice, someone saying "I heard you, I heard you,..." over and over.
R means "RECEIVED" and kind of informally, "ROGER" (acknowledged),
FB is abbreviation for FINE BUSINESS (?) which must be a pretty old expression, and only used in radio; I've never heard it in any other context. Think of it as an adjective describing the state of mind of the other operator; he is hearing you well and is happy to talk to you... (I suppose!)

Saying R FB (or worse, R R R FB) is redundant. But you hear it again and again...(sorry about that!)...on the air.

> - R R R before or after the callsigns,

Again, wasting time, getting the brain up to speed with the fingers.

> - 559 vs 55N for the 2nd RST report,
Shorthand. N for 9. You'll also hear 5NN.

> - differing amounts of abbreviations,
I have a list I will mail you, copied from ARRL lists and other sources.
If you get other lists from elsewhere, I would appreciate a copy to merge
with mine, because I sometimes send them in code practice sessions at the
radio club here.

> - BK vs. BK TU vs. callsigns DE callsign KN,
BACK (sometimes read BREAK if quick exchanges are happening) generally
BACK with the TU meaning TO YOU.
CALL SIGN DE CALL SIGN is full-out you-from-me identification, with the
KN meaning GO-ONLY, the QSO is not meant to be broken into.

> - when to use AR (I've only heard it used twice),
QSOs? Maybe never. It is a formalism. It is used to mark specific END OF
TRANSMISSION in formal third party traffic and in Net operation.
When you're rag-chewing or contact chasing, it's probably not really
necessary.

> - leaving out one callsign and just send DE callsign,
Shorthand. You really only have to send your OWN call sign.

> - just ending with BK and no callsigns,
Shorthand. You really only have to identify every 10 minutes and at the
end of the contact, so BK (BACK or maybe BREAK) just passes
it back to the other person.

> - SK before or after the closing callsign,
SK means END OF CONTACT. (BTW it is one of the prosigns REQURED in the
FCC/VE code exams, along with AR and BT.)

> - the dit dit at the end of contacts.
Silliness... Shave-and-a-haircut, Two Bits. That's how it started, and
has sort of degraded to just the dit-dit.

> Also, could someone post or email me some transcripts of some basic CW
> QSO's, including things like a contest contact, a short DX QSO and a
> typical novice interchange (name is, rig is, ...).

REMEMBERING that the PROSIGNS, BT AR SK AS KN, are run together as
one character, =***= not =*** =, etc.

(I hope if these call signs exist, the holders won't mind!!)

CQ CQ CQ DE WA8YCD WA8YCD WA8YCD K

WA8YCD DE KY2D K

KY2D DE WA8YCD R TNX FER CALL BT
UR RST 589 BT
QTH MORGANTOWN, WV BT
NAME BOB BT
RIG HR IS DRAKE TR4C ES ANT DIPOLE UP 34 FEET BT

WX HR IS SUNNY AND WARM, TEMP ABT 80 DEGREES BT
JUST THOT I WUD SEE WATS ON THE BAND THIS MORNING HI HI
SO WAT SA? N2EFG DE KA1BCD K

etc....

If conditions were marginal, you might send the RST, your NAME, and QTH twice, but at slow code speeds if it is not necessary, don't make the other OP wait through it.

The other operator may ask for repeats. You may also have to ask for repeats if (QRM, man-made) or (QRN, natural) interference or changing band conditions (such as fading, QSB) keep you from hearing the entire transmission.

VERY IMPORTANT! Send your CQ and generally everything, at the speed YOU want to copy! Don't blame the other OP for sending back too fast if you send that fast too!

QRS (send slower) when asked to, and don't be afraid to ask the other OP to slow down if you are missing too much!

Contesting is a different matter on exchanges... you might hear all kinds of short cuts.

BTW, "CQ TEST" has come to mean "CQ CONTEST", not TEST as in experiment.

CQ FD CQ FD DE WA8YCD WA8YCD K
WA8YCD DE KY2D K
KY2D DE WA8YCD TU 1A WV BK
DE KY2D QSL 1A WV TU 2A NNJ BK
DE WA8YCD TU GL TEST SK

Listen. Not all contesters are doing the same thing, some work faster and hear more distinct calls out of a pile-up and shortcuts work. But if in doubt, pick an exchange that makes sense to you and stick with it.

Some contests have specific formats. Check the magazines for how those work.

I'll look at my Code Practice files and see what else I can send you.

When in doubt, use CUE CARDS (Just like on TV!!)

I recommend to new hams that they write out on a sheet of paper in large, friendly letters the information they would like to send to the other station in a QSO. Such a "script" or "Cue Card" can help you when you can't think of what to say next. After a while, you relax with it and can get rather chatty.

When you can relax, you start enjoying the CW QSO and it becomes a transformation into a language, not just a code.

Good luck!

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt

RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

3960. Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-04 04:18:31 UTC
From: ornitz@kodak.kodak.com
Message-ID: <1990Jul4.041831.24933@kodak.kodak.com>
Source record: 10562

After reading a number of replies to my comments about the demise of Ham Radio Magazine and my dissatisfaction with CQ magazine, I decided to call Alan Dorhoffer, K2EEK, the editor of CQ Magazine and ask him to elaborate on the editorial in the June issue of CQ. I felt that Alan's editorial and the message from CQ's publisher, Dick Ross, K2MGA, were quite negative regarding the technical aspect of amateur radio. Quoting a few of their comments:

CQ for the last 10 1/2 years has worked very hard to carve our a niche among today's amateurs. By todays amateurs, I mean those who are operator oriented and somewhat less technically geared. K2EEK

But the technicians among us no longer provide the numbers needed to support a monthly magazine of the caliber of Ham Radio. K2MGA

What changes are we likely to see within the pages of CQ? Probably not too much that you'll notice at first glance other than increased size. K2EEK

We agreed to the concept of integrating the circulation files of the two magazines, and to the broadening of the editorial scope of CQ to include more technical material, although it was clear that the very highly technical characteristic of the early Ham Radio would not be suitable for the combined audience of CQ and Ham Radio. K2MGA

There will be no fundamental changes in what has been CQ, right down to the food reviews. K2EEK

Obviously, we'd like to add more small projects for you to build (and use), and Ham Radio has always had interesting projects for an evening or weekend. K2EEK

These comments are illustrative of the overall tone of CQ after buying out Ham Radio. As someone who loves the technical side of the hobby, I was disgusted that the next three years of my subscription was going to buy a magazine whose editor and publishers felt this way.

At this point, I decided to call Alan, K2EEK, at his office. We spoke for what seemed well over an hour on 6/28 in the afternoon.

I was really quite surprised with some of Alan's comments and asked if I could pass them along to the net, to which he agreed. Alan, unlike the various ARRL officials I have conversed with over the years, was quite articulate while "pulling no punches" with his answers.

The word I would best describe Alan by would be a BUSINESSMAN. CQ magazine is there to make money. Period! While Alan enjoys amateur radio and

running the magazine, it is still a business which must be profitable if he is to remain employed. Buying Ham Radio was a business decision based mainly on what the distribution outlet of Ham Radio Bookstore could bring to CQ Communications, Inc. Ham Radio Magazine really was secondary to the decision. Alan felt that Ham Radio Magazine was basically unwanted; the magazine was ailing to begin with, and that CQ would never publish the highly technical articles like Ham Radio did for fear of losing existing CQ readers.

He made this point quite clearly: "the reality is that the world has changed." Ham radio is dominated by the appliance operator and those few technically minded hams left are a small majority. His magazine is there to serve the needs of the masses, not the majority. He added that while CQ might become somewhat more technical, the changes would be very slight.

What was surprising to me was that Alan too mourned the loss of this technical competence in our hobby. He would like to see hams doing more technically challenging projects, but since they are not, CQ will be aimed for the non-technical audience. He said that right now, hams need to learn more about operating procedures, and rules and regulations. Alan lamented the fact that one could pass an amateur exam by passing only the technical questions and missing every question on Rules & Regulations.

I asked Alan about a code-free license and whether he thought it might attract more technical people to the hobby. He answered that it probably would not - that the same percentage of technical people would be hams before and after adding a code-free license. The hobby would certainly grow but it would be basically the same mix of people - only larger. There would be no fundamental shift toward the technical side of the hobby.

{To insert my opinion here, increasing the number of techies might cause some aspects of the hobby, such as digital communications or microwaves, to reach critical mass. Here you need more of the right people, spread across the country. If the larger numbers can be found by keeping the same percentage of a larger total, the effect will be the same as getting just a smaller number of the right folks. However, other problems such as HF and repeater crowding are functions of total numbers. Alan made mention that to keep our government happy, ham radio must create enough jobs and business capital if we are to keep our privileges. We need larger numbers for this.}

I changed the subject back to the needs of the technically oriented ham and what possibilities Alan saw for us. He said that there was always QST, of course, but that the League was also aiming their magazine to the masses and that the masses were NOT technically oriented. He pointed out that QST had several advantages because they were not solely driven by subscriptions and advertiser revenue, and that they were a non-profit publication. Because of this, QST could afford to run an occasional article that would appeal to a specialty audience. CQ could not afford to do this. This is an important point made by several USENET readers. We should continue to encourage the League to run these articles in QST. As someone has pointed out, such articles may attract new people who had not been exposed to the

more technical side of the hobby. Alan then said that he felt Wayne (Green) would fold his magazine soon (73). He agreed with me when I commented that I and many other people felt that there was no professional integrity to Wayne's magazine. Alan said that there was a growing trend to produce specialty publications as evidenced on the number of books on packet radio, antennas, QRP, etc. He stated that these were targeted to a specialty audience - something that made them successful. The problem with including more technical articles in CQ was that they would take up room normally given to articles more suited to CQ subscribers. The loss of advertisers because of increasing numbers of "homebrew" construction projects is a moot point. Advertisers have NO worry about hams building their own gear and abandoning commercial rigs. After all, how many of us can build an equivalent to an Icom, Kenwood, or Yaesu transceiver? Or even if we could, how much would the parts cost and where would we find all the necessary test equipment? Commercial ham equipment manufacturers actually want to see experimentation. If the experimenters had not built repeaters from surplus commercial FM gear, or played with OSCAR satellites, we still might be using Gonset Goony-boxes on 2-meter AM and 432 MHz might only be used by a handful of people in VHF contests. The experimenters open up new territory for the rest of the hams; when enough people are using the new technology and there is a demand for equipment, the manufacturers are more than happy to meet that demand. Look at the number of TNC's based on the TAPR design if you want to see a modern example.

Our talking about commercial equipment brought forth some negative comments from me about the equipment reviews in CQ. Alan responded by saying that CQ is not a "Consumers Reports" magazine. He said that even though QST published measured specifications, only a very small number of hams ever understood what the numbers or the intermodulation distortion graphs meant. Alan told me that hams buy equipment based on what other hams are buying - a herd mentality. After all, the major rigs are really quite similar in technical specifications. Want the best rig? Spend the most money! {This is something I do not totally agree with although there is a lot of truth in his statements.} Of course, CQ rates rigs more on operating convenience than actual technical specs.

I pointed out the review of the AEA Iso-Loop as being representative of the type of article that turned me off completely. Alan made it clear that he understood antenna theory fairly well. He said the only reason the model that was reviewed performed so well was that it was very high-Q. Hidden away in the review is the statement that all of the metal connections in the antenna are machined and welded. If the resonant Q is high enough, a small antenna can perform surprisingly well. Of course, it is very expensive to do the machining and welding. Alan and I both wondered how long it would be before this antenna was manufactured using rivets and clamps - and ceased to perform! I told Alan that I felt this point should have been made more prominently in the article. He said if AEA changed their design to lower their manufacturing costs (and seriously degrade the antenna performance), they might consider publishing a follow-up. He also defended the antenna matching unit {?} they reviewed several years ago {Max Com, if memory serves}. This unit was basically a 50 ohm resistor across

the dipole center insulator. Paraphrasing his comments: "So what if it is very inefficient. It allows your rig to operate with low SWR on bands that you could not operate on without a tuner." Of course, the unit cost about the same as a tuner. But a tuner requires some adjustments. Me? I use a tuner to match a dipole fed with ladder line. The dummy load is used only when I don't want to radiate a signal!

I then told Alan about my earlier call to Ham Radio where they told me a number of long-time subscribers were indignant about the sale to CQ and had canceled their subscriptions. He replied that he was aware of this although he had seen very few cancellations to date. {There must be more than he cares to admit. CQ now requires you to cancel by mail, sending the subscription labels for both HR and CQ to them for processing.} Alan told me that CQ was happy to cancel anyone's subscription and refund the money for the remainder. He said he wants repeat business and a good reputation; he does not want to make enemies. He reminded me that Skip Tenny, W1NLB, had sold Ham Radio because he wanted to retire, not because the magazine was in dire straits...yet. CQ bought HR mainly for the bookstore business; the gain in subscribers had little to do with the purchase. Alan also mentioned that anyone could choose to have the remainder of their Ham Radio subscription filled by any of the other CQ publications.

Finally, Alan told me of some VERY tentative plans for the future that will definitely be of interest to the technically minded hams. He said that he was considering the publishing of a technical quarterly. This quarterly would be aimed directly at the advanced experimenter. He described it almost as a professional journal, much more refined than QEX but aimed at a similar audience. He said this quarterly would not be sold in newsstands and that he expected a total subscription list of less than ten thousand. While Alan will not say anything definite, he said to expect the first issue late next fall, perhaps in November. I wished him the best of luck with this publication.

After exchanging a few more pleasantries, I said 73 to Alan, K2EEK. He was able to answer virtually all of my questions, but I was certainly not very happy with many of his answers. CQ may add a few more simple construction projects, but will likely never publish a microwave series like Glen Elmore's. The magazine still continues to be directed to the contester and appliance operator. But I must grudgingly admit that the average ham is merely an appliance operator. CQ is a "for profit" business venture, and as such, will not risk losing business to serve the needs of a minority of readers.

So where does this leave me?

I have canceled my subscription to CQ and asked for my money back. No amount of weekend gadget projects can compensate for my complete lack of interest in DXing or contesting.

If CQ comes out with a technical quarterly, I will give it a try. If it is only moderately good, I will support it and try to make it better.

I plan to call my ARRL division director and give him HELL about League advertising that neglects to mention QEX. Your division director is usually much more responsive than League officials in Newington, CT.

I will buy more specialty publications such as the 2nd Antenna Compendium (and the Microwave Handbook if it is EVER finished). I will also buy more RSGB publications.

And finally, I will continue to support the ARRL and QST, especially when they utilize their technical articles to teach beginners. I may even try my hand at writing such an article.

73 de Barry, WA4VZQ


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-----------------
| ___ ________ | Dr. Barry L. Ornitz WA4VZQ
| | / / | | UUCP: ....rutgers!rochester!kodak!ornitz
| | / / | | Eastman Kodak Company
| |< < K O D A K| | Eastman Chemical Company Research Laboratories
| | \ \ | | P. O. Box 1972, Building 167B
| |__\ \________| | Kingsport, TN 37662 615/229-4904
| | INTERNET: ornitz@kodak.com
-----------------
```

3961. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-04 04:37:01 UTC
From: bote@csense.uucp
Message-ID: <1990Jul4.043701.3457@csense.uucp>
Source record: 10558

From article <:6=&.Y-@splut.conmicro.com>, by jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard):
> In article <30500577@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>>[I wrote:]
>>> Further, a random kerchunk is no longer illegal, since hams are now only
>
> OK, let's try it from my bedroom with a low-powered handheld, into my
> favorite repeater:

Yes, but none of this has anything to do with 'homebrew repeater controllers'.

I'd like to hear more about phil's intelligent 'carrier level' sensing system which decides how strong a signal is and takes appropriate action, whether that is keying a repeater, preventing it from being keyed, or whatever have you.

Phil?

--
John Boteler {uunet | ka3ovk}!media!csense!bote
NCN NudesLine: 703-241-BARE -- VOICE only, Touch-Tone (TM) accessible

3962. Re: What do people use for sweep generators?

Newsgroup: rec.ham-radio
Date: 1990-07-04 04:39:04 UTC
From: julian@bongo.UUCP
Message-ID: <169@bongo.UUCP>
Source record: 10576

In article <3478@radio.oakhill.UUCP>, charlie@oakhill.UUCP (Charlie Thompson) writes:
>
> When it comes to aligning receiver front ends and other tuned circuits
> a sweep generator seems very useful. Strangely enough, these beasts
> are hard to find at hamfests. What do people do for sweeping i.f.'s
> and front ends? Does anyone remember this apparent lost art?
> Anybody out there have a sweep generator they use regularly that
> would like to comment?
>
Surprisingly I have found "professional" shops tuning up front ends
and IFs by ear! But getting a sweep is not tricky. In fact most radio
service benches already have the gear sitting there.

This is what you need: A VHF/UHF signal generator with an "external
FM" input socket. An Oscilloscope with a sawtooth wave output. If the
scope does not have the sawtooth available from a socket, you can get
it out with minor surgery.

Now connect the sawtooth output to the FM input of the signal gennie.
Feed the DC from the discriminator to the vertical input of the
'scope. Tune the signal gennie to the antenna frequency and adjust
the vert horiz sweep until you get the IF waveform on the scope tube.
This works like a charm. I used this method 20 years ago, I am sure
it still works today. Coupla gotchas, the sawtooth may need
amplifying with certain gennie/scope combos. The IF disc pickoff may
need a do it yerself diode to rectify it to bung in the vert input of
the scope.

This will allow you to tune the front end and IF of a radio in
minutes. You can get very good at this and do several receivers an
hour.

Have fun.
--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

3963. Re: Carrying NiCd packs on airplanes

Newsgroup: rec.ham-radio
Date: 1990-07-04 04:43:24 UTC
From: julian@bongo.UUCP
Message-ID: <171@bongo.UUCP>
Source record: 10477

In article <30500583@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> I also do NOT use the insulators Periphex sent with my packs that says
> "battery may explode if shorted". Even if all the precautions are taken,
> some security checkpoint person is liable to prohibit them out of ignorance
> of all the work I did to prevent the problems, if they read that. So I just
> use a plain credit card plastic insulating tab. Besides, the ones I made
> fit much better anyway.

I use the nice plastic cards the United give out that say "Seat
Occupied" in several languages. They are thinner than credit cards,
are easy to cut with scissors and are white. They are also available
on all United flights (-:

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

3964. Re: 2m antenna in the attic, bad?

Newsgroup: rec.ham-radio
Date: 1990-07-04 04:53:31 UTC
From: julian@bongo.UUCP
Message-ID: <172@bongo.UUCP>
Source record: 10478

In article <101706@philabs.Philips.Com>, rfc@briar.Philips.Com (Robert Casey) writes:
> Got a question: Is it a bad thing to use a 2m antenna in the attic of the
> house? Does the roof and walls of the house attenuate the RF
> signal greatly?

> I can see these possibilities:
> a) antennas inside the house are a bad idea.
Depends on the material between the antenna and the outside of the
house. Ferro-concrete walls and galvanised ("Hot Tin") roofs are
excellent shields. If the material is dry and RF transparent, say
polystyrene foam then it doesn't matter. If you want a general rule,
Outside is best. But if you live in Hurricane alley or you get 15 Ft
of snow every winter then inside may be better in the long run.

> b) maybe the position of the attic antenna happened to be in a null
Could be. Move the house a few feet and watch the S meter (-:

> c) DDRR antennas are poor.
They are pretty poor. Why not put up a dipole? For indoor use you can
make one in 30 Mins with a soldering iron and staple gun.

In an hour you could make a ruggedised outdoor dipole.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

3965. Re: Yaesu 757 for sale

Newsgroup: rec.ham-radio
Date: 1990-07-04 11:31:04 UTC
From: eric@electro.com
Message-ID: <2076@electro.com>
Source record: 10568
Cross-posted to: misc.forsale,rec.ham-radio,sci.electronics

Is anyone in the Waterloo/Toronto/London region interested in a Yaesu 767?
It has all three plug in modules (6m, 2m, 430-440) with about 100 hours on
the rig. Service manual and hand mike are included. aprox $3000
Eric

3966. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-04 12:37:30 UTC
From: gary@ke4zv.UUCP
Message-ID: <828@ke4zv.UUCP>
Source record: 10574

In article <14954@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>People stop kerchunking the repeater when
> a) they own radios they trust never to break
> b) they use a repeater they trust never to break
> c) you kill them
> d) the repeater drops off the air so fast they can't hear the kerchunk
>
>Which do YOU think is the most achievable?

c? :-)

>
>(Recall that if you have a real radio, IT won't make any noise when the
>signal comes and goes either, so if the repeater also lacks pinball machine
>noises, it could be kerchunked all day long and nobody'd care.)
> - Brian

Gary KE4ZV

3967. Re: What do people use for sweep generators?

Newsgroup: rec.ham-radio
Date: 1990-07-04 15:57:00 UTC
From: brian@ucsd.Edu
Message-ID: <15021@ucsd.Edu>
Source record: 10567

Assuming you don't have a tracking generator and coordinated scope, or a broadband noise generator and spectrum analyzer, you can still do a decent job of aligning a mistuned IF in the typical ham FM rig (presumably some other ham has gotten in there and tightened all the screws - IFs rarely need it otherwise!).

Make sure the local oscillators are on freq if you're injecting at the carrier freq, else inject at the IF freq. Be sure to zero the discriminator on this signal.

Peak the IF cans for maximum quieting on a weak signal. Then run a good quieting (but NOT saturated) signal into the radio from a signal generator. Apply FM deviation, and adjust the IF tuning for minimum distortion. Keep increasing the deviation and tweak for minimum crud until you've got the dev up around 30 to 50% above the rated bandwidth of the radio - i.e., 7 or 8 kHz for normal 5 kHz max gear.

You can check for distortion with a scope at the discriminator output, but your ears will probably do a better job. Trust them.

When you're all done, check to make sure that the discriminator idles very near zero on noise. If it doesn't, there's a real good chance that either you screwed up or one of the IF bandpass filters is defective.
- Brian

3968. Re: Scanner Antenna / Discone / Technical questions (long)

Newsgroup: rec.ham-radio
Date: 1990-07-04 17:28:53 UTC
From: bcollins@axion.bt.co.uk
Message-ID: <1990Jul4.172853.22307@axion.bt.co.uk>
Source record: 10569
Cross-posted to: rec.ham-radio,rec.shortwave

In article <1990Jul3.025821.8189@midway.uchicago.edu>,
gary@ellis.uchicago.edu (gary buchholz) writes:
|> I recently purchased a Discone scanner antenna from (ug) Radio Shack. This

[...]

>
|> Here's the question(s)
|>
|> 1) The "users guide" cliams that the discone recieves 25MHz ->
1.3GHz. So what
|> does this mean? A paper clip can recieve 25MHz - 1.3GHz. Is this hype or
|> does it actually mean something ?
|>
|> 2) The claim is that it has a 1.5 SWR or better across 144,220,440 and 1296
|> MHz. Anyone use the Discone for transmitting ? How well does it work ?
|>
|> 3) I have a handfull of books on antennas but none discuss an antenna quite
|> like the Discone. Can someone tell me qualitatively how this antenna with
|> its double set of 8 radials "works"

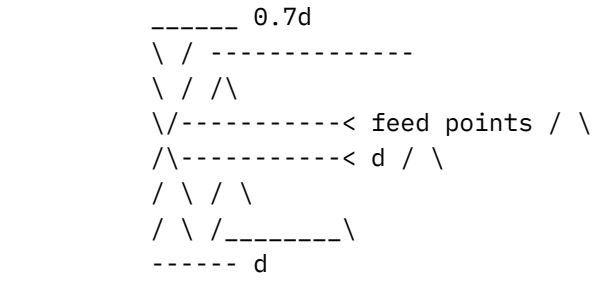
Quote from a radio handbook (not sure which one, I only have a copy of
the pages relating to discones, log-periodics and helicals to hand):

"The `discone' antenna is a vertically polarised omnidirectional
radiator which has very broad-band characteristics and permits a simple,
rugged structure. The antenna presents a substantially uniform feedpoint
impedance, suitable for direct connection of a coaxial line, over a
range of several octaves. Also, the vertical pattern is suitable for
ground-wave work over several octaves, the gain varying only slightly
over a very wide frequency range.
...

Below the frequency at which the slant height is equal to a free-space
quarter wavelength the standing-wave ratio starts to climb, and below a
frequency approximately 20 % lower than this the standing-wave ratio
climbs very rapidly. This is termed the cutoff frequency of the antenna.
By making the slant height approximately equal to a free-space quarter
wavelength at the lowest frequency employed (refers out to a diagram),
an SWR of less than 1.5 will be obtained throughout the operating range
of the antenna."

Unquote.

The essential design of the aerial (sorry, lapsing into English :-))
is, I believe, derived from the biconical, which is a more symetrical
aerial. Both are basically vertically-polarised dipoles, but with
enormous bandwidth: several octaves instead of about 10% for a standard
wire dipole.



Biconical Discone

(d=lambda/4 for lowest frequency)
Note for discone: Feedpoint is between disc and top of cone, cable and
support pole go up the cone.

In its `pure' form, the discone has a sheet disc for the top half, and a
hollow cone for the bottom half. This is obviously a substantial aerial
to build and keep aloft, so the skeletal form, using rods, is more
convenient. However, I would guess that this introduces deviant behavoir
in terms of SWR and gain.
Having said that, I am on my second discone, and I find it a really
great aerial for use with a wide-band receiver (I've not tried using it
for transmitting).

My other wideband aerial is a horizontally-polarised log-periodic array,
which is even more wierd in terms of its design, quote from the same source:

"Frequency-independant antennas, of which the `log-periodic' array is an
example, are structures that have the same performance at different
frequencies by virtue of the fact that the array is self-scaling and has
no dimensions that are frequency sensitive. A basic self-scaling
structure (refers out to a diagram of a spiral design) is described by
angles alone, with no characteristic length. Practical structures of
this type are finite in size, thus limiting the frequency-independant
behavoir."

|>
|> Thanks
|> Gary

No problem.

Regards,
Bill

+---+
| Snail Mail : Bill Collins, Dept RT3323, |
| British Telecom Research Labs, |

| Martlesham Heath, Ipswich, IP5 7RE, UK |
| Phone : +44 473 642760 |
| E-mail : bcollins@axion.bt.co.uk |
| |
| Disclaimer : It's MY foot in MY mouth ! |
+---+

3969. To John Woods re: Feb. 1985 QST article.

Newsgroup: rec.ham-radio
Date: 1990-07-04 19:18:10 UTC
From: eakin@rsmas.miami.edu
Message-ID: <7862.269208b2@rsmas.miami.edu>
Source record: 10570

John, I have the Feb. 1985 article that you wanted. If you still need it,
please e-mail me so that I can copy it at work & send it to you.

Sorry to post this, mailer keeps bouncing my replies.

73's
Mark

--
C. Mark Eakin
Internet: Eakin@RSMAS.miami.edu
Amateur Radio: N4SYK Packet Radio: N4SYK@AB4LU.FL.USA.NA
USnail: Univ. of Miami, RSMAS-BLR, 4600 Rickenbacker Cswy. Miami, FL 33149-1098

3970. RE: Info-Hams Digest V1 #45

Newsgroup: rec.ham-radio
Date: 1990-07-04 19:50:34 UTC
From: regent: <>;
Message-ID: <9007041950.AA17261@decpa.pa.dec.com>
Source record: 10572

Hi,

Thanks for the feed of Info-Hams. It has been very useful. I now have
direct access to the usenet stuff, so this is no longer needed.

Please remove me from the Info-hams mailings.

Again, Thanks muck

^ that's MUCH

/s/ Bob N1BRM 73's

3971. Congrats to N4HY

Newsgroup: rec.ham-radio
Date: 1990-07-04 19:59:31 UTC
From: charlie@oakhill.UUCP
Message-ID: <3496@radio.oakhill.UUCP>
Source record: 10571

Congratulations to Bob McGwier for his Technical Excellence award
which he received at Dayton. It's always good to see net people
get their picture in QST.

-Charlie WB4HVD

3972. Tower Installation-limited space

Newsgroup: rec.ham-radio
Date: 1990-07-04 21:15:53 UTC
From: guhsd000@crash.cts.com
Message-ID: <3403@crash.cts.com>
Source record: 10575

Problem: I recently got a 80 foot crank up tower for a very good price, and it's in good condition, and I don't want to get rid of it. Space is the main problem, there are not alot of areas I can put it in and guy it without using the good space we do have. What I wanted to do is stand it off the house (2 stories) and oppose the open side with 2 guy lines on the first 20 foot section.

Her Royalness didn't like the idea, and took one look at it and said put an ad in the paper. I'd hate myself later, no way in the next 20 years could I beat the price I paid.

Possible Solution: Free standing it on a 20" x 20" x 7' deep cement base, fully renforced, with the mounts welded to the re-bar frame. I figrued depth was more important than bulk, and the ARRL seemed to back this up, but the problem is there is no room for wires if I work this way. I figured that several tons of force would be needed to tear the base out of the ground, but 80 feet can pose alot of leverage. The base can handle it on the tower, and has six 1 inch mounting holes.
I was told, in it's last location, it was free standing.
My area does not get regular high winds or storms, or otherwise weather that would regularly threaten the structure.

3973. Re: Scanner Antenna / Discone / Technical questions

Newsgroup: rec.ham-radio
Date: 1990-07-04 23:31:03 UTC
From: daveh@compnect.UUCP
Message-ID: <686@compnect.UUCP>
Source record: 10487
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jul3.025821.8189@midway.uchicago.edu>, gary@ellis.uchicago.edu (gary buchholz) writes:
> I recently purchased a Discone scanner antenna from (ug) Radio Shack. This
> <stuff deleted>
> Here's the question(s)
> 1) The "users guide" cliams that the discone recieves 25MHz -> 1.3GHz. So what
> does this mean? A paper clip can recieve 25MHz - 1.3GHz. Is this hype or
> does it actually mean something ?
>
The discone is a very broadbanded antenna. I use mine with a RS PRO-2004 scanner which has the same frequency range as that claimed for the antenna. Mine is mounted on my chimney and pulls in signals very well. Your high frequency performance is dependent on the type and length of your coax feed. RG-58 100 feet long will severely attenuate signals above VHF.
>
> 2) The claim is that it has a 1.5 SWR or better across 144,220,440 and 1296
> MHz. Anyone use the Discone for transmitting ? How well does it work ?
>
I have used to transmit on both 144 and 440 MHZ. Mounted on the chimney I have worked repeaters over 50 miles away. I get good signal reports on both bands, even when using 1.5 watts from a 440 HT. SWR on 144 MHZ was less than 1.5/1. I haven't measured it on 440.
>
> 3) I have a handfull of books on antennas but none discuss an antenna quite
> like the Discone. Can someone tell me qualitatively how this antenna with
> its double set of 8 radials "works"
>
The ARRL antenna book describes the discone in detail. The 8 "radials" as you call them form a disc and an inverted cone, hence the name discone. As I said above it has a low SWR across a broad range in frequencies. The trade off is an antenna with no gain. Bottom line is that I am very satisfied with my RS discone.

--
Dave Hultberg KA3UZR Mail: 1407 Concord Road, Mechanicsburg, PA 17055-1955
daveh@compnect.uucp Home: 717-766-0051 CI$: 72437,3215
uunet!wa3wbu!compnect!daveh Work: 717-790-4507 Fidonet: 1:270/111.0
compnect!daveh@uunet.UU.NET FAX: 717-790-3689

3974. Re: Phone number for Grove

Newsgroup: rec.ham-radio
Date: 1990-07-04 23:40:44 UTC
From: daveh@compnect.UUCP
Message-ID: <687@compnect.UUCP>
Source record: 10488

In article <112338@linus.mitre.org>, sra@linus.mitre.org (Stanley R. Ames) writes:
> Can someone please semd me the current phone number for Grove Electronics
> in I believe New Jersey.
>
I think you mean Grove Enterprises, P.O. Box 98, Brasstown, NC 28902
Telephone: 800-438-8155 for orders.
>
> Is this still the best place to purchase scanners?
>
I don't know about buying scanners from them, I got mine at Electronic
Equipment Bank in Vienna, VA.

--
Dave Hultberg KA3UZR Mail: 1407 Concord Road, Mechanicsburg, PA 17055-1955
daveh@compnect.uucp Home: 717-766-0051 CI$: 72437,3215
uunet!wa3wbu!compnect!daveh Work: 717-790-4507 Fidonet: 1:270/111.0
compnect!daveh@uunet.UU.NET FAX: 717-790-3689

3975. distributing schematics

Newsgroup: rec.ham-radio
Date: 1990-07-05 00:35:16 UTC
From: kjh@pollux.usc.edu
Message-ID: <25710@usc.edu>
Source record: 10479

I don't know why I didn't think of this last week when the question was raised, but at least I thought of it now ...

Use SPICE format to distribute schematics!

Advantages:
1 It's pure ascii text, and it doesn't require a lot of bandwidth.
2 The small bandwidth is a large advantage for the packet people.
3 It fits through existing mailer programs just fine.
4 You can run it through your SPICE program, and play with it.
5 If you don't yet have SPICE for your IBM PC clone, a student version is available free of charge. Any respectable university or corporation will have SPICE running on their workstations.
6 SPICE is well known, and is _gaining_ popularity as device manufacturers are now providing SPICE parameters for their devices. In addition, other manufacturers are providing test equipment that automatically measures devices, and gives you the SPICE parameters.

Disadvantages:
1 Some people may not yet know SPICE. However, it's easy to learn.
2 Some devices used may not yet be parameterized for SPICE. Even though you can't run it through SPICE to simulate it, you can still distribute the schematic.

I think the advantages far outweigh the disadvantages. Any other comments?

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

3976. Alinco DJ-500

Newsgroup: rec.ham-radio
Date: 1990-07-05 03:14:11 UTC
From: huopio@kannel.lut.fi
Message-ID: <HUOPIO.90Jul4231411@kannel.lut.fi>
Source record: 10573

Has anybody any experiences on this? A good buy? Any tecnical problems
noted?

--Kauto OH5LFM
--
****************** Kauto Huopio (huopio@kannel.lut.fi) **********************
*US Mail: Kauto Huopio, Punkkerikatu 1 A 10, SF-53850 Lappeenranta, Finland *
*WARNING! We have holiday season here, so be patient with my answers.. *
****

3977. Re: What do people use for sweep generators?

Newsgroup: rec.ham-radio
Date: 1990-07-05 03:27:30 UTC
From: jts@n4hgf.Mt-Park.GA.US
Message-ID: <138@n4hgf.Mt-Park.GA.US>
Source record: 10483
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

Yes I regularly use a sweep generator for several areas...primarily it
is very useful when couple with the spectrum analyzer to set up cavities
for repeaters and front ends for radios. First I use the sweep generator
as a crude alinement point to get the filters shaped the way I want them,
then I use cw to check the notches and rejection at the 6 db points...
It makes setup time remarkably fast and easy. Sweepers are great for
checking out coax for flatness(as well as using a TDR)

The sweeper I currently use is a PM model 1042 5 to 500 mhz generator
delivers approximately +18 dbm across the entire spectrum, it is fairly
flat in amplitude but has a high degree of phase noise... thus I use it
with some caution when alining things. There are several nice features
on this unit such as the F1, F2 and Marker are all variable and the sweep
rate is free running, line or can be triggered. Pretty much all you need
for quick and dirty set up of if filters and the like.
As to seeing many units at hamfests I have not encountered many of them
lately nor is the use of sweep generators a dying art, they are used every
day in our company to setup they equipment we manufacture.
(Forgot to add the sweeper has a variable pad in 10 db steps)

3978. Re: Congrats to N4HY

Newsgroup: rec.ham-radio
Date: 1990-07-05 03:31:15 UTC
From: <>
Message-ID: <1990Jul5.033115.2582@bellcore-2.bellcore.com>
Source record: 10492

In article <3496@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>Congratulations to Bob McGwier for his Technical Excellence award
>which he received at Dayton. It's always good to see net people
>get their picture in QST.

Yeah, I almost didn't recognize him in that suit. I didn't even know
he owned one. :-)

Phil

3979. TRC-430 CB

Newsgroup: rec.ham-radio
Date: 1990-07-05 03:45:38 UTC
From: Duel@cup.portal.com
Message-ID: <31439@cup.portal.com>
Source record: 10484

I recently installed a TRC-430 Realistic (radio shack) CB in my pickup.
I had real bad problems with receiving and sending... forget it!
I just got the SWR meter and after spending an hour fooling around trying
to figure out whats right and whats not heres what i got...
the field strength from about 2 1/2 feet away (with the CAL in the middle..
whats a good setting to put CAL on for field strength anyways??) but i dont
know if thats up to par with what i should have.. or is it?
with the regular SWR testing i was able to get channel 19 to just about 1 and
channels 1 and 40 were at about 2.. i think thats how its supposed to be
if you just want the bands be to "even".
But when you transmit, i was used to the regular setting of all 3 green bars
and the red (4th bar) lighting up. now only 2 bars light up. whats the deal?
I am able to get all 4 bars to light up IF my field strength is 0 (again with
CAL in the middle) and the regular SWR testing showed a 3-4 on all channels..
Shouldn't all 4 bars light up when transmitting?
Maybe one of you experienced CB'ers can help me out with this, I'd really
appreciate it...
Thanks...

3980. Re: Carrying NiCd packs on airplanes

Newsgroup: rec.ham-radio
Date: 1990-07-05 04:27:40 UTC
From: brian@ucsd.Edu
Message-ID: <15026@ucsd.Edu>
Source record: 10481

I just stick the spare batteries in individual zip-lock plastic bags in my aluminum suitcase. 100,000+ air miles and never a problem.

I have carried 35mm still cameras, film, walkies, walkmen, motion picture and video equipment, oscilloscopes, toolkits, and demo equipment onto I don't know how many planes over the last 15 years, and all they want to look at is my umbrella. Every time; never fails - so I stick the umbrella in my jacket pocket and throw the whole thing into the xray.

Not ONCE have the wanted to look at my battery stuff, and with the plastic bag trick, I've never had a short or a leak.

I can tell you a story about getting an interesting burn mark when the battery contacts on the bottom of a walkie shorted on a jewelry chain I was wearing, but I suspect there's few of you I know well enough to show you the scar....
- Brian

3981. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-07-05 04:28:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500584@ux1.cso.uiuc.edu>
Source record: 10482

I would rather have seen HR sold to 73 than CQ. But stingy old Wayne would probably have never offered as much.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3982. Re: Starting a car with NiCd's

Newsgroup: rec.ham-radio
Date: 1990-07-05 04:33:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500585@ux1.cso.uiuc.edu>
Source record: 10491

> I have heard of a form of lithiums (thoicynional?? sp?), which can short
> circuit in the hundreds of amps. Four "C" cells can start a car.
> They are not available to the public for obvious reasons.

Imagine mashing these cells in a 10 ton press.

Don't try this at home, or at work.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3983. Re: Carrying NiCd packs on airplanes

Newsgroup: rec.ham-radio
Date: 1990-07-05 04:41:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500586@ux1.cso.uiuc.edu>
Source record: 10490

The last airplane flight I went on I took 4 BP-8S packs with me. These are the 1200mah biggies. I packed them in the suitcase as usual. When it went through the X-ray machine, the attendant called the other one over. I heard one say to the other "they look like ball bearings to me". They asked me what "all those round things" were. I said I had several radio battery packs inside. They said "ok" and let me pass. Inside the secure area I opened up the suitcase and found that based on the orientation of the 4 BP-8S's AND the 2 BP-70's, they would be been X-raying down the axis of the cells of every pack. I have opened them and know the cell configurations.

BTW, Brian's idea of putting a battery pack in a zip-top bag is a good idea. I don't know why I didn't think of that; I use those bags for just about everything else.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

3984. General Radiotelephone Operator License

Newsgroup: rec.ham-radio
Date: 1990-07-05 05:26:26 UTC
From: KOSSACKB@RICEVM1.BITNET
Message-ID: <1710KOSSACKB@RICEVM1>
Source record: 10489
Cross-posted to: rec.ham-radio,rec.radio.noncomm

I'm looking for information on the FCC General Radiotelephone Operator License. Specifically, I would like to know the difference between the Class A, B and C licences - what they're required for, what is covered on the exams, etc.

I'm an EE student with an interest in RF engineering and I have a Restricted Radiotelephone license, but that simply requires that one is able to fill out the requisite form. Are there any jobs where one is still required to have a Class A [or Class B or C] license? Any information would be appreciated. Unless you think your response is of general interest, please send e-mail. TNX.
- Jordan, n5qvi

Jordan Kossack | N5QVI | Student Staff
----------------+----------+ Office of Networking and Computing Systems
KOSSACKB@RICEVM1.RICE.EDU | Rice University Houston Texas

3985. Kerchunking (was Re: Homebrew repeater controllers)

Newsgroup: rec.ham-radio
Date: 1990-07-05 06:24:56 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <26712@netnews.upenn.edu>
Source record: 10485

The best way to prevent kerchunking and still maintain a courtesy beep and/or a transmit carrier hang time is to have the repeater only key up when a carrier breaks squelch, PL is heard (if applicable) AND audio is present. This forces the would-be kerchunker to say something, hopefully his call sign. At least one repeater I know of here uses this technique, quite successfully. The reason it works is that nobody wants to key down and say "Hello" or "Testing", without IDing for fear that his voice would be recognized.

After the repeater is first brought up, the audio-presence test should probably be ignored, as there is a good chance that the first few ms of a transmission may get cut off before the controller realizes that audio is present, but the delay would probably be insignificant if done properly.

The only problem with this system is that unfamiliar users would probably assume that the repeater was down. But hey, if everybody did it this way, kerchunkers would soon become extinct. Yeah, right :-)

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

3986. QEX

Newsgroup: rec.ham-radio
Date: 1990-07-05 06:56:58 UTC
From: rdw2030@venus.tamu.edu
Message-ID: <6361@helios.TAMU.EDU>
Source record: 10486

I tried in vain yesterday to post this... I just LOVE my news site!

There is usually a sidebar in QST called somthing like "This month in QEX"

I'm surprised noone has mentioned this. Strangely enough, however, it is not present in the July QST! Pretty unfortunate considering all the people on here getting interested in QEX recently!

As soon as I find myself a REAL job, I will get it.

:-)

Mark C. Lowe - KB5III

73

3987. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-05 12:35:57 UTC
From: jay@splut.conmicro.com
Message-ID: <SA#&_-@splut.conmicro.com>
Source record: 10501

In article <14954@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>People stop kerchunking the repeater when
> a) they own radios they trust never to break
> b) they use a repeater they trust never to break
> c) you kill them
> d) the repeater drops off the air so fast they can't hear the kerchunk
>Which do YOU think is the most achievable?

D, obviously. Repeaters and user radios may not break, but they will NEVER make the repeater 100% of the time. The problem with D is that the users go away, too, since the repeater is unusable.

>(Recall that if you have a real radio, IT won't make any noise when the
>signal comes and goes either, so if the repeater also lacks pinball machine
>noises, it could be kerchunked all day long and nobody'd care.)

Obviously, your definition of "real radio" only includes anything with a MICOR squelch circuit. By that definition, only Motorola makes "real radios", and not all of them; my IC32AT definitely doesn't qualify, but my custom-built Flitefone III full-duplex mobile does, since I built a MICOR squelch for it. Of course, it's easy to tell with a full-duplex radio whether or not you're making the repeater, but the only in-band full-duplex portable radio I've seen is the (surprise!) Motorola APCOR cardiac telemetry radio - at well over $1K on the used market, and it's a luggable.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

3988. Re: Scanner Antenna / Discone / Technical questions

Newsgroup: rec.ham-radio
Date: 1990-07-05 12:56:42 UTC
From: LANG@UNB.CA
Message-ID: <ID1717.D900705.T095643.LANG@UNB.CA>
Source record: 10494

Coincidentally I just took out of our library the 1946 (!) volume of the
Proceedings of the Institute of Radio Engineers. The February issue has
an article entitled "Three New Antenna Types and Their Applications" by
Armig G. Kandoian (pp. 70W - 75W). One of these antennas is the
Discone.

==
Richard B. Langley BITnet: LANG@UNB.CA or SE@UNB.CA
Geodetic Research Laboratory Phone: (506) 453-5142
Dept. of Surveying Engineering Telex: 014-46202
University of New Brunswick FAX: (506) 453-4943
Fredericton, N.B., Canada E3B 5A3
==

3989. Re: Phone number for Grove

Newsgroup: rec.ham-radio
Date: 1990-07-05 13:09:00 UTC
From: benk@inmet.inmet.com
Message-ID: <13700017@inmet>
Source record: 10522

If you mean "Grove Enterprises", you're off by a few hundred miles:
they're located in North Carolina.

The address: Grove Enterprises
P.O. Box 98
140 Dog Branch Road
Brasstown, N.C. 28902
U.S.A.

The phone: 704-837-9200

-- Ben Krepp

From internet: benk@inmet.inmet.com
From uunet: uunet!inmet!benk

3990. Re: Ham Radio, CQ etc .....

Newsgroup: rec.ham-radio
Date: 1990-07-05 14:13:04 UTC
From: daveh@compnect.UUCP
Message-ID: <688@compnect.UUCP>
Source record: 10493

In article <1990Jul3.225719.16615@swlabs.uucp>, jack@swlabs.uucp (Jack Bonn) writes:

> Now back to the business at hand. What would get us off top dead center
> regarding the proposal to publish technical articles here (including
> graphics, schematics, etc.). Would uuencoded GIF files do the job? (or
> would it be too large?) Is a DOS based reader readily available? Once
> the DOS based reader is available, the Amiga and X11 people will follow.
> <stuff deleted>
> Or is the net happier with discussion of ordering pizza over the repeater's
> phone patch?
> --

Bring on the technical articles. I would much rather read about technical topics than sea lawyers arguing about the legality of phonepatches, autopatches other fine points of interpreting part 95. I would really be pleased if we could get the technical community to post their articles and projects here. I am sure that there would be some difficulties with formats for different computers, but it could be worked out. If the authors are willing, I'd be happy to have it! 73

--
Dave Hultberg KA3UZR Mail: 1407 Concord Road, Mechanicsburg, PA 17055-1955
daveh@compnect.uucp Home: 717-766-0051 CI$: 72437,3215
uunet!wa3wbu!compnect!daveh Work: 717-790-4507 Fidonet: 1:270/111.0
compnect!daveh@uunet.UU.NET FAX: 717-790-3689 Packet: KA3UZR @WB3EAH.PA

3991. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-05 14:15:53 UTC
From: cep@cci632.UUCP
Message-ID: <38492@cci632.UUCP>
Source record: 10505

In article <1990Jul4.043701.3457@csense.uucp> bote@csense.uucp (John Boteler) writes:
>
>I'd like to hear more about phil's intelligent 'carrier level' sensing
>system which decides how strong a signal is and takes appropriate
>action, whether that is keying a repeater, preventing it from being
>keyed, or whatever have you.

This sort of stuff is really neat. Here in Rochester we have a repeater
that uses (I believe) a General Electric voting selector. The unit uses
an internal noise source to compute the signal-to-noise ratio of the in-
coming signal, and takes that one. This signal may not necessarily be
the one with the highest S-reading (or so I am told). The selector also
employs circuitry to provide a switchover "threshhold", i.e. receiver 1
will stay in effect until receiver 2 is markedly improved, so that if you
are smack in the middle of the two it won't clack back-and-forth.

The part that amazes me is that it is a completely analog device. (Yes,
I am stuck in the digital world, and I would have guessed DSP only).

Does anybody have any (technical) insight on how these things work?

--
Christopher E. Piggott, WZ2B (ex-N2JGW)
Computer Consoles, Inc. (an STC company) Rochester, NY
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

3992. Re: Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-05 14:46:40 UTC
From: jdn@casux4.uucp
Message-ID: <24981@bellcore.bellcore.com>
Source record: 10495

In article <1990Jul4.041831.24933@kodak.kodak.com> ornitz@kodak.kodak.com (Barry Ornitz) writes:
>
> The magazine still continues to be directed to the contester and
>appliance operator.
>
> 73 de Barry, WA4VZQ

Most of the postings in this group seem to come from the technically inclined- I don't recognize many DXers or contest callsigns- so I want to point out something which may be of interest to you.
I, too, lament the loss of Ham Radio as do many other Dxers and contesters I know. Since CQ is sponsor of the greatest DX Contest on earth, it has become the focal point of Contest scores and news. So all the contesters feel required to subscribe for the contest news and scores.

But you would be surpised at the number of contesters I know, (even members of the CQ contest committee) who consider the magazine completely worthless, outside of contest results. (Of course, if you have no interest in contests, then it IS completely worthless!) I think that many contesters and DXers would welcome a more technical editorial policy.

Market research is part of K2EEKs job, and I don't want to second guess him on this point. But perhaps he is underestimating his readership? After all, the contest community is one of the first to embrace new technology if it leads to higher scores. Witness, for example, the enthusiasm with which contesters adopted computer technology to radio(K1EA, K8CC, etc.).

On the other hand, I am reminded of the quotation:
"No one ever lost money underestimating the intelligence of the American Public." Could this also be true for the Amateur Radio public at large and CQ's readership?

73, Jon NK2D

Jonathan Nagy
jdn@navaho.cc.bellcore.com
(201) 699-4445

3993. Re: distributing schematics

Newsgroup: rec.ham-radio
Date: 1990-07-05 14:50:39 UTC
From: perley@trub
Message-ID: <9351@crdgw1.crd.ge.com>
Source record: 10496

In article <25710@usc.edu>, kjh@pollux (Kenneth J. Hendrickson) writes:
>I don't know why I didn't think of this last week when the question was
>raised, but at least I thought of it now ...
>
>Use SPICE format to distribute schematics!

>I think the advantages far outweigh the disadvantages. Any other
>comments?

The disadvantage is that it is just a netlist. A well drawn schematic gives you a lot of semantic clues about how a circuit works that just aren't there in a netlist (though you can put comments in).

If this subject has been hashed through before, someone must have brought up EDIF (Electronic Design Interchange Format). It allows you to include graphic schematic information, netlist, physical layout, behaviour, etc. If someone has already designed a board for a circuit, you can include that as well as the netlist.

Disadvantages to EDIF: Reading it directly is probably about as intuitive as reading postscript. There isn't a whole lot (any?) public domain software out there to translate EDIF into more useful forms, but we could change that if we wanted to use it.

-don perley, ke2tp
perley@trub.crd.ge.com

3994. RX mod for Kenwood TW 4100A

Newsgroup: rec.ham-radio
Date: 1990-07-05 14:57:04 UTC
From: eakin@rsmas.miami.edu
Message-ID: <7878.26931d00@rsmas.miami.edu>
Source record: 10520

I need some help finding a modification for the Kenwood TW4100A. A friend had modified his for out of band RX by means of some keystroke commands. Unfortunately, he reset his CPU & does not remember the sequence. We are not interested in the hardware mod that extends the TX, we do not want to extend the Tx range on the radio, only the Rx.

If anyone knows the modification, please e-mail.

73 de Mark

--
C. Mark Eakin
Internet: Eakin@RSMAS.miami.edu
Amateur Radio: N4SYK Packet Radio: N4SYK@AB4LU.FL.USA.NA
USnail: Univ. of Miami, RSMAS-BLR, 4600 Rickenbacker Cswy. Miami, FL 33149-1098

3995. Kenwood Ads 2 - Try Harder!

Newsgroup: rec.ham-radio
Date: 1990-07-05 15:06:57 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007051610.AA00490@ti.com>
Source record: 10497

Hollywood and our friend Bruce Willis have managed to get the Kenwood name up on the Big Screen again. (really, the producers and studio, I doubt if Mr. Willis knows or cares about the significance... they're just "movie props!")

The HT's were TH45's and you could read "440 MHz" just as plain. I dunno, I should have asked the guy sitting in the row in front of me if he noticed. I sure did, but I would tend to, the average moviegoer probably won't.

They supposedly had "scramblers" and since our hero didn't have the code to key in, he couldn't use the radios like he did in the first film.

They also showed a larger Kenwood rig. Sorry, I couldn't see the model and don't know the product line well enough to sasy what it was; it was on screen a few times, but for seconds at a time. They even had a scope sitting on top displaying a nice sine wave...

I wonder what agreement Kenwood has with 20th Century Fox??

--73
Bob WA8YCD
RLWEST@FLOPN2.CSC.TI.COM

3996. ATV BALLOON LAUNCH UPDATE

Newsgroup: rec.ham-radio
Date: 1990-07-05 17:27:31 UTC
From: ewb@raybed2.msd.ray.com
Message-ID: <1658@raybed2.msd.ray.com>
Source record: 10526
Cross-posted to: rec.ham-radio,rec.radio.shortwave

TO ALL INTERESTED PARTIES:

The Launch of the balloon CARRYING LIVE ATV has been re-scheduled
to SUNDAY JULY 15 at 9:00 AM. The Net will start at around 8:00 AM
on 7155 KHz. The launch of the "micro-balloon" with the cw telemetry
is still scheduled for this saturday (July 7) at 9:00 am.

Coverage of both the micro balloon and the live ATV balloon should
be in excess of a 400 miles radius centered around Peteborough N.H.
This should provide coverage south past Washington D.C., west past
Rochester N.Y., and north into the Montreal area. ATV beacon (2M)
will be 144.34. Video 439.25 (Cable Ch 60). Micro balloon frequency
will be different. Details to follow.

73
Gene WA1UXA

3997. DOVE turn on

Newsgroup: rec.ham-radio
Date: 1990-07-05 17:28:52 UTC
From: mac@idacrd.UUCP
Message-ID: <738@idacrd.UUCP>
Source record: 10498
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Howdy:

I finally got together enough modified loader code so that we can bypass this problem with the DOVE S band modulator. Hugh Pett, VE3FLL, original author of the BOOTLOADER running on all four microsats, and I worked together for several days getting together a subset of the loader on board, and a modified version of the ground station bootloader exerciser.

The problem with DOVE has been caused by a failure (we believe of a silver mica cap) in the modulator for the S band transmitter. This failure caused the data modulation index to be VERY small. The total phase shift was much less than 180 degrees for a data 1. It was so small that no existing standard PSK modem (TAPR, PACCOMM, or G3RUH) could demodulate it. I wrote a DSP based demodulator that worked fine by moving around the place where the data was sliced. The problem with this approach is that I have a pretty good S band receive setup but not a great one. I couldn't give up the DSP modem as I was doing code development on it for AEA. I finally decided that the one and only weekend I could work on this was this coming weekend and I prepared to go to Boulder to the home of K0RZ. Bill has an outstanding S band setup and is a satellite afficionado. This put me so far into the doghouse at home that I became frightened into the solution that I should have come up with three months ago.

If we could just get a few hundred bytes into the spacecraft by ASSUMING when we heard any response it was an ack, then we could put in a loader that didn't have the faults of the one we flew. I made a mentat computation (in other words I hoped ;-) that if I heard a response from the spacecraft when I sent these ten packets the probability that the response was a NAK instead of an ACK would be low. Furthermore, since this code did NOTHING to the modules in the spacecraft around the transmitter, then the likelihood of doing something dumb if one of the packets was a NAK would be low. The watchdog would just not be banged and it would reset back to the ROM or I would have to resend the reset signal. The only thing that could really go wrong is by some freak accident the 2 meter transmitter got turned on. I really did view this probability to be exceedingly small. So I risked sending code in the blind. The loader came up and from all indications functioned perfectly from the first try. Last evening, K0RZ hooked up a phone patch to his rig and I transmitted load commands to DOVE on two meters. I could easily hear the ACK (remember NAKS are no longer transmitted) and hit the `continue on with the next packet' key now built into the ground station loader code. I finished the operating system (kernel) in one half of a pass. This morning, I found the main problem with the S band system at my house (a lousy job on an N connector in the line between the S band antenna and the S band preamp). After I fixed that up, I was able to load half of the remaining code in two passes. Unless something is really wrong,

I will be turning DOVE's 2 meter transmitter (145.825) on by this weekend. All appears to proceed normally.

Bob N4HY

--

_____
My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

3998. The World's Largest QSL Collection?

Newsgroup: rec.ham-radio
Date: 1990-07-05 17:32:48 UTC
From: sawyer@twg.com
Message-ID: <7488@gollum.twg.com>
Source record: 10508

Yesterday (July 4) I had the privilege of seeing what is reputed to be the world's largest QSL card collection, and this was so astounding it just begs to be passed along. For those who are "too busy" to QSL or who think that replies via the buro are beneath them (Jim, are you listening?), this collection should be cause for pause.

Lloyd and Iris Colvin held a July 4 picnic for the Northern California DX Club and threw their card collection open to the guests. Let me try to describe. There are two rooms used to house the collection, and the floor has had to be reinforced from below to hold it. In these two rooms, there are a total of 24 filing cabinets stuffed full of QSL cards. Each cabinet has 12 rows of drawers with 2 side-by-side columns of cards each. The stacks were an average of about 2 feet deep. My estimation is thus 24 x 12 x 2 x 2 = 1152 feet of QSL cards. I believe that's a little more than the height of the Empire State Building! The sheer volume wouldn't be so much, but the organization of these is what is incredible. They are sorted alphabetically and meticulously arranged by call sign. And it is not only the amateur QSL's so arranged--every SWL card they have ever received is also filed away in order. Naturally, I went to see if they had all of mine from their recent Niger-Burkina Faso-Bahrain-Algeria-Australia-New Zealand-French Polynesia expedition. Every one of them was in there, filed in precise sequence by date of contact. While we were going through this stack, one fellow came upon a card his GRANDFATHER had sent the Colvins! Still looking for an A6 card? Lloyd and Iris have a 4" stack of them. And on and on it goes.

If you've ever read the front of one of their YASME cards, let me vouch for the authenticity of what is claimed on them. They have operated from 140 different countries, and have now qualified for DXCC from over 100 of them. Lloyd got his ticket back when he was 12, and he's been hard at it ever since. He's now 75. Iris didn't get her license 'till 1945, though. Every award you ever heard of is hanging on the wall--including at least a dozen top score trophies from CQWW and the ARRL DX contest. They only admit to "about" 600,000 cards, but I can't help but believe 1152 feet of QSL cards is more than 600 K. Every one of them, of course, has been answered. Promptly. One person--W6NLG--even told me Lloyd had once bugged him for a card for a contact when he hadn't sent one in! Seeing all of this, I suspect I'll think twice before grumbling about the next stack of SWL cards that comes in with my next buro batch.

de AA6KX

3999. kenwood 440 mic shock

Newsgroup: rec.ham-radio
Date: 1990-07-05 17:40:29 UTC
From: washer@unisoft.UUCP
Message-ID: <3062@unisoft.UUCP>
Source record: 10504

Recently, while operating my kenwood ts440s mobile, I received
an electrical shock from the metal plate on the back of the stock
microphone.
I was opertating 10meter side band. I had been doing so for some
time with no problem, however when I pulled into my driveway (up
close to the house which may have effected the SWR) I began
to 'feel' a burning sensation on my hand. This occurred only
while transmiting.

Opening up the mike reveals that the metal plate is connect to
one of the mic cable pins. see diagram

Looking at the microphone cable (not the radio jack)
v
o o
this pin--> o 0 o
o o
o

Now, depending on how you interpret the drawing in the 440 manual,
this is either STBY(pin 2) or NC(pin 6).

Now the questions.
a) was this 12v dc coming thru the mic wires?
b) was this rf energy ?
c) what was this?
d) WHY IS THIS PLATE CONNECTED TO ANYTHING TO BEGINE WITH.

Well, Any comments or answers would be appreciated.

Tnx
jim washer kk6gq
(415) 420-6410 x137 (w)
(415) 887-9613 (h)
washer@unisoft.com uunet!unisoft!washer

4000. Re: Congrats to N4HY

Newsgroup: rec.ham-radio
Date: 1990-07-05 17:55:07 UTC
From: mac@idacrd.UUCP
Message-ID: <739@idacrd.UUCP>
Source record: 10499

From article <1990Jul5.033115.2582@bellcore-2.bellcore.com>, by karn@thumper..bellcore.com (Phil R. Karn):
> In article <3496@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>>Congratulations to Bob McGwier for his Technical Excellence award
>>which he received at Dayton. It's always good to see net people
>>get their picture in QST.
>
> Yeah, I almost didn't recognize him in that suit. I didn't even know
> he owned one. :-)
>
> Phil

You and my wife both. She (N2HPE) had only one comment to make. "Your tie was on crooked."

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

4001. Hams in the Public Activity World (was RE: Usenet News Feed on Packet?)

Newsgroup: rec.ham-radio
Date: 1990-07-05 18:22:57 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007051935.AA04978@ti.com>
Source record: 10500

From: FLOPN2::RLWEST "Bob West, WA8YCD" 5-JUL-1990 13:22:01.59
To: TILDE::"skipsand@crash.cts.com"
CC: RLWEST
Subj: Re: Usenet News Feed on Packet?

> From: TILDE::"skipsand@crash.cts.com" "Skip Sanders" 5-JUL-1990 12:42:05.64
> Subj: Re: Usenet News Feed on Packet?
>
> ...stuff deleted...
>
> will ALWAYS interpret the rules in the most restrictive way where business
> or non-ham access to ham transmitters is concerned. Hams can't even work
> with the local PD on things like "Halloween Watch Patrols" according to the
> FCC because it's contributing to the "routine business" of the Police Dept.

Let's take a "sideways" look at that, Skip.

I am sort of get the impression that ANY amateur activity involving some public function, walkathons, whatever, COULD BE interpreted in some way by SOMEONE as contributing to the "routine business" of SOME party of agency, unless an actual emergency precluding "normal" communications occurs. Especially with cellular phones being more and more common, that narrows it down even more.

I've read through Part 97, plus the ARRL comments in the "FCC Rule Book," and I sort of understand the logic (?) behind the "routine business" argument, but have you heard of a CASE OF SPECIFIC PROHIBITION in this type of activity?

I'd think that if it were planned just right, we could come up with a ham activity for almost any occasion. One that did not interfere with, and could, in fact, aid the public interest... (call it a training/preparedness drill!) ...no matter what the public activity is!

It would, of course, be to our (hams') best interest to widely publicize such a training exercise in the community (good public relations, don'tcha know!) and to keep the local authorities advised of the activity... and if the hams happened across a lost kid during their Halloween Nite Transmitter Hunt, well, it'd only be public spirited citizenship to communicate that to the police...

Creativity, gang. Non-linear thinking, sometimes...

What say?

73,
=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"

! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

4002. RE: Carrying NiCd Battery packs on airplanes.

Newsgroup: rec.ham-radio
Date: 1990-07-05 18:43:21 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007051936.AA05105@ti.com>
Source record: 10502

From: TILDE::"phil@ux1.cso.uiuc.edu" 5-JUL-1990 12:54:07.88
To: info-hams-incoming
CC:
Subj: Re: Carrying NiCd packs on airplanes

The last airplane flight I went on I took 4 BP-8S packs with me. These are the 1200mah biggies. I packed them in the suitcase as usual. When it went through the X-ray machine, the attendant called the other one over. I heard one say to the other "they look like ball bearings to me". They asked me what "all those round things" were. I said I had several radio battery packs inside. They said "ok" and let me pass. Inside the secure area I opened up the suitcase and found that based on the orientation of the 4 BP-8S's AND the 2 BP-70's, they would be been X-raying down the axis of the cells of every pack. I have opened them and know the cell configurations.

BTW, Brian's idea of putting a battery pack in a zip-top bag is a good idea. I don't know why I didn't think of that; I use those bags for just about everything else.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4003. Icom IC-2SAT enhancements, part 2

Newsgroup: rec.ham-radio
Date: 1990-07-05 18:46:11 UTC
From: cromwell@rvl4.ecn.purdue.edu
Message-ID: <1990Jul5.184611.20707@ecn.purdue.edu>
Source record: 10506

A friend of mine in Germany mailed me a *very* intriguing photocopy of a letter he received from someone who works for Icom-Europe. It's an internal ICOM memo with details on how to do all sorts of nifty tricks with the IC-2SE (which may nicely translate to IC-2SAT tricks).

I have attempted to exactly duplicate the memo below, mangled spelling, unclear passages, and all. I don't have an IC-2SAT service manual yet, and so I'm not qualified to say if this is all really applicable or not. And, the German at the closing is a mystery. I typed "fu:r" to indicate "f<u-with-umlaut>r". Anyone with more details, please let us know!

Bob Cromwell KC9RG
cromwell@ecn.purdue.edu

ps: For the people asking "what was your original diode matrix, that appears at the end. There was some thought that the matrix programming changed after the first few (hundred? thousand?) models. This is from the schematic that came with mine, with serial number in the 9500's.
pps: Before you ask "where's part 1", that was the article titled "Icom IC-2SAT", where I gave results of signal generator testing....

>>
[page 1]

ICOM ICOM (Europe) GmbH
Himmelgeister Strasse 100
4000 Du:sseldorf 1
F. R. Germany
Phone: 0211 / 34 60 47
Fax: 0211 / 33 36 39
Telex: 8588082 ICOM D

To: Icom Dealer
Dusseldorf, 14.4.89

I C O M S E R V I C E I N F O R M A T I O N I C - 2 S E

Push Key + switch on Requested Mode Remark
==========
LIGHT + MON CPU RESET Clear all Memories
LIGHT + FUNC FULL DISPLAY Display Func Test

LIGHT + V/M SIMPLE MODE Info on Equipment
LIGHT + C (SCAN) MULTI-FUNCTION MODE Details in Handb.

LIGHT + FUNC + V/M RECEIVER MODE (All Band) All Band - no Tx
---

1. Start SIMPLE MODE TRANSCEIVER MODE/ Tx only HAM-Band/
2. Light + FUNC + C multi-function mode Rx see list below

Extent Transmitter Install Diode AD (D6) Tx: 139-163 MHz (FM)

==========

Manual AM/FM Mode Change all Bands: Rx Band Ranges:
1. Change to RECEIVER MODE (not receive mode) 75 - 106 MHz (FM)
2. FUNC + PTT (working in RECEIVER MODE) 108 - 130 MHz (AM)
138 - 169 MHz (FM)
Note: (+) 174 - 192 MHz (FM)
1. keep pushing each key at same time, 204 - 243 MHz (FM)
2. switch on equipment, 250 - 291 MHz (FM)
3. hold (about 4sec.) until "SET" appear, 310 - 370 MHz (FM)
4. release keys and requested mode appear;

Easily tunning step change (5 - 50 KHz):
1. push and hold FUNC key for 2sec.
2. rotate TUNING CONTROL.
3. Push FUNC to return to previous mode.

Frequency ranges are appoximately and not garantied. Receiver
sensitivity garantied only in HAM-Band (144 - 146 MHz).

In RECEIVER Mode equipment running exclusively as a Receiver, cannot
transmit at all.

Achtung: nur fu:r den Fachha:ndler zum Zwecke des Service bestimmt.
Es mu:ssen die Bestimmungen des Fernmelde-Anlagengesetz
heachtet werden.

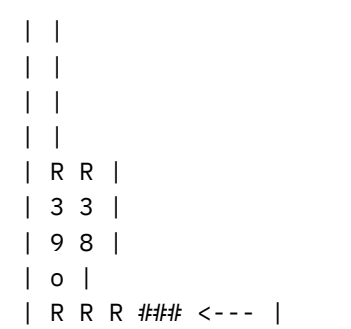
>>
[page 2]

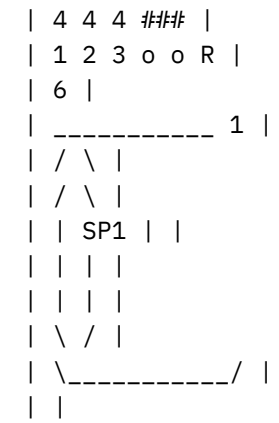
IC-2SA/E Frequency range expantion

* Remove any diode position on D6
* Install diode DA (code No. 1750000160) position D6

After this modification frequency lock range will be expand typicaly :

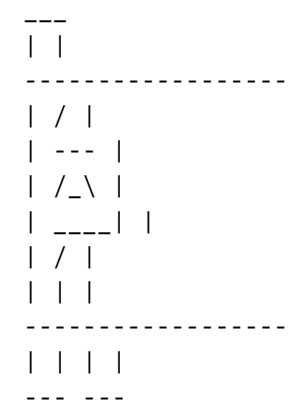
RX (MHz) : 108 - 140 (AM) , 138-169 (FM) , 310-370 (FM) ,
TX (MHz) : 139 - 163 (FM) ,





>>>
[explanation of page 2]

Yeah, the above is crude, just meant to give the relative locations of the
mysterious diode, SP1, R38, R39, R41, R42, R43, and R61. The 3-terminal
box with an arrow drawn to it (the arrow is in the original image) looks
like the below. A diode is connected from the lower left tab to the upper tab.



>>>
[diode matrix programming]

To simplify/fool-proof this, if the schematic has:

(X) --->|--- (Y)

I'll say "from X to Y". From the "IC-2SAT IC-2SET SCHEMATIC DIAGRAM":

Japan Version D6: DA115 from KEYI2 to KEYS2
Europe Version D5: DA115 from KEYI0 to KEYS3
D6: DA115 from KEYI2 to KEYS2
Italy Version D5: DAN202U from KEYI1 to KEYS3 and
from KEYI0 to KEYS3
D6: DA114 from KEYI0 to KEYS2
U.S.A. Version D4: DA115 from KEYI2 to KEYS3
D9: ISS254 from KEYI1 to KEYS2
Australia Version D5: DA114 from KEYI1 to KEYS3
D6: DA115 from KEYI2 to KEYS2

Asia Version D4: DA115 from KEYI2 to KEYS3

Now, can anyone use this to figure out the Icom-Europe memo???

Bob KC9RG
cromwell@ecn.purdue.edu

4004. RE: Carrying NiCd Battery packs on airplanes.

Newsgroup: rec.ham-radio
Date: 1990-07-05 18:47:33 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007052021.AA05945@ti.com>
Source record: 10503

Rats! That's twice recently I've done a FORWARD instead of a FORWARD/EDIT...
sorry about the extraneous mail, gang...

> Subj: Re: Carrying NiCd packs on airplanes
>
> ...
>
> BTW, Brian's idea of putting a battery pack in a zip-top bag is a good idea.
> I don't know why I didn't think of that; I use those bags for just about
> everything else.

I just wrap my batteries up inside tube socks and the Drop-in charger,
TNC, and HT all inside jockey shorts. :-)

If they ever ask to see it, I wonder who'll be more embarrassed, me or the
lady at the security gate!! (Aw, she's probably seen *-everything-* by now!)

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

4005. Renewing operators licenses

Newsgroup: rec.ham-radio
Date: 1990-07-05 20:08:31 UTC
From: larry@tapa.uucp
Message-ID: <1990Jul5.200831.28596@tapa.uucp>
Source record: 10507
Cross-posted to: rec.radio.noncomm,rec.ham-radio

Since I've been out of broadcasting for some time perhaps someone can be of help. My general radiotelephone license is in need of renewing. What are the current procedures for doing this. Since I once held a First Phone do I have to do anything to keep my transmitter prividges?

Your help is appreciated.

Larry Pajakowski
larry@tapa.uucp ...!ddsw1!tapa!larry

4006. Re: Preliminary Agreement on 7 MHz for

Newsgroup: rec.ham-radio
Date: 1990-07-05 20:25:00 UTC
From: john@frog.UUCP
Message-ID: <16288@frog.UUCP>
Source record: 10510

In article <30500581@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> Now the tough parts. Do we just shift the band structure down 50 khz?
> What about extra class CW ops who's rigs won't go below 7000?

What's the point of being an Extra if you can't modify your rig?

(49/100 :-) on that)
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

4007. Mufax D649L/AS

Newsgroup: rec.ham-radio
Date: 1990-07-05 20:27:32 UTC
From: shawn.switenky@weyr.FIDONET.ORG
Message-ID: <721.26948196@weyr.FIDONET.ORG>
Source record: 10333

I recently picked up one of these fax machines, and I intend to use it to recieve WEFAX. Does anybody have anykind of documentation (operatations, maintainence or service manuals) that I could get ahold of?

Shawn Switenky

--
shawn switenky - via FidoNet node 1:140/22
UUCP: alberta!dvinci!weyr!shawn.switenky
Internet: shawn.switenky@weyr.FIDONET.ORG
Standard Disclaimers Apply...

4008. Re: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-05 20:52:00 UTC
From: john@frog.UUCP
Message-ID: <16289@frog.UUCP>
Source record: 10513

In article <22480003@hpcuha.HP.COM>, nicholso@hpcuha.HP.COM (Ron Nicholson) writes:
> Hi. I've got some questions that maybe the net hams could answer,
> at least those with experience in CW. I'm new to this hobby and have
> been learning about and making some CW contacts in the HF bands. I
> hear all kinds of CW procedures being used, and am wondering what
> procedures are the correct ones.

Well, I've been off the air for a while, but at least when I was on the
air...

> - BT vs. periods for punctuation,

BT isn't so much punctuation as it is the CW equivalent of "uhhhh..."
At least when I used it, it was more like an ellipsis (...) to indicate the
end of an incomplete thought, or sometimes as a paragraph marker.

> - one or two BT's at a time,

"uhh..." versus "uuhhhhhhhhh..." :-)

> - R R R vs. FB,

I've never considered them interchangable, but...

> - R R R before or after the callsigns,

Generally it is an emphatic "Roger, yup, copied that, yup, yup, yup",
which sounds silly but quickly becomes habit. (:-) When FB is used as filler
it might occupy the same location (start of a reply, after the IDs).
I generally used FB only when I wanted to specifically indicate approval or
interest in something particular.

> - 559 vs 55N for the 2nd RST report,

That's someone being honest, saying solid copy (5xx), quality signal (xx9),
middling signal strength (x5x). If by "2nd RST report" you mean after hearing
the first person say 599 or 5NN*, then the first person either had a really
hot receiver or was the kind of person who might say "YR SIGS 5NN PSE RPT ALL
AFTER CALLSIGN QSB K"... (Hmm... is QSB fading? I don't have a
reference handy, and it HAS been quite a while)

* Bonus answer without a question: "cut numbers", exemplified by 5NN,
actually are an honored tradition, whose roots are obscured by the fact that
you usually hear them in the ham bands only for "5NN" signal reports. When
the question of "number or letter" is unambiguous, it is semi-traditional to
replace the dashes in a number with one dash, resulting in "AUV456BDNT" for
1..0.

> - differing amounts of abbreviations,

Personal style (and instantaneous level of fist exhaustion :-).

> - BK vs. BK TU vs. callsigns DE callsign KN,

--
You need only ID every 10 minutes; BK (sometimes B...K, sometimes BK) is to hand it over without IDing. KN used to be used to emphasize that you want *only* the addressed station to reply, with K meaning breakers will at least be considered; I understand that KN has become nearly universal and has lost the distinction.

> - when to use AR (I've only heard it used twice),

Oh dear. Great shame. I knew what this meant, it was important, and it has completely slipped my mind. I think it means "end of contact, but I'm just sitting next to the rig with nothing better to do, so someone else can call me if they wish".

> - leaving out one callsign and just send DE callsign,

OF syndrome strikes again; I think you need not identify both stations any more, just yourself (except at the beginning and end), but I'm not sure, since that would be a change from when I was active.

> - SK before or after the closing callsign,

"Pulling switches, don't bother calling me even if you ARE the last DX contact I need for DXCC, because I am going off for dinner just as soon as we finish five minutes worth of the dit-dididit-dit / dit-dit ritual."

> - the dit dit at the end of contacts.

an amusing closing ritual, the full version of which is
WA0AAA WZ9ZZZ
dit-dididit-dit
dit-dit
dit-dididit-dit
dit-dit
To the rhythm of "Shave and a haircut...two bits". Once, someone and I dragged this protocol out for about 20 cycles or so, until I ID'ed again with a very emphatic "dididididahdidaaaaaaaaaaaaaaaaah" at the end :-).

> Also, could someone post or email me some transcripts of some basic CW
> QSO's, including things like a contest contact, a short DX QSO and a
> typical novice interchange (name is, rig is, ...).

Let's see... I *think* the "ARRL Operating Manual" actually has a few of these in it (and is probably worth having even if not).
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

4009. Re: FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-07-05 21:07:27 UTC
From: dhp1@GTE.COM
Message-ID: <9405@bunny.GTE.COM>
Source record: 10509

In article <38479@cci632.UUCP> cb@cci632.UUCP (Just another hired gun (n2hkd)) writes:
>After reading some of the comments about fm vhf contesting, I was
>compelled to say a few words. FM only is not dead here in WNY,
>Fn02/03/12/13. The local vhf/uhf group has resurrected this
>mode of operation. As a club they have provide incentive for
>contacts by providing competion between groups and individuals
>for FM only competition.

My VHF contest experience has been in four geographic areas:

- Philadelphia/southern NJ
- Pocono mountain region of Pennsylvania
- Maryland/DC
- Boston/Worcester MA.

Virtually all of my operating has been with medium to large multioperator groups. FM, while not the predominant mode used to make contacts, still produces quite a number of contacts, especially on 144 and 220 MHz. I have found that the closer you are to a metropolitan area the more success you will have. This makes sense, of course. The more people there are close to you, the higher your probability of getting *someone's* attention on one of the simplex channels.

Some of the highest 2m FM totals I have seen have been from operations near Boston (Mt. Wachusett, with the K1TR group) and one between Philadelphia and New York (Camelback Mt. in the Pocono region, with the K3MTK group). The location near Boston is on a mountain (approx. 2200' AMSL) with a clear shot into Boston and in most other directions except west. The Camelback Mt. location has an excellent shot towards Philadelphia AND New York, and for that reason is ideally suited to produce a large number of FM contacts.

The best strategy for getting FM contacts seems to be hitting the main simplex channels every fifteen minutes or so for just a few minutes, then going back to SSB/CW.

>Anyway to make a long story short, those fm contacts do help the club,
>at least from looking at the January results.

FM contacts help all entrants' scores, regardless of where they are located. This is true in all VHF contests, but I have to agree that it is most lucrative in the January event. Just check out all those FM only scores in the Western NY Section! Amazing!

--
Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com OR dhp1@gte.com
617-455-5704 | UUCP: ....!gte.com!edcd.dnet!pascoe

4010. Re. VOA Feeder on 20125 kHz USB

Newsgroup: rec.ham-radio
Date: 1990-07-05 22:28:22 UTC
From: ckp@cup.portal.com
Message-ID: <31451@cup.portal.com>
Source record: 10511
Cross-posted to: rec.ham-radio,rec.radio.shortwave

To add to the discussion about the VOA Feeder on 20125 kHz, the following appears in the July, 1990 edition of The Umbra et Lux Newsletter, published by DX/SWL Press. It is reprinted here with the permission of the publisher, Harry L. Helms:

"The June, 1990 issue of Clandestine Calling published by Harald Kuhl contains news of an unusual signal on 20125 kHz USB being heard in Europe. This station seems to be operating on a more or less continuous basis with

music and scrambled voice traffic. It appears that the purpose of the music is to hold the channel for the scrambled voice transmissions.

"A breakthrough in identifying this station took place on May 24 at 1505, when Sweden's Claes Olsson reported hearing the music stop and the following voice traffic in the clear:

"Greenville calling. Greenville calling Liberia. Do you
copy us? (Pause) Gary, Gary Wise. Hello. Hello. Gary
Wise. Libera. Liberia. Greenville calling. Over.
(Pause, with people heard speaking in the background).
Hello Liberia. Liberia, this is Greenville calling, this
is Greenville calling. Do you read us? Over. (Pause)
Hello Liberia, hello Liberia, this is Greenville calling.
Do you read us? Over."

"After this the music started again.

"It so happens that 20125 kHz is listed as a VOA feeder station at Greenville, NC. But what's with the scrambled voice traffic? And is it just a coincidence that the VOA Greenville feeder on 7651 nicely coincides with KKN44 on 7652 kHz? "

The Umbra et Lux Newsletter is available from DX/SWL Press, 10606-8 Camino Ruiz, #174, San Diego, CA 92126. Published monthly $18/yr, $2.00/sample.

%%
% Christine K. Paustian % ckp@cup.portal.com %
% Los Numeros On-Line %%% sun!portal!cup.portal.com!ckp %
% PO Box 149 %%% 1:272/39 FidoNet %
% Briarcliff Manor, NY 10510 % Where Radio Is Fun Again %
%%

4011. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-05 23:48:46 UTC
From: gary@ke4zv.UUCP
Message-ID: <954@ke4zv.UUCP>
Source record: 10524

In article <SA#&_-@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>In article <14954@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>>People stop kerchunking the repeater when
>> a) they own radios they trust never to break
>> b) they use a repeater they trust never to break
>> c) you kill them
>> d) the repeater drops off the air so fast they can't hear the kerchunk
>>Which do YOU think is the most achievable?
>
>D, obviously. Repeaters and user radios may not break, but they will
>NEVER make the repeater 100% of the time. The problem with D is that the
>users go away, too, since the repeater is unusable.
[stuff deleted]
>radios", and not all of them; my IC32AT definitely doesn't qualify, but

Now we get down to it. The users that go away are the ones with handie-scratchies trying to use them from marginal locations on the fringes of the repeater's coverage. In my opinion, if you are not equipped to put a full quieting signal into the repeater you shouldn't be attempting to use the repeater except in that mythical life or death situation where no other means of communications are available. And even in that situation, if someone is not there to hear your distress call, all the little beeps in the world won't help you. The only thing worse than listening to endless beeps and boops is listening to someone sitting in his easy chair fading in and out of the repeater with each breath because he is to lazy to walk over to his base station and put a solid signal into the machine.

Gary KE4ZV

4012. Re: Carrying NiCd packs on airplanes

Newsgroup: rec.ham-radio
Date: 1990-07-05 23:57:55 UTC
From: andreap@ms.uky.edu
Message-ID: <andreap.647222275@s.ms.uky.edu>
Source record: 10512

phil@ux1.cso.uiuc.edu writes:

>The last airplane flight I went on I took 4 BP-8S packs with me. These are
>the 1200mah biggies. I packed them in the suitcase as usual. When it went
>through the X-ray machine, the attendant called the other one over. I heard
>one say to the other "they look like ball bearings to me". They asked me
>what "all those round things" were. I said I had several radio battery packs
>inside. They said "ok" and let me pass. Inside the secure area I opened up
>the suitcase and found that based on the orientation of the 4 BP-8S's AND
>the 2 BP-70's, they would be been X-raying down the axis of the cells of
>every pack. I have opened them and know the cell configurations.

>BTW, Brian's idea of putting a battery pack in a zip-top bag is a good idea.
>I don't know why I didn't think of that; I use those bags for just about
>everything else.

>--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
><phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

I was stopped by an attendant while leaving Gatwick Airport in London. She
thought the battery pack looked like explosives! They wanted me to open the
sealed pack, and after much conversation finally agreed to let me pass. They
can cause problems.

P.S. The battery pack was attached to an HT in my carry-on bag.

Harold Peach, N4FLZ
hgpeach@ca.uky.edu

4013. Re: Voodoo Radio?

Newsgroup: rec.ham-radio
Date: 1990-07-06 00:06:00 UTC
From: donm@hpnmdla.HP.COM
Message-ID: <1250184@hpnmdla.HP.COM>
Source record: 10515

Then there's the conversation overheard on 11 meters:

"Roger dodger, good buddy. Say, how's my SWR look over there? Break-break"

Don Montgomery, K6LTS
Extra Class Tinkerer/Hacker/Fixer

4014. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-06 01:14:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500587@ux1.cso.uiuc.edu>
Source record: 10517

> I'd like to hear more about phil's intelligent 'carrier level' sensing
> system which decides how strong a signal is and takes appropriate
> action, whether that is keying a repeater, preventing it from being
> keyed, or whatever have you.
>
> Phil?

I have a number of ideas, none of which I have ever experimented with yet. I really would have to get into the experimenting to really come up with anything useful (or determine if I am off base). But until I can experiment in software without having to build my own hardware (since I don't want to experiment with that right now) the ideas will just have to sit in limbo. We'll see what can be done with the Kantronics DataEngine once they get their promised developer's technical reference manual out. I just hope they have not hired one of George "read my lips; no new taxes" Bush's relatives to publish it.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4015. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-06 01:22:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500588@ux1.cso.uiuc.edu>
Source record: 10518

A voting system would basically be relatively simple to do. Sure you could do it in software, and I personally would rather do so since my software writing experience is a few orders of magnitude greater than my hardware building experience. But a hardware based one would not be that hard to do either. You could do it by having a binary tree where the leaves are hardware representing the input signals. Each node selects the quieter of the two signals and at the end pops out the quietest signal. Rather than have a noise filter and detector pair at each node, only one per input is really needed, and its output, a constant DC level, would be passed on from node to node.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4016. RE: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-06 02:18:45 UTC
From: rlwest@flopn2.csc.ti.com
Message-ID: <9007060231.AA14137@ti.com>
Source record: 10337

> From: TILDE::"harrism@DG-RTP.DG.COM" "Mike Harris" 5-JUL-1990 19:08:48.69
> Subj: RE: Some CW procedure questions
>
> What are the required ones? ...

Required characters are A-Z, 0-9, PERIOD, COMMA, QUESTION MARK, SLANT BAR,
<BT>, <AR> and <SK>.

Note that in counting characters for "one-minute solid copy" that letters
A-Z count 1 character each, and everything else, numbers, punctuation, and
prosigns, all count 2 each.

> ... Is this listed in the ARRL study guides? (along
> with required punctuation?)

Yes it is pretty much listed in any good code study guide, ARRL and otherwise.

It is in PART 97 which is included in the ARRL's "FCC Rule Book" and in the
"Tune in the World" and other code practice stuff. (Gordon West (no relation!
:-) , AMECO, Radio Shack, etc.)

=== * * * === === * * * === === * * * === === * * * ===
73, de ! "In order to accomplish the
Bob West WA8YCD ! impossible, you must attempt
RLWEST@FLOPN2.CSC.TI.COM ! the absurd!"
! -- Miguel de Animo y Jugo
P. O. Box 863069 !
Plano Texas 75086 !
214/917-1908 FAX 214/917-7519 !
=== * * * === === * * * === === * * * === === * * * ===

4017. Better muffler for a generator

Newsgroup: rec.ham-radio
Date: 1990-07-06 02:33:57 UTC
From: larry@tapa.uucp
Message-ID: <1990Jul6.023357.812@tapa.uucp>
Source record: 10514

I purchased a couple of years ago from K-Mart one of the Coleman 4kw generators which comes complete with a "Low Tone" muffler. Well to my way of thinking it isn't very "Low Tone" at all. It's noisey enough to require ear protection when in a garrage with it running.

Since it has an 8hp. Briggs & Stratton engine I checked with my local repair shop and found out that I could buy for about $30 a "Super Low Tone" muffler kit. The kit includes all the bolts and gaskets neede for the new larger muffler. The only addtional item I needed was some anti-sieze which I got from the local auto parts store. I installed the new muffler in less than 5 minutes and what a difference it makes. I can actually hear the acoustic noise from the generator itself (sort of like a quiet siren) and can be in the garrage the without hearing protectors. Highly recommended mod.

The repair shop had a catalog with "Super Low Tone" mufflers for most all of the Briggs engines. For my 8hp. engine the Briggs part number is 398200.

73

Larry Pajakowski, WA9QOO
larry@tapa.uucp ...!ddsw1!tapa!larry

4018. ANS: Squelch Tails

Newsgroup: rec.ham-radio
Date: 1990-07-06 03:47:25 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007060347.AA04199@tecnet1.jcte.jcs.mil>
Source record: 10338

>> Let me point out one significant advantage to your approach: if one is
>> using remote bases to talk to repeaters (such as TM721 in cross-band
>> repeat mode), a very short tail is a good idea.

John Boteler {uunet | ka3ovk}!media!csense!bote writes:

>I have really gotten on the short hang time bandwagon lately after
>hearing the growing number of hams using the crossband features
>of their new radios. Just one hour ago I listened to a pseudo-QSO
>on a distant repeater which would have become a full-fledged QSO
>had the repeater dropped quickly; as it was, one station had to
>wait nearly five seconds for the repeater to drop, most times
>multiples of five seconds due to the periodic noise bursts from
>distant signals. This prolonged the time the remote base station had
>to wait to reply; you could hear the frustration in his voice!

>I sit back and smile a smile full of vindication now when
>I hear someone praise the simple operation of our repeater
>while using the cross-band feature of his radio.

>It really is more fun to be a smart ham than a flashy ham.

Well John, you can be smart and flashy too! Put a subaudible
tone on the repeater transmitter, HOWEVER rig it a little differently
than usual. Instead of having the subaudible come on constantly
with the transmitter, you have it triggered by COS (carrier operated
squelch) only. I.E. The subaudible is on ONLY when someone is trans-
mitting INTO the repeater.

You then take your nifty-neato cross band repeat rigs and equip them
with subaudible decoders. Now everything works perfectly no matter
how long the repeater's squelch tail is, and ... if you have TWO
repeaters that do this... guess what the cross band repeat rig can
then do? Should be obvious! This can also be connected (as we did)
into a user controlled command so it can be turned on and off. It is
cheap and easy and solves the cross band repeat guys problem and also
allows a longer squelch tail for those that like it (as I do).

Short or nonexistent squelch tail repeaters have their proponents, but
with the band openings around here I get tired of hearing the machine
bang up and down constantly. YES, I am aware of hysteresis squelch
circuits and there is one in our repeater... yet when the band gets
weird, they are not fool proof. Getting into the theory of it all,
which is more stressful on the darn thing; A repeater coming up and
staying up for 10 minutes, or a repeater keying up and down 50 times
in the same period?

Bottom line? It's all just a matter of taste, and there is plenty of room for either method.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

4019. Re: Voodoo Radio?

Newsgroup: rec.ham-radio
Date: 1990-07-06 04:07:31 UTC
From: brian@ucsd.Edu
Message-ID: <15114@ucsd.Edu>
Source record: 10516

In article <1250184@hpnmdla.HP.COM> donm@hpnmdla.HP.COM (Don Montgomery) writes:
>Then there's the conversation overheard on 11 meters:

Ghad, another one who missed the point entirely.

Explanation: hams are supposed to be technical. They had to pass an exam that purported to show that they were technical.

CB'ers aren't supposed to be technical. Therefore, their ignorance of technical matters is not remarkable. They got their radios to chat with one another, not to be technical. The pseudo-technical discussions of CB operators are just like the chat you have with the gas station attendant about your work - he's just making conversation while you fill up with guzzoline - or the chat you have with your bartender whilst he mixes your favourite popskull. Think of CBers as being the radio equivalent of shade-tree car mechanics.

No, what is remarkable about voodoo radio is that these are people who passed an exam and still couldn't grab their ass with both hands, radio-wise, without an illustrated manual.

As with driving skills, I think periodic mandatory retesting on radio knowledge would be a wonderful idea. After all, how are supposed to advance the state of the art when we don't even insist that people keep current in it?
- Brian

4020. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-06 04:46:21 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <36789@shemp.CS.UCLA.EDU>
Source record: 10519

In article <63@thoreau.nsc.com> rtodd@thoreau.nsc.com (Ron Todd) writes:
>tech journal along the lines of what HR used to be (and 73 also before
>Wayne lost a fair amount of his common sense). A quarterly couldn't put
---

I haven't read the latest 73's, but Wayne always seemed to have
plenty of common sense in the past. What supposedly happened to
him?

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

4021. Re: Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-06 04:56:10 UTC
From: Justin_Randall_Padawer@cup.portal.com
Message-ID: <31476@cup.portal.com>
Source record: 10328

WA4VZQ de WA4FJF
Good job, Barry, on a very interesting and enlightening article.
This was of great interest even to those of us who aren't tech-types.
-- Randy Padawer, Knoxville, TN

4022. Eldorado 992 Microwave Universal Counter

Newsgroup: rec.ham-radio
Date: 1990-07-06 08:02:58 UTC
From: vtcqa@shamash.cdc.com
Message-ID: <23276@shamash.cdc.com>
Source record: 10525
Cross-posted to: rec.ham-radio,sci.electronics

This posting is for a friend, whose news feed has dried up for a while. Please reply to him directly as per his signature, please don't hit the "r" key !

Message from friend follows:

Hi,
I've just become the owner of an "Eldorado Model 992 Microwave Universal Counter", but I didn't get the manual :-(. I was told it covered up to about 500MHz directly, and would cover up to 18GHz with a prescaler. I do not have a prescaler, and would very much like one if anyone has one to spare. I am also looking for manual(s) or any information about this item.

The unit seems to have been manufactured by "E+H Research Lab's Inc" of Oakland, CA; 555-1212 has no current listing for them so either they've closed or moved.

Any information/manuals/prescalers would be gratefully received.

Thanks in advance,
--
andyw (W0/G1XRL)

Andy Warner US email : andyw@vware.MN.ORG ..or..
VisionWare ..!{amdahl,hpda,uunet!bulus3}!bungia!vware!andyw
P.O. Box 3991 UK email : ..!ukc!vision!andyw ..or.. andyw@vision.UUCP
Minneapolis
MN 55403-0991 Voice : (612) 377-3627

4023. Starting an engine with Nicads?

Newsgroup: rec.ham-radio
Date: 1990-07-06 10:46:10 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <06.Jul.90.11
Source record: 10327

There is a company here in the UK that sell a device called a 'Powerbank'
which is a hand-held unit containing (i believe) a set of high current 12volt
Nicads and a recharger. The thing is lunchbox-sized, and claims to be able
to jumpstart automobiles. It is sold as being ideal for campers/yachtsmen etc.
for a portable power supply. It would also make a fine power supply for
portable radios. Cost here in the UK is something around one hundred pounds
sterling (make that about 180 US dollars).

Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

Please use the following addresses for reply: + "/Natural
+ "/"Environment
JANET : PJML@UK.AC.NERC-WALLINGFORD.IBMA + "/"/Research
Internet : PJML%IA.NWL.AC.UK@NSFNET-RELAY.AC.UK + "/"/"Council
EARN : PJML%UK.AC.NWL.IA@UKACRL + NERC Computer Services
AX25 : G6WBJ@GB7SDN.GBR.EU "144.650MHz" + Holbrook House
SPAN : STAR::"PJML%IA.NWL.AC.UK@NSFNET-RELAY.AC.UK + Station Road
PHONE : +44 (0)793411613 + SWINDON SN1 1DE
FAX : +44 (0)793411503 + GREAT BRITAIN
++
+ 'The One-Nighters' 86.437.5 +
++

4024. Re: FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-07-06 11:53:29 UTC
From: dls@genrad.com
Message-ID: <37819@genrad.UUCP>
Source record: 10331

In article <9405@bunny.GTE.COM> dhp1@bunny.gte.com.UUCP (David Pascoe) writes:
>In article <38479@cci632.UUCP> cb@cci632.UUCP (Just another hired gun (n2hkd)) writes:
>Some of the highest 2m FM totals I have seen have been from operations near
>Boston (Mt. Wachusett, with the K1TR group) and one between Philadelphia and
^^^^

Boy, it's a good thing that most of the hams from the local radio club aren't
on Usenet, cuz you're dead wrong.

I was on Mt. Wachusett this year with the radio club and I can assure you
we are NOT K1TR, we are MARA (Montachusett Amateur Radio Association) with
a call of W1GZ and N1GYZ for Novices. The MARA has been up on Mt. Wachusett
^^^^ ^^^^^
on field day for MANY years......

Diana
->Diana L. Syriac CAP: SM, Freedom 690 Mobile Ham: KC1SP(1 super pilot)<-
->USmail: GenRad Inc., Mail Stop 6, 300 Baker Ave, Concord, Mass. 01742 <-
->usenet: {decvax,mit-eddie}!genrad!dls or dls@genrad.com <-
->tel: (508) 369-4400 x2459 I'D RATHER BE FLYING!!! <-

4025. Congrats to N4HY

Newsgroup: rec.ham-radio
Date: 1990-07-06 12:31:50 UTC
From: dtheriau@wellfleet.com
Message-ID: <9007061231.AA16662@dt.Wellfleet.Com>
Source record: 10330

Having just received a copy of the N4HY QuickTrak software for tracking satellites I must send my congrats to Bob and the others responsible for its creation. Tracking the "Birds" as they call them is really fun with this program. Now if only the XYL will let me buy a better VHF/UHF XCVR and El/Az antennas... :-)

Congrats on the Technical Excellence Award as well !!

==========
[Doug Theriault <dtheriau@wellfleet.com> ARS: NO1D]
[internet: no1d@wellfleet.com]
==========

4026. Re: kenwood 440 mic shock

Newsgroup: rec.ham-radio
Date: 1990-07-06 12:33:12 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <1998@ryn.esg.dec.com>
Source record: 10521

In article <3062@unisoft.UUCP>, washer@unisoft.UUCP (Jim Washer) writes:
>
> Recently, while operating my kenwood ts440s mobile, I received
> an electrical shock from the metal plate on the back of the stock
> microphone.
>[...]>
> Now the questions.
> a) was this 12v dc coming thru the mic wires?
> b) was this rf energy ?
> c) what was this?
> d) WHY IS THIS PLATE CONNECTED TO ANYTHING TO BEGINE WITH.
>

My guess is (b). You got zapped by RF as the reflected power increased.
The plate on the
mic is wired to ground.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Copyright (c) 1990 Patrick Taber all rights reserved.
This message may not be used by any law enforcement agency nor may it be
used in any legal proceeding. That's the law.

4027. free equipment for schools

Newsgroup: rec.ham-radio
Date: 1990-07-06 12:56:30 UTC
From: szarekw@LONEX.RADC.AF.MIL
Message-ID: <9007061256.AA08170@lonex4.radc.af.mil>
Source record: 10340

Our club (MOARC*) will be sponsoring a ham radio club at a local elementary school. I seem to remember that Uniden Co. was giving HR2510s away for free if they were to be used for education. Does anybody know if this is true and if so how to contact Uniden? Is there anybody out there interested in donating equipment to our cause? Is there anybody out there who has successfully done anything like this in their area and what advice can you offer?

Please respond to me at szarekw@lonex.radc.af.mil
If I get a good response I will compile the results for the bb.

Thanks & 73
Buzz Szarek
KB2KKH
*Madison Oneida Amateur Radio Club

4028. Re: Kerchunking (was Re: Homebrew repeater controllers)

Newsgroup: rec.ham-radio
Date: 1990-07-06 13:04:54 UTC
From: rfc@briar.Philips.Com
Message-ID: <102766@philabs.Philips.Com>
Source record: 10354

In article <26712@netnews.upenn.edu> depolo@eniac.seas.upenn.edu.UUCP (Jeff DePolo) writes:
>The best way to prevent kerchunking and still maintain a courtesy beep and/or
>a transmit carrier hang time is to have the repeater only key up when a carrier
>breaks squelch, PL is heard (if applicable) AND audio is present. This forces
>the would-be kerchunker to say something, hopefully his call sign. At least
>one repeater I know of here uses this technique, quite successfully. The
>reason it works is that nobody wants to key down and say "Hello" or "Testing",
>without IDing for fear that his voice would be recognized.

This would work until someone figures out that one could press a touch tone key on his touch tone pad on his HT or mic to make some audio. Or blow some air into the mic, to make some noise. A dedicated kerchunker will find a way to kerchunk. But you should ID.

73 de Whiskey Alpha Two India Sierra Echo
(why am I using phonetics on the UUCP net? :-)

4029. Re: Preliminary Agreement on 7 MHz for

Newsgroup: rec.ham-radio
Date: 1990-07-06 13:16:00 UTC
From: benk@inmet.inmet.com
Message-ID: <13700018@inmet>
Source record: 10523

While I might quibble over the details of which freqencies are allocated to broadcasting and which are allocated to hams, on the whole, I've got to say that I think that this is a great proposal, and I sure do hope that it is put forward and adopted at WARC-92.

The situation in the 41-meter band has basically been unaccepable for as long as *I* can remember (~20 years): neither broadcasters/listeners nor hams have been very happy about it, and it has been the source of needless friction - and occasional outright hostility - between SWLs and hams.

Adoption of the proposal described in the base note (or some similar scheme) will make *everybody* happier. Broadcasters and listeners will get a much- needed chunk of the lower end of the HF spectrum. This will help relieve congestion in the 49- and 31-meter bands, which is guaranteed to get even worse as the solar cycle starts to decline. Hams in North and South America will retain a 300 kiloHertz wide slice of spectrum around 7 MHz; much (most?) existing ham gear won't require extensive modification to work in the newly allocated band, as things have only been "shifted down" by 50 kiloHertz. Its probably true that most 40-meter ham dipoles won't even need to be recut to work pretty well. Hams elsewhere in the world will have a red-letter day, finding a 300 kiloHertz wide band available to them where before only 100 kiloHertz was allocated.

If this proposal is adopted, maybe its only a matter of time before the similar problem in the 75-meter broadcast-band/80-meter ham-band is cleaned up as well.

Hat's off to a great proposal!

-- Ben Krepp

From internet: benk@inmet.inmet.com
From uunet: uunet!inmet!benk

4030. Book Review: Exploring Antennas and Transmission Lines....

Newsgroup: rec.ham-radio
Date: 1990-07-06 13:34:11 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <1990Jul6.133411.8767@dg-rtp.dg.com>
Source record: 10336

"Exploring Antennas and Transmission Lines by Personal Computer".

Author: John A. Kuecken; Publisher: Van Nostrand Reinhold.

I've only had this book about a week, but I really like it. It's approach is a bit more engineering oriented than theoretical. I don't have the Jassick classic so I can't compare them. The program sources in the book are mostly in APPLESOFT BASIC although porting them hasn't been a problem. In addition to the technical content, I really appreciate the book for showing how to put the abstract equations into practice on the pc and *see* the results.

About $45 from your local technical bookstore (I had to order it).

If you want to preview it, you should be able to find it at any University library. I found this copy at North Carolina State while researching Smith Charts.

Some tidbits from the cover and TOC:

"Rely on this step-by-step guide to turn your personal computer into a teaching tool for antenna arts."

"John A. Kuecken thoroughly explores antenna, transmission line, and propogation topics. He shows you how to use your computer as an instructional tool while giving you practical design programs. You will be able to use your computer to illustrate concepts that are usually difficult to visualize sucy as contra-rotating vectors in transmission line problems and circular polarizations."

"Exploring Antennas and Transmission Lines by Personal Computer privides detailed coverage of antenna couplers and land mobile antennas, an area not usually examined in most antenna reference books. I enables you to experiment with the Fast Fourier Transform to develop the phase and amplitude distributions required to form arbitrary shaped beams such as the cosecant-squared shape used for search RADAR."

"Antenn Basics are clearly explained including:

x. action of arrays of sources and unfilled arrays.
x. effects of aperture distributions
x. geometric collimators
x. tracking antennas
x. shaped beam antennas
"

"You will also gain valuable insight into the telegraphers equation,
... the steady-state A.C. Case... the Smith Chart...mutual impedance
...electrically small antennas...mobile and vehicular antennas...
reflections in space and antennas above the earth."

"Equiped with *this book*, you will have invaluable assistance for
mastering professional level antenna and transmission line work."

Table of Contents:

1. A brief History
2. Antenna math with a personal computer
3. Gain and Huygens Principle
4. Arrays of Sources
5. Aperture Distributions
6. Geometric Collimators
7. Off-axix Feeds and Phase Errors
8. Tracking Antennas
9. Shaped Beam Antennas
10. Unfilled Arrays
11. The Telegraphers Equation
12. The Steady-State AC Case
13. The Smith Chart
14. Elementary Radiators
15. Wire Antennas
16. Mutual Impedance
17. Electrically Small Antennas
18. Mobile and Vehicular Antennas
19. Reflections in Space and Antennas above Earth

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

4031. Personality Test (long)

Newsgroup: rec.ham-radio
Date: 1990-07-06 14:06:51 UTC
From: harrism@aquila.rtp.dg.com
Message-ID: <1990Jul6.140651.9297@dg-rtp.dg.com>
Source record: 10339

Here's a fun ham radio personality test. I copied it from the Raleigh Amateur Radio Society newsletter. I believe it originally came from the Laurel (MD) ARC "Feedback" newsletter (via Maria L. Evans, KT5Y).

Directions: Circle the letters of the sentences below that most closely resemble your attitudes about amateur radio. Then read the descriptions of those same letters to determine your personality profile.

A. Twenty meters is the band with all the action. It's propagation, overall characteristics, and the skill of it's regular operators epitomize the entire concept of Amateur Radio.

B. Twenty meters is full of California flakes and East Coast Kilowatts. Amateur Radio is a fraternity, and that fraternity only exists on 40 and 75 meter SSB.

C. Traffic handling is a living example of the history and traditions of Amateur Radio, and traffic handlers exude skills and decorum not found in the amateur community as a whole, and in general, are superior operators in all regards.

D. The high excitement and fever pitch of contest activities sharpen the endurance and stamina needed in emergency operation. Contesting is where it's at.

E. Amateur Radio has few unexplored ares, few real operating frontiers. UHF is one of the last of these outposts of research and exploration.

F. Amateurs have a duty to serve their community in emergency situation. Consequently, each amateur should be prepared that he/she may be called upon to render service above and beyond the call of duty.

G. Personally, I find the traditional modes of Amateur Radio communication quite boring. Amateur Radio's only future is in the growing number of specialty modes and new developments in amateur communication.

H. As a young person involved in Amateur Radio, I find that I am often confronted with cultural gaps in my hobby.

I. Too many hams these days are technically inclined to the point that they aren't good conversationalists. I find the friendships that I've gained via Amateur Radio the most rewarding part of the hobby.

J. Just as women in today's world are breaking into traditionally closed areas, today's YL is also becoming more involved in amateur activity. As one of this new breed of YL, I find the men and women of Amateur

Radio exciting and challenging.

That's it. End of test. Now score yourself!

A. You are fat, middle aged, and smoke cigars. A real DX fiend, you own stacked monobanders at 150 feet. King Hussein and Father Moran know you on a first name basis. When you key the mic, the power company declares a peak power emergency.

B. Your idea of state of the art equipment is an HW-101. You own a NCX-3 or a Hallicrafters of some sort. You and your cronies make an 8 KHz wide dent on the upper end of 75. Your only knowledge of the word "splatter" is what bugs do on your windshield. On SSB, you use a chrome plated D-104 lollipop mic. For your annual CW QSO, you use a bug set to send dots at 65 wpm, and dashes at 5 wpm. When people can't sleep, they tune to 40 and listen to you rattle about the "good old AM days."

C. You are basically nosy, and get secret thrills out of reading the traffic that you pass. Your obsession with line noise borders on paranoia. You fantasize about using thermonuclear devices to eliminate all your neighbors' household appliances, and strangling the 75 meter roundtable geezers with hardline.

D. You wear plaid shorts, black socks, and loafers to hamfests. Your call tag has little blinking LEDs on it. Children in your neighborhood get spending money by shoveling out aluminum beer cans at your place that stack up on contest weekends.

E. You think that two meters is for peasants. Your house looks like Mission Control in Houston. Truth is, you have gear for every band above 440, but no one to talk to. People with pacemakers should not tour your shack.

F. Disaster is a turn on for you. You love to jump in your car and follow fire-engines and ambulances. You took every kind of first aid class the Red Cross offers in hopes of becoming a hero. You hover over the local repeater like the Angel of Death.

G. Your shack looks like the cockpit of the Space Shuttle. For X pieces of radio equipment, you have (2*X) pieces of accessory gear, and (5*X) sets of interface cables. It takes you 30 minutes to change modes. In an ordinary garden variety ragchew, you are a total conversational geek.

H. You parents hope that Amateur Radio is just a phase you'll grow out of. You lose points with dates by leaving the two meter rig on at the drive in movie. You tell your friends that you'll be on MARS this afternoon, and they ask if you can get them some of whatever your on.

I. You regularly call CQ on top of BY1s. You call home on the autopatch and your spouse divulges your darkest secrets on the repeater. You have an impressive collection of "borrowed" QSTs. Last week, your neighbors hired a Gypsy to curse your tower.

J. Strange old men call you "honey" on the air. Everybody wants your QSL for WAS-YL. At hamfests, XYLs fume when you buy tickets for both the afgan and the TS-940. While discussing erotic subjects like the Russian Woodpecker, these same XYLs drag their husbands away from you. Sometimes you wonder if these gals are going to get together and buy you a call sign hat with a scarlet A on it.

"As you probably have now discovered, NOBODY won this one!"

Mike Harris - KM4UL harrism@dg-rtp.dg.com
Data General Corporation {world}!mcnc!rti!dg-rtp!harrism
Research Triangle Park, NC

4032. Re: FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-07-06 14:48:16 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13144@shlump.nac.dec.com>
Source record: 10332

In article <37819@genrad.UUCP>, dls@genrad.com (Diana L. Syriac) writes...
>>[extracts about the K1TR group on Mt. Wachusett]
>
>Boy, it's a good thing that most of the hams from the local radio club aren't
>on Usenet, cuz you're dead wrong.
> [extracts about the W1GZ group on Mt. Wachusett]

Diana, they were referring to the ARRL June VHF QSO Party, which is two weekends before Field Day.

73 - jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4033. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-06 14:49:04 UTC
From: brian@ucsd.Edu
Message-ID: <15120@ucsd.Edu>
Source record: 10329

Many receiver voting systems exist; most work upon the principle of encoding the received signal strength (or s/n ratio) at the receiver site and carrying that under the signal on the link to the voting site.

Some use various PL tones and divide the signal strength into two or three levels - strong, moderate, weak - and send an appropriate tone.

Others use a series of audio tones around 2500 Hz or so, and notch them out of the system at the voter.

Still others transmit the strength separately on another channel - most commonly done when there are several clusters connected by microwave, like the City of San Diego does.

This isn't that hard for a ham to build. I can do the PL flavour with just two chips at the receiver: A set of simple comparators (like the 4-in-a-can LM339) watch the signal strength, each set to a laddered level, and go to a priority encoder (like an LS148), with the output from the encoder driving the bottom bits of a simple PL encoder like the SS-32. Voila, you are now encoding the signal strength on the link.

At the voter site, you need a bunch of PL decoders (n per receiver), and you have a uP that samples all of them and decides which to select for feeding the transmitter. The nice thing about the uP is that the circuitry for it will be simpler than doing it with discrete logic, and you can do such things as add hysteresis to avoid chattering between receiver sites.

Disadvantages: it's an A-1 prime pain in the ass to get the audio to sound good and consistent across all those links; and the PL decoders are slow to respond so that the voting system won't act like a diversity setup - it's incapable of following mobile chop, for example.

The person who makes and sells these for the ham market gets to deal with any patent issues.
- Brian

4034. Re: FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-07-06 14:53:33 UTC
From: dhp1@GTE.COM
Message-ID: <9410@bunny.GTE.COM>
Source record: 10335

In article <37819@genrad.UUCP>, dls@genrad.com (Diana L. Syriac) writes:
> In article <9405@bunny.GTE.COM> dhp1@bunny.gte.com.UUCP (David Pascoe) write
> >Some of the highest 2m FM totals I have seen have been from operations near
> >Boston (Mt. Wachusett, with the K1TR group) and one between Philadelphia and
>
> Boy, it's a good thing that most of the hams from the local radio club aren't
> on Usenet, cuz you're dead wrong.
>
> I was on Mt. Wachusett this year with the radio club and I can assure you
> we are NOT K1TR, we are MARA (Montachusett Amateur Radio Association) with
> a call of W1GZ and N1GYZ for Novices. The MARA has been up on Mt. Wachusett
> ^^^^ ^^^^^
> on field day for MANY years......

Diana, you're certainly right about Field Day. However, I was talking about VHF Contests, not FIELD DAY. Besides, I don't consider Field Day a contest, it's more of a communications exercise, even though it's run like a contest. I long for the day when the Field Day exchange is changed to something a bit more meaningful to emergency communications, something that will require a bit of challenge to copy! And something that could be checked for accuracy. I sure wouldn't want some of the ops I work year to year in Field Day copying priority traffic, especially medical traffic. There are really lots of ops out there who don't seem to hear well, even when signals are strong. And even when things are said phonetically. But I digress.

Anyone who pays attention to VHF contesting surely recognizes K1TR as having operated from Mt. Wachusett since the early 1980's.

Sorry to burst your bubble, Diana. Just wanted to set the record straight.

--
Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com OR dhp1@gte.com
617-455-5704 | UUCP: ....!gte.com!edcd.dnet!pascoe

4035. Re: Icom IC-2SAT enhancements, part 2

Newsgroup: rec.ham-radio
Date: 1990-07-06 15:57:21 UTC
From: <>
Message-ID: <1990Jul6.155721.7893@bellcore-2.bellcore.com>
Source record: 10334

In article <1990Jul5.184611.20707@ecn.purdue.edu> cromwell@rvl4.ecn.purdue.edu (Bob Cromwell) writes:
>Achtung: nur fu:r den Fachha:ndler zum Zwecke des Service bestimmt.
> Es mu:ssen die Bestimmungen des Fernmelde-Anlagengesetz
> heachtet werden.
My colleague Ernst Biersack gives this translation:

This is meant to be used only by the dealer for maintenance purposes.
You have to adhere to the regulations for using/operating communications
equipment.

But then you expected something like that, right?

Phil

4036. Re: Icom IC-2SAT enhancements, part 2

Newsgroup: rec.ham-radio
Date: 1990-07-06 17:31:35 UTC
From: jeff@xanadu.com
Message-ID: <1990Jul6.173135.19712@xanadu.com>
Source record: 10343

In article <1990Jul5.184611.20707@ecn.purdue.edu> cromwell@rvl4.ecn.purdue.edu (Bob Cromwell) writes:
>
>
>A friend of mine in Germany mailed me a *very* intriguing photocopy of
>a letter he received from someone who works for Icom-Europe. It's an
>internal ICOM memo with details on how to do all sorts of nifty tricks
>with the IC-2SE (which may nicely translate to IC-2SAT tricks).

[rest of article deleted]

The key combos don't seem to work on a IC-2SAT. And the following one:

>--
>LIGHT + FUNC + V/M RECEIVER MODE (All Band) All Band - no Tx
>--

will reset your cpu. (there is no "V/M" on the 2sat, only CLR, which is Memory -> VFO mode, and MR which is VFO -> Memory mode. I used CLR instead of V/M and got a reset -- oh well, fortunately I had all those repeater freqs written down.)

Jeff Crilly (N6ZFX)
AMIX Corporation
2345 Yale St.
Palo Alto, CA 94306
jeff@amix.com, {uunet,sun}!markets!jeff

--

Jeff Crilly (N6ZFX)
AMIX Corporation
2345 Yale St.

4037. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-06 17:35:10 UTC
From: jay@splut.conmicro.com
Message-ID: <+F-&_0+@splut.conmicro.com>
Source record: 10341

In article <954@ke4zv.UUCP> gary@ke4zv.UUCP (Gary Coffman) writes:
>In article <SA#&_-@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>>In article <14954@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>>>People stop kerchunking the repeater when
>>> a) they own radios they trust never to break
>>> b) they use a repeater they trust never to break
>>> c) you kill them
>>> d) the repeater drops off the air so fast they can't hear the kerchunk
>>>Which do YOU think is the most achievable?
>>
>>D, obviously. Repeaters and user radios may not break, but they will
>>NEVER make the repeater 100% of the time. The problem with D is that the
>>users go away, too, since the repeater is unusable.
>[stuff deleted]
>>radios", and not all of them; my IC32AT definitely doesn't qualify, but
>
>Now we get down to it. The users that go away are the ones with handie-
>scratchies trying to use them from marginal locations on the fringes of
>the repeater's coverage. In my opinion, if you are not equipped to put
>a full quieting signal into the repeater you shouldn't be attempting to
>use the repeater except in that mythical life or death situation where
>no other means of communications are available. And even in that situation,
>if someone is not there to hear your distress call, all the little beeps
>in the world won't help you. The only thing worse than listening to
>endless beeps and boops is listening to someone sitting in his easy
>chair fading in and out of the repeater with each breath because he
>is to lazy to walk over to his base station and put a solid signal
>into the machine.

...or because all his available funds are tied up elsewhere, like a real Unix computer to put on the packet network.

Face it, Gary...not all hams are rich enough to put money into high-powered radios for every car and base stations for every band. Some of us have other things to do for the advancement of the art.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +----------
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4038. Re: Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-06 19:19:00 UTC
From: john@frog.UUCP
Message-ID: <16324@frog.UUCP>
Source record: 10352

In article <24981@bellcore.bellcore.com>, jdn@casux4.uucp (jonathan nagy) writes:
> But you would be surpised at the number of contesters I know ...
> who consider the magazine completely worthless, outside of contest results.
> ...
> Market research is part of K2EEKs job, and I don't want to second
> guess him on this point.
> On the other hand, I am reminded of the quotation:
> "No one ever lost money underestimating the intelligence of the
> American Public." Could this also be true for the Amateur
> Radio public at large and CQ's readership?

Well, the "Big Three" US automakers lost billions of dollars doing just exactly that, once they had carefully crafted the market research organizations in such a way that they confirmed exactly what was already believed. Instead, the Japanese came in and ate their lunch, and they are STILL having difficulty coping with reality.

Businessmen, being human, often become quite attached to what they think their business ought to be and ignore what the market is trying to tell them. Perhaps it is therefore pointless to try to convince CQ to become more technical, but on the other hand, perhaps even K2EEK can be convinced if his market yells loudly enough.
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

4039. 10 GHz... Looking for N7CCB, W7PUA or WA7SHI

Newsgroup: rec.ham-radio
Date: 1990-07-06 19:28:10 UTC
From: U009@cs.cciw.ca
Message-ID: <5A07060E1515014B-MTACY830*U009@cs.cciw.ca>
Source record: 10342

Does anyone have the addresses for any of the following hams:
Kirk Bailey N7CCB, Robert Larkin W7PUA, or Gary Oliver WA7SHI.
(or are they on the net here?)

They wrote a paper for the '88 Microwave Update entitled "TNT for 10 GHz
(The Tuesday Night Transverter)".

I would like to get in touch with any of them to see what design changes
have been made in the past 2 years.

Regards, Stu Beal, VE3MWM, (U009@CS.CCIW.CA),
National Water Research Institute,
Burlington, Ontario, Canada.

The future lies ahead. And behind us lies, lies... lies.

4040. Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-06 20:41:08 UTC
From: winter@Apple.COM
Message-ID: <42720@apple.Apple.COM>
Source record: 10346

In article<36789@shemp.CS.UCLA.EDU>cccph@eel.cs.ucla.edu(Charles Hobbs) writes:
>In article <63@thoreau.nsc.com> rtodd@thoreau.nsc.com (Ron Todd) writes:
>>tech journal along the lines of what HR used to be (and 73 also before
>>Wayne lost a fair amount of his common sense).
>
>I haven't read the latest 73's, but Wayne always seemed to have
>plenty of common sense in the past.

When was this? I must have missed it....

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4041. Worldband radios

Newsgroup: rec.ham-radio
Date: 1990-07-06 21:05:35 UTC
From: aducharm@popcorn.East.Sun.COM
Message-ID: <2161@east.East.Sun.COM>
Source record: 10347

Hello I wasn't sure if this was the right place to submits this but...

I was thinking of buying my dad Sony's new worldband radio, for the novice. At first glance it seemed pretty nice. My dad enjoys being aware of current events and also likes new toys. Is a world band radio a good way to satisfy these two needs????

Also, are there enough stations around the world which broadcast in English so that my father could understand them???

I would apprieciate it if someone could adress my questions
Thankyou for your time
Fred

4042. SUBSCRIBE

Newsgroup: rec.ham-radio
Date: 1990-07-06 21:08:09 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007062209.AA04162@ti.com>
Source record: 10351

```
Subscribe
thanks,
Dube Todd
```

4043. Re: h-t battery pack meltdown!

Newsgroup: rec.ham-radio
Date: 1990-07-06 21:37:39 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007062232.AA04468@ti.com>
Source record: 10348

I can understand and excuse the cop whose Motorola radio battery was shorted by loose ammunition (and after a chuckle, feel sorry for him). My guess is that most cops know nothing about the technical aspects involved and, unless someone tells them specifically not to mix exposed battery contacts and conducting materials, they wouldn't think of the danger. Hams are another matter however. Maybe we ought to include a question or two in the writtens for all license categories about battery charge levels, rates, internal resistances, discharge rates, and the like. :)

73,
Dube Todd N5PDK

4044. DEUTSCHLAND-RUNDSPRUCH DES DARC NR. 26/90 VOM 06.07.1990

Newsgroup: rec.ham-radio
Date: 1990-07-06 21:50:12 UTC
From: bpk@infoac.rmi.de
Message-ID: <880@infoac.rmi.de>
Source record: 10350
Cross-posted to: dnet.ham,rec.ham-radio

DEUTSCHLAND-RUNDSPRUCH DES DARC NR. 26/90 VOM 06.07.1990

TRIER:

Der langjaehrige Redakteur des DX-Rundspruchs Hans-Georg Goebel, DK1RV, hat das DX-Referat aus persoenlichen Gruenden gebeten, den DX-Rundspruch in neue Haende zu legen. Die deutschen DX-Amateure sind DK1RV zu grossem Dank verpflichtet fuer die zuverlaessige Gestaltung des DX-Rundspruchs in den vergangenen Jahren. Gleichzeitig teilt das DX-Referat mit, dass der DX-Rundspruch des DARC und des RSV ab sofort ueber die Station Y62DXR abgestrahlt wird. Redaktion und Bearbeitung liegen bei Ulf Ehrlich, Y42MK. Der Rundspruch wird wie bisher freitags um 17:00 UTC auf etwa 3.745 kHz abgestrahlt. Die zentrale Lage der Rundspruchstation in Thueringen garantiert optimale Empfangsmoeglichkeiten zu allen Jahreszeiten. Der Rundspruchredakteur wird in naechster Zeit ebenfalls mit dem DX-Packet-Cluster verbunden sein, so dass aktuelle Informationen direkt verarbeitet werden koennen.

DUISBURG:

Am 27.06.1990 fand vor dem Oberverwaltungsgericht Muenster die Verwaltungsrechtsberufungssache Gerd Kautz, DL5JP, gegen die Deutsche Bundespost Telekom statt. Seit 1985 verursachte der Klaeger in verschiedenen Empfangsanlagen seiner Nachbarn erhebliche Stoerungen. Messungen der Funkstoerungsmessstelle Duisburg ergaben, dass sowohl die mit FTZ-Nummer versehenen Empfangsanlagen der Nachbarn als auch die Geraetschaften des Funkamateurs in Ordnung waren. Gemaess Paragraph 16 Absatz 4 DV-AFuG wurde dem Funkamateur zur Auflage gemacht, eine Sendeleistung von maximal 10 Watt einzuhalten oder ausserhalb der ortsueblichen Fernsehsendezeiten Funkbetrieb durchzufuehren. Bei der Verhandlung im November 1988 vor dem Verwaltungsgericht Duesseldorf wurde vorgeschlagen, die Leistungsbeschraenkung von 10 Watt in 100 Watt abzuaendern. Das akzeptierte seinerzeit der Klaeger. Diese abgeaenderte Leistungsbeschraenkung war jedoch aus grundsaetzlichen Erwaegungen heraus nicht annehmbar. Im Berufungsprozess vor dem Oberverwaltungsgericht Muenster wurde neu verhandelt, ob derartige verfuegende Massnahmen ueberhaupt berechtigt seien. Dank der guten Argumentation des DARC-Justitiars Boyke Dettmers, DJ4KD, gegen diese Leistungsbeschraenkung hob die Deutsche Bundespost vor dem Senat des Oberverwaltungsgerichts in Muenster die Ordnungsverfuegung vom 17.12.1987 und den Widerspruchsbescheid vom

12.12.1989 komplett auf.

DARMSTADT:

Im ersten Halbjahr 1990 stieg die Zahl der Amateurfunklizenzen in der Bundesrepublik Deutschland um 840 auf 64.013, d. h. um 1,3 %. Die Verteilung der 61.024 Individuallizenzen blieb prozentual gleich, das heisst 54 % in der Klasse B, 3 % in der Klasse A und 43 % in der Klasse C. Club- und Relaisfunkstellen verzeichneten einen Zuwachs von 2 %. 1.164 zivile Auslaender stellen weiter 1,9 % der Individuallizenzen.

FRIEDRICHSHAFEN:

Vom 29.06. bis 01.07. fand in Friedrichshafen die 15. Ham Radio statt. Mit 16.429 Besuchern aus ueber 30 Laendern, 160 Direktausstellern aus neun Laendern sowie der erstmals grossen Beteiligung aus der DDR wurde eine neue Dimension dieser Ausstellung erreicht. Ueber 31 % der Gaeste kamen aus dem Ausland. Gleichzeitig mit der Ham Radio 90 beging der DARC als ideeller Traeger das 41. Bodenseetreffen. Neben zahlreichen Vortraegen und Treffen wurden vor allem die aktuellen Probleme des Amateurfunks in der Bundesrepublik diskutiert. So warnte der erste Vorsitzende des DARC, Guenther Matz, DJ8BN, in seiner Eroeffnungsrede davor, allein aus wirtschaftlichen Gesichtspunkten heraus das 70-cm-Band zu Gunsten anderer Bedarfstraeger zu beschneiden. Ebenso verfolge man, so DJ8BN, die Belegung der Sonderkanaele im Breitband-Kabelnetz der Deutschen Bundespost mit grosser Sorge. Die Ham Radio 1991 findet vom 28.-30.06. auf dem Friedrichshafener Messegelaende statt.

TOURS:

Im Rahmen einer Montblanc-Expedition im August soll eine Amateurfunkstation vom Gipfel des mit 4.810 m hoechsten Berges Europas betrieben werden. Die Expedition wird zwischen dem 10. und 20.08. 1990, abhaengig von der Wetterlage, aufbrechen und mindestens vier Tage, bei gutem Wetter zwei Tage laenger, dauern. Dabei ist ein 24stuendiges Biwak auf dem Gipfel vorgesehen. Unter dem Rufzeichen F8UFT werden die Operateure versuchen, mit moeglichst vielen Funkamateuren in Kontakt zu treten. Als Arbeitsfrequenzen sind vorgesehen: 144,100 MHz in CW, 144,330 MHz in SSB, 145,550 MHz in FM, 145,350 MHz via Relais FZ8VHB, 145,725 MHz via Relais HB9G, 438,500 MHz in ATV mit der Rueckruffrequenz 144,170 MHz in SSB und 144,150 MHz in FM. Ausserdem wird eine CW-Bake auf 144,050 MHz installiert. Vom Basislager gibt es aktuelle Informationen um 21:00 Uhr Ortszeit auf 3.610 kHz in SSB sowie um 21:30 Uhr Ortszeit auf 3.545 kHz in CW. QSL-Karten gehen via FD1JMH.

DOEBRIACH:

Vom 21.07.-12.08. findet in Doebriach am Millstaetter See in

Kaernten/Oesterreich das diesjaehrige DX-Camp statt. Obwohl das DX-Camp in erster Linie fuer Freunde des Kurzwellen- und UKW-Rundfunks gedacht ist, sind auch Funkamateure sehr willkommen. Vom 29.07.-03.08. stellt die ADXB-OE eine Amateurfunkstation fuer Kurzwelle und UKW mit dem Rufzeichen OE8XBC zur Verfuegung.

FUNKWETTERBERICHT: (03.07.)

Der ausgepraegte periodische Verlauf der Sonnenaktivitaet, der sich seit Jahresanfang herausgebildet hatte und der mit dem Monatsrhythmus zusammenfiel, scheint nun zu Ende zu gehen. Ursache war eine sehr ungleichmaessige Verteilung der Aktivitaetsgebiete auf der Sonne. Ob diese Umorientierung eine Erhoehung der Sonnentaetigkeit mit sich bringen wird, laesst sich zur Zeit noch nicht abschaetzen. Der Anstieg der Sonnenfleckenzahl und der 10-cm-Strahlung, der Ende Juni begonnen hatte, setzt sich weiter fort. Am 02.07. erreichte die Radiostrahlung 252 Einheiten. Wegen Verzoegerungen bei der Datenzustellung liegen keine aktuellen R-Werte hier vor. Jedoch duerfte Ende Juni nach der Skala von Boulder/Colorado die Grenze von 300 Einheiten ueberschritten worden sein. Die Magnetik war bisher ruhig, allerdings sind schnelle Aenderungen dieses Zustandes jederzeit moeglich. Infolgedessen muss im Vorhersagezeitraum mit sehr wechselhaftem Funkwetter gerechnet werden.

BAUNATAL:

Fuer den Deutschland-Rundspruch beginnt jetzt eine mehrwoechige Sommerpause. Der naechste Rundspruch wird am 24.08. herausgegeben. Allen Lesern wuenscht die Redaktion eine erholsame Urlaubszeit.

Ende des DL-RS Nr. 26/90 vom 06.07.1990

Bearbeitung: DC7XJ
...-.-

4045. Re: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-06 21:58:09 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880176@hpfcdc.HP.COM>
Source record: 10344

- BT vs. periods for punctuation,

BT seems easier to copy.

- one or two BT's at a time,

I send two when my brain is stuck for a way to say something with
the fewest number of characters :-)

- 559 vs 55N for the 2nd RST report,

5nn is "cut code", an alternate method for transmitting numbers.

- leaving out one callsign and just send DE callsign,

Some of us send so slow that we ID every time, or we may overrun the
10 minute limit. :-)

- the dit dit at the end of contacts.

I use this as an acknowledgement that I received the last transmission
after I've SKed.

Perry Scott
KF0CA

4046. Re: Vertical Antenna Info request

Newsgroup: rec.ham-radio
Date: 1990-07-06 21:59:39 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880177@hpfcdc.HP.COM>
Source record: 10345

You might also look into the Butternut HF6VX. I like mine.

Perry/KF0CA

4047. Collins Radio

Newsgroup: rec.ham-radio
Date: 1990-07-06 22:38:33 UTC
From: price@MARLIN.NOSC.MIL
Message-ID: <9007062238.AA04222@marlin.nosc.mil>
Source record: 10349

In a very few days I'll be travelling through Cedar Rapids, Iowa.
Are there any historical vestiges of Collins Radio there--like
displays of old gear, a museum to old man Collins himself, etc?
I'm not interested in trying to see Rockwell/Collins, but thought
there might be something in the town or a little corner of the
plant devoted to the old days.

I'll be leaving on Sunday, July 8, so any quick responses would be
appreciated. I will read my e-mail on Saturday.

Cheers--Jim, K6ZH, ARPANET: price@nosc.mil

4048. Preliminary Agrement on 7 MHz for WARC-92

Newsgroup: rec.ham-radio
Date: 1990-07-07 04:12:02 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <315.2693B42C@w8grt.fidonet.org>
Source record: 10356

> From: perry@hpfcdc.HP.COM (Perry Scott)
> Newsgroups: rec.ham-radio
> Message-ID: <7880175@hpfcdc.HP.COM>
> Date: 3 Jul 90 23:36:45 GMT
>
> ... and do I hear the deluge of "how to mod" postings coming. I vote
> for "rec.ham-radio.mods".
>
> :-)
>
>
> Seriously, this sounds exciting. This 40-meter fossil would really like
> to be able to fit 3 SSB QSOs into 10Khz, rather than 2. The absence of
> over-the-pole QRM would make everyone's life easier.

It is all very interesting, but where do those displaced go? I know that the
U.S. government, among others, makes use of that 6950-7000 slot.

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| ____
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

4049. Alinco DR510 Crossband Repeater Mod

Newsgroup: rec.ham-radio
Date: 1990-07-07 04:22:14 UTC
From: rfc@briar.Philips.Com
Message-ID: <102933@philabs.Philips.Com>
Source record: 10355

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
29789 BF 4806 0 24-Jun 0021 N8KNJ 2111_KA3T MODS@NYNET ()
Sb: Alinco DR-510 Cross-Band Rpt MOD

DR-510 - Vehicular Extender Modification

I discovered this modification the other day and wish to share it
with other 510 owners, I did it and it works for me!

I did not originate the modification and will NOT accept any
responsibility for any damage the may occur as a result.
(I won't myself. WA2ISE)

How to do it

1. Remove bottom cover

2. Remove 2 Phillips screws at corners of subtone board
(small board near center in front) and move the tone board out of
the way.

3. Solder an 16V electrolytic capacitor
(10MFD to 100MFD but best to use 40MFD to
50MFD) as follows:

A. Neg (-) lead to pin 8 on device (IC) labeled - M54959P
B. Pos (+) lead to pin 3, counting from left while facing front
of transceiver of the white 11 pin connector.

ANT Power cord
-----------------Rear----------------------------

```
l_l_l_l_l_l_l_l
l M54959P l
l_____________l (-)
l l l l l l l l------47uF+
/(+)
/
[][][][][][] [][][X][][][][][][][][]
```
------------------Front---------------------------

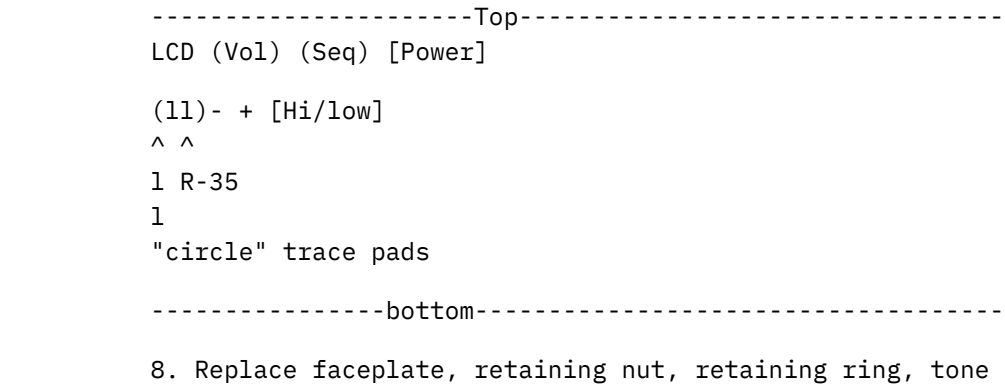
4. Remove top cover and faceplate of transceiver. Be careful of speaker wires!
A. To remove faceplate:
1. Remove main dial knob and retaining nut.
2. Remove mic. socket retaining ring.
3. GENTLY lift tabs, located approximately 3/4" in from each side,
on top of faceplate and "rotate" toward front of the transceiver.

4. When tabs are "free", turn transceiver over and repeat
the process. Remember - gently!
5. Set free plate aside.

5. Locate surface monnt device labeled R-35 on control board
(front of transceiver).
A. R-35 is positioned between, and slightly below, the squelch and
high/low power button. To the left of device R-35 is a "circle" trace.
inside the "circle" trace are two solder pads, one of which is already
soldered to R-35.

6. Bridge the unsoldered pad to the soldered pad inside the "circle" trace.

7. Short R-35



8. Replace faceplate, retaining nut, retaining ring, tone board,
bottom and top of transceiver.

Operation
1. Store different bands (2m or UHF) in VFO mode and Memory Channel 1-9.
Any thing you can store in memory 1-9, split, subtone enc,
subtone dec will work.
2. Store "DUAL" mode in VFO (Simplex) also it will accept subtone enc
and subtone dec.
3. Turn power off and then keep pressing the REV key, turn on the power
switch.
4. Audio Vol. control is your deviation control in repeater mode.
5. To return to normal operation turn off power then turn on again
without pressing any keys.

Notes:

The transceiver scans back and forth between the VFO and Memory until
it finds a signal then it locks on and transmits what it hears on the
other band. This scanning causes a slight delay when keying up as the
radio takes time to scan. I recommend the use of subtones when
possible so that the radio will not key up on noise and not allow
non-authorized personal to use your radio, the transmissions of which
YOU are responsible.

Good Luck, es 73's Rick N8KNJ

Note: I haven't tried this, proceed at your own risk. WA2ISE

4050. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-07-07 05:35:57 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9007070538.AA04688@ucsd.edu>
Source record: 10353

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #716 -
Alouette 1
1 00424U 62B-A 1 90178.73155298 .00000200 00000-0 23105-3 0 3300
2 00424 80.4627 275.6760 0022074 245.1180 114.7661 13.67361478384139
ATS 3
1 03029U 67111 A 90174.59713386 -.00000074 00000-0 99999-4 0 3932
2 03029 13.2228 21.1964 0013921 209.5552 150.3412 1.00272595 82851
Cosmos 398
1 04966U 71 16 A 90186.45121400 .00070259 17730-4 39508-3 0 9646
2 04966 51.5164 192.9997 2258165 181.7698 177.3878 11.08881275593722
Starlette
1 07646U 75010 A 90186.00274706 -.00000164 00000-0 -82042-4 0 866
2 07646 49.8271 88.1873 0205170 250.1303 107.7378 13.82137453778248
LAGEOS
1 08820U 76039 A 90184.39409696 .00000002 00000-0 00000 0 0 858
2 08820 109.8527 0.6704 0044605 234.6685 124.9782 6.38664210 74978
GPS-0001
1 10684U 78020 A 90186.38505027 .00000007 00000-0 99999-4 0 4474
2 10684 63.7341 89.0138 0107161 200.4280 159.2533 2.00555246 76219
GPS-0002
1 10893U 78 47 A 90182.87182206 -.00000025 00000-0 00000 0 0 2025
2 10893 64.3781 329.9602 0164647 26.4659 334.3571 2.00544298 88964
SeaSat 1
1 10967U 78064 A 90186.43760551 .00000520 00000-0 22288-3 0 3517
2 10967 108.0213 357.8246 0003285 236.3369 123.7507 14.35736521629071
GPS-0003
1 11054U 78093 A 90182.15990706 -.00000024 00000-0 00000 0 0 2411
2 11054 63.9142 326.2367 0060295 118.6606 241.9624 2.00567498 85964
Nimbus 7
1 11080U 78098 A 90184.15098146 .00000090 00000-0 97447-4 0 6832
2 11080 99.1945 88.7147 0009928 42.2736 317.9183 13.83441567590240
GPS-0004
1 11141U 78112 A 90185.75080587 .00000007 00000-0 00000 0 0 3989
2 11141 63.7139 88.8851 0059765 316.2734 43.3375 2.00556225 84739
GPS-0005
1 11690U 80 11 A 90182.40174044 .00000008 00000-0 00000 0 0 9943
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2 11690 64.1857 91.0994 0116257 203.0788 156.4073 2.00555711 90520
GPS-0006
1 11783U 80 32 A 90184.70382386 -.00000024 00000-0 00000 0 0 1608
2 11783 63.7081 325.7428 0151228 60.8416 300.6570 2.00558307 74655
GOES 5
1 12472U 81049 A 90176.68212053 -.00000176 00000-0 99999-4 0 9419
2 12472 3.4904 75.8736 0002951 343.0288 16.5596 1.00217042 32317
DE 1
1 12624U 81 70 A 90186.28619442 -.00000309 00000-0 -19537-2 0 4661
2 12624 89.0012 147.7291 6202727 276.2755 20.9453 3.51015838262847
SME
1 12887U 81100 A 90187.03353704 .00036300 00000-0 59844-3 0 7281
2 12887 97.6329 235.6443 0000747 46.5616 313.5759 15.52222066484197
Salyut 7
1 13138U 82 33 A 90187.08643662 .00053987 00000-0 53057-3 0 3643
2 13138 51.5981 208.4200 0002108 12.6384 347.4903 15.65478058467813
Cosmos 1383
1 13301U 82 66 A 90185.73230742 .00000075 00000-0 81009-4 0 5834
2 13301 82.9304 287.9148 0028945 110.7466 249.6793 13.67834126400070
LandSat 4
1 13367U 82 72 A 90186.60077943 -.00000023 00000-0 81466-7 0 3823
2 13367 98.1646 248.7678 0004889 77.3682 282.8114 14.57133102423989
IRAS
1 13777U 83 4 A 90184.30107725 -.00000163 00000-0 -10122-3 0 7918
2 13777 99.0260 20.8499 0012492 345.5752 14.5048 13.98795099 49199
Cosmos 1447
1 13916U 83 21 A 90177.07920937 .00000125 00000-0 12103-3 0 7317
2 13916 82.9434 5.4841 0039009 112.8885 247.6400 13.74047429363891
TDRS 1
1 13969U 83 26 B 90185.00000000 -.00000034 00000-0 99999-4 0 279
2 13969 4.5299 65.5386 0003361 48.1355 357.3440 1.85549963 142
GOES 6
1 14050U 83 41 A 90184.80724453 .00000114 00000-0 99999-4 0 2001
2 14050 2.2642 78.0096 0012298 309.1503 50.6703 1.00258517 10439
OSCAR 10
1 14129U 83 58 B 90177.47365881 -.00000041 00000-0 00000 0 0 5303
2 14129 26.0107 197.5005 5961085 154.3991 254.3150 2.05881318 24921
GPS-0008
1 14189U 83 72 A 90186.21471579 .00000006 00000-0 99999-4 0 7929
2 14189 63.4005 87.3064 0147278 219.2344 139.7104 2.00705895 51125
LandSat 5
1 14780U 84 21 A 90186.62851029 .00000418 00000-0 10281-3 0 2454
2 14780 98.2039 246.4264 0001464 126.4818 233.6536 14.57119335337400
UoSat 2
1 14781U 84 21 B 90182.63053424 .00000866 00000-0 16850-3 0 7545
2 14781 97.9480 234.7134 0012006 197.5080 162.5709 14.65457881338084
GPS-0009
1 15039U 84 59 A 90185.83200592 .00000006 00000-0 00000 0 0 9788
2 15039 63.1269 86.4923 0021688 234.9634 124.8654 2.00611986 44398
Cosmos 1574
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1 15055U 84 62 A 90184.67055638 .00000085 00000-0 84890-4 0 8993
2 15055 82.9567 50.1618 0026347 279.6630 80.1543 13.73362543302330
GPS-0010
1 15271U 84 97 A 90182.75661095 -.00000024 00000-0 00000 0 0 8651
2 15271 63.2033 325.3467 0105523 327.4444 31.9107 2.00556974 41441
Cosmos 1602
1 15331U 84105 A 90184.93351316 .00001768 00000-0 23988-3 0 3207
2 15331 82.5378 345.3898 0021314 279.2589 80.6231 14.78241261310562
NOAA 9
1 15427U 84123 A 90186.53953292 .00000415 00000-0 24520-3 0 6015
2 15427 99.1683 186.7945 0014629 321.1521 38.8597 14.12611022286572
Cosmos 1686
1 16095U 85 86 A 90186.95873673 .00061860 00000-0 60586-3 0 6862
2 16095 51.6099 209.0595 0005041 38.9158 321.0488 15.65497092268894
GPS-0011
1 16129U 85 93 A 90175.96801790 .00000007 00000-0 00000 0 0 5505
2 16129 63.8864 87.7953 0123552 148.9529 211.8051 2.00510347 34514
Mir
1 16609U 86 17 A 90186.64239909 .00026365 00000-0 29433-3 0 7758
2 16609 51.6126 237.6281 0010676 110.8773 249.3197 15.62524310250989
SPOT 1
1 16613U 86 19 A 90186.67461246 .00000129 00000-0 69297-4 0 159
2 16613 98.7346 260.8770 0001994 116.9936 243.1397 14.20028473 66556
Cosmos 1766
1 16881U 86 55 A 90187.10131097 .00003776 00000-0 52156-3 0 597
2 16881 82.5176 42.4106 0022438 295.1393 64.7473 14.77739325211949
EGP
1 16908U 86 61 A 90179.40444839 -.00000012 00000-0 22485-3 0 2303
2 16908 50.0110 221.5180 0011161 225.4723 134.5165 12.44388644176257
NOAA 10
1 16969U 86 73 A 90183.38641875 .00000322 00000-0 15813-3 0 4474
2 16969 98.5974 210.9907 0012582 223.1463 136.8731 14.23650603196771
MOS-1
1 17527U 87 18 A 90187.00797111 .00000218 00000-0 18793-3 0 6019
2 17527 99.1103 259.3184 0001303 92.7184 267.4147 13.94870313171882
GOES 7
1 17561U 87 22 A 90184.60069444 -.00000095 00000-0 99999-4 0 5668
2 17561 0.0626 261.5574 0005650 146.5727 349.1500 1.00290063 5608
Kvant-1
1 17845U 87 30 A 90186.96218296 .00026023 00000-0 29051-3 0 1861
2 17845 51.6123 236.0165 0010106 109.7309 250.4856 15.62539070187087
DMSP B5D2-3
1 18123U 87 53 A 90186.59270762 .00000298 00000-0 17601-3 0 6332
2 18123 98.8192 16.9470 0014399 334.8717 25.1754 14.14071527157009
RS-10/11
1 18129U 87 54 A 90187.05410024 .00000089 00000-0 90897-4 0 2454
2 18129 82.9278 314.5857 0013227 70.0511 290.2091 13.72097140152039
Meteor 2-16
1 18312U 87 68 A 90185.32051146 .00000219 00000-0 18868-3 0 4518
2 18312 82.5544 276.7110 0011204 200.8365 159.2339 13.83658545145359
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Meteor 2-17
1 18820U 88 5 A 90185.39849661 .00000076 00000-0 62802-4 0 3099
2 18820 82.5437 336.7763 0015421 278.6447 81.2960 13.84349847122569
DMSP B5D2-4
1 18822U 88 6 A 90186.64385150 .00000342 00000-0 17384-3 0 5417
2 18822 98.6440 65.2958 0005884 211.7199 148.3632 14.21480224125445
AO-13
1 19216U 88 51 B 90184.94672410 -.00000182 00000-0 99999-4 0 1359
2 19216 57.0113 147.4281 6982849 230.6131 43.7356 2.09704960 15750
OKEAN 1
1 19274U 88 56 A 90186.96346041 .00001893 00000-0 26381-3 0 8529
2 19274 82.5169 141.1918 0023844 64.0698 296.3006 14.77075843107690
Meteor 3-2
1 19336U 88 64 A 90185.28497008 .00000391 00000-0 99999-3 0 5187
2 19336 82.5423 265.3282 0016020 273.2973 86.6111 13.16900567 93203
NOAA 11
1 19531U 88 89 A 90185.31988497 .00000428 00000-0 25634-3 0 3018
2 19531 98.9820 133.6476 0011255 232.8678 127.1464 14.11640134 91388
TDRS 2
1 19548U 88 91 B 90186.00000000 .00000113 00000-0 99999-4 0 1410
2 19548 0.1646 76.7547 0003893 45.7156 345.7271 1.00272418 434
Cosmos 2001
1 19796U 89 11 A 90186.63362320 -.00001019 00000-0 99999-4 0 5357
2 19796 63.2833 90.5450 7079780 319.9107 5.2698 2.00611881 10176
GPS BII-01
1 19802U 89 13 A 90184.40091160 .00000016 00000-0 99999-4 0 1374
2 19802 55.0539 196.7762 0054553 166.1778 194.0200 2.00644186 10070
Akebono
1 19822U 89 16 A 90184.70539514 .00023691 00000-0 15721-2 0 6684
2 19822 75.1431 230.7406 4173312 211.2530 115.4717 7.11848521 1017
Meteor 2-18
1 19851U 89 18 A 90185.15776685 .00000105 00000-0 89537-4 0 2533
2 19851 82.5206 214.9347 0013581 324.3790 35.6458 13.83986438 67912
TDRS 3
1 19883U 89 21 B 90186.00000000 -.00000234 00000-0 99999-4 0 1433
2 19883 0.1901 75.9757 0001557 125.7613 40.4129 1.00269791 75136
GPS BII-02
1 20061U 89 44 A 90184.12958865 -.00000033 00000-0 00000 0 0 1426
2 20061 54.7432 15.2116 0086329 173.7237 186.4263 2.00485127 7815
Nadezhda 1
1 20103U 89 50 A 90184.92591165 .00000062 00000-0 59920-4 0 1548
2 20103 82.9605 272.6577 0038093 354.4497 5.6233 13.73598240 50010
GPS BII-03
1 20185U 89 64 A 90182.55866662 .00000016 00000-0 99999-4 0 1311
2 20185 54.8981 197.6740 0023486 163.6952 196.4181 2.00625058 6354
Activnyi
1 20261U 89 80 A 90186.77308442 .00000881 00000-0 27562-3 0 5915
2 20261 82.5954 216.7635 1256924 296.4351 51.3192 12.43787331 34901
Activnyi RB
1 20262U 89 80 C 90185.21875301 .00000282 00000-0 87287-4 0 2505
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2 20262 82.5955 217.8142 1260202 300.2064 48.0039 12.43219206 34710
Magion 2
1 20281U 89 80 B 90186.73826546 .00001091 00000-0 34065-3 0 5867
2 20281 82.5941 216.7058 1256441 296.3585 51.3875 12.44050305 34903
GPS BII-04
1 20302U 89 85 A 90184.38116669 -.00000028 00000-0 99999-4 0 1351
2 20302 54.6284 316.4146 0032915 317.7187 42.0332 2.00372632 5191
Meteor 3-3
1 20305U 89 86 A 90185.09823028 .00000045 00000-0 10126-3 0 1608
2 20305 82.5533 206.0657 0014622 291.1921 68.7663 13.15861166 33172
COBE
1 20322U 89 89 A 90185.10631891 .00004609 00000-0 30151-2 0 1426
2 20322 99.0176 195.1430 0008759 326.0521 34.0094 14.02520168 31861
Kvant-2
1 20335U 89 93 A 90185.61909663 .00023449 00000-0 26303-3 0 2896
2 20335 51.6131 242.7994 0010159 104.8469 255.4309 15.62483724 34486
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1 20361U 89 97 A 90182.59292898 .00000015 00000-0 99999-4 0 847
2 20361 54.9847 139.7813 0063901 47.9093 312.9006 2.00581291 4018
SPOT 2
1 20436U 90 5 A 90187.06235305 -.00000330 00000-0 -14622-3 0 2638
2 20436 98.7345 261.3149 0001070 76.7826 283.3400 14.20014876 23427
UO-14
1 20437U 90 5 B 90185.19502530 .00000270 00000-0 12340-3 0 1745
2 20437 98.6973 261.2539 0012398 104.9649 255.2960 14.28649049 23296
UO-15
1 20438U 90 5 C 90185.08182632 .00000189 00000-0 83864-4 0 996
2 20438 98.7010 261.1233 0011119 102.2877 257.9548 14.28387788 23272
PACSAT
1 20439U 90 5 D 90185.18358906 .00000241 00000-0 11194-3 0 903
2 20439 98.7037 261.3512 0012717 103.2210 257.0400 14.28753136 23295
DO-17
1 20440U 90 5 E 90185.24914985 .00000263 00000-0 12064-3 0 942
2 20440 98.7035 261.4266 0012939 103.4420 256.8212 14.28799640 23303
WO-18
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2 20441 98.7034 261.4353 0013505 104.5773 255.6912 14.28895732 23306
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1 20442U 90 5 G 90185.22932602 .00000240 00000-0 11112-3 0 946
2 20442 98.7030 261.4448 0013820 104.3065 255.9658 14.28964845 23302
GPS BII-06
1 20452U 90 8 A 90182.68216293 .00000001 00000-0 99999-4 0 785
2 20452 54.5667 255.3949 0027124 44.7228 315.5591 2.00873281 3135
MOS-1B
1 20478U 90 13 A 90187.10721954 .00000177 00000-0 15712-3 0 3312
2 20478 99.1901 257.2486 0000990 64.9827 295.1460 13.94825416 20776
DEBUT
1 20479U 90 13 B 90185.08503568 .00000073 00000-0 21269-3 0 919
2 20479 99.0369 228.4026 0541364 10.3474 350.8266 12.83158679 18915
FO-20
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1 20480U 90 13 C 90185.08801266 -.00000039 00000-0 -58451-4 0 904
2 20480 99.0374 228.3994 0541312 10.3887 350.7896 12.83138244 18911
MOS-1B R/B
1 20491U 90 13 D 90187.10172609 .00000865 00000-0 16781-2 0 951
2 20491 99.0446 234.2411 0471114 347.0866 11.8415 13.02758627 18863
Soyuz TM-9
1 20494U 90 14 A 90187.02613693 .00020373 00000-0 22904-3 0 1861
2 20494 51.6156 235.6948 0008811 109.3888 250.8046 15.62539712 22614
LACE
1 20496U 90 15 A 90186.18598143 .00003761 00000-0 23538-3 0 1857
2 20496 43.0991 223.8355 0013277 110.4738 249.7581 15.10807037 21248
RME
1 20497U 90 15 B 90187.09108678 .00009367 00000-0 26393-3 0 1871
2 20497 43.1069 189.4278 0014671 107.2596 252.9869 15.36536273 21741
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1 20508U 90 17 A 90185.06048061 .00000053 00000-0 49909-4 0 1131
2 20508 82.9515 47.4666 0043541 301.1065 58.5821 13.73217305 17327
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1 20510U 90 18 A 90187.07813045 .00001878 00000-0 28674-3 0 1984
2 20510 82.5271 80.3323 0018845 209.0226 150.9994 14.73240920 18852
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1 20523U 90 21 A 90187.02523188 -.00009563 00000-0 -70606-3 0 2011
2 20523 28.3438 140.1336 0017249 28.2528 331.9058 15.02698843 17283
GPS BII-07
1 20533U 90 25 A 90181.37170140 -.00000032 00000-0 00000 0 0 492
2 20533 55.1078 15.4021 0036036 99.9760 260.4636 2.00549200 1866
Offeq 2
1 20540U 90 27 A 90187.04358143 .04205311 -81582-4 19569-2 0 2048
2 20540 143.1731 274.7202 0202962 78.6052 283.8524 15.88495705 13745
PegSat
1 20546U 90 28 A 90186.56646260 .00000077 00000-0 53998-5 0 1361
2 20546 94.1166 224.8651 0147990 265.7331 92.7391 15.00570864 13596
HST
1 20580U 90 37 B 90187.05941761 .00002335 00000-0 25413-3 0 1164
2 20580 28.4714 129.5212 0006826 330.0571 29.9869 14.84546267 10782
Cosmos 2077
1 20604U 90159.11959646 0.00895918 40743-4 30538-3 0 857
2 20604 62.8254 330.1747 0057360 101.0778 259.6824 16.20610237 5055
1990 043B
1 20608U 90 43 B 90163.07909590 .00000913 00000-0 16762-3 0 270
2 20608 89.8877 194.8050 0113706 163.3438 197.1583 14.60807011 4879
1990 043C
1 20609U 90 43 C 90171.49996653 .00002673 00000-0 49253-3 0 346
2 20609 89.8845 194.6763 0115406 134.7122 226.3597 14.61070356 6131
Cosmos 2078
1 20615U 90 44 A 90171.78867040 .00183402 60436-5 15216-3 0 1047
2 20615 69.9841 315.4552 0054706 133.3475 227.2649 16.10297192 5865
Cosmos 2079
1 20619U 90 45 A 90183.18162415 -.00000015 00000-0 99999-4 0 666
2 20619 64.8990 38.4694 0021232 211.7782 148.1393 2.13102858 940
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Cosmos 2080
1 20620U 90 45 B 90170.62952013 -.00000015 00000-0 99999-4 0 507
2 20620 64.8743 38.9184 0008637 40.2121 319.9150 2.13103990 681
Cosmos 2081
1 20621U 90 45 C 90175.84977191 -.00000015 00000-0 99999-4 0 488
2 20621 64.8983 38.7309 0011927 198.4009 161.6165 2.13101327 794
1990 045E
1 20623U 90170.70161879 -.00000015 10000-3 0 305
2 20623 64.8836 38.9024 0015879 342.3694 17.6368 2.13413552 688
Cosmos 2082
1 20624U 90178.33809439 .00000248 00000-0 15642-3 0 499
2 20624 71.0027 289.2272 0005895 345.8847 14.2115 14.12184586 5101
1990 046B
1 20625U 90 46 B 90176.75202607 -.00000199 00000-0 -94929-4 0 175
2 20625 71.0012 292.4176 0016855 297.5224 62.4185 14.13303811 4886
Kristall
1 20635U 90 48 A 90186.96218887 .00026880 00000-0 29966-3 0 642
2 20635 51.6129 236.0143 0011441 115.6906 244.5695 15.62540586 5574
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1 20638U 90 49 A 90187.00592365 .00002308 00000-0 21651-3 0 291
2 20638 52.9885 326.8089 0015955 44.1557 316.0698 14.97741876 5108
1990 049B
1 20639U 90 49 B 90186.77313651 .00012056 00000-0 52549-3 0 363
2 20639 52.5158 315.1529 0074503 358.3877 1.6875 15.20114840 5158
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1 20640U 89100 N 90164.84157702 .00302012 00000-0 12684-1 0 287
2 20640 73.5282 100.1213 0015575 186.1766 174.0874 15.21911966 25589
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1 20643U 90 51 A 90183.98945381 -.00000134 00000-0 99999-4 0 155
2 20643 0.1624 277.6581 0005140 143.5349 298.8135 1.00262305 189
1990 051B
1 20644U 90 51 B 90182.91673508 .00807612 27630-3 13249-2 0 368
2 20644 27.2733 17.0581 0079457 357.7788 2.3356 15.96061898 3129
1990 051C
1 20645U 90 51 C 90185.27926440 .00140977 27065-4 56831-3 0 202
2 20645 27.1803 160.5705 7480379 191.3138 129.8867 2.08935230 449
Molniya3-38
1 20646U 90 52 A 90185.65406753 .00000132 00000-0 23586-4 0 246
2 20646 62.8663 224.3298 7416217 280.1251 11.0360 2.00630773 467
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1 20647U 90 52 B 90184.08667131 .05890247 41323-4 89674-3 0 461
2 20647 62.8323 149.6397 0047223 131.5467 229.0652 16.29989804 3183
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1 20648U 90 52 C 90179.29475803 .05032304 42918-4 16574-3 0 396
2 20648 62.8106 167.9614 0034014 117.7423 242.9410 16.40222999 2420
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2 20657 82.5899 51.2533 0085258 180.3530 179.7758 15.71432514 2144
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1 20659U 90 54 A 90186.71567025 -.00000198 00000-0 99999-4 0 165
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2 20663 62.8058 126.8224 0123587 6.2301 354.0182 14.66758372 2038
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1 20664U 90 55 B 90183.82883180 .00758670 11984-4 10951-2 0 175
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1 20665U 90 55 C 90183.43125760 .00938006 36291-4 11109-2 0 151
2 20665 62.8583 132.2405 0253838 123.0236 239.6370 15.68275020 1654
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1 20666U 90 55 D 90178.08894458 .00001375 00000-0 23276-3 0 114
2 20666 62.7944 154.5549 0118778 11.6137 348.7643 14.69449759 764
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1 20667U 90 56 A 90185.32207715 -.00000226 00000-0 99999-4 0 105
2 20667 0.3858 258.0016 0023216 328.6423 133.1539 1.00266808 131
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1 20669U 90 56 C 90185.90948695 .00004319 00000-0 19052-2 0 83
2 20669 24.2744 260.2294 7414417 7.8646 359.2800 2.10770352 242
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1 20670U 90 57 A 90183.04636009 -.00000050 00000-0 -50471-4 0 73
2 20670 82.5475 276.8747 0014659 243.7424 116.2234 13.83835295 578
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1 20671U 90 57 B 90180.94905447 -.00000305 00000-0 -27867-3 0 47
2 20671 82.5468 278.5384 0013854 252.1849 107.5915 13.84156905 280
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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4051. Re: Scanner Antenna / Discone / Technical questions (long)

Newsgroup: rec.ham-radio
Date: 1990-07-07 16:00:05 UTC
From: swood@vela.acs.oakland.edu
Message-ID: <1968@vela.acs.oakland.edu>
Source record: 10358
Cross-posted to: rec.ham-radio,rec.shortwave

In article <1990Jul4.172853.22307@axion.bt.co.uk> bcollins@axion.bt.co.uk (bill collins) writes:
>
>Quote from a radio handbook (not sure which one, I only have a copy of
>the pages relating to discones, log-periodics and helicals to hand):
>
>"The `discone' antenna ...

From Richard Orr. Radio Handbook. I used that as one of the main sources for the article that I did on the Discone

swood
--
OK, who farted? | swood@vela.acs.oakland.edu
When you see Scott coming, | swood@vela.acs.oakland.edu
you can just sense trouble | swood@nucleus.mi.org
The Notorious Tre' | Scott Webster Wood

4052. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-07 20:56:10 UTC
From: gary@ke4zv.UUCP
Message-ID: <955@ke4zv.UUCP>
Source record: 10360

In article <+F-&_0+@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>
[lots of stuff deleted]
>
>...or because all his available funds are tied up elsewhere, like a real
>Unix computer to put on the packet network.
>
>Face it, Gary...not all hams are rich enough to put money into
>high-powered radios for every car and base stations for every band. Some
>of us have other things to do for the advancement of the art.
>

Ok Jay, I admit I have a profound dislike for fighting marginal signals on a local repeater. Most of these problems seem to be related to using a HT with rubber duck in areas where they just don't work well.

I agree that not all hams are rich, Lord knows I'm not, but surely any ham worthy of the name can build a simple quarter wave ground plane antenna and permanantly fix it in a good spot at his home. And any ham should be able to install an outside antenna on his car and use it instead of the terribly inefficent rubber duck INSIDE the car.

There seems to be a mentallity in ham radio today that goes "The manufacturer put a duck on my radio and I don't dare change it."

If you have to rock back and forth in your easy chair to find the "hot spot" you need a better antenna and/or more power to properly work THAT repeater.

Gary KE4ZV

4053. HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-07 21:32:19 UTC
From: millard@eos.UUCP
Message-ID: <6897@eos.UUCP>
Source record: 10359
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

The following was posted to Packet Radio by Ed Mitchell, formerlly
of the San Francisco bay area and W6AOD, now of Washington state
and KD7NM. Ed is perceptive and a good writer. I hope you on
the net will give this some serious thought.

73s
Edgie

****
* Intelligent people talk about ideas. | Standard disclaimer(s) *
* Average people talk about things. | Millard J. Edgerton, WA6VZZ *
* Small people talk about other people. | millard@eos.arc.nasa.gov *
****
* Fax 415-604-3950 | Voice 415-604-3480 *
* Employed by Sterling Software at NASA Ames Research Center. *
****

----------begin----------

Date: 01 Jul 90 18:11
From: KF7VY@KD7NM
To: ALL@ALLUSW
Subject: Hams to lose UHF freq? 1/5
Path: WD6CMU!KA6FUB!N6ECP!AL7IN!WB7VMS!N7DXT!N7JQK!W0LVJ!KD7NM

Hams to lose all UHF Freqs?
July 1, 1990

Sorry for the alarmist title but often it takes a knock
on the head to wake up.

As you know, ham radio recently lost 2 MHz of spectrum at
220-222 MHz. But did you know that in roughly the last TEN
years, ham radio lost an astounding 91 MHz! That works out
to 9 MHz per year from 1980 to 1989, making 1989's loss of
220-222 MHz a very good year for ham radio.

Between 1980 and 1989, the U.S. Amateur Radio Service
lost forever, a total of 117 MHz of spectrum in the VHF/ UHF
region alone:
420-430 MHz north of 'Line A'.
1215-1240 MHz .
2310-2390 MHz.
220-222 MHz.
The only good news is that we did get 902-928 MHz, for a net
loss of 'only' 91.00 Mhz.

What is so frightening about all of this is that the strong arguments we presented to the FCC to save 220-222 MHz were not good enough - and do you seriously believe that we can provide better arguments to retain our holds at 902, 1240, 2400 or even 440 MHz?

Fast Approaching Demands on the Spectrum

Cellular telephones and high definition TV (HDTV) have all received a great deal of press regarding their growth and demands on spectrum. Lesser known are a number of new technologies that will start to come on line during the coming decade and which will demand their own frequency allocations.

Coming soon is the Personal Communications Network, which is best described as a 'micro cellular' system. The idea is that cells will shrink to less than 1 kilometer in size (in some cases maybe a hundred meters) as this is the only way that huge numbers of portable telephones can be accomodated. Conceptually every city block, every shopping center, every business will have a cell site. The single 'cordless phone' that you use at home will operate at your business, at the airport or while shopping. PCN is for real: A U.S. company has received FCC approval to build a pilot system on the east coast. Some systems are already operating in the U.K.

Even cellular is already maxed out in many areas. Today there are 3.5 million cellular subscribers with forecasts that the number will reach 28 million subscribers by 1997. That means that roughly 1 out of every 10 people in the U.S. will have a cellular telephone.

Date: 01 Jul 90 18:25
Message-ID: <2448@KD7NM>
From: KF7VY@KD7NM
To: ALL@ALLUSW
Subject: Hams to lose UHF freq? 2/5
Path: N6QMY!W8GEC!KA6FUB!N6ECP!AL7IN!WB7VMS!N7DXT!N7JQK!W0LVJ!KD7NM

The cellular industry is looking to new technologies, especially digital cellular that will enable them to multiplex multiple signals, and hence, make better use of the available spectrum. Undoubtedly, they will want more spectrum.

Motorola has announced plans to build a world-wide satellite and terrestrial based cellular phone system. Using a large number of low earth orbit satellites, the system will provide worldwide telephone service from rural and remote areas of the entire world. When the user travels into a metropolitan area, the system will automatically switch from satellite

operation to the terrestrial cellular phone system.

Before the end of this decade, Digital Audio Broadcasting will likely make its debut. Just as FM broadcasting has nearly replaced AM radio, DAB may do the same, providing CD quality audio broadcasts. This digital broadcasting system will soon be seeking a dedicated frequency allocation, allegedly in the 1.2 to 2.0 GHz range.

And if that were not enough, virtually every single radio service currently in existence is seeking additional allocations.

The Impact

Last month (June 21, 1990 news report), Rep. Edward J. Markey (D-MA) introduced legislation forcing the Department of Defense to give up some of its frequencies. On June 18th, the House committee on Energy and Commerce unanimously approved a bill that would force the U.S. government to give up its hold on large segments of spectrum that it now holds.

Is this good or bad? Considering that ham radio shares frequency allocations with military radar allocations (go take a look at Part 2 of the FCC rules), this means that ham radio could easily lose significant chunks of spectrum. Only 430-440 MHz is an international ham radio allocation; 440-450 is US domestic only and is shared with military radar, as are 1240 to 1300 MHz.

Meanwhile, the Bush adminstration has gone on record saying that it favors the concept of selling 'access rights' to the spectrum. Industry analysts have said that market prices for 1 megahertz of prime spectrum might easily fetch 8 to 10 BILLION DOLLARS. Its hard to see how ham radio can compete with such dollar valued market forces.

Date: 01 Jul 90 18:25
Message-ID: <2448@KD7NM>
From: KF7VY@KD7NM
To: ALL@ALLUSW
Subject: Hams to lose UHF freq? 3/5
Path: N6QMY!W8GEC!KA6FUB!N6ECP!AL7IN!WB7VMS!N7DXT!N7JQK!W0LVJ!KD7NM

Today, approximately one half of the FCC's employees are lawyers. How much do you think the FCC's lawyers value ham radio's contributions to packet radio technology, low cost PACSAT satellite technology and other breakthroughs or even the unbelievably extensive public service of volunteer ham operators?

If all this isn't gloomy enough, restrictive antenna ordinances (the private ones NOT covered by PRB-1) are establishing defacto prohibitions on HF ham operations, at the same time that we are losing our VHF and UHF allocations.

Do we need VHF or UHF frequencies? You had better believe we do! Wide band modes such as ATV and high speed packet are only allowed at UHF frequencies. Packet networks and conventional voice repeater links and control circuits operate on these frequencies. Even if you do not personally use these frequencies, chances are good that the FM voice repeaters or the packet BBS station that you rely upon, all use these frequencies. Further, our future growth and experimentation of new technologies absolutely depend upon the availability of adequate spectrum. Even if you don't see the personal need for these frequencies, the Amateur Radio Service as whole is utterly dependent on these allocations for its future existence.

The Solutions?

Part 15 devices to save us?

Most hams do not realize that virtually all of our VHF and UHF bands are shared allocations, generally allocated to other services such as military radar. In effect, these are 'junk' bands that are incapable of serving the needs of paying customers.

We also share several UHF and SHF bands with unlicensed Part 15 devices, and strangely, the 'junk' nature of these bands may actually save them for ham radio. For example, 902-928 and 2400-2450 MHz are shared 'junk' allocations used also by Part 15 and Industrial, Scientific and Medical transmitters. For example, ordinary microwave ovens operate at 2450 plus or minus 50 MHz.

Right now, nearly a dozen companies are selling or will shortly be selling 1 watt high speed data transceivers in the 902 MHz band. These units operate spread spectrum and have claimed ranges of up to 10 miles; external antennas are allowed. Meanwhile, other companies are building digital cordless telephones on top of this technology. Since these data transceivers operate at a 200 kbps rate, its easy to use them as a basis for long range digital cordless telephones. I suspect we will see the first digital cordless phones, with a 2 to 5 mile range, costing $400-$500 dollars by mid-1991, with shipping units by Christmas of 1991.

Other applications include non spread spectrum, very short range, wireless connections between VCRs and TVs throughout

the house.

Date: 01 Jul 90 18:32
Message-ID: <2451@KD7NM>
From: KF7VY@KD7NM
To: ALL@ALLUSW
Subject: Hams to lose UHF freq? 4/5
Path: WD6CMU!W6CUS!KA6FUB!N6ECP!AL7IN!WB7VMS!N7DXT!N7JQK!W0LVJ!KD7NM

Fortunately, the FCC made it very clear that the Part 15 devices are 3rd class citizens here and must put up with interference. Especially noteworthy is that these Part 15 devices will be interfering with each other! In effect, the FCC has recognized that these are 'junk' bands and this may actually help save these bands for ham radio use too (but note that we may already have lost access to 920-928 MHz - see below).

Furthermore, there isn't any reason why a licensed ham radio operator couldn't add a 50 watt amplifier to one of these units and end up with a low cost, mass produced high speed digital data network - unless of course, the FCC bans the sale of 900 MHz amplifiers, just as they banned the sale of 10/11 meter amplifiers!

Increase our Numbers

Ham radio must increase its number of licensees. Between 1980 and 1990, ham radio grew at an average annual growth rate of 2%. That compares to growth in other radio services of many tens of percent per year. Since we are all competing for the same spectrum, guess who wins the request for more spectrum and guess who loses?

The issue over a no-CW class of ham radio license isn't one over whether or not a CW-illiterate license will obliterate ham radio. The choice is whether or not we want to share our VHF and UHF frequencies with licensed ham operators who have passed a technical exam but no CW test, versus losing those frequencies within the next few years to Landmobile and other services who are starving for allocatinos. Most of us would at least like to continue to have access to some of that spectrum versus having industry slam the door in our faces.

The FCC, actually, has been extremely supportive of ham radio. But, based on our relatively low numbers, they cannot continue to justify our radio allocations against the demands of other services. The CW-illiterate license proposal may be their last opportunity for the Amateur Radio Service to kick us into significant growth. If this fails, or if the growth fails to materialize, there are literally hundreds of other

services waiting for those frequencies.

The ICOM advertising department has perhaps seen another alternative to help spurn ham radio growth: during the past year or so, their ads have deliberatly emphasized hamming as an activity appropriate for the entire family. Not just Dad, but Mom and the kids too. Maybe the view of hamming as a life-of-leisure, sit back and talk to the world for hours on end, has become dated. Today, when Dad and Mom both work just to meet the mortgage payments, hamming is way to keep in touch and to enjoy social contact on the daily commute. We need to explore new concepts as to what, exactly, ham radio is going to become in the coming decade and in the next century.

Date: 01 Jul 90 18:39
Message-ID: <2452@KD7NM>
From: KF7VY@KD7NM
To: ALL@ALLUSW
Subject: Hams to lose UHF freq? 5/5
Path: WD6CMU!KA6FUB!N6ECP!AL7IN!WB7VMS!N7DXT!N7JQK!W0LVJ!KD7NM

Turn the ARRL into a political organization?

The ARRL must increasingly turn itself from a fraternal organization to a politically active organization, similar to the Sierra Club or the Aircraft Owner's and Pilots Association. These organizations both do an excellent job of motivating their memberships to write Congressman and to take an active role in preservering either the environment or access to the nation's airspace, respectively. The ARRL is currently very poor in this regard and needs to focus attention in QST and elsewhere on the real life political issues facing ham radio today. Most hams are largely oblivious to the technologies and political forces that will be raining upon us during the next decade.

The ARRL is our only national representative. I fear that in the next 1 to 2 years, ham radio may lose additional UHF frequencies (portions of 902-928 MHz, especially 1240-1300 MHz, very likely 420-430 over the rest of the U.S., and potentially even 440-450 if military radar goes away) and that this could result in a backlash against the ARRL, and the rise of a second national ham radio organization. It is not at all clear that 2 voices would be better than one.

What to do?

I strongly urge you to discuss these issues with your ARRL Division Director and ARRL Section Manager and certainly

other ham operators. Let's get the ball rolling and let's
meet the challenges of the 1990's head on. Most of all - DO
SOMETHING! Ask yourself that famous question: What are you,
personally, doing to help promote Amateur Radio?

I welcome your thoughts and comments,
Ed Mitchell
KF7VY @ KD7NM.#WWA.WA.NA.USA

P.S. During the weeks that I have written this note, the
'hot' topics on the packet BBS network have been:
- code versus no code
- handicapped access without 13 or 20 wpm code
- closed repeaters
All of these are important issues. However, I fear that we
are putting an enormous amount of emotional enery into
arguing about the quality of each tree - while the entire
forest is rapidly being cut down to make way for a new
development!

Please, let's get some constructive dialogue going on the
basic issue of ham radio existing at all!

----------END...AR----------

PLEASE REpost as you choose.....
tnx,

****
* Intelligent people talk about ideas. | Standard disclaimer(s) *
* Average people talk about things. | Millard J. Edgerton, WA6VZZ *
* Small people talk about other people. | millard@eos.arc.nasa.gov *
****
* Fax 415-604-3950 | Voice 415-604-3480 *
* Employed by Sterling Software at NASA Ames Research Center. *
****

4054. Re: Preliminary Agrement [sic] on 7 MHz for WARC-92

Newsgroup: rec.ham-radio
Date: 1990-07-07 23:02:29 UTC
From: parnass@cbnewse.att.com
Message-ID: <1990Jul7.230229.26752@cbnewse.att.com>
Source record: 10361

In article <315.2693B42C@w8grt.fidonet.org>, jim.grubs@w8grt.fidonet.org
(Jim Grubs) writes:

> ... I know that the
> U.S. government, among others, makes use of that 6950-7000 slot.

Here are a few more stations in that range:

6.9460 CKN_______Canada: Canadian Forces Maritime Radio, navigational bul
letins, cw
[Vancouver, BC] (B. Parnass)

6.9500 RJK78_____Kiyev meteo, fax
[Kiyev, USSR] (others)

6.9700 KC2XGF____Woods Hole Oceanographic, experimental
[Atlantic Ocean] (govt recds)

6.9725 RXO_______USSR: Embassy
[Warsaw, Poland] (magazines)

6.9815 CCS_______Chile: Chilean Navy, sending coded msg in 5 letter group
s, cw, 12/02/86 @0215Z
[Santiago, Chile] (B. Parnass)

6.9840 GIC26B____Associated Press, rtty 50 baud 425Hz rev 1758-0605Z
[London] (magazines)

6.9930 CVK69_____Associated Press, rtty 50 baud rev 2307-0028Z
[Montevideo, Uruguay] (magazines)

--
==========
Bob Parnass, AJ9S - AT&T Bell Laboratories - att!ihuxz!parnass (708)979-5414

4055. Re: Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-08 00:20:12 UTC
From: markz@ssc.UUCP
Message-ID: <877@ssc.UUCP>
Source record: 10364

In article <16324@frog.UUCP>, john@frog.UUCP (John Woods) writes:
> In article <24981@bellcore.bellcore.com>, jdn@casux4.uucp (jonathan nagy) writes:
> > On the other hand, I am reminded of the quotation:
> > "No one ever lost money underestimating the intelligence of the
> > American Public." Could this also be true for the Amateur
> > Radio public at large and CQ's readership?
>
> Well, the "Big Three" US automakers lost billions of dollars doing just
> exactly that, once they had carefully crafted the market research
> organizations in such a way that they confirmed exactly what was already
> believed.

Closer to home, the Ziff-Davis company tried 2 or 3 times to "broaden"
the appeal of "Popular Electronics". Since the "Modern Electronics" staff
was formed by veterans of this, maybe the editor at CQ should talk to
the people across the hall.

Mark Zenier
markz@ssc.uucp

4056. loss of frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-08 00:51:20 UTC
From: oo7@ut-emx.UUCP
Message-ID: <33530@ut-emx.UUCP>
Source record: 10362

millard@eos.UUCP (Millard Edgerton) says:

The following was posted to Packet Radio by Ed Mitchell, formerlly [sic]...

As you know, ham radio recently lost 2 MHz of spectrum at
220-222 MHz. But did you know that in roughly the last TEN
years, ham radio lost an astounding 91 MHz! That works out
to 9 MHz per year from 1980 to 1989, making 1989's loss of
220-222 MHz a very good year for ham radio.

Between 1980 and 1989, the U.S. Amateur Radio Service
lost forever, a total of 117 MHz of spectrum in the VHF/ UHF
region alone:
420-430 MHz north of 'Line A'.
1215-1240 MHz .
2310-2390 MHz.
220-222 MHz.
The only good news is that we did get 902-928 MHz, for a net
loss of 'only' 91.00 Mhz.

This is undoubtedly a serious problem, but it's downright silly talking
about how many MHz we have won or lost. Fractional frequency is all that
counts. I would gladly give up 20 MHz of allocation around 2300 MHz in
return for even a solid 20 MHz elsewhere - e.g. everything from 10-30 MHz.
Or even better, everything from 1-21 MHz (0-20 MHz would be fine too).

If you believe this line of reasoning, the powers that be could wipe out
our 14-14.35 MHz band and give us 2390-2391 instead - "hey look, we gave
you nearly 3 times as many MHz, be grateful".

I don't mean to belittle the problem, but I can't read >300 lines of
posting that starts out with an argument like that. It's just asking
not to be taken seriously.

end pet peeve mode...

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
oo7@emx.utexas.edu

4057. Dentron dummy antenna oil leak warning

Newsgroup: rec.ham-radio
Date: 1990-07-08 01:41:42 UTC
From: rfc@briar.Philips.Com
Message-ID: <103123@philabs.Philips.Com>
Source record: 10365

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
29945 BF 2084 1 05-Jul 2138 K2OL 19949_WA2UMX NYBBS@NYNET ()

TO : ALL
FROM : WB2KLD
RE : WARNING

WARNING: OIL LEAKAGE FROM DENTRON CORPORATION "BIG DUMMY" DUMMY LOAD. DONT LET OUT OF SIGHT BE OUT OF MIND! MY DENTRON "BIG DUMMY" DUMMY ANTENNA, A ONE GALLON METAL CONTAINER SIMILIAR TO A PAINT CAN,FILLED WITH A SILICON BASED COOLING OIL, HAS SAT TUCKED UNDER THE OPERATING POSITION DESK. A ROTARY SWITCH BROUGHT IT ON LINE WHEN NEEDED FOR TUNING OR TESTING. RECENTLY, THE RIG WAS ERRATIC WHEN OPERATED INTO THE DUMMY LOAD. PHYSICAL INSPECTION REVEALED A VERY LIGHT CAN AND AN OIL SOAKED RUG. THE CAN HAD CORRODED THRU FROM THE INSIDE, POSSIBLY A POOR TIN COAT FROM THE MANUFACTURE OF THE CAN. THIS IS NOT, REPEAT NOT, A RUST THRU FROM THE OUTSIDE OF THE CAN! IF YOU OWN SUCH A DEVICE, I STRONGLY SUGGEST YOU PLACE THE DUMMY LOAD INTO A PLASTIC BUCKET OR OTHER CONTAINER OF VOLUME ENOUGH TO HOLD THE CAN AND ITS CONTENTS. MY CAN HELD A SILICON BASED COOLANT. VERY EARLY UNITS, OR HOMEBREW UNITS OF EARLY VINTAGE MAY CONTAIN PCB LADEN COOLANT! USE ALL APPLICABLE CAUTION. THE HEATH COMPANY PRODUCED A SIMILIAR PRODUCT CALLED A "CANTENNA". WIDEST DISSEMENATION THRU THE AMATEUR COMMUNITY IS REQUESTED. TOM VALOSIN WB2KLD SCHOHARIE COUNTY RACES RADIO OFFICER/ARRL COUNTY E.C.

^^^ END of message from WB2KLD

4058. Autek QF-1A audio filter manual needed

Newsgroup: rec.ham-radio
Date: 1990-07-08 02:00:39 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9007080201.AA00937@uunet.uu.net>
Source record: 10363

I N T E R O F F I C E M E M O R A N D U M

Date: 7-Jul-1990 03:53pm HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS%UCSD.EDU@UUNET.UU.NET)

Subject: Autek QF-1A audio filter manual needed

Hi folks,

Just picked up an Autek Research QF-1A Audio Filter for a song...only problem was that the previous owner didn't have any docs for it. Anybody out there in netland have a manual/schematic for this little jewel?

E-mail me direct at 1843EIE"at"Hickam-EMH.AF.MIL. All copying and postage costs gladly repaid.

73,

Jeff Miller WD6CQV/KH6 AFA8JM

4059. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-08 02:09:28 UTC
From: tad@ssc.UUCP
Message-ID: <878@ssc.UUCP>
Source record: 10366

>
> Could someone please explain to me through what magic a "good ground"
> can cure/prevent TVI? I have seen this claim many times through the
> years, sometimes in reputable ham publications, but I believe it to be
> a total crock.

Why?
>
> For one thing, unless your ham shack is sitting right at ground level
> with a VERY short ground cable, the equipment won't be at RF ground in
> any case (4 feet is 1/8 wavelength at 30 MHz). On VHF/UHF, where the
> TV channels are, it's even worse.

I have my radio room in the corner of the basement for just this reason.
My ground system is a series of commercial ten foot ground rods in treated
soil, just outside the basement wall. They are tied together with wide
copper strap, which runs through the wall, and is bolted to the chassis of
my linear amplifier, antenna tuner, and exciter.

You will never get your ground connection EXACTLY AT ground, but the
closer the better.
>
> For another thing, so what if you COULD get the station equipment right
> at RF ground potential. It's the antenna that does most of the radiating,
> if your antenna system is working correctly.

Let us suppose that you have various filters in the signal chain, including
a bandpass filter at the exciter and a low pass filter between the
exciter and the final amplifier, and at the output of the linear. Part of
those filters involve capacitors which shunt energy to ground. Isn't it
better to have GROUND connected to the ground side of the filter, rather
than nothing at all?

>
> Seems to me that shielding, filtering, and reducing the RF field in the
> vicinity of the TV set and antenna are the things to try.
> Grounding is a red herring.
>

Why?

How effective is a filter which includes a ground as part of the design,
if you leave it UNGROUNDED?

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA

Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4060. Re: Worldband radios

Newsgroup: rec.ham-radio
Date: 1990-07-08 05:39:35 UTC
From: richard@hpfcdc.HP.COM
Message-ID: <7880178@hpfcdc.HP.COM>
Source record: 10357

Fred Ducharme writes:
> Hello I wasn't sure if this was the right place to submits this but...
I'd guess the shortwave group would be better. :-)

> I was thinking of buying my dad Sony's new worldband radio, for the novice.
There are many Sonys. Were you thinking of the ICF-SW1S?

> At first glance it seemed pretty nice. My dad enjoys being aware of current
> events and also likes new toys. Is a world band radio a good way to satisfy
> these two needs????
The SW1 may be a great toy since it's sooooo small.
Shortwave listening can be lots of fun.

> Also, are there enough stations around the world which broadcast in English
> so that my father could understand them???
Yes. I think there are "enough",.
but I don't know if your father understands English :-)

> I would apprieciate it if someone could adress my questions
> Thankyou for your time
> Fred

I would also recommend getting him the book: "Passport to World Band Radio"
ISBN 0-914941-20-8 at your local book store. Don't be a fool -- buy it first,
before you buy the radio. (sorry about using the f word, but you really need
the book)

Richard Artz / N0LZR / 303-229-2036 / richard@hpfcww.fc.hp.com
(NO, I don't have a thing to do with the book, I just recommend it highly.)

4061. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-08 07:12:59 UTC
From: vtcqa@shamash.cdc.com
Message-ID: <23303@shamash.cdc.com>
Source record: 10367
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Lets get optimistic: Most of the stuff on the hf bands you hear is going to be replaced with satellite communications. I know for a fact that this is true for maritime mobile. Wouldnt an extra 10 or 15 mhz in the hf bands be a nice acquisition ?

4062. NEED HELP W/MOTOROLA MX330S !!!

Newsgroup: rec.ham-radio
Date: 1990-07-08 08:27:00 UTC
From: RHAREL%FAB8@SC.INTEL.COM
Message-ID: <9007080829.AA25478@ucsd.edu>
Source record: 10368

A few months ago I posted a message asking for help re: a Motorola MX330S
which I picked up at the Dayton Hamvention this year.
Someone was nice enough to answer - letting me know that it can be programmed
on the ham bands for free - however left no TELEPHONE NUMBER where I can get
hold of this person. The return address on E-Mail for some reason did not go
through.
The person who posted the reply was part of the Motorola Ham Group in Florida.
Are you reading this ??? Or if anyone out there in Net-Land can help with info
as to where I can program the PROM of the MX330S - Please let me know.
Thanks on 73,
Richard Harel
WB2JBS/4X1DA

4063. E-Mail via Radio/MicroWave?

Newsgroup: rec.ham-radio
Date: 1990-07-08 16:48:00 UTC
From: D1749@applelink.apple.COM
Message-ID: <5969518@AppleLink.Apple.COM>
Source record: 10369

Does anyone know of a cheap way to connect multiple sites (200-2000) within a 15 mile radius to a central site using radio/microwave are some other sort of technology? What I'd like to do is setup a multiline (16 lines) E-Mail System in Metro Manila, and have the modems (1200 baud is fine) connect to some sort of radio/microwave rcver/txmitter, that sends data through the airwaves onto some low-cost (>$1000) rcver/txmitter at the remote end. Ideally, the system should work fine even during thunderstorms.

Why not just do the obvious thing and use phone lines? Because the average waiting time here (for a line) is about 5 years! And if you think that's bad, consider this: PLDT (phil. long distance tel.) service is so notoriously slow, phone lines have actually become a commodity and go for about US$1,500 per line. That's about 3x the income of an average Filipino! Why just today, I was talking to a friend who's had her application in since 1967 and only last week had the line allocated - honest!

If anyone has any suggestions, please send me some E-mail directly, as I haven't subscribed to this group!

thanks,
Joel Disini
Manila, Philippines
d1749@applink.apple.com

4064. Re: Remotely Tuned HF Beam Antenna

Newsgroup: rec.ham-radio
Date: 1990-07-08 17:43:55 UTC
From: tad@ssc.UUCP
Message-ID: <882@ssc.UUCP>
Source record: 10428

In article <3028@sunpix.East.Sun.COM>, gb@sunpix.East.Sun.COM (Gary Bishop - Sun Visualization Products) writes:
> The plan is to put up a three element beam cut for 20 meters. At the
> center of each beam element there will be a tuning unit with a
> variable capacitor that can be controlled from the shack. By tuning
> the elements it should be possible to achieve optimum operation (gain
> or fb ratio, not both simultaneously) on any frequency on the band.

My 3 element 20 meter Yagi has a director and reflector that are each a continuous piece of aluminum tubing. How would a variable capacitor tune these elements?

> If the tuning unit has sufficient range, it should be possible to
> operate the beam on 20, 17, 15, 12, and 10M by retuning the elements
> for proper resonance. The antenna would have increasing gain as
> frequency is increased.

To be effective, a Yagi requires precise spacing in terms of a fraction of a wavelength between each element. If I am using .18 wavelength spacing from the driven element to the director on 20, that becomes .36 wv on 10 meters. Also, my .507 wv driven element on 20 becomes over one wavelength long on 10, no matter how you tune it.

I see problems!

n>
> This brings up several implementation questions for further research.
>
> 1) What sort of tuning unit?

A MAGIC one! :)

>
> Any other ideas?

How about just buying a commercial triband Yagi with traps? Or perhaps that Mosley model that works all the WARC bands in between? It should work a LOT better!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4065. Re: Info-Hams Digest V1 #69

Newsgroup: rec.ham-radio
Date: 1990-07-08 19:41:00 UTC
From: CSMSCST@OAC.UCLA.EDU
Message-ID: <9007082120.AA20670@ucsd.edu>
Source record: 10373

> Okay experienced amateurs, I've a question for you. On the 4th, I was tuning
> around and found what my inexperienced ears thought was a beacon. It was a
> fast CW code that repeated. The details are:
> Freq: 6.477 mhz - CW (-2kc for USB and +2kc for LSB)
> Msg: VVVKPHQSX468121622MHZ (repeats over and over)
==========
> The correct parsing is:
>
> VVV (de) KPH QSX 4 6 8 12 16 22 MHZ
==========
> KPH is a ship-to-shore coastal station in California. I have
> found it on other frequencies also:
>
> RCA Global Communications, maritime/coastal, cw
> [Bolinas, CA]_______ 4.3560____KPH (govt recds
> " " 13.0020____KPH (B. Parnass
> " " 17.0165____KPH (B. Parnass
> " " 6.5005____KPH (B. Parnass

KPH is a maritime costal station located in the San
Francisco area. (Since the transmitters and receivers are
generally seperated by 10-200 miles for such stations,
"location" is not a single value.) Facilities at these
stations are often quite impressive; worth seeing if you
happen by one. These stations relay traffic (eg, telegrams)
to and from shipboard stations on a commerical basis. When
not in QSO with a ship, they generally transmit a continuous
loop of CQ or VVV, callsign, and the frequencies that they
are montioring. Thus, QSX 4 6 8 12 16 22 MHZ means KPH is
currently monitoring (and probably simulcasting) on its
assigned frequency in each of those 6 bands. Ships reply on
paired frequencies generally about 100-200 khz removed from
the shore frequency. Ship stations are generally half
duplex or breakin, while the shore station is generally full
duplex. The purpose of the loop is to allow a ship station
to select the frequency with the best signal at a given
time. (Wouldn't that be neat for working DX?) It also keeps
intruders off the frequencies. In addition to the CQ loop,
you will hear traffic lists (lists of 4-letter ship
callsigns) for whom the station is holding msgs, and weather
reports. While the CQ loop may be slow, most of these ops can
send and copy CW fast enough that it sounds like RTTY,
probably while eating lunch and carrying on a converstaion -
these guys are pros.

Unfortunately (at least for CW buffs), CW comms for maritime mobile services are rapidly dying out, having been replaced by low-skill automated RTTY and satellite comms. You will hear less and less of these stations in the future, and the MM ship-shore frequencies will probably be reallocated to other services.

For detailed info on these and other utility stations, I recommend Klingenfuss' book "Guide to Utility Stations", available from ham store and mailorder bookstores. For example, he lists about 23 frequencies for KFS. He has a callsign to location cross ref which is neat for figuring out where things you hear are. There is also a lot of freq allocation info, including ship/shore frequency pairing.

4066. Kenwood TS140s computer interface ?

Newsgroup: rec.ham-radio
Date: 1990-07-08 20:26:10 UTC
From: daveegan@dhw68k.cts.com
Message-ID: <1990Jul8.202610.2283@dhw68k.cts.com>
Source record: 10370

Hello fellow amateur/netters. In my quest to avoid "voodoo radio" as quoted by others, I've been seriously eyeing some information that came over the net in April, 1990. It was a quick and dirty sheet of parts needed to construct a computer interface for a Kenwood TS440s. The instructions told of the main parts needed, some various jumper changes, and the instructions to send the radio to control it from the computer. This originated from Mark C. DiVecchio - K3FWT and was put on the net by Thomas Brown - KA2UGQ.

My problem is: I have a Kenwood TS140s and am very inexperienced in designing stuff (electronics).

I hope somebody out there has done this hardware for the TS140s and can give me a little more help. I don't mind learning how to do it (that's why I'm interested), but I realize that my ignorance can cause damage. Software is my domain. If somebody has the tips, or wants to work through it with me, please mail me. If I anyone wants responses on what I find, please mail and I'll re-post to the Net.

Thanks in advance.
--
Dave Egan | Radio: N6XVZ
uucp: ...{spsd,zardoz,felix}!dhw68k!daveegan |
InterNet: daveegan@dhw68k.cts.com |
"I knew someone who went in for liposuction & left with a lobotomy"

4067. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-08 20:34:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500589@ux1.cso.uiuc.edu>
Source record: 10371

> Lets get optimistic: Most of the stuff on the hf bands you hear is going to
> be replaced with satellite communications. I know for a fact that this is
> true for maritime mobile. Wouldnt an extra 10 or 15 mhz in the hf bands be
> a nice acquisition ?

Let's get REALISTIC!

As most everything else slowly moves off shortwave, there will be lots of this spectrum for grabs. But the Shortwave Broadcasting service is going to end up with most of it. Hams themselves are going to get some, but nothing near 10 or 15 Mhz.

As a shortwave listener, I actually look forward to more SWBC spectrum. As a ham I'd also like to see us get more, even though my interest in shortwave is primarily as a listener. Nearly ALL of my hamming is on VHF and above.

However, amateur radio is going to be judged. Those who are making the decisions to allocate spectrum are surely not interested in allocating any spectrum to the "shout, cuss, and QRM" service. While VHF and up has these problems as well, we hear them in HF, and everyone else in the world does, too.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4068. ICOM R1 - The Final Chapter

Newsgroup: rec.ham-radio
Date: 1990-07-08 20:39:44 UTC
From: paulf@jessica.Stanford.EDU
Message-ID: <1990Jul8.203944.12979@portia.Stanford.EDU>
Source record: 10439
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Well, folks, I'm back from Japan, and I have a few things to report on the ICOM R1 story. First of all, if you go to Akihabara, you will not find an R1 for sale. You'll find a very few R1s as display models, with the price crossed out, and some kanji (usually written in red) amounting to "waiting list several months long". According to the manager at T-Zone, Akihabara as a whole receives fewer than a dozen R1s per week. JH1GNU and I went to about a dozen stores before giving up that weekend.

Thus, ICOM's pleas about inadequate production would seem to be substantiated. This does not rule out, of course, the rumors regarding UNIDEN's patent lawsuits, but at least ICOM is being truthful, if not candid.

For those of you still salivating, here are the receiver specs:

2-25 MHz:
AM 1.6uV
FM 0.79uV
WFM 6.3uV

25-905 MHz:
AM 0.79uV
FM 0.4uV
WFM 3.2uV

The PLL does lock, and the radio does work from 100KHz to 1.3GHz.

That would be all I had if I hadn't stopped again in Akihabara on my way to Narita. It was raining heavily, and I stopped into this little place by the tracks just to get out of the rain. I strolled down the aisles, looking at all the parts, and came across an R1 on display. Just for grins and giggles I decided to ask about it, in my best Japanese (which is very bad). The kid behind the counter smiled, and pulled out a calculator. "Cash?" he asked. "VISA" I replied. After putting on the 3% consumption tax, it came to Y47000. Naw, he's just teasing me, I thought. "In stock?" I asked. "Hai". "Box?" He digs out the box, I look in, and there it is. "Sold", I said. So, for somewhat less than $300, I nabbed one.

I'll put out a real review in about a week or so, but I have noted something of an intermod / ACI problem. However, it does pull in Radio Australia at night, with a rubber duck.

-=Paul Flaherty, N9FZX/VK2WYX | "Anything below 1,000,000,000 Hz
->paulf@shasta.Stanford.EDU | is just nervous DC."

4069. Needed--1350MHZ VFO

Newsgroup: rec.ham-radio
Date: 1990-07-08 21:00:23 UTC
From: mleech@bcarh342.bnr.ca
Message-ID: <1990Jul8.210023.22483@bnrgate.bnr.ca>
Source record: 10372

I'm the middle of design/fabrication of a 21cm interferometer for
Amateur Radio-Astronomy. I find that I need a 1350MHZ VFO to generate
a 70MHZ I.F. for the input frequency of 1420MHZ.
I'm considering several L.O. designs:

PLL-synthesized VFO with stripline oscillator and a doubler.

Conventional VCXO with several multiplier stages.

135MHZ VCXO with a single S.R.D. comb generator, and a couple of stages of
BandPassFiltering/Amplification to pick off the appropriate harmonic.

I only need a few megahertz (let's say 2.5MHZ in either direction) of tunability.

Having never built such an L.O. before, I'm hoping someone can point me at
a resonably simple design that I can steal ideas from, or simply "scale"
to the desired frequency.
Thanx in advance

Marcus Leech, 4Y11 Bell-Northern Research |opinions expressed
mleech@bnr.ca P.O. Box 3511, Stn. C |are my own, and not
VE3MDL@VE3JF.ON.CAN.NA Ottawa, ON, CANADA |necessarily BNRs

4070. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-08 21:11:46 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <319.2697A4C5@w8grt.fidonet.org>
Source record: 10427

> From: vtcqa@shamash.cdc.com (VTC)
> Date: 8 Jul 90 07:12:59 GMT
> Organization: Control Data Corporation, Arden Hills, MN
> Message-ID: <23303@shamash.cdc.com>
> Newsgroups: rec.ham-radio,rec.ham-radio.packet
>
> Lets get optimistic: Most of the stuff on the hf bands you hear is
> going to
> be replaced with satellite communications. I know for a fact that this
> is
> true for maritime mobile. Wouldnt an extra 10 or 15 mhz in the hf bands
> be
> a nice acquisition ?

No. I don't think of ham radio as an antique wireless museum, which is basically what happens on HF. I think of ham radio as a National Park of the Mind where the curious can go adventuring on the frontiers of technology. THAT is happening on VHF and up.

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____________________________________
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

4071. IC-24 Transmit mods?

Newsgroup: rec.ham-radio
Date: 1990-07-08 21:20:10 UTC
From: lawrence@smcnet.smc.edu
Message-ID: <1990Jul8.212010.26664@smcnet.smc.edu>
Source record: 10374

I have see a few postings about the mods for extending the receive side of
the IC-24AT. Does anyone have the mods for the transmit end. I am
particulary interested in the 154.000 Mhz commercial area since that is
the gear that I service.

Thanks in advance.
--

Lawrence Roney - Santa Monica College Telecommunications Department
N6YFN 1900 Pico Blvd., Santa Monica, CA 90405-1628
Mail UUCP: uunet!ucla-cs!smcnet!lawrence Internet: lawrence@smc.edu

4072. RTTY DX Notes, 7/6/90

Newsgroup: rec.ham-radio
Date: 1990-07-09 01:59:46 UTC
From: gws@n8emr.UUCP
Message-ID: <1556@n8emr.UUCP>
Source record: 10375

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ RTTYDX $RTDX0706
RTTY DX Notes, 1of3, 7/6/90

RTTY DX Notes for Weekending 6th June 1990.
Part 1 of 3.
BID: $RTDX0706

I have noticed of late, and for some time, that a lot of people are
not using their callsigns during a QSO. One sits for many minutes
watching a QSO (it maybe good DX) only to see it go back and forth
with no calls, and even in the signoff it is a case of bye bye, crash.
I am talking about RTTY and AMTOR. I am not sure about packet. But
where have all the callsigns gone? In VK we have to give our calls
every 10 minutes. Not all of us do, but we should, and that is why we
have a callsign so that people can identify us.

We wish to thank the following for sending us DX information for the
past week. Thank you all. The DX notes without you would be a blank
page. Thanks to I5FLN, I5ICY, I5IOQ, JG1NDB, JH1BLV, JH1QDB, OD5NG,
TG9VT, W2JGR and the Tri-State DX Association VHF packet cluster.

Bandpass

Friday 29

5N0ETP 14085 at 0017Z
J73WH 14090 at 0023Z
RF6FC 14087 at 0305Z
JY9SR 14088 at 0306Z
YL20LSF 14090 at 0430Z QSL
FY4FS 14082 at 1303Z
RF1F/UA3TT 21087 at 1340Z Note
BY1BY 14088 at 1352Z
T5RM 14076 at 1507Z ARQ
PY0FF 21094 at 1740Z QSL
VP2C/K2MI 14082 at 2200Z

Saturday 30

FY4FS 14085 at 0050Z
VK0DS 14077 at 0840Z ARQ/QSL
BZ4DAB 21086 at 1443Z
```

C31SD 14089 at 1607Z
5N0ETP 21082 at 1810Z
PJ8DFS 21089 at 2028Z
JY9SR 21086 at 2041Z
EA9MY 21082 at 2150Z
J73WA 21092 at 2216Z QSL

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0707
RTTY DX Notes, 2of3, 7/6/90

RTTY DX Notes for Weekending 6th June 1990.
Part 2 of 3.
BID: $RTDX0707

Sunday 1

EA6ZP 14090 at 0038Z
VU2DPG 21079 at 0115Z FEC
A41JW 14080 at 0150Z
HV3SJ 14086 at 0400Z
RF1F/UA3TT 14085 at 0449Z
8P6RY 14082 at 0450Z
EA9MY 14085 at 0600Z
FM5FA 21085 at 2005Z QSL
JY9SR 21083 at 2007Z

Monday 2

J73EH 14084 at 0103Z
PZ1BS 14082 at 1154Z
YL1IHF 14087 at 1224Z QSL
ZS2A 14076 at 1336Z ARQ
A41KB 14073 at 1424Z ARQ
EA9MY 14083 at 2250Z
CO2BB 14085 at 2250Z
5N0ETP 14087 at 2359Z

Tuesday 3

YL1IHF 14087 at 0040Z
UQ2HO 14087 at 0107Z
SV2WT 21088 at 1552Z
EA6PZ 14082 at 2055Z
5N0ETP 21083 at 2314Z

Wednesday 4

SU1HN 14088 at 0024Z
LY2WW 21086 at 0026Z
A45IZ/A 14088 at 0130Z
RF6FC 14088 at 0254Z

SV2WT 14084 at 0453Z
TJ1MW 14083 at 0650Z
YL1HF 14083 at 0650Z

Thursday 5

EA6PZ 14091 at 0035Z
SU1HN 21086 at 0052Z
YL1IHF 14082 at 0305Z

QSL Information.

YL20ISF will QSL via Box 50, Riga 226010 USSR.

PY0FF says to QSL via W9VA.

VK0DS will QSL via the bureau when he returns home either December or January.

J73WA, Wayne, 40 Rodney Street, Portsmouth, Commonwealth Of Dominica, Caribbean.

FM5FA will QSL via AJ3H.

YL1IHF will receive his cards via YL1ZW callbook address.

J39BS says to QSL to WB2LCH.

A41KB will QSL via ON6BY.

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0708
RTTY DX Notes, 3of3, 7/6/90

RTTY DX Notes for Weekending 6th June 1990.
Part 3 of 3.
BID: $RTDX0708

Notes of Interest.

VK0DS, Dave, is situated at Mawson Base. He has just started on AMTOR, and is anxious for contacts.

RF1F/UA3TT is about to leave his present QTH, but will be back in September.

P29BT has informed that he hopes to be up on RTTY shortly.

Seychelles. JG1NBD says that he will go to S79 from September 13th to 17th and will be QRV on RTTY.

Ogasawara. JH1QDB informs us that he will sign /JD1 from September 23 to 30th and will be active during the W.W. RTTY Contest. This will be a mainly RTTY operation. QSL to his home address.

Sudan. WZ6C currently holds ST4/WZ6C call and is based in Khartoum. He is looking for a loan of a PK232 or something that will get him on RTTY. He will return to Sudan around 10th July, so if any help is forthcoming, contact him on phone/fax 615-323-4433.

Malpello. HK0 is hoped for in January. RTTY operator will be HK1LDG, who needs assistance with gear, TONO, rig, aerials, etc. Contact him at Box 2624, Baranquilla, Colombia.

I do not want to dishearten you all, but Gin San ,JA1ACB, has just received accreditation for 301 confirmed. He also holds cards for 6 more confirmed, with 5 to come. Congratulations Gin San. Oh well, I think I will stop now, with just over 250.

GL DE DX1.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

4073. Gateway - QEX Jul 90 p 1 of 7

Newsgroup: rec.ham-radio
Date: 1990-07-09 02:52:33 UTC
From: gws@n8emr.UUCP
Message-ID: <1557@n8emr.UUCP>
Source record: 10376

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
```

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Edited By Stan Horzepa, WA1LOU - 75 Kreger Drive - Wolcott, CT 06716
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WO-18 CCD CAMERA IRIS SETTINGS EXPERIMENTS

For the past several weeks, WEBERSAT-OSCAR-18 (WO-18) has been sending three to four pictures daily from outer space. This continuous stream of imaging data has been part of an ongoing experiment by the students at Weber State University to characterize the amount of natural light which enters the CCD camera for the various iris settings. The goal of this experiment is to find the proper settings for the camera iris for a particular light level in order to improve the overall picture quality.

With the integration of the on-board Earth sensors in the current software, the occurrence of overexposed pictures or totally dark pictures taken when WO-18 isn't pointing at Earth is no longer a problem. Chris Williams, WA3PSD, says that the painstaking task of manually setting the iris from the ground and observing the results will help software engineers in the future as they continue to understand the CCD camera operation. "The early days of random picture taking are gone," according to WA3PSD.

There are 256 possible iris settings which ground controllers can command. A "zero" setting completely closes the iris and a "255" setting opens it wide. The result of this experiment will be a look-up table in WO-18's software which will say "for this light level, use this iris setting." For those wishing to take part in this experiment, WeberWare version 1.0 is currently available from the AMSAT Software Exchange. Contact the Exchange at 301-589-6062 for further information.

from AMSAT

NORTH EAST DIGITAL ASSOCIATION FILLING A NEED

The North East Digital Association (NEDA) was formed to support packet-radio networking in the Northeast. The association's main purpose is to maintain a reliable inter/intra-state packet network that is useful to Amateur Radio operators for emergencies, education and the fun of the hobby. Currently, NEDA's network extends throughout central New England and New York State.

NEDA is a member-supported organization. Members are those hams who feel that the cause of packet-radio networking is worth funding. The goals of

NEDA are to form and maintain a reliable and consistent long distance packet-radio network, to educate Amateur Radio operators as to effective methods of long distance packet-radio network construction and operation (NEDA creates and distributes documentation; their 20-page introduction package is an instruction manual for using the network), to provide equipment for sites required to implement redundancy in the major backbones, to provide a common ground for different organizations that are doing long-distance packet-radio networking in the hopes of sharing resources (to achieve NEDA's goal of redundancy with minimum wasted effort).

New NEDA members receive a 20-page information package which includes basics of networking, network maps, instruction manual, who to contact, what it takes to make a node and information on NEDA's node configuration policy. After each quarterly Board of Directors meeting, NEDA sends a copy of the quarterly letter to voting members, supporting members, and clubs that are members. The quarterly includes the latest maps, Treasurer's report, Board of Director's meeting minutes and articles.

NEDA members may send an SASE at any time for copies of the current maps. NEDA maintains eight maps: a user port map and backbone maps for each of NEDA's divisions (Finger Lakes, Hudson, Massachusetts and New Hampshire). NEDA is also committed to generating documents on subjects related to network design and management. These are announced in the quarterly when they are available.

For information on supporting NEDA, send an SASE to PO Box 563, Manchester, NH 03105-0563.

from North East Digital Association

G8BPQ PCNODE VERSION 3.57 AVAILABLE

Version 3.57 of G8BPQ PCNode is now available and includes "multi-KISS," a protocol for operating multiple KISS TNCs on one serial port, improvements in the PK-232 host mode interface for AA4RE BB, an internal KISS interface for TCP/IP applications and several bug fixes. The software may be downloaded from CompuServe's HamNet as a self-extracting LHARC archived file called BPQ357.EXE.

MACINTOSH TCP/IP VERSION 2.0 READY

Version 2.0 of the Apple Macintosh TCP/IP software is now available with a number of enhancements, support for the new features found in the PC versions (including NOS) and bug fixes. The software may be downloaded via Internet using `anonymous ftp' from apple.com, in the directory `pub/ham-radio' or from the N6OYU landline BBS at 408-253-1309 (1200 to 9600 baud). You may also send a $5 donation to Doug Thom, N6OYU, (c/o Thetherless Access Ltd, 1405 Graywood Dr, San Jose, CA 95129-4778) to obtain a diskette containing the software.

from Doug Thom, N6OYU

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C-64 TERMINAL PROGRAM FOR BLIND HAMS

Jerry Johnson, K0QQS, wrote Packet Reader Program, a packet- radio terminal program for his blind friend, John Bloom, K0GCY, that uses a Commodore C-64 computer and Votrax Vo-Talker voice synthesizer. The software causes the synthesizer to read each letter or word as it is typed and to read packets as they are received. Received packets are buffered so that they can be repeated as needed. The program also uses the C-64's disk storage capabilities. For information on how to obtain a copy of the program, send an SASE to John Bloom, K0GCY, 1312 North Union, Fergus Falls, MN 56537.

from John Bloom, K0GCY

CONNECTIONLESS MAIL PROTOCOL AND MORE

It seems to me that the main use of our network is for the transfer of items of general interest (bulletins), first, and personal mail, second. Now this may seem a bit strange particularly when one could put a reasonable case that there are more personal messages generated than bulletins (I do not go along with this, but am willing to be convinced). The trouble is that personal mail has an origin and one destination, bulletins have an origin by N destinations where N is at least every PBBS in the country!

The majority of traffic is the sending of bulletins to every PBBS, ie, over and over again. This leads people, who think in terms of telephone lines, to say we must rationalize, we must stratify, more channels, more bands, etc. Can you not see the beauty of one channel with many stations listening, in other words, use the broadcast nature of our medium. Why must we always think in terms of telephone lines? We are not on the telephone, we are not in a one-to-one, origin-to-destination situation. We can broadcast. Think about it.

Anyway, after a year or so saying I really must do something about it and writing the specification outlined below, I have also started writing a simple terminal program/conferencing system/PMS/PBBS (I haven't quite worked out what it will be yet). One of this program's features is that it listens to the channel and tries to generate messages out of the many copies of a bulletin that are sent. It turns out that it receives between 50 and 90% of all the messages that pass by it on any particular pass through depending on who is sending what to whom locally. This means that there are four local sub-PBBSs and also the original feeds to our local NTS station that I can get 95% or more of my bulletins directly from without actually being connected at any time.

I must say at this point that I don't necessarily believe that we need only one channel. Trunking should occur elsewhere, but I do believe that we should start thinking about what we are using, its nature and use the properties of our medium to the full. I also say that it may be that we could use far less equipment to achieve our goals if we do not go down the "professional's route." One could also ask what would be the point of emulating a known solution? I thought we were in this hobby to invent new

and better ways and means. Why else are we tolerated in the busiest and most commercially valuable portions of the spectrum?

What I have done so far, which is merely some fancy pattern matching on monitored BPQ data, is not perfect. It gets it right 99.98% of the time and, as such, is not suitable other than for a leaf PBBS or PMS system. I have designed a UI protocol which could give 100% data integrity while still retaining the flavor of the broadcasting mechanism. I outline it below.

. . . (Continued next page)

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CONNECTIONLESS MAIL PROTOCOL AND MORE - Continued

UI Frame Connectionless Mail Protocol Specification Version 1.00

The aim of this protocol is to utilize the broadcast nature of the radio medium to minimize the amount of air time it seems to take to distribute the mail. This system is not meant to replace all of the current system of connections from one mailbox to another, but to optimize the distribution in a local area within range of a powerful node or other powerful repeating transmitter.

This specification is based on earlier work of mine and G8UFQ (now, sadly, deceased).

The basis on which this protocol is devised is as follows:

1. Radio is a broadcast medium, a packet (particularly if it is sent by a powerful and/or well sited transmitter) can potentially be heard by a large number of receivers.

2. The nature of the TNC, FM radio and CSMA environment is such that if a station can be heard loudly, then all other stations will tend to shut up until a suitable pause appears, at which point, they all tend to jump in.

3. The loudest station usually controls the flow traffic in a given area, thus any other station that uses that loud station usually gets more traffic through more quickly than if they go direct while the loud station is transmitting.

4. If we sent UI framed packets via the loudest station, they will be heard by many people (witness all the complaints about long beacon texts via several repeaters). If those packets can be uniquely identified as part of a particular message and also which part, then a basis of a simple connectionless mail protocol exists that more fully uses the broadcast nature of radio as outlined in (1) above.

5. The concept of acknowledging each packet correctly received is, I believe, inappropriate for a congested FM CSMA channel such as the ones we are using. Research has shown (ZMODEM protocol) that it is more efficient to say what you have not received. Further, because we are

sending bulletins which are by their nature to be broadcasted, if the stations listening send their requests for the bits they missed, there will be overlaps such that any requests trampled on could be issued by another station anyway.

6. A bulletin is broadcast. This protocol is a means of broadcasting; the data therefore fits the protocol more nearly than the current method being employed. Individual mail probably fits the existing model quite well and would therefore continue to use the current system as would normal station-to-station conversation.

7. I believe it to be more efficient, overall, to send a complete message via a strong station and then wait for requests for retries of individual parts. In other words, to have a window size of infinity (or the size of the message). Further, because of the long delays between the TNC noticing a clear channel and the transmission actually being heard at full power, it will probably be necessary to send the first packet of a string twice or maybe three times because of the likelihood of its being trampled on by other stations [the main reason why the AX.25 fixed window size of >1 has been shown to be worse than simple window sizes of 1 (KA9Q)]. I propose to overcome this problem by using selective reject rather than the current system of `start again from the beginning even though I did in fact hear your last three of that window of four.' This will be used in the style of the ZMODEM protocol detailed in (5) above. Because we will probably be repeating, we will need to send packets at reasonable intervals (say 0.5 seconds) in order for the repeater to receive and onward transmit it, this parameter must be tunable to allow for local conditions.

Some Details

AX.25 allows up to seven packets to sent at a time in one gobbit of packets. Therefore, it will be necessary to send a gobbit of 1 to 7 packets, possibly with the first one repeated as it almost certainly will not be heard on a busy channel. Experiments will have to be conducted to find the optimum number of packets to send in a gobbit, taking into account direct broadcast or via a repeater.

Each packet should contain the following info:

o 1-byte Signature (suggest "~") to indicate to the software that this packet may be of interest

o 1-byte Flag to determine the type of packet.
M for mail
H for the mail header (from, to, subject, etc)
E for end of message
R for repeat request
A for I am active request (could cause mail to be sent to you)

o 14-byte BID. A standard bid, eg, 12345_GB7TLH, some unique message ID, all messages (even mail) has some implicit bid of this form, but it need not be like that above. Anything unique would do. Left justified, excess

padded with spaces.

o 5-byte Offset. The offset of this packet within this message. This is used differently in types H and E.

o 200-byte Data. This, of course, contains the data.

. . . (Continued next page)

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CONNECTIONLESS MAIL PROTOCOL AND MORE - Continued

Contents of Data Portion

H - It is suggested that this is of fairly standard form, ie, SB ALL @ GBR < G1TLH xxxxxxxxxxxxxxxxxxxxxxx where the offset in the header is the size of the message and xxxxxxx is the title. All portions contain the BID.

M - The actual data portion of the message split up into 200-byte chunks. The offset incrementing 200 bytes (or whatever) for each packet. The length of the message and, thus, that of the last packet is arbitrary.

E - Indicates end of message. It has the length of the message in the offset position. It may be useful to have a CRC16 checksum in hex (4 bytes) in the data portion (then again it is probably overkill).

R - Request for more data, in the form address/length. These are free format pairs (starting with the offset position as the first address), eg, 000128/200, 600/200, 1200/400. Each pair is separated by a comma and the last one is followed by a full stop (which could be left out).

A -This is sent by a THL style box when switched on to say here I am, anything interesting?

Addressing Issues

The unproto mail address needs some definition. In order to recognize a packet coming in as being relevant, it must pass certain tests.

1. It must be a UI frame.

2. It must contain the signature character `~' in the first byte of the information part of the frame.

3. The mail broadcasts need to be identified as such and so an unproto address of $$MAIL is suggested. Replies could contain this address for general work, but if a significant number of packets with a particular originating call sign are received, it is better to use an unproto address of that originating call sign such that only that station replies to requests for more data. This should go some way to preventing race conditions when two or more originating stations have the same BID and start replying.

The receiving station will need to be discriminating about who it uses to poll for requests and, if it gets packets from other stations with the required information, it must discard them, but possibly remember the call signs in case of failure with the original station.

. . . Continued next Page

CONNECTIONLESS MAIL PROTOCOL AND MORE - Continued

A Sample Conversation

GB7TLH>NP2>$$MAIL <UI C>:
~H12345_GB7VLS 01200SB ALL @ GBR < G9ABC FRED BOGGS IS LICENSED

No reply - wait say 5-7 seconds

GB7TLH>NP2>$$MAIL <UI C>:
~H12345_GB7VLS 01200SB ALL @ GBR < G9ABC FRED BOGGS IS LICENSED

No reply - wait say 5-7 seconds

GB7TLH>NP2>$$MAIL <UI C>:
~H12345_GB7VLS 01200SB ALL @ GBR < G9ABC FRED BOGGS IS LICENSED

This is repeated 3 to 5 times

G4RQN>GB7TLH <UI C>
~R12345_GB7VLS 00000/1200

This indicates that you wish the whole lot to be sent. This may be sent three times at one-second intervals, but could perhaps be sent up to 10 times as it constitutes `retries.'

I also may receive

GB7RWN>NP2>GB7TLH <UI C>:
~R12345_GB7VLS 00000/1200

and

GB7LDI>NP2>GB7TLH
~R12345_GB7VLS 00000/1200

So I send

GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00000xxxxxxxyyyyyyyy etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00200aaaabbbbbbccccccdddd etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00400eeeeeeeefffffffffggggg etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00600hhhhhhhhiiiiiiiijjjjjj etc etc
GB7TLH>NP2>$$MAIL <UI C>

```
~H12345_GB7VLS 00800kkkkkkkkllllllllmmmmmm etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 01000nnnnnnnnooooooppppppp etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 01200qqqqqqqqrrrrrrssssssss etc etc
GB7TLH>NP2>$$MAIL <UI C>
~E12345_GB7VLS 01200
```

I then might receive

```
G4RQN>GB7TLH <UI C>
~R12345_GB7VLS 00400/200,1000/200
GB7RWN>NP2>GB7TLH> <UI C>
~H12345_GB7VLS 00200/400
GB7LDI>NP2>GB7TLH <UI C>
~H12345_GB7VLS 00000/0,1000/200
```

This means that the need to resend packets 200, 400 and 100 and also 00000/0 is special. The station either has not heard the header or has woken up in the middle of this exchange and wants to catch up. 00000/0 will cause resending the header packet. It may be worth sending it at the start of an exchange in the first transmission of the message as a `noise' packet that causes the channel to be `grabbed' for this exchange.

So I send

```
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00000xxxxxxxxyyyyyyyy etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00200aaaabbbbbbccccccdddd etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00400eeeeeeeeffffffffggggg etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 01000nnnnnnnnooooooppppppp etc etc
GB7TLH>NP2>$$MAIL <UI C>
GB7TLH>NP2>$$MAIL <UI C>:
~H12345_GB7VLS 01200SB ALL @ GBR < G9ABC FRED BOGGS IS LICENSED
```

As you will note, these need not be in any particular order, thus, should be slotted in the appropriate place.

I may then receive

```
G4RQN>GB7TLH <UI C>
~R12345_GB7VLS 00400/200,1000/200
```

Because there is only one packet to be sent, I send it twice to make sure.

```
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00400eeeeeeeeffffffffggggg etc etc
GB7TLH>NP2>$$MAIL <UI C>
~H12345_GB7VLS 00400eeeeeeeeffffffffggggg etc etc
```

I now wait 5 to 7 seconds to see if there are any more. If not, I continue with the next one or shut up if there are no more.

Now there is a potential problem here in that I might receive a delayed request for a packet from the previous message. Two strategies might be used to cope with this. Either note the request and ignore it for the time being or keep the previous message file open and satisfy the request among the rest of the current message. If the first method is used, the current message is run out and the packet(s) from the previous message are then sent.

The reader will note that now three stations have obtained the six packet bulletin at a cost of 11 information packets from the originating station including retries. The actual level of retries is probably optimistic, but even on a dead, quiet channel, you would require 18 packets to be sent to do the same job without retries.

I think it likely that each originating station will have a list of people it is prepared to satisfy requests from to cope with lift conditions, but it may be possible to have a two-tier system in which a distant or unknown station can receive service, but only if a reasonable number of packets seem to be getting through, eg, locals may be allowed 10 retries but unknown stations only 3. After all, if conditions are that good they should be utilized.

This is preliminary, any comments, suggestions, etc would be gratefully received.

by Derek Koopman, G1TLH from Connect International via Hank Greeb, N8XX

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A NEW SERVICE, THE CALL SIGN SERVER

After I did a few keyboard-to-keyboard connections and PBBS log-ins, one of the problems I found with packet-radio communications was what else does it do for me. I can send mail to all those people out in packet-radio land that I do not know, and I can watch messages fly by that don't interest me. What was missing was a true user application. I thought, there has to be something we can do for the packet-radio community.

One afternoon, I was logged into Internet (a worldwide computer network) and saw a message that a group of people were putting a project together to acquire a copy of the Amateur Radio call-sign data base from the FCC. Great! I could put together a service whereby people could contact my packet-radio station and lookup a call sign. This could be an interesting service and, if successful, provide something useful to the community. Since I knew one of the people involved in getting the data, I contacted him and got a copy of the database.

As it turned out, the actual data file is 108 Mbytes in size and contains over 435,000 call signs. Unfortunately, it contains only US call signs, but that's a great start. In addition to the call sign, each record of the file

has the mailing and station addresses, the class of license, previous call sign, renewal/process/expiration dates, and even the persons birthdate! Now all I had to do was figure out how to provide access to this data from my packet-radio station, how to store this huge database file, and how to tell people about it.

I was working on another project, porting the KA9Q TCP/IP package to the Macintosh computer, when several people asked the same question, "What are we going to do with TCP/IP?" It is certainly a neat system, but without applications to use it, it suffered the same old problem. Then the light flashed! How about interfacing the call sign database to one of the TCP/IP servers... like the finger server?

The finger server is a utility built-in to the TCP/IP package that allows a remote station to query your station for basic information. "Great idea," said Dewayne Hendricks, WA8DZP, the programmer who did all the work, and in a few days he had written the initial code to access the call sign data file. It took several more weeks of debugging and testing, but finally we had an extension to the finger command. Below is an example of how this all works (bold character are typed by the user). [Bold characters indicated between *s.]

net> *finger %wa8dzp@n6oyu*
SYN sent
Established
[N6OYU]

Name: DEWAYNE L. HENDRICKS
License: WA8DZP
License Class: E
Mail address: 43730 VISTA DEL MAR, FREMONT, CA 94539-0000
Station address: 43730 VISTA DEL MAR, FREMONT, CA
Effective date: May. 17, 1988
Expiration date: May. 17, 1998
Previous Callsign:
Previous Class: A
Birthdate: Oct. 11, 1949
Process date: May. 17, 1988

Close wait
Last ACK
Closed (Normal)

Note the use of the %callsign@N6Oyu syntax in this command. The typical finger command looks like this:

net> *finger doug@N6Oyu*

This will look for a text file named "doug" on the system diskette and copy its contents to the TNC. With the call sign server extension, we added the *%* to tell the finger server to lookup the following call sign in the data base and return that information to the TNC.

As it turns out, TCP/IP allows the use of another command to query information provided with the finger command. This involves using the telnet ommand (telnet is the command used for keyboard-to-keyboard communications with another TCP/IP station). This gets fairly complicated, but suffice to say, it works. Below is another example of using the telnet command to get the same information.

```
net> *telnet n6oyu 79*
SYN sent
Established
[N6OYU.norcal.ampr.org]
*%ka9q*

Name: PHILIP R. KARN JR
License: KA9Q
License Class: E
Mail address: 25B HILLCREST RD, WARREN, NJ 07060-0000
Station address: 25B HILLCREST RD, WARREN, NJ
Effective date: Sep. 27, 1988
Expiration date: Sep. 27, 1998
Previous Callsign:
Previous Class:
Birthdate: Oct. 4, 1956
Process date: Sep. 27, 1986
Close wait
Last ACK
Closed (Normal)
```

In the above example, *79* tells the telnet server to forward the request to the finger server, which in this case is the *%ka9q* on the next line. The server processes the request as before.

. . . Continued Next Page

A NEW SERVICE, THE CALL SIGN SERVER - Continued

This was all fine, but what about all the rest of the packet-radio users that do not have the TCP/IP package up and running? Well, TCP/IP will support AX.25 connections and provides a mailbox function. So, Dewayne also wrote some code to extend the mailbox function to permit inquiries of the database. The addition of the inquire command to the mailbox code now provides AX.25 connections access to the database. Below is a sample of the process.

```
*Connect N6OYU*
Conn pending
Connected
*<carriage return>*
[NET-$]
Welcome to the N6OYU.norcal.ampr.org TCP/IP Mailbox
(C)hat (I)nquire (S)end (B)ye
```

I K6LLK

Name: JOHN D. CRONIN JR.
License: K6LLK
License Class: E
Mail address: 1543 FORDHAM CT, MOUNTAIN VIEW, CA 94040-0000
Station address: 1543 FORDHAM CT, MOUNTAIN VIEW, CA
Effective date: Dec. 9, 1986
Expiration date: Dec. 9, 1996
Previous Call Sign:
Previous Class:
Birthdate: Jan 1, 1944
Process date: Dec. 9, 1986
(C)hat (I)nquire (S)end (B)ye
B
Disconnected

Now all packet-radio users have access to the call sign server via several different mechanisms. Since bringing up the sever, there have been over 3500 accesses over a six-month period. The service proved especially useful during the last Field Day exercises with several hundred requests during the weekend. An additional observation is to see what each new user does with the server. First, almost without exception, everyone looks up their own call sign! Then they look up their friends.

What is all this running on? The database file is on a 300-Mbyte hard disk drive which is connected to a Macintosh Plus computer running Apple's AppleShare file-server software. The radio is a Yaesu FT-211RH connected to an AEA PK-232 TNC and another Macintosh Plus computer running the Macintosh version of the KA9Q TCP/IP package. The two computers are connected together via LocalTalk (Apple's networking system). My Macintosh II color system and a LaserWriter IINTX printer also share the network.

The future holds many changes for the service. The first will be a more current data file. Next, we plan on changing the method of access. As it stands currently, the only way to get call sign information is to directly connect to my station via either AX.25 or TCP/IP. What we plan on is similar to the White Pages lookup system that is available now in the PBBS network. You will be able to send a message to the system with whatever means you have and the system will send a reply message with the call sign information you requested. Now back to the coding.

One last note. You can connect to my station on the TCP/IP frequency of 145.75 MHz.

by Douglas Thom, N6OYU from NCPA Downlink

GATEWAY CONTRIBUTIONS

Submissions for publication in Gateway are welcome. You may submit material via the US mail or or electronically, via CompuServe to user ID 70645,247 or via Internet to 70645.247@compuserve.com. Via telephone, your editor can be reached on evenings and weekends at 203-879-1348 and he can switch a modem

on line to receive text at 300, 1200 or 2400 bit/s. (Personal messages may be sent to your Gateway editor via packet radio to WA1LOU @ N1DCS or IP address 44.88.0.14.)

The deadline for each installment of Gateway is the tenth day of the month preceding the issue date of QEX.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

4074. FT-411 DTMF deviation adjust???

Newsgroup: rec.ham-radio
Date: 1990-07-09 03:51:14 UTC
From: billp@col.hp.com
Message-ID: <24300021@col.hp.com>
Source record: 10441

How do I adjust the DTMF tone deviation on my FT-411? It's too high
for the local autopatch.

Bill Pherigo WR0Y
<billp@col.hp.com>
(719) 590-3420

4075. What is Phase Noise?

Newsgroup: rec.ham-radio
Date: 1990-07-09 05:49:05 UTC
From: mcmahan@netcom.UUCP
Message-ID: <11822@netcom.UUCP>
Source record: 10429

I have (at work) been exposed to phase noise in carriers. I understand the need to have a pure tone for something like a local oscillator, but the guys I work with make a big distinction between phase noise and FM modulation of a signal. To me, phase noise IS a form of FM modulation, since one can slightly change the signal frequency for an instant to shift phase. The stuff I see on a spectrum analyzer is definately different in appearance, though. I have asked them to expain it, but can't seem to make sense of the answer. Can someone please tell me why phase noise is NOT considered a form of FM modulation?

-dave

4076. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-09 13:25:09 UTC
From: cep@cci632.UUCP
Message-ID: <38557@cci632.UUCP>
Source record: 10446

In article <878@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>My ground system is a series of commercial ten foot ground rods in treated
>soil, just outside the basement wall.

Treated soil? With what, some sort of electrolyte? What prevents the stuff
from just dissapating into the earth? Is it environmentally safe?

Chris

4077. Re: Needed--1350MHZ VFO

Newsgroup: rec.ham-radio
Date: 1990-07-09 14:41:50 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250185@hpnmdla.HP.COM>
Source record: 10430

You might take a look at June 1989 Ham Radio Magazine, page 19.
I show a design for a 1010 MHz oscillator which has very low phase noise and can easily be phaselocked. Versions I have built can operate from 800-1200 MHz by only tuning the resonator. If you really want lots of tuning range (half octave+) make a quarter wave instead of a half wave resonator. Unlocked stability won't be as good (mechanical problem with unsupported line) but that shouldn't be a big deal if you phaselock it as I did.
The design center frequency was 1 GHz but things aren't changing very rapidly with frequency and you should have little difficulty making it run through 1500 MHz.
This is the reference I use for a harmonic mixer local oscillator. It's phase noise gets multiplied and transferred to the microwave local oscillators which I lock with it. The performance is good enough that even at 10 GHz the resulting spectrum is cleaner than my ICOM 701 was on 14 MHz. (Not everyone may agree that this is a positive testimonial (:>))
There is a picture of the resulting spectrum in the magazine series too.

Hope this helps.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

4078. Re: Needed--1350MHZ VFO

Newsgroup: rec.ham-radio
Date: 1990-07-09 14:42:45 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250186@hpnmdla.HP.COM>
Source record: 10431

Correction, make that Jun 1988 Ham Radio Magazine.

My how time flies when you are having fun (:>)

de n6gn

4079. Re: What is Phase Noise?

Newsgroup: rec.ham-radio
Date: 1990-07-09 16:38:15 UTC
From: carmijo@hpnmdla.HP.COM
Message-ID: <1250187@hpnmdla.HP.COM>
Source record: 10432

>> To me, phase noise IS a form of FM modulation, since one can
>>slightly change the signal frequency for an instant to shift phase. The stuff
>>I see on a spectrum analyzer is definately different in appearance, though.
>>I have asked them to expain it, but can't seem to make sense of the answer.
>>Can someone please tell me why phase noise is NOT considered a form of FM
>>modulation?

First, let me say that I'm no expert on the subject -- I've done a little
work with it, though.

Phase noise CAN be considered to be a form of FM modulation (or,
alternatively, Phase Modulation). Essentially, the phase of a CW signal is
varying over time. The reason that Phase Noise on a carrier looks
so radically different than narrowband FM (with two discrete sidebands)
is that the phase varies RANDOMLY with time. This random variaion
causes the characteristic "smearing" of the CW signal

To quantify this relationtionship:

S_delta_f(f)=Spectral Density of frequency fluctuations
(Frequency fluctuations^2/Hz)
=(Delta_f_rms(f))^2/B

where
B = Bandwidth

Delta f_rms(f)=Fourier Transform of (Delta_f(t))

Delta_f(t)=Frequency fluctuation of signal as a function of time
= (1/(2pi)) * d(Delta_phi(t))/dt

Delta_phi(t)=Phase fluctuation of signal as a function of time

S_delta_f(f) is directly releated to what you see on a spectrum analyzer.

There are four basic methods to measure the phase noise of a CW source:
1. Measure it directly with a spectrum analyzer
2. Mix the signal down to a lower frequency and use a counter
to measure the variance of the frequency.
3. Use a phase detector to measure the difference in phase
between your source and a reference source. The output of
the phase detector is displayed on a spectrum analyzer.
4. Use a frequency discriminator to demodulate the "FM" signal
and measure the output on a spectrum analyzer.

I hope this answers your question. Phase Noise is actually a very
interesting subject, once you dig into it. It's also one of those
subjects that are rarely discussed a standard E.E. curriculum.

Chris Armijo

4080. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-09 16:45:08 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250188@hpnmdla.HP.COM>
Source record: 10433

>Ok the reason grounding is necessary is that your transmitter uses single
>ended unbalanced filters for interstage and output coupling. These filters
>are the primary method of suppressing out of band radiation. It does no
>good for these filters to bypass out of band energy to the chassis if the
>chassis is not at true RF ground. All you get is a "hot" chassis and
>radiation down the OUTSIDE of your coax.

>It is relatively simple to get a good RF ground at your equipment.
>First, use several ground leads of different lengths between your
>equipment and your ground system. This breaks up any resonances in your
>ground leads at the frequencies you are trying to suppress. Second, I
>like to use the shielded ground trick. I use coax for ground runs with
>the shield and center connected to ground and only the center connected
>to the radio. This prevents any ground lead that happens to be at a
>high impedance at the frequency of interest from radiating. This
>technique works sucessfully even if your shack is on the second
>floor as mine is.

>Gary KE4ZV

>>>>>>>>>>>>>>>

Many people seem to confuse "earth ground" with the "chassis ground" in
a piece of equipment. Recall that the term "voltage" is another name for
"potential difference." That is, voltage must always be measured WITH
RESPECT TO A REFERENCE POINT.

Here is where people get confused. Inside a piece of equipment, the chassis
ground is a common reference point for internal circuitry. The filters etc.
inside the box don't care whether the chassis is at "earth ground" or not,
they work the same in any case. External grounds (assuming they don't
affect antenna feedpoint impedance) don't affect the transmitter low-pass
filters at all.

Regarding the "shielded ground". Sounds like a quarter-wave decoupling
sleeve to me. At the quarter-wave resonant frequency, it will look like
an open circuit.

4081. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-09 16:56:39 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250189@hpnmdla.HP.COM>
Source record: 10434

>How effective is a filter which includes a ground as part of the design,
>if you leave it UNGROUNDED?

It works just fine. I guess a lot of people are confused about this, so I'll expand further.

The transmitter generates RF voltage BETWEEN the center conductor of the output coax and the shield. Note that this voltage is NOT referred to earth ground. The chassis could be at 1,000,000 volts (AC or DC) with respect to earth, but there is still the same RF voltage existing between coax center conductor and shield -- the transmitter doesn't care.

If you have an external low-pass TVI filter, its internal circuitry is likewise referenced to CHASSIS ground (same as coax shield).

Part of the confusion is caused by using the same term "ground" to refer both to "earth ground" and the common connection point for circuitry within a piece of electronic equipment.

AL N1AL

4082. Re: Worldwide network of HF propagation beacons. . .

Newsgroup: rec.ham-radio
Date: 1990-07-09 16:58:52 UTC
From: tad@ssc.UUCP
Message-ID: <884@ssc.UUCP>
Source record: 10435

In article <1990Jul3.030049.8312@midway.uchicago.edu>, gary@ellis.uchicago.edu (gary buchholz) writes:
> I picked up a copy of the ARRL Operating Manual(copyright 1988). On page
> 2-17 there is some discussion of the NCDXF worldwide propagation beacon
> network on 14.100 MHz.
>
> So says the ARRL Operating Manual. However, I've tuned into this 14.100
> net for several days now and at various times and really haven't heard
> anything but background noise.
>
> ==> The question is this. My ARRL guide is from 1988. Is this beacon still
> ==> in operation ?

Yes, it is still on. I can get several of the beacons regularly here in Seattle, even when they are running 100 mw. There has been some packet QRM in the past few years, but it is still easily readable.

Maybe you have your dial set to exactly 14.1 MHz and the CW signals are not in your passband. Try tuning just below in the USB mode.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4083. Hazer

Newsgroup: rec.ham-radio
Date: 1990-07-09 17:18:00 UTC
From: DERRY@ROSEVC.Rose-Hulman.EDU
Message-ID: <6961E9AB885F800F06@ROSEVC.Rose-Hulman.Edu>
Source record: 10436

I am considering buying a Hazer for raising my triband antenna and rotor
to the top of 5 sections of Rohn 25G (And, if I'm lucky, lowering it, too).

I would appreciate any info hams subscribing to info-hams could give me
about good OR bad points of this scheme. TNX ES 73 DE K9CUN.

(Hi, Jim!)

4084. DOVE turn on and Crash

Newsgroup: rec.ham-radio
Date: 1990-07-09 17:30:39 UTC
From: mac@idacrd.UUCP
Message-ID: <741@idacrd.UUCP>
Source record: 10437
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Many of you may have heard the DOVE satellite last evening when I turned it on two meters for the first time in three months. We are still having problems but we are getting much closer to the solution. I have some telemetry but I would like all you may have gotten. I would like packet received confirmation if you claim to have heard it. I need to see the telemetry. I can tell you from that which I have that the spacecraft appears in excellent condition. The three bus voltages are all nominal. The array voltage was nominal, the charging current was nominal and the output power was 2.5 watts (I was being conservative!). I am dumping (on S band) the DEATH_REASON byte (this will take many tries because of the S band modulator problem) from the kernel. I hope this will tell us the answer. The last word I have is that it was not heard on the next pass over the west coast. We will almost surely find the problem this week and fix it. DOVE ON AGAIN SOON.

Bob

--

```
------------------------------------------------------------------------------
My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.
------------------------------------------------------------------------------
```

4085. Re: Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-09 17:50:51 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250190@hpnmdla.HP.COM>
Source record: 10438

Comments from CQ Magazine's publisher:

>He made this point quite clearly: "the reality is that the world has
>changed." Ham radio is dominated by the appliance operator and those few
>technically minded hams left are a small majority. His magazine is there
>to serve the needs of the masses, not the majority. He added that while CQ
>might become somewhat more technical, the changes would be very slight.

Amateur radio licensing requirements have been steadily relaxing for
40 years. Any chance there is a connection here?

Could someone explain how further easing the requirements is going to
increase the technical quality of hams?

AL N1AL

4086. Re: S-band waveguides

Newsgroup: rec.ham-radio
Date: 1990-07-09 19:32:06 UTC
From: kjh@pollux.usc.edu
Message-ID: <25779@usc.edu>
Source record: 10462

Cu water pipe makes handy dandy (and cheap!) circular waveguide.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4087. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-09 20:45:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500590@ux1.cso.uiuc.edu>
Source record: 10440

I attended the "No Code" forum at the Indy hamfest this weekend. The turnout was very low, but this was probably due to the fact that the forum was not listed in the program, and the building indicated on a couple of signs was not on the map.

One of the people who argued against a no-code license indicated that he thought the reason it all started was so that the business interests could make more money.

If businesses keep folding and/or dropping from the ham market, where are we going to buy all our appliances?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4088. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-09 20:57:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500591@ux1.cso.uiuc.edu>
Source record: 10442

The ARRL will have to take a LEADERSHIP position rather than a represent and follow position, if it is going to be able to keep amateur radio around.

Don't mislead yourself into thinking that the average ham is like those here on USENET. USENET and the other associated networks tend to be a filter of sorts. The proportion of technically oriented people here is much higher than in the amateur population as a whole.

The ARRL needs leaders. A leader needs to be able to resist even the majority if he believes his ideas are right. Of course that risks being voted out. But hopefully once some really good leadership starts happening at the League, then more people who feel the same way will join up.

We need an organization that considers the preservation of the VHF/UHF/SHF spectrum to be very important. It would be nice if the presently existing structure of the ARRL could do this, but whether or not this is the case, the need exists.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4089. Re: loss of frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-09 23:02:18 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul9.230218.19504@bellcore-2.bellcore.com>
Source record: 10443

In article <33530@ut-emx.UUCP>, oo7@ut-emx.UUCP (Constructive
Frivolling) writes:
|> This is undoubtedly a serious problem, but it's downright silly talking
|> about how many MHz we have won or lost. Fractional frequency is all that
|> counts. [...]

I beg to differ. All of the frequencies mentioned except the 220 MHz
band are UHF. They are more similar to each other in propagation
and suitable uses than they are to HF, although I wouldn't say that
220 and 2300 MHz are completely interchangeable.

The point of the original posting was that the 220 MHz band is only
the tip of the iceberg in lost amateur allocations over the past
decade. It is only the shortsightedness of the existing amateur
population that has allowed these earlier losses to go essentially
unchallenged until the 220-222 grab.

Phil

4090. Alligators and kerchunking

Newsgroup: rec.ham-radio
Date: 1990-07-09 23:13:06 UTC
From: rusty@cadnetix.COM
Message-ID: <12792@cadnetix.COM>
Source record: 10444

In article <:6=&.Y-@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>...
>Ah, but a series sometimes DOES provide more information,

Probably should not tell this story on myself, but here goes anyway:

Yesterday, while waiting for people to show up for our open house (yup, our house is up for sale), I decided to make use of the dead time and try to get one of my dead 2m radios working. To make a long story short, I thought I got one fixed, so took it out to the car, stuck a mag mount antenna on the roof, connected the radio to the antenna and tried it.

Nothing.

Ok, time to pull out the HT\amp\5/8 wave combo and stick it on the roof of the car and get both radios talking.

Hmm. Wonder why I cannot hear anything on my HT? Cannot raise ANY of the repeaters I know ("N7IKQ testing", what a pain! :-)) (nor any of the ones I don't know :-). Hmm. Well, anyway, after much fooling around, I happened to go into the house for something and, upon returning,, noticed that I had forgotten to put the ANTENNA on the mag mount... OOps...

Strange thing was, I could easily pick up packets down in the packet zone even without an antenna!

Still have problems with the radio, though. HT can pick it up more or less ok, but even tho its 25 watts I cannot key a repeater. I'm guessing that one of the 3 (!) LOs has some problem, since it hears NOTHING, even my HT with 10+ watts out and antennas 3 feet apart.

So, what does this have to do with kerchunking? Well, I can tell you I felt pretty stupid hitting repeaters with "N7IKQ testing". Kerchunking would have been a lot easier :-) :-) :-) :-) :-)

Also, I'd be interested in anyone's (semi-) educated guess as to what would cause the radio to: (1) send ok to a local (VERY local) radio, but not key up a repeater; (2) receive a dip meter set to (mostly) AM modulation when brought close to the antenna; and (3) respond to a VERY near field FM transmission by very slightly lowering the noise level coming out the speaker.

Any thoughts? ADVthanksANCE!!!!

4091. Re: Homebrew repeater controllers

Newsgroup: rec.ham-radio
Date: 1990-07-09 23:19:36 UTC
From: rusty@cadnetix.COM
Message-ID: <12793@cadnetix.COM>
Source record: 10445

In article <2617@anasaz.UUCP> john@anasaz.UUCP (John Moore) writes:
>.... Most repeaters don't give you any indication of how strong
>your ker-chunk is....

Well, there was a repeater down in Tempe (AZ), located on a grain elevator,
which supposedly could give you a signal report if you 'asked it' to.
A friend of mine knew the owner of the repeater and knew all the codes to
send to get it to do all sorts of things. Unfortunately, there was something
wrong with it when he tried to give me a demo. (or he forgot the codes! :-)

John, do you know of which repeater I speak? I'm sorry I don't even remember
the freq it was on, its been a while (but I think 144 or 145).

(I don't suppose you could count such a contact during a contest?)

(On second thought, forget I even asked the question!) :-) :-)

Rusty "Possibly short for this (usenet) world" :-) and :-(N7IKQ

4092. Re: Kenwood TS140s computer interface ? & TS140s vs TS440s

Newsgroup: rec.ham-radio
Date: 1990-07-10 00:47:13 UTC
From: gary@midway.uchicago.edu
Message-ID: <1990Jul10.004713.26575@midway.uchicago.edu>
Source record: 10447

In article <1990Jul8.202610.2283@dhw68k.cts.com> daveegan@dhw68k.cts.com (Dave Egan) writes:
>
>My problem is: I have a Kenwood TS140s and am very inexperienced in designing
>stuff (electronics).
>Dave Egan | Radio: N6XVZ

I also have a Kenwood TS140s and my understanding is that, if one is willing to spend the bucks, you don't have to design anything. Kenwood sells the IF-101 ($52) and the IF-232C ($100) that you need to do this.

Most amazingly Kenwood will not supply any software. And, by the way, feeling the full brunt that I didn't spend the extra $250 or so to get the TS440s over the TS140s, I haven't seen any software on the net for the TS140 - I have seen TS440s software.

BTW - Did I get "ripped off" with the 140 ? The 440 has a notch filter, triple conversion (vs double), selectable IFs, 100 memories (over 30) and 100% duty cycle with a cooling fan. Is it worth it. My after the fact opionion says that it probably would be. Oh well.

In any case, I too would like to know about any =>Mac<= (it seems most hams are blue) control software for the Kenwood TS140s.

Thanks,
Gary

4093. Re: Carrying NiCd packs on airplanes

Newsgroup: rec.ham-radio
Date: 1990-07-10 01:12:34 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880180@hpfcdc.HP.COM>
Source record: 10448

> ...putting a battery pack in a zip-top bag is a good idea.

I've been using a small nylon drawstring bag to carry my spare battery pack -- inside my daypack or backpack. So far it's worked great. Am I making a mistake?

The metal contacts on the outside of the FT411's battery packs seem to be dioded -- no voltage on them except when charging. Makes sense to me.

4094. Re: Icom 2SAT

Newsgroup: rec.ham-radio
Date: 1990-07-10 01:40:25 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880181@hpfcdc.HP.COM>
Source record: 10449

> 1) Does anyone have anything BAD to say about the 2SAT ???

I recently compared side by side and bought a Yaesu FT411. So I haven't used a 2SAT, but I can tell you what I didn't like about it, since you asked.

* Who needs a 180mAh built in NiCad battery? Sounds nice for emergencies, but then you realize you have to carry it anywhere you take the radio, keep it charged, replace it when it dies, ...

* The buttons seemed hard to push, and located too far from the display. Also they don't light up as nicely as an FT411 (though the latter's light only stays on while the switch is held).

* It was somewhat more expensive.

* I think it had fewer memories (not sure). It certainly lacked a couple of bells and whistles, but I forget which ones.

Now, it has somewhat more ergonomic controls in other ways, it has better sensitivity out of the ham bands, and I think it has a 12v jack for external power, all pluses.

I'll be interested in your comments after you buy one. :-)

4095. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-10 02:03:12 UTC
From: vtcqa@shamash.cdc.com
Message-ID: <23321@shamash.cdc.com>
Source record: 10450
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Hey - I wasn't totally serious about getting 15 mhz of the HF bands. (then again, there is a God :-)). After I read that article about the demise of ham radio I almost barfed on my keyboard. It was so depressing and pessimistic I felt I had to post something upbeat.

BTW: I agree that we need more people getting involved in this hobby, but there is a flip side to the coin. Ever try to have a little fun on 20 mtr packet before ? It is a very frustrating experience. I believe that a major problem is dis-organisation and sheer ignorance of the people involved. You have alot, maybe hundredes of people all off by up to what, maybe 400 hz of each other - and total chaos is the result. It would not be a good idea to involve a whole s**tload of more new people into a mess like that. After using HF packet for a while, I wouldn't be surprised if the FCC banned packet radio from HF. It isn't very efficient is it ? Having said that, I am not impressed with operations on the VHF bands either. It leaves much to be desired. My point is that lack of a solid game plan and education is a major enemy to us, at least as far a digital communications goes. I joked to a freind the other nite that I think their should be 'regional SA's' for our packet radio network.

I also realize that there are other problems beyond the control of us operators, like not to great of a protocol, one hell of a lot of development all at once, etc - but I think the above is important.

I have donned the asbestos armor and am awaiting to hear replys from all you lovely people.....

Jeff - NR0D

4096. Running a PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-10 03:13:12 UTC
From: faunt@dustbin.cisco.com
Message-ID: <FAUNT.90Jul9201312@dustbin.cisco.com>
Source record: 10451
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,sci.electronics

I would like to be able to run a standard PC/AT clone on 12V,
efficiently. Where can I get information on buying or building a
reasonably low cost power supply for this?
thanx, and 73, doug

--
faunt@cisco.com 415-688-8269

4097. AMSAT Bulletins, 7/7/90

Newsgroup: rec.ham-radio
Date: 1990-07-10 05:27:37 UTC
From: tad@ssc.UUCP
Message-ID: <885@ssc.UUCP>
Source record: 10452

SB ALL @ AMSAT $ANS-188.01
MICROSAT STATUS REPORT, PT I

HR AMSAT NEWS SERVICE BULLETIN 188.01 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

NK6K Provides MICROSAT Bulletin Board System (BBS) Status Report

Harold Price (NK6K) this week has provided the AMSAT News Service (ANS) with a complete run down on the MICROSAT Bulletin Board System (BBS) software (S/W) development effort. Working in close collaboration with Harold is Jeff Ward (K8KA) at the University of Surry (UoS) on the UO-14 BBS S/W. The following is a brief synopsis of the current progress.

It was decided early on to use UO-14 as a testbed for all MICROSAT BBS development. NK6K points out that there are several advantages to this. First off, all S/W developed for UO-14 is completely portable to the MICROSATs due to a device programmers call high-level Application Programming Interfaces (API). The APIs hide the differences between the different computer architecture of the MICROSATs and UO-14. The APIs perform the "nitty-gritty" tasks that are peculiar to the hardware of a particular computer system. For example, one of the most common task performed by all computer systems is Input/Output (I/O) operations. Thus, to the programmer it makes little difference if the BBS S/W he is writing is for the MICROSATs or for the Packet Communication Experiment (PCE) on UO-14, as long as he uses the APIs.

Another advantage for using UO-14 as a testbed is the 9600 baud uplink/downlink that it uses. NK6K says that he can load new S/W in two passes as compared to eight passes for the MICROSATs. The MICROSATs use the much slower but more common 1200 baud. Also, UO-14 has a completely separate computer system for the PCE operations. The UO-14 On-board Computer (OBC) which controls the satellite is unaffected by what happens with the secondary PCE computer. So if the BBS S/W crashes, UO-14 will continue to operate normally. If the BBS S/W causes a crash of the OBC on a MICROSAT, a great deal of S/W needs to be reloaded. Although an OBC crash doesn't put a MICROSAT at great risk, it is inconvenient to the users. Except for DOVE, most S/W reloads of a MICROSAT OBC are not very difficult to accomplish.
/EX
SB ALL @ AMSAT $ANS-188.02
MICROSAT STATUS, PT II

HR AMSAT NEWS SERVICE BULLETIN 188.02 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

MICROSAT Status, Part II

Lets go down the list of MICROSATs and give the present status for each one.

AO-16

AO-16 is in good shape. RAM memory tests will be done this week in preparation for uploading the BBS S/W. According to NK6K, at the present time, the BBS S/W for AO-16 is targeted to be installed and operational by August. Until that time digipeating operation will be possible.

DO-17

DOVE is still transmitting on S-Band only. Full recovery has been delayed due to an unexplained anomaly in the S-Band transmitter. N4HY has to rely on the S-Band transmitter because the 2M transmitter blocks the 2M receiver on DOVE. This anomaly has required N4HY to use his considerable programming skills to write special Digital Signal Processing (DSP) S/W to work around this problem. Another problem plaguing the DOVE recovery is that N4HY's hastily assembled S-band station is about 5 dB SNR lower than what is required for reliable reception. N4HY has, however, been able to use the high quality S-Band station of K0RZ in Boulder, Colorado via phone patch during mutually visible passes for software loading. N4HY has given the DOVE recovery top priority. At press time (Saturday July 7), DOVE had again crashed as evidenced by MBL transmissions from the S-Band beacon. Analysis was under way to determine whether the crash was due to a problem in one of the tricky software upload sessions or, less likely, another hardware problem. Two meter transmissions were not expected before Tuesday July 10.
/EX
SB ALL @ AMSAT $ANS-188.03
MICROSAT STATUS, PART III

HR AMSAT NEWS SERVICE BULLETIN 188.03 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

MICROSAT Status, Part III

WO-18

WO-18 is in good shape. The third version of the imaging S/W was uploaded last week. The Weber State University (WSU) engineers have added more "tuning knobs" to the picture taking S/W in order to improve the contrast of the earth images. Additional information has been added to the image header giving the solar array currents and horizon sensor values when the picture was snapped. These added items will provide more information about where the lens was pointed when the picture was taken. The impact detector, which was originally designed to indicate when WO-18 was hit by micrometeorites, is being used to verify that the CCD camera iris shutter has clicked. When the shutter is snapped, the impact detector instantaneously sees the vibration that the shutter operations cause in the spacecraft structure.

Each day several images have been downloaded and those who have WeberWare 1.0 can turn the binary data into pictures on CRT screens. Finally, the 1.2 GHz

Fast Scan TV receiver was tested and the horizontal sync was detected. A full image is expected to require more gain and/or much more accurate antenna pointing.

One good quality picture of earth features has finally been taken and will be transmitted every evening for the next several days so that WeberWare 1.0 users will be sure to have a chance to capture it. Other testing will continue during each day.

LO-19

LO-19 is in good shape. The RF power output of LO-19 is though to have been varying because of the simultaneous operation of the CW beacon. Once the RAM memory checking S/W has been finished and checked out on AO-16, the same RAM memory check will be performed on LO-19. Eventually the AMSAT-LU Group will take over all the S/W development for LO-19 after the BBS S/W is installed.

At the present time all general housekeeping and monitoring tasks are performed by the AMSAT-LU team.
/EX
SB ALL @ AMSAT $ANS-188.04
DOVE RECOVERY EFFORT INTENSE

HR AMSAT NEWS SERVICE BULLETIN 188.04 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

N4HY Tries The "Auditory" Method For Loading DOVE Software

This past weekend, N4HY was connected through a phone patch to the QTH of Bill McCaa (K0RZ) in order to take advantage of Bill's S-band station in an intense effort to bring DOVE back to life on two meters. In what amounts to an all-time packet radio first, N4HY will listen by ear for the Acknowledge packets to decide if he needs to resend each 128 byte packet. K0RZ provides the downlink station and N4HY uses his own 2M station to uplink S/W to DOVE. N4HY is using his own special bootloader to load 50,000 bytes of S/W instead of the resident ROM based MICROSAT Bootloader (MBL). This new DOVE bootloader will only send an ACK when it receives a good packet stream, but will never send NACKs. If N4HY therefore does not hear an ACK for a particular uplinked packet, he assumes that the packet wasn't received by DOVE and he manually sends it again. So far this "auditory" packet S/W loading technique has worked well.

Although many might view this as a futile effort, N4HY has chided himself for not thinking of this technique several months ago. As N4HY puts it: "WHAT A HACK, but no reason it shouldn't work!" The primary ingredient to making this happen, however, is the outstanding S-band station of K0RZ.

Stay tuned to AMSAT Nets and ANS bulletins for further updates on the recovery of DOVE-OSCAR-17.
/EX
SB ALL @ AMSAT $ANS-188.05
AMSAT-DL STMNT ON AO13 ORBIT

HR AMSAT NEWS SERVICE BULLETIN 188.05 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

The following statement has been received from Dr. Karl Meinzer (DJ4ZC), President of AMSAT-DL:

"Recently some information has been circulated stipulating the decay of the AO-13 orbit between 1992 and 1997.

"Elliptic orbits with high inclination (like AO-13) are potentially unstable due to luni-solar perturbations. This has been known for a long time and in fact some Molnija-satellites have prematurely decayed from this mechanism. AMSAT was aware of this problem and had a study performed by a NASA expert in the late nineteen seventies for the P3 programme. The conclusion of the study was, that the perigee height can oscillate with an amplitude of +-1000 km. As a consequence the minimum perigee height for the P3-satellites was chosen to be 1500 km. On AO-13, 2500 km was chosen for additional margin against decay.

Recently, the problem of orbit stability was revisited by Victor Kudielka, OE1VKW (AMSAT-DL Journal 2, 90, pp. 5-7). OE1VKW discovered that the perturbations can have a longer "time-constant" and thus result in much larger effects than previously believed. In particular he predicted a possible decay of AO-13 for early 1997. At this time we do not understand the discrepancy between the old study and OE1VKW's results. Since OE1VKW's results so far are in good agreement with the actual orbit of AO-13, there is little doubt that his computations are basically correct. So the conclusion is inevitable that the old study was either too coarse or that the change of the lunar orbit (18.6 years nutation period, 8.6 years period of perigee rotation) has invalidated the original study.
/EX
SB ALL @ AMSAT $ANS-188.06
AMSAT-DL STATEMENT, PART 2

HR AMSAT NEWS SERVICE BULLETIN 188.06 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

The publication of OE1VKW's work triggered a flurry of activity in the USA. In particular Bob McGwier, N4HY, used a NORAD tracking program and found that a decay may happen as early as 1992. Bob states that he used the program as a black box without having user instructions. Unfortunately, the orbit situation is such that some very slight parameter changes have a dramatic influence on the lifetime. Also, numerical integration programmes have many potential pitfalls. So at this time, we can only conclude that the perigee height of AO-13 is coming down and this could lead to the loss of AO-13 during the nineties.

Also, at this time it is unclear in what direction the orbit will be influenced by the onset of air drag. It could either make the orbit more stable or accelerate the decay. Also it will be worthwhile to investigate if we have any means to prolong the life of AO-13 by exploiting the on-board systems.

With the orbit of AO-13, we apparently were very lucky and very unlucky at the same time. We were lucky in that we used to our propulsion excess to increase the perigee height over the original figure just to "buy margin" without a strong reason. But we were also unlucky because the present studies were not available in 1988. It would have been easy to either wait after the first motor-burn for a sufficient RAAN-change before the final burn thus eliminating the problem or to increase the perigee height even further. Certainly we will not be so blue-eyed with P3-D.

Of course, AMSAT-DL will make every effort to keep AO-13 in operation as long as possible. We hope that we can keep AO-13 until P3-D is launched to give us continuity of operation.
/EX
SB ALL @ AMSAT $ANS-188.07
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 188.07 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

09 Jul 90 0000 184 B N5BF Sunday
16 Jul 90 0115 130 B N5BF Sunday
27 Jul 90 0030 130 B N5BF Thursday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your nearby AMSAT Regional Coordinator
/EX
SB ALL @ AMSAT $ANS-188.08
NEW AO-13 TRANSPONDER SCHED

HR AMSAT NEWS SERVICE BULLETIN 188.08 FROM AMSAT HQ
SILVER SPRING, MD JULY 7, 1990
TO ALL RADIO AMATEURS BT

A new Transponder Schedule for AO-13 was put into effect on July 3.

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 003 to MA 165
Mode-JL : MA 165 to MA 190
Mode-LS : MA 190 to MA 195 (Mode S Beacon only)
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 240
Off : MA 240 to MA 003
Omnis : MA 240 to MA 060

Cross mode B and S QSOs are possible from MA 200 to 205.

The current attitude estimate:

BLON = 207 and BLAT = +1

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

Much activity has been heard on AO-10 centering around a popular calling frequency of 145.910 MHz.
/EX
SB ALL @ AMSAT $ORBS-188.O
Orbital Elements 188.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JULY 7, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90177.47365881
Element set: 530
Inclination: 26.0107 deg
RA of node: 197.5005 deg
Eccentricity: 0.5961085
Arg of perigee: 154.3991 deg
Mean anomaly: 254.3150 deg
Mean motion: 2.05881318 rev/day
Decay rate: -4.10e-07 rev/day^2
Epoch rev: 5292

Satellite: UO-11
Catalog number: 14781
Epoch time: 90182.63053424
Element set: 754
Inclination: 97.9480 deg
RA of node: 234.7134 deg
Eccentricity: 0.0012006
Arg of perigee: 197.5080 deg
Mean anomaly: 162.5709 deg
Mean motion: 14.65457881 rev/day
Decay rate: 8.66e-06 rev/day^2
Epoch rev: 33808

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90187.05410024
Element set: 245
Inclination: 82.9278 deg
RA of node: 314.5857 deg

Eccentricity: 0.0013227
Arg of perigee: 70.0511 deg
Mean anomaly: 290.2091 deg
Mean motion: 13.72097140 rev/day
Decay rate: 8.90e-07 rev/day^2
Epoch rev: 15203

Satellite: AO-13
Catalog number: 19216
Epoch time: 90184.94672410
Element set: 135
Inclination: 57.0113 deg
RA of node: 147.4281 deg
Eccentricity: 0.6982849
Arg of perigee: 230.6131 deg
Mean anomaly: 43.7356 deg
Mean motion: 2.09704960 rev/day
Decay rate: -1.82e-06 rev/day^2
Epoch rev: 1575

Satellite: FO-20
Catalog number: 20480
Epoch time: 90185.08503568
Element set: 91
Inclination: 99.0369 deg
RA of node: 228.4026 deg
Eccentricity: 0.0541364
Arg of perigee: 10.3474 deg
Mean anomaly: 350.8266 deg
Mean motion: 12.83158679 rev/day
Decay rate: 7.30e-07 rev/day^2
Epoch rev: 1891
/EX
SB ALL @ AMSAT $ORBS-188.D
Orbital Elements 188.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JULY 7, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90185.19502530
Element set: 174
Inclination: 98.6973 deg
RA of node: 261.2539 deg
Eccentricity: 0.0012398
Arg of perigee: 104.9649 deg
Mean anomaly: 255.2960 deg
Mean motion: 14.28649049 rev/day
Decay rate: 2.70e-06 rev/day^2

Epoch rev: 2329

Satellite: AO-16
Catalog number: 20439
Epoch time: 90185.18358906
Element set: 90
Inclination: 98.7037 deg
RA of node: 261.3512 deg
Eccentricity: 0.0012717
Arg of perigee: 103.2210 deg
Mean anomaly: 257.0400 deg
Mean motion: 14.28753136 rev/day
Decay rate: 2.41e-06 rev/day^2
Epoch rev: 2329

Satellite: DO-17
Catalog number: 20440
Epoch time: 90185.24914985
Element set: 94
Inclination: 98.7035 deg
RA of node: 261.4266 deg
Eccentricity: 0.0012939
Arg of perigee: 103.4420 deg
Mean anomaly: 256.8212 deg
Mean motion: 14.28799640 rev/day
Decay rate: 2.63e-06 rev/day^2
Epoch rev: 2330

Satellite: WO-18
Catalog number: 20441
Epoch time: 90185.23712146
Element set: 95
Inclination: 98.7034 deg
RA of node: 261.4353 deg
Eccentricity: 0.0013505
Arg of perigee: 104.5773 deg
Mean anomaly: 255.6912 deg
Mean motion: 14.28895732 rev/day
Decay rate: 2.43e-06 rev/day^2
Epoch rev: 2330

Satellite: LO-19
Catalog number: 20442
Epoch time: 90185.22932602
Element set: 94
Inclination: 98.7030 deg
RA of node: 261.4448 deg
Eccentricity: 0.0013820
Arg of perigee: 104.3065 deg
Mean anomaly: 255.9658 deg
Mean motion: 14.28964845 rev/day

Decay rate: 2.40e-06 rev/day^2
Epoch rev: 2330
/EX
SB ALL @ AMSAT $ORBS-188.M
Orbital Elements 188.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JULY 7, 1990
TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90187.08643662
Element set: 364
Inclination: 51.5981 deg
RA of node: 208.4200 deg
Eccentricity: 0.0002108
Arg of perigee: 12.6384 deg
Mean anomaly: 347.4903 deg
Mean motion: 15.65478058 rev/day
Decay rate: 5.3987e-04 rev/day^2
Epoch rev: 46781

Satellite: MIR
Catalog number: 16609
Epoch time: 90186.64239909
Element set: 775
Inclination: 51.6126 deg
RA of node: 237.6281 deg
Eccentricity: 0.0010676
Arg of perigee: 110.8773 deg
Mean anomaly: 249.3197 deg
Mean motion: 15.62524310 rev/day
Decay rate: 2.6365e-04 rev/day^2
Epoch rev: 25098

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 90187.05941761
Element set: 116
Inclination: 28.4714 deg
RA of node: 129.5212 deg
Eccentricity: 0.0006826
Arg of perigee: 330.0571 deg
Mean anomaly: 29.9869 deg
Mean motion: 14.84546267 rev/day
Decay rate: 2.335e-05 rev/day^2
Epoch rev: 1078
/EX
SB ALL @ AMSAT $ORBS-188.W
Orbital Elements 188.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JULY 7, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90186.53953292
Element set: 601
Inclination: 99.1683 deg
RA of node: 186.7945 deg
Eccentricity: 0.0014629
Arg of perigee: 321.1521 deg
Mean anomaly: 38.8597 deg
Mean motion: 14.12611022 rev/day
Decay rate: 4.15e-06 rev/day^2
Epoch rev: 28657

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90183.38641875
Element set: 447
Inclination: 98.5974 deg
RA of node: 210.9907 deg
Eccentricity: 0.0012582
Arg of perigee: 223.1463 deg
Mean anomaly: 136.8731 deg
Mean motion: 14.23650603 rev/day
Decay rate: 3.22e-06 rev/day^2
Epoch rev: 19677

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90185.32051146
Element set: 451
Inclination: 82.5544 deg
RA of node: 276.7110 deg
Eccentricity: 0.0011204
Arg of perigee: 200.8365 deg
Mean anomaly: 159.2339 deg
Mean motion: 13.83658545 rev/day
Decay rate: 2.19e-06 rev/day^2
Epoch rev: 14535

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90185.39849661
Element set: 309
Inclination: 82.5437 deg
RA of node: 336.7763 deg
Eccentricity: 0.0015421
Arg of perigee: 278.6447 deg
Mean anomaly: 81.2960 deg

Mean motion: 13.84349847 rev/day
Decay rate: 7.60e-07 rev/day^2
Epoch rev: 12256

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 90185.28497008
Element set: 518
Inclination: 82.5423 deg
RA of node: 265.3282 deg
Eccentricity: 0.0016020
Arg of perigee: 273.2973 deg
Mean anomaly: 86.6111 deg
Mean motion: 13.16900567 rev/day
Decay rate: 3.91e-06 rev/day^2
Epoch rev: 9320

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90185.31988497
Element set: 301
Inclination: 98.9820 deg
RA of node: 133.6476 deg
Eccentricity: 0.0011255
Arg of perigee: 232.8678 deg
Mean anomaly: 127.1464 deg
Mean motion: 14.11640134 rev/day
Decay rate: 4.28e-06 rev/day^2
Epoch rev: 9138

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90185.15776685
Element set: 253
Inclination: 82.5206 deg
RA of node: 214.9347 deg
Eccentricity: 0.0013581
Arg of perigee: 324.3790 deg
Mean anomaly: 35.6458 deg
Mean motion: 13.83986438 rev/day
Decay rate: 1.05e-06 rev/day^2
Epoch rev: 6791

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90185.09823028
Element set: 160
Inclination: 82.5533 deg
RA of node: 206.0657 deg
Eccentricity: 0.0014622
Arg of perigee: 291.1921 deg

Mean anomaly: 68.7663 deg
Mean motion: 13.15861166 rev/day
Decay rate: 4.50e-07 rev/day^2
Epoch rev: 3317

Satellite: MET-2/19
Catalog number: 20670
Epoch time: 90183.04636009
Element set: 7
Inclination: 82.5475 deg
RA of node: 276.8747 deg
Eccentricity: 0.0014659
Arg of perigee: 243.7424 deg
Mean anomaly: 116.2234 deg
Mean motion: 13.83835295 rev/day
Decay rate: -5.00e-07 rev/day^2
Epoch rev: 57
/EX

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4098. For Sale

Newsgroup: rec.ham-radio
Date: 1990-07-10 06:45:40 UTC
From: Joey.Burgett@f160.n226.z1.FIDONET.ORG
Message-ID: <60591.269A1790@cmhgate.FIDONET.ORG>
Source record: 10453

```
* Original: AREA.... 4SALE226
* Original: FROM.... Joey Burgett
* Original: TO...... All
* Forwarded by...... Maximus-CBCS v1.00 at 1:226/160.0

For Sale:

12 Mhz IBM Compatible 286 -

o Full size case
o 1-5.25" Floppy 1.2 Meg
o 1-3.5" Floppy 720k
o 2 Meg of Ram
o VGA Graphics Adapter with VGA Gray Scale Monitor
o Sound Blaster sound card, which features:
- MIDI Port
- Stereo Sound (Also Adlib Compatible)
- External Amplified Speakers (Stereo)
- Game Port
- Voice Digitizer
o 2 Serial Ports
o 1 2400 Baud internal modem
o Serial Mouse
o 1 Printer Port
o Arcnet Networking Card
o 40 Meg Hard Drive

Price: $1000 - FIRM!

Reason for selling: Need to get new HF Rig for Amateur Radio -

Contact me via my BBS at: 1/614-421-3015 1200 or 2400 Baud
FidoNet: (1:226/160)

or

Contact me packet on W8CQK in Columbus, Ohio

Thanks - N8MPV - Joey

--
Joey Burgett via cmhGate - Net 226 fido<=>uucp gateway Col, OH
UUCP: ...!osu-cis!n8emr!cmhgate!160!Joey.Burgett
INET: Joey.Burgett@f160.n226.z1.FIDONET.ORG
```

4099. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-10 09:56:36 UTC
From: gary@ke4zv.UUCP
Message-ID: <956@ke4zv.UUCP>
Source record: 10454

In article <1250189@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>
>>How effective is a filter which includes a ground as part of the design,
>>if you leave it UNGROUNDED?
>
>---------
>
>It works just fine. I guess a lot of people are confused about this, so
>I'll expand further.
>
>The transmitter generates RF voltage BETWEEN the center conductor of the
>output coax and the shield. Note that this voltage is NOT referred to
>earth ground. The chassis could be at 1,000,000 volts (AC or DC) with
>respect to earth, but there is still the same RF voltage existing between
>coax center conductor and shield -- the transmitter doesn't care.
>
>If you have an external low-pass TVI filter, its internal circuitry is
>likewise referenced to CHASSIS ground (same as coax shield).
>
>Part of the confusion is caused by using the same term "ground" to refer
>both to "earth ground" and the common connection point for circuitry
>within a piece of electronic equipment.
>
>AL N1AL

I'm afraid that YOU are the one that is confused. When an unbalanced filter
is used to bypass unwanted RF energy to the chassis and the chassis is
not connected to ground, the chassis structure and the outside of the
coax shield, the microphone cord, the powerline, and any other wires
connected to the chassis become RADIATING ELEMENTS for that unwanted
RF. Thus the desired effect of preventing unwanted radiation is lost.
The currents between the coax center conductor and shield are supressed,
but that is of little use if the outside of the coax becomes "hot".

Gary KE4ZV

4100. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-10 10:12:31 UTC
From: gary@ke4zv.UUCP
Message-ID: <957@ke4zv.UUCP>
Source record: 10455

In article <1250188@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>>Ok the reason grounding is necessary is that your transmitter uses single
>>ended unbalanced filters for interstage and output coupling. These filters
>>are the primary method of suppressing out of band radiation. It does no
>>good for these filters to bypass out of band energy to the chassis if the
>>chassis is not at true RF ground. All you get is a "hot" chassis and
>>radiation down the OUTSIDE of your coax.
>
>>It is relatively simple to get a good RF ground at your equipment.
>>First, use several ground leads of different lengths between your
>>equipment and your ground system. This breaks up any resonances in your
>>ground leads at the frequencies you are trying to suppress. Second, I
>>like to use the shielded ground trick. I use coax for ground runs with
>>the shield and center connected to ground and only the center connected
>>to the radio. This prevents any ground lead that happens to be at a
>>high impedance at the frequency of interest from radiating. This
>>technique works sucessfully even if your shack is on the second
>>floor as mine is.
>
>>Gary KE4ZV
>----------
>>>>>>>>>>>>>>>>
>
>Many people seem to confuse "earth ground" with the "chassis ground" in
>a piece of equipment. Recall that the term "voltage" is another name for
>"potential difference." That is, voltage must always be measured WITH
>RESPECT TO A REFERENCE POINT.
>
>Here is where people get confused. Inside a piece of equipment, the chassis
>ground is a common reference point for internal circuitry. The filters etc.
>inside the box don't care whether the chassis is at "earth ground" or not,
>they work the same in any case. External grounds (assuming they don't
>affect antenna feedpoint impedance) don't affect the transmitter low-pass
>filters at all.

Indeed, this is where people become confused! As you stated, the filter
will supress the unwanted frequency components travelling down the
inside of the coax between center and shield. However, the currents
that were bypassed to the chassis excite it exactly like a long wire
antenna is excited and you will see radiation from the chassis, the
outside of your coax, your mic cord and any other wires attached to
the transmitter. Believe me when I tell you that twenty five years
experience with broadcast high power transmitters, and the RF burns
from ungrounded chassis, has given me plenty of practical as well

as theoretical knowledge on this particular subject. :-)
>
>Regarding the "shielded ground". Sounds like a quarter-wave decoupling
>sleeve to me. At the quarter-wave resonant frequency, it will look like
>an open circuit.

This is true. That is why you must use more than one lead, each of a different length so that at least one will not be resonant at a given frequency.

Gary KE4ZV

4101. Re: Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-10 10:44:38 UTC
From: gary@ke4zv.UUCP
Message-ID: <958@ke4zv.UUCP>
Source record: 10456

In article <1250190@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>Comments from CQ Magazine's publisher:
>
>>He made this point quite clearly: "the reality is that the world has
>>changed." Ham radio is dominated by the appliance operator and those few
>>technically minded hams left are a small majority. His magazine is there
^^^^^^^^
>>to serve the needs of the masses, not the majority. He added that while CQ
^^^^^^^^
>>might become somewhat more technical, the changes would be very slight.
>
>----------
>
>Amateur radio licensing requirements have been steadily relaxing for
>40 years. Any chance there is a connection here?

Data point: In 1963 when I took the General Exam (the highest class license available for amateurs) the exam was on much simpler technology and was considerably easier than the FCC First Class commercial exam that I passed at the same time. I have recently examined the study guide for the amateur exam and note that the technology is considerably more complex and IMHO the exam itself is more comprehensive than the current FCC General commercial exam.

>
>Could someone explain how further easing the requirements is going to
>increase the technical quality of hams?
>
>AL N1AL

Times have indeed changed. People still crave electronic excitment, but ham radio, mired as it is in obsolescent operating technology, is no longer relevant to these people's needs. Many of those who would have been the "techie" hams of the 50's are the computer hobbyists of today. They don't see the current ham radio or it's exam structure as RELEVANT to their needs. A radical restructuring of amateur radio and it's exams is necessary to offer something to meet people's current needs. The only way to attract people to amateur radio or any other optional electronic recreational activity is to meet an emotional NEED they have for electronic excitment. Morse code does not meet that need for the vast majority of technically inclined people today anymore than 78rpm records meet the needs of audiophiles accustomed to compact discs.

Gary KE4ZV

4102. Re: Remotely Tuned HF Beam Antenna

Newsgroup: rec.ham-radio
Date: 1990-07-10 11:50:20 UTC
From: eyg@hpnjld.HP.COM
Message-ID: <4140017@hpnjld.HP.COM>
Source record: 10457

>My 3 element 20 meter Yagi has a director and reflector that are each
>a continuous piece of aluminum tubing. How would a variable capacitor
>tune these elements?

A series capacitor, inductor, or both could be used to vary the phase
of the current in a parasitic element with respect to the driven element.

>To be effective, a Yagi requires precise spacing in terms of a fraction
>of a wavelength between each element. If I am using .18 wavelength
>spacing from the driven element to the director on 20, that becomes .36 wv
>on 10 meters.

Effective yagis can be designed with very close spacing or very wide
spacing. There is an optimum spacing for forward gain, and a different
optimum spacing for f/b ratio, but the things will work over quite
a wide range of spacings. Just look at some of the simpler tribanders
such as the TA33, which uses the same spacings for 10, 15, and 20.

> Also, my .507 wv driven element on 20 becomes over one
>wavelength long on 10, no matter how you tune it.
>
>I see problems!

The reason your 20 meter elements have these lengths is that it gives
the correct phase relationships between the currents in the 3 elements, and
it presents a good match to your 50 ohm cable. There are lots of ways
to vary phase of the currents and to match the driven element to 50 ohms,
even if the elements are much shorter or longer than 1/2 wavelength.

4103. Antenna Farms?

Newsgroup: rec.ham-radio
Date: 1990-07-10 12:17:00 UTC
From: MORRISTA%UCMCIC@UCBEH.SAN.UC.EDU
Message-ID: <68BA6D4272DFA1024A@UCBEH.SAN.UC.EDU>
Source record: 10458

University
of I N T E R O F F I C E M E M O R A N D U M
Cincinnati
Date: 10-Jul-1990 08:12 EST
From: Theodore Morris
MORRISTA
Dept: MCIC/IR&D
Tel No: 513-558-6046 (Group)

TO: Remote PMDF User (_IN%INFO-HAMS@UCSD.EDU)

Subject: Antenna Farms?

Then there's always the VOA farm just north of Cincinnati...used to be the WLW antenna farm, as I recall (back when WLW was 500KW and came in stronger in Australia than the local AM BC stations!). I remember a QSO with a new Buckeye just moved in from Texas whose old buddies were heckling him about moving North. He drove up the interstate (I-75) to the VOA site and had a friend take a photo of him standing strategically in front of "his new antenna farm in Ohio." I bet he got quite a chuckle out of it...

-- sigh! --

Ted, WB8VNV

4104. flourescent light noise

Newsgroup: rec.ham-radio
Date: 1990-07-10 12:59:39 UTC
From: smk@nvuxr.UUCP
Message-ID: <1779@nvuxr.UUCP>
Source record: 10459

I am using a small flourescent desk lamp in my study at home.
I recently replaced the tube.
Now when the light is on,
it generates so much RFI that I can no longer use the
AM broadcast band radio that is in the same room.
I tried still another tube with basically the same result.

Is there a way to reduce this RFI
(bypass caps, filter etc)?

During shortwave listening I just shut off the offending lamp,
but for other times I would like to use the lamp and
listen to the AM radio.
Can anyone help?

I briefly checked the ARRL handbook and didn't see anything helpful
for appliance generated RF noise.

Thanks for any help.

--

Steve Kuzyszyn at Bell Communications Research (201) 758-2591

4105. Re: Kenwood TS140s computer interface ? & TS140s vs TS440s

Newsgroup: rec.ham-radio
Date: 1990-07-10 13:05:06 UTC
From: cep@cci632.UUCP
Message-ID: <38576@cci632.UUCP>
Source record: 10460

Does the command set inside these radios (TS-440, 140, icom, kenwood, etc.) allow you to poll the radio for its current frequency, or do they just let you transmit commands like "switch to memory 5" ? (More to the point: could your electronic logger automatically "grab" the frequency from the radio and store it in the computer). I have not seen the command set for any of these computer interfaces.

Chris

4106. Re: FM in VHF Contests

Newsgroup: rec.ham-radio
Date: 1990-07-10 14:39:32 UTC
From: bobw@col.hp.com
Message-ID: <24300023@col.hp.com>
Source record: 10461

Mike Owen W9IP writes:

>Recently, Bob Witte, KB0CY, asked about the apparent absence
>of FM in VHF contests. Here are a few comments:
>
>2. About 10 years ago, the VHF contest rules permitted unrestricted
>simplex FM activity. A few of the Big Gun multiops abused this rule
>and "took over" the most popular simplex channels in metropolitan
>areas. Consequently, stiff restrictions were eventually placed on
>FM operation (no 146.52, for example) so the FM people who wanted to
>communicate could do so without contest QRM.
Thanks for the background on this rule. The .52 prohibition
seems to make sense.
>
>3. Most FMers prefer repeaters and seldom spend much time on simplex.
>As a result of the fact that contest stations can't solicit QSOs on
>repeater frequencies, FMers may not be aware that a contest is in progress.
I suppose this is mostly true, but I keep running into ops that
are fascinated with the notion of getting to the top of a Colorado
Mountain and seeing what the propagation characteristics of 2M allows.
These folks are often not serious enough VHFers to have an SSB rig.
Also, if they hiked in they only have an HT.

>
>4. They may not care. Many FM-only (or FM-mainly) stations could not
>care less about contesting. So it's only fitting that they should be left
>alone. I think the FM restrictions are pretty reasonable.
Yup. Don't want to force anybody.

Thanks for the comments.

Bob Witte HP Colorado Springs Division
bobw@col.hp.com P.O. Box 2197
Phone:(719) 590-3230 Colorado Springs, CO 80901
Radio: KB0CY

4107. Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-07-10 15:58:35 UTC
From: rustyh@wam.umd.edu
Message-ID: <1990Jul10.155835.7459@wam.umd.edu>
Source record: 10463

In article <1990Jun15.175251.4080@hayes.fai.alaska.edu> fnddr@acad3.fai.alaska.edu writes:
>We need a filter for a low-noise preamp in the 440 MHz range. Mostly it
>needs to have a flat passband about 5 MHz wide, and steep rolloff, especially
>on the low end. Can anybody suggest a solution that is more clever than
>your standard LC configurations? Sharper cutoff, less insertion loss?
>
>I'd like to find some good books dealing with VHF/UHF design techniques...
>my library covers HF and microwaves but has quite a hole in between.
>Suggestions are welcome.

You could try a Helical Resonator but to get the low insertion loss it
would have to be large.
Cavity filters are also useful in these applications (but they may end up
larger).

An excellent book on such matters is the RSGB VHF/UHF Manual by Jessop.
(Available through ARRL)
Another good book (bible) on filters (microwave) is "Microwave filters,
Impeadance-Matching Networks, and Coupling Structures" by Matthaei Young &
Jones. (available through Artech House.)

Michael Katzmann

Broadcast Sports Technology Amateur | vk2bea (Australia)
2135 Espey Ct, Radio | g4nyv (U.K.)
Crofton MD. Stations | nv3z (U.S.A.)

...uunet!mimsy!arinc!vk2bea!michael

--
Rusty Haddock o {uunet,att,rutgers}!mimsy.umd.edu!fe2o3!rusty
Laurel, Maryland o "IBM sucks silicon!" -- PC Banana Jr, "Bloom County"

4108. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-10 15:59:38 UTC
From: tad@ssc.UUCP
Message-ID: <888@ssc.UUCP>
Source record: 10464

In article <38557@cci632.UUCP>, cep@cci632.UUCP (co-op) writes:
> In article <878@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
> >My ground system is a series of commercial ten foot ground rods in treated
> >soil, just outside the basement wall.
>
> Treated soil?

Yes.

> With what, some sort of electrolyte?

Yes. Rock salt.

> What prevents the stuff
> from just dissapating into the earth?

Nothing. Everything dissipates into the earth.

> Is it environmentally safe?

No.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4109. Re: What is Phase Noise?

Newsgroup: rec.ham-radio
Date: 1990-07-10 16:32:59 UTC
From: noel@hpfinote.HP.COM
Message-ID: <16170017@hpfinote.HP.COM>
Source record: 10465

I am getting my self out on a limb with this but will go ahead anyway. If we define a pure signal to be only one infinitesimal line on a frequency spectrum then no modulation would exist. Anything different from that would be caused by modulation. The modulation would be a result of changing amplitude or frequency and a change in appearance of the infinitesimal line width or height. This could come through noise or some form of intentional modulation. Since frequency is the rate of change of phase, it seems a relationship does exist but would manifest itself in a different appearance.

4110. Re: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-10 16:57:38 UTC
From: gtb@druco.ATT.COM
Message-ID: <4941@druco.ATT.COM>
Source record: 10466

Back in the 1960's when I was really active, the "dit-dit" was a very common final signoff to a QSO. It represented the final "two-bits" in response to the other party's "dit--dit-dit-dit-dit" (shave-and-a-haircut).

4111. Was Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-10 17:08:28 UTC
From: mrb1@cbnewsh.att.com
Message-ID: <1990Jul10.170828.12138@cbnewsh.att.com>
Source record: 10467

In article <42720@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
>
> >I haven't read the latest 73's, but Wayne always seemed to have
> >plenty of common sense in the past.
>
> When was this? I must have missed it....

Well, he started BYTE magazine and advised hams to get started making
money in the upcoming (we're talking 1975 here) microcomputer revolution.
Apple Computer [your employer] seems to have done pretty well,
along those lines.

He also advised hams to cash in on the home security business....and sure
enough, a few did. Now it's a big and still growing market as crime
and threats to life/limb/property continue to escalate. Even AT&T [my employer]
is selling its own flavor of home security products....

That's two pretty good examples.

He sees that the hobby is dying (and yes, contrary to the professional
contesters and full-time hams out there, it IS a hobby for most of us);
he is not afraid to say unpopular things. If amateur radio went away
altogether, I wouldn't miss it.

As for myself, I'm a very inactive amateur radio operator. I keep my
license renewed and that's about it....
it meant a lot to my father (he died in January of this year)
so I'm sure I will keep renewing it.
There's simply no attraction
there to hold my interest in operating a station.
Just a bunch of rabblerousers, armchair lawyers and
frustrated police-wannabe's for the most part (rec.ham-radio is an interesting
microcosm of all this).
At least Wayne's editorials are entertaining,
and (God forbid) they DO make you think. More than you can say for QST
or the ARRL (which bears an amazing organizational resemblance to the IEEE).
Nope, I don't belong to either anymore.

M. Baker
WA3ZXO
homxc!jj1028 or jj1028 @ homxc.att.con

4112. Re: Kenwood TS140s computer interface ? & TS140s vs TS440s

Newsgroup: rec.ham-radio
Date: 1990-07-10 17:28:59 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720073@hplsla.HP.COM>
Source record: 10468

>/ gary@midway.uchicago.edu (gary buchholz) / 5:47 pm Jul 9, 1990 /
>In article <.2283@dhw68k.cts.com> daveegan@dhw68k.cts.com (Dave Egan) writes:
>>
>>My problem is: I have a Kenwood TS140s and am very inexperienced in designing
>>stuff (electronics).
>>Dave Egan | Radio: N6XVZ
>
>I also have a Kenwood TS140s and my understanding is that, if one is willing
>to spend the bucks, you don't have to design anything. Kenwood sells the
>IF-101 ($52) and the IF-232C ($100) that you need to do this.

I recently added the serial interface to our club's TS-440. Cost us
all of $15 in parts. You need an 8251A USART chip, a CD4040 counter,
and optionally a MAX232 RS-232 to TTL converter. (All available from
JDR Microdevices, mail order) If you eliminate
the MAX232, you'd knock the cost down to about $7. All you need to
do is plug the 8251a and CD4040 into sockets on the 440's processor board.
The manual even mentions it, I believe. (not much design there)
This will bring the serial lines
to the rear connector, but at TTL level (0 and 5V), not RS-232 levels
(+/- 8V). However, most real RS-232 inputs will understand TTL voltages
just fine, as the switching threshold is slightly positive, I believe.
You can also drive TTL from RS-232 by using a couple of diodes and a
series resistor to clamp the voltage to 0 and +5.

By the way, I even stole the +5V from the TS-440. On the processor board
there is a place for a little jumper, which, when installed ties +5V to
the NC (unused) pin on the rear connector. Looks like that's what they
had in mind, but chickened out. (They didn't want you shorting it out)

>
>Most amazingly Kenwood will not supply any software.
Yup that $150 is a rip-off, all right! I haven't had a chance to write
anything yet either, but I ftp'd some BASIC code from hamster that does
some demo type stuff, and I also got a list of the commands from someone
there. If enough people are interested, I guess I could post the command
summary to the net.

You know, I bet the 140 understands the same commands (or a subset),
and requires the same hardware mods. What does the manual say?

>And, by the way,
>feeling the full brunt that I didn't spend the extra $250 or so to get
>the TS440s over the TS140s, I haven't seen any software on the net for
>the TS140 - I have seen TS440s software.
>

>BTW - Did I get "ripped off" with the 140 ? The 440 has a notch filter,
>triple conversion (vs double), selectable IFs, 100 memories (over 30)
>and 100% duty cycle with a cooling fan. Is it worth it. My after the
>fact opionion says that it probably would be. Oh well.

I dunno, but until a recent household emergency evaporated my surplus
funds, I was fantasizing about a new rig. I liked the '440, but $1200,
was a bit high for me, so I dug out the old QST review of the 140, (June '88)
I was somewhat disturbed that the reviewer mentioned a reciever blocking
problem several times in the review, concluding "If you're seting up a
station to use primarily for contesting, this may not be the rig you
are looking for". He said that a signal of S9+40 20 Khz away, would block
out an s9 signal on the tuned frequency. Hmmm, sounds like typical 20
meter conditions to me. If I ever get more dough, maybe a used TS-930...

Charlie Panek (UUCP: hplabs!hp-pcd!hplsla!charlier)
KX7L (domain: charlier%hplsla@hplabs.hp.com)

4113. Re: Remotely Tuned HF Beam Antenna

Newsgroup: rec.ham-radio
Date: 1990-07-10 18:46:47 UTC
From: gb@sunpix.East.Sun.COM
Message-ID: <3291@sunpix.East.Sun.COM>
Source record: 10469

Thanks for the reply Tad. To help maintain context, I have included
your quotations from my posting (preceded with >>) along with your
comments (preceded with >).

>> The plan is to put up a three element beam cut for 20 meters. At the
>> center of each beam element there will be a tuning unit with a
>> variable capacitor that can be controlled from the shack. By tuning
>> the elements it should be possible to achieve optimum operation (gain
>> or fb ratio, not both simultaneously) on any frequency on the band.
>
>My 3 element 20 meter Yagi has a director and reflector that are each
>a continuous piece of aluminum tubing. How would a variable capacitor
>tune these elements?

I was thinking of elements that are insulated at the center, for
example a wire beam, but you could certainly tune solid elements
without breaking them. The linear resonators used by Moxon (HF
Antennas for All Locations) would be one approach, a "delta" match
would be another.

>> If the tuning unit has sufficient range, it should be possible to
>> operate the beam on 20, 17, 15, 12, and 10M by retuning the elements
>> for proper resonance. The antenna would have increasing gain as
>> frequency is increased.
>
>To be effective, a Yagi requires precise spacing in terms of a fraction
>of a wavelength between each element. If I am using .18 wavelength
>spacing from the driven element to the director on 20, that becomes .36 wv
>on 10 meters.

Most multiband yagis have this same problem. A 0.1 wavelength spacing
on 20M is 0.2 wavelength spacing on 10M. Its a compromise. A look at
the charts for gain and front-to-back ratio versus element spacing (in
ARRL antenna book, or in the Yagi Design Handbook) reveals that good
gain and fbr can achieved for a wide range of element spacings. The
wider spacing (in terms of wavelengths) that you get at higher
frequencies (up to the point where excitation of the elements begins
to drop off) along with the increasing length of the elements gives
increased gain. There have been several articles over the years on
the use of extended elements in yagis for increased gain.

>> Also, my .507 wv driven element on 20 becomes over one
>>wavelength long on 10, no matter how you tune it.
>
>I see problems!

The magnitude and phase of the currents in the elements are the important factors affecting yagi performance not the length of the elements. If the driven element is matched to the feedline, and isn't so long that the pattern deviates from the familiar figure 8 of the dipole, a yagi will work regardless of the length of the driven element. Moxon describes yagi's that are fed with open wire line and matched with tuners back at the shack. There is a feedline for each element so that the elements may be resonated at the appropriate frequencies. Also, some german outfit sells a multi-band yagi that is trapless and uses the full element length on each band but with fixed tuning for each band.

>>
>> This brings up several implementation questions for further research.
>>
>> 1) What sort of tuning unit?
>
>A MAGIC one! :)

No magic required. Moxon's book as well as my own simulation with NEC shows that retuning yagi elements works. I'm looking for ways to implementing such retuning without requiring multiple resonant lines back to the shack.

>>
>> Any other ideas?
>
>How about just buying a commercial triband Yagi with traps? Or perhaps that
>Mosley model that works all the WARC bands in between? It should work a
>LOT better!

I don't want to buy an appliance antenna. Particularly one with traps that waste power and don't realize the full gain potential of the element length. Besides it wouldn't be as much fun.

Also, a yagi with fixed tuning has a high front-to-back ratio over only a small frequency range. Tunable elements would allow >30db front-to-back ratio across an entire band.

Again, thanks for the reply, Tad. I'm still hoping for greater response. Surely there are some RC modelers or servo gurus out there who can tell me how to control my remote tuners.

73 wa4fut

4114. Contents of the Digest

Newsgroup: rec.ham-radio
Date: 1990-07-10 19:05:51 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9007101906.AA18845@ucsd.edu>
Source record: 10470

Sorry about this going to the list itself, but there doesn't seem to be any other way. Mail sent to "info-hams-request@ucsd.edu" appears to be being read only by a "listserv" program, not by a human, so questions and comments elicit only a machine-generated response like a "help" message. Unfortunately, that response still contains no real live person's address to send this sort of thing to...

1) We on the mailing list side have been seeing more and more messages included in the Digest which have "null" in the header info, and no subjects. These tend to be fairly incomprehensible. Can this be fixed so we see meaningful items?

2) Could the Digest header be amended to include a moderator's personal address, if the "-request" address is going to be read by a machine? We need somewhere to send traffic like this note.

3) The standard "undigestify" process (at least the only one I know of, which is implemented here as part of the MMDF "msg" program) has a lot of problems with embedded rows of dashes inside messages. Those are the digest convention to separate individual postings. To those of you who send traffic to the list: please ensure that your ".signature" fields are not preceeded by a line of dashes. Don't use lines of dashes to separate chunks of your messages or postings. Use equal signs or asterisks or some other symbols instead. To the moderator: could the digestification program be adjusted to remove any embedded lines of dashes within postings *before* those postings are combined into a Digest?

Sorry to pester those of you on USENET about this, which is of no interest to you. (But it would help us over here if you noted the bit about lines of dashes...)

Regards, Will Martin

4115. Some CW procedure questions (reply is LONG)

Newsgroup: rec.ham-radio
Date: 1990-07-10 19:12:03 UTC
From: wayne_a._lightsey.RochXRC@XEROX.COM
Message-ID: <900710-121240-5799@Xerox>
Source record: 10471

Ronald H. Nicholson, Jr., Hewlett Packard, uucp: nicholso@hpda.HP.COM, Cupertino, CA, writes:"Hi. I've got some questions that maybe the net hams could answer, at least those with experience in CW. ... I hear lots of variation in the use of things like:BT vs. periods for punctuation, one or two BT's at a time, R R R vs. FB, R R R before or after the callsigns, 559 vs 55N for the 2nd RST report, differing amounts of abbreviations, BK vs. BK TU vs. callsigns DE callsign KN, when to use AR (I've only heard it used twice), leaving out one callsign and just send DE callsign, just ending with BK and no callsigns, SK before or after the closing callsign, the dit dit at the end of contacts."

Following are my opinions based upon practice regarding some of the variations you list:

"BT" is used for a break in the conversational flow . "II" is another abbreviation sometimes used for the same purpose. In traffic handling, the various elements of the message header, e.g. message number, "II", message precedence, "II", check (group count),"II", time, "II", etc. are seperated by the double-I sequence for clarity. After the address information in a mesage, there is a "BT" - seperating the heading/address from the text about to be sent. In voice traffic handling, the "BT" is sent as "break". After the text, another "BT" is sent (in military protocol signaling the end of the message, i.e. in lieu of "AR") seperating the text from the signature information (in ARRL NTS format).

More than one BT is a long pause. The operator needs much thinking time! It is used occasionally following one message and prior to sending the next one while an operator shuffled papers, etc. The "BT's were sent to maintain "control" of the frequency and to let the other operator know that you were still there - that atmospheric conditions had not destroyed your communications path. If you really needed some time, you send "AS" meaning stand-by. If several minutes were to elapse, like while you answered a land line telephone call, you would send "AS 5" meaning stand-by five minutes.

"R R R" is poor operating practice. One "R" is sufficient, "Solid Cpy" is more succinct, and "FB" or "OK" means you at least copied the general meaning of the transmission.

"RST 559" is the correct way to send a signal report. 55N has no defined meaning - it is absolute laziness to not send the character "9" in morse code. If the practice were uniform, your "RST 559" would become "RST FFN". The problem with this, of course is that you do not know if you received a 559, 549, or 449!

All I can say about abbreviations are that they are an apparent attempt to speed up communications. In non-standard abbreviations, at high Morse speeds (25 wpm and higher), you are doing word recognition, not character recognition; and abbreviations that are not universally known throw a glitch in the communication. Abbreviations are not good practive in International communications. Mst hv no pblms undrstndg wht is mnt by wl frmd abbrevs lk WX, TMP, HPE CUAGN SN, TKX (or the variation TNX), bng addr as DR by DX stns whs rigs run 1TT WTTS to varius ANT on CLDY DYS WID RAIN! An unclear abbreviation could be a technical violation, considered enciphering - which is prohibited! You pays your money and takes your chances!

"BK" stands for "BREAK" - a signal used in break-in operation. Its intended purpose was to interrupt a message to obtain a fill or correct an error - rather than wait until the entire message had been sent. It is correct to use in traffic handling situations and O.K. if properly used in a normal QSO to interject a comment or thought in a conversational mode contact (most enjoyable to work someone who can do so!). Using this protocol, you are required to identify at the beginning , end and once each 10-minute operating period.

"BK TU is redundant, like "very best 73's - very best best regards's???". "BTU", sometime with a "K", meaning (I think), "back to you" seems to becoming a means of saying "Over" in CW.

"Callsign DE Callsign" " K" or "KN" ("K" means you are willing to have someone "BK"-in, "KN" means no "BK"-in allowed) is still used but was moderated by a rule change several years ago that no longer required station call transmission at the beginning and end of each transmission but only at the beginning and end of a series of transmissions with identification once each 10-minutes during the series of transmissions.

"AR" means "end of message". It is normally used at the completion of transmitting a formal message with header, text, signature, etc. Noah built and sailed an "AR K" but the useage in ham radio casual communications is incorrect and indicative of a LID operator! The only correct ueage of "AR" in ham radio is in conjunction with traffic handling but, like other special signals, is often abused.

"DE Callsign" is an extended break-in process except when fulfilling the 10-minute identification rule. You are not required to send the other stations callsign EXCEPT at the beginning and end of a series of transmissions.

"SK", In traffic handling parlance means you have sent the last of a series of messages and have no other traffic to send. (You never send "AR""SK"). If you expect a reply, you may also send "K" or "KN". If you do not expect a reply (i.e. the other station has already sent "SK" or did not list traffic for you ,"QRU"), then send nothing else! In commercial traffic handling, the "reply" would be message traffic from the other station to you - of which you were previously advised. By sending "SK Callsign DE Callsign K", you would be saying: I have sent the last of my messages for you and am now ready to receive your message(s) for me". The

useage of "SK" in ham conversation mode really has no defined meaning.

The "shave and a haircut - two bits" ditting sequence is silly and exists on the ham bands only to my knowledge! In commercial communications, it would mark you as LID - read "unprofessional" and possibly lead to your early retirement if other changes had not already provided that opportunity.

CW QSO transcripts should be personal - not scripted. Your initial exchange should include signal report, location and name - in that order. Those three items are the most important, in order, in checking rig operation, validating a contact etc. On the next exchange, I usually include rig description with antenna, etc. Weather is optional as is age, occupation, employer, unique geographical features (live on lake, by seashore, on mountain top, in Death Valley, etc.) or whatever else may come to mind if the contact seems like one you would like to extend. Remember, many foreign hams cannot engage in contacts beyond technical exchanges - although I would believe that those restrictions are relaxing now. Like any conversation with a stranger, toss out a little bait and see where it leads. If nowhere, say 73 and move on. 73 Wayne KB6CSP

4116. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-10 19:20:13 UTC
From: john@anasaz.UUCP
Message-ID: <2670@anasaz.UUCP>
Source record: 10472

In article <319.2697A4C5@w8grt.fidonet.org> jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:
]No. I don't think of ham radio as an antique wireless museum, which is
]basically what happens on HF. I think of ham radio as a National Park of the
]Mind where the curious can go adventuring on the frontiers of technology. THAT
]is happening on VHF and up.

Ah... don't get too down on HF. There are plenty of technical challenges
left on HF. For example:
(1) continued research on propagation;
(2) how to do packet radio EFFECTIVELY given the problems of HF
propagation, bandwidth and the inevitable hidden terminal problem;
(3) antenna work (antennae are a LOT more predictable at VHF
because they don't interact with funky grounds as much);
(4) noise reduction/cancellation techniques.

I don't think that the future of amateur radio is just on VHF and up!
HF has unique problems, and it also has unique capabilities. Don't
neglect it just because a lot of old farts hang out there and
chew the rag.
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 FAX:602-861-7642 Advice: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4117. Vertical Antenna Info request - Ron Majewsk

Newsgroup: rec.ham-radio
Date: 1990-07-10 19:25:54 UTC
From: wayne_a._lightsey.RochXRC@XEROX.COM
Message-ID: <900710-124639-5890@Xerox>
Source record: 10473

Ron,

I operated in California for several years with a Hustler 6BTV. Operation was satisfactory when ground mounted, better when roof mounted with radials.

I would recommend the Butternut all band vertical. Consistently, in my experience, Butternut verticals exhibited superior signals vertical to vertical or vertical to horizontal polarization. This may only be characteristic of the Butternut design versus Hustler et al loaded trap design, but I am convinced that they work better and if I were to buy another vertical, it would be the Butternut.

4118. Re: How to deal with TVI

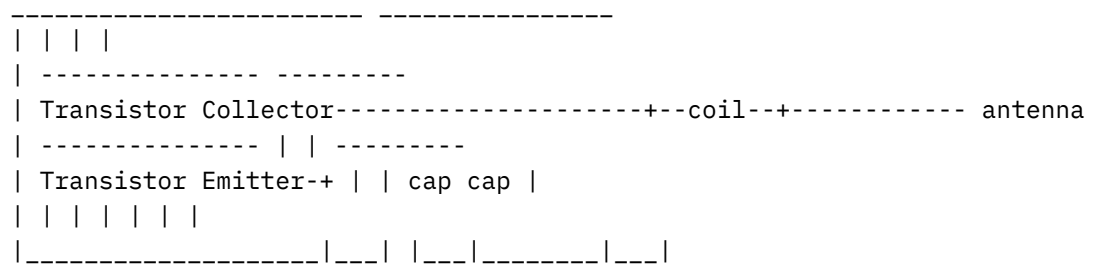
Newsgroup: rec.ham-radio
Date: 1990-07-10 19:50:43 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250192@hpnmdla.HP.COM>
Source record: 10474

>I'm afraid that YOU are the one that is confused. When an unbalanced filter
>is used to bypass unwanted RF energy to the chassis and the chassis is
>not connected to ground, the chassis structure and the outside of the
>coax shield, the microphone cord, the powerline, and any other wires
>connected to the chassis become RADIATING ELEMENTS for that unwanted
>RF. Thus the desired effect of preventing unwanted radiation is lost.
>The currents between the coax center conductor and shield are supressed,
>but that is of little use if the outside of the coax becomes "hot".

>Gary KE4ZV

OK, I'll try to explain it one more time. Perhaps a picture will help.

TRANSMITTER COAX L. P. FILTER COAX



Please excuse the crude schematic.

The transmitter generates an RF potential between the coax center conductor and "ground" (= chasses = coax shield). I have omitted the tranmitter output coupling network for clarity, but the same principle holds -- both input and output of the network are referenced to chassis "ground".

The rf current going out the tranmsitter coax center conductor is matched by an equal and opposite return current flowing in the shield. Because of skin effect, this return current flows on the inside of the shield -- no current flows on the outside of the coax. In other words, there is no "common mode" current on the coax; it is all "differential mode" which means the two equal and opposite currents cancel and there is no radiation from the feedline.

The filter acts the same way. To see this, you can ignore what is inside the unit and consider it a "black box". Kirchoff's law says that current is not created or destroyed in a circuit. If the two currents (center conductor and shield) entering on the left sum to zero (equal and opposite), then the same must be true of the currents in the center/shield of the coax exiting to the right.

Note that the drawing above does not show an earth ground. All voltages inside the transmitter and filter are WITH RESPECT TO CHASSIS GROUND, NOT EARTH GROUND. You could connect a 1000 volt battery between chassis and earth without affecting circuit operation. Or a 1000V RF source.

Even though the low-pass filter circuit is referenced to "ground", this does not imply "earth ground".

Al N1AL

4119. Faraday Cage

Newsgroup: rec.ham-radio
Date: 1990-07-10 19:52:52 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007101952.AA00790@cmr.ncsl.nist.gov>
Source record: 10475

I think that the people arguing about low-pass filters and the need for a good ground on the rig's chassis, and the OUTSIDE of the box being hot for RF even with a filter... ought to look into the idea of a Faraday cage. Also look at the TVI prevention articles written years ago in QST, Handbook,\ etc., etc.

Bob W3OTC

Too much Voodoo Radio is going on in this discussion.

4120. Re: Alligators and kerchunking

Newsgroup: rec.ham-radio
Date: 1990-07-10 20:36:44 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007102123.AA06736@ti.com>
Source record: 10476

Rusty Carruth brought up an interesting point when he mentioned that he thought he had problems with his receiver. Funny thing about transceivers: The transmitter only may fail, and vice versa. When working with repeaters and offsets, how do you know, when you fail to hear the repeater respond, whether it is because the transmitter isn't mitting or the receiver isn't ceiving? With a dead receiver, you could be banging the heck out of the repeater and never know it, all the while thinking you weren't "getting out".

Or the receiver could be mistuned. Or you could have the wrong split.

In my flying days, this used to be a concern, especially in IFR conditions. You reported to air traffic control but didn't hear a response. Was it the transmitter or the receiver? But in that case, there was a live person on the other end who would sooner or later call you and, hearing no response, assume your radio failed; or hearing your call but getting no response to his reply, would pretty well know your receiver was out. Still, you wouldn't know. With repeaters and kerchunks, a casual listener or a monitor wouldn't know who was trying to call unless an ID was given. Assuming the kerchunker giving an ID was in the book and reachable by phone, a monitor could at least tell him (her) that the transmitter was working.

On the receiver problem: I'd check the receive crystals (if there are any in the set). I'd make sure that the receiver is on the proper freq. If that passed, I'd try to do an alignment. Check any switch contacts and socket contacts to make sure all is OK. Use a wattmeter or another receiver to verify that the transmitter is working, not a repeater.

73,
Dube Todd N5PDK

4121. Re: Worldwide network of HF propagation beacons. . .

Newsgroup: rec.ham-radio
Date: 1990-07-10 20:46:00 UTC
From: sawyer@twg.com
Message-ID: <7527@gollum.twg.com>
Source record: 10377

In article <1990Jul3.030049.8312@midway.uchicago.edu> gary@ellis.uchicago.edu (gary buchholz) writes:
>I picked up a copy of the ARRL Operating Manual(copyright 1988). On page
>2-17 there is some discussion of the NCDXF worldwide propagation beacon
>network on 14.100 MHz.
>
>There are 9 transmitter sites - in NY, CA, HI, Japan, Israel, Finland,
>Madeira Island, South America and Buenos Aires. These stations signon
>and transmit for 1 minute each on power of 100 watts down to 1/10 watt.
>Each station takes its turn - 1 minute each - 9 stations - with the last
>minute silent. This cycle of 10 minutes repeats.
>
>So says the ARRL Operating Manual. However, I've tuned into this 14.100
>net for several days now and at various times and really haven't heard
>anything but background noise. I'm using a Kenwood TS-140S with a 45ft
>multi-band dipole. I can hear plenty of DX out there so I very much
>doubt its my radio - here in Chicago.
>
>==> The question is this. My ARRL guide is from 1988. Is this beacon still
>==> in operation ?
>
>==> Also, I'd be very much interested in any other such propogation nets on
>==> other ferequencies - or how people generally get "dynamic" propagation
>==> information (ie other than looking at published LUF,MUF charts)
>
The beacon set is very much still in operation. The only serious problem we've had with it was when the unit at Stanford was stolen. I think it's been replaced now, but am not sure. If you have a decent antenna, the propagation is there, and the packet guys will leave the frequency alone, you will hear them. But you do need an accurate clock to know which of the beacons is going off in order to be sure you have your antenna pointed at it at the right time. The TS-140S has pleanty of sensitivity to pick up these signals, but I'm not so sure about your antenna. In the first place, there's no way you can position a dipole so you are pointed at all of the beacons without rotating the dipole--and I kind of doubt you are using a rotatable dipole, since you said it was a multiband antenna. In the second place, I'm a little skeptical of multiband antennas in general. Traps have loss. Period. What you've gained in flexibility you've sacrificed in performance. If you're going to string wire up, put up a different wire for each band. And by the way, I've found that a half-wave loop with a quarter wavelength matching section of 70 ohm coax will way outperform a dipole and be more broadbanded to boot.

If you're looking for more beacons, look in the callbook--there's a long list of 10 meter beacons in the front of one of the two (the international book?).

Also, somebody will periodically post a current list here on the net.

Now that you know at least some of what NCDXF does, why not learn more? I think you'ld be amazed at the list of expeditions NCDXF has supported. It was started by a single grant which has been well-invested over the years, but the real support for NCDXF comes from DXers like you and me. We ask people to contribute whatever they feel like. It's really amazing how much a very large number of only $10 and $20 checks can support. Do you have South Sandwich or South Georgia yet? I bet you don't--but after November you will, courtesy of NCDXF. Do yourself and other DXers a favor--drop a line to W6OAT and ask how you can help.
de AA6KX

4122. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-10 20:54:08 UTC
From: kjh@pollux.usc.edu
Message-ID: <25813@usc.edu>
Source record: 10378

In article <23321@shamash.cdc.com> vtcqa@shamash.UUCP (Jeff Comstock - VTC) writes:
>I joked to a freind the other nite that I think their should be
>'regional SA's' for our packet radio network.

Agreed, 100%. Now, we need some really bright guy who is also a
polititian (yecho!) to sell this idea to the anarchistic masses. :-(

>I also realize that there are other problems beyond the control of us
>operators, like not to great of a protocol ...

Agreed. Nobody uses broadcasting like a previous poster suggested.
Throughput could probably be increased by using a token system, where an
individual station was prohibited from transmitting until the token was
obtained. In addition, I would like to see a LAN system where each
individual ham had (a minimum of) his own dedicated 1200 bit/sec
channel. I envision a system a little like the NTS where the net
control station tells people with traffic to go to a specific frequency;
of course this requires computer control of radios, but think of the
possible throughput! Local stations could communicate without any
interference! With synchronized clocks (and that's not too hard with
WWV) it would be possible to have stations listen for any bulletins on
some specific frequency at some regular interval. There are thousands
of other good ideas out there. Why aren't any of them in use by the
masses?

Two final ideas/points:

1 I have said in the past that packet just doesn't have enough
performance to hold my interest. This is still true.

2 Maybe we need a really tough theory exam for the new no-code
license. Topics covered should include computer networking (including
the OSI 7 layer model), structured software development methods, data
structures, at least one high-level programming language (not BASIC) and
assembly language, digital signal processing with all the math (Fourier
transforms, Hilbert transforms, Z-transforms, IIR & FIR filters, etc.),
communication theory, etc. as a minimum. In short we want to attract
the people who are EE and CS majors, and we want to encourage those who
aren't to learn this material so they can apply it to amateur radio.

The no-code folks (to my knowledge) don't object to a stringent theory
exam. As a matter of fact, a common statement is "Why I'm so
technically advanced that I can't be bothered with learning the code
since I don't think I ever want to use something so primitive." Well,
lets give these people a good tough (but fair) exam. This may also have
the effect we desire of attracting more experimenters and less appliance

operators. I have changed my mind about no-code, and now am willing to accept it, provided that a very comprehensive theory exam is required. The current theory exams, all the way through extra, are a joke.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4123. Re: Running a PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-10 20:57:50 UTC
From: kjh@pollux.usc.edu
Message-ID: <25814@usc.edu>
Source record: 10379

In article <FAUNT.90Jul9201312@dustbin.cisco.com> faunt@dustbin.cisco.com (Doug Faunt N6TQS 415-688-8269) writes:
>I would like to be able to run a standard PC/AT clone on 12V,
>efficiently. Where can I get information on buying or building a
>reasonably low cost power supply for this?

Look in a very old handbook. 1960's or early 1970's should do. Look in the section on mobile rigs. The ideas are the same, but you want just 120V instead of ~800V. 400 Hz will probably work OK. Just use your existing PC power supply.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4124. Re: Some CW procedure questions (reply is LONG)

Newsgroup: rec.ham-radio
Date: 1990-07-10 21:20:44 UTC
From: hideg@spsd3260a.erim.org
Message-ID: <1990Jul10.212044.473@math.lsa.umich.edu>
Source record: 10380

In article <900710-121240-5799@Xerox>
"wayne_a._lightsey.RochXRC"@XEROX.COM writes:
> "DE Callsign" is an extended break-in process except when fulfilling the
> 10-minute identification rule. You are not required to send the other
> stations callsign EXCEPT at the beginning and end of a series of
> transmissions.

You are not required to send the other station's callsign at all in U.S.
domestic QSOs.

You are not required to send your callsign at the beginning of a U.S.
domestic QSO, only at 10-minute intervals and at the end of the QSO.

Steve Hideg (N8HSC)

hideg@spsd3260a.erim.org

4125. Re: kenwood 440 mic shock

Newsgroup: rec.ham-radio
Date: 1990-07-10 21:34:01 UTC
From: hcooper@esunix.UUCP
Message-ID: <2051@esunix.UUCP>
Source record: 10381

Some mic's, especially in the commercial world, have a wire connected to the hanger or button (I have a Wilson and its called 'hangup'). This is or can be used to inhibit transmit, or turn on some PL arrangement so while the person is NOT holding (i.e on the hanger bracket) the receiver will be silent. This is kind of strange for a 440 setup though, and normally this would be an input (could be pulled high in the radio) and grounded for activation of the circuit. As far as being burned by either voltage or rf, did you happen to be making a good ground contact with your body, via sweaty palms (from the dx you were doing) and steel toed shoes?? or something along that line.

H Cooper N7KST

4126. Motorola 77-satellite cellular plan

Newsgroup: rec.ham-radio
Date: 1990-07-10 22:33:53 UTC
From: mbutts@mentor.com
Message-ID: <1990Jul10.223353.1551@mentor.com>
Source record: 10382

EE Times of 6/25/90 and the popular press in general has reported that Motorola is planning to invest billions of $$ to launch and maintain a network of 77 microsats that will offer cellular service to remote areas in the US and foreign countries that are currently unreachable by terrestrial systems.

Motorola has reportedly proposed an L-band (1-2 GHz) spread-spectrum digital system that it hopes will become a standard for a new generation of portable cellular phones and data terminals. The writer observes that using satellites will greatly reduce reliance on ground-based equipment, and will make it easier to bypass regulatory and tower-construction barriers.

I'm surprised I haven't seen anything about this on the net. Does anyone have more solid technical information on this system? It seems that the success of AMSAT and others with microsats is having some effect.

I'm very excited at the prospect of the old dream of global satellite phones becoming a commercial reality. I'm also very pleased that a US company, for a change, has the foresight and apparently the will to go forward with such a long-range and expensive (but ultimately very profitable) plan.

Thinking in the long term, once such a system is in place and mature, would somebody care to speculate what the role of ham radio will be in a world where anyone can call to anyplace from anyplace anytime with a cheap portable phone?

73 de KC7IT

--
Michael Butts, Research Engineer KC7IT 503-626-1302(fax:1282)
Mentor Graphics Corporation, 8500 SW Creekside Place, Beaverton, Oregon 97005
!{ogicse,sequent,tessi,apollo}!mntgfx!mbutts mbutts@pdx.MENTOR.COM
Any opinions are my own, and aren't necessarily shared by Mentor Graphics Corp.

4127. Half baked satellite idea

Newsgroup: rec.ham-radio
Date: 1990-07-10 22:39:34 UTC
From: rick@ameristar.uucp
Message-ID: <1990Jul10.223934.1550@ameristar>
Source record: 10383

On NPR this evening it was mentioned that there may be a joint
USSR-US satellite launch facility built in Australia. The idea
is to use Soviet rockets to launch US (& presumably other) satellites.
What does this have to do with Amateur Radio? Well, it was mentioned
that the first two launches will be with "dummy" payloads. Which
sets the mind to wondering whether an amateur radio satellite could
take advantage of the free ride (& potentially be larger than usual
since the ride is for testing anyways). Have the amateur radio satellite
types started pursuing this angle? Enquiring minds want to know ;-)

Rick Spanbauer/wb2cfv
Ameristar

4128. ARRL Letter 29-Jun-90

Newsgroup: rec.ham-radio
Date: 1990-07-11 01:08:38 UTC
From: gws@n8emr.UUCP
Message-ID: <1559@n8emr.UUCP>
Source record: 10384

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================
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ARRL LETTER Volume 9, Number 13, June 29, 1990 - Part 1 of 4

NEW NOVICE EXAM FOR SOUTH AFRICA TO INCLUDE CODE

South Africa soon will institute a Novice license, following closely on the heels of a similar new license in Great Britain. Details of the new Novice, or Class B, license, were published in the June 22 edition of the Government Gazette.

Applicants must be at least 12 years of age, and will be required to pass a 5 wpm Morse code exam administered by the South African Radio League. After passing the CW test, candidates will take a written exam in operating procedure and "knowledge of the ITU phonetic alphabet."

According to Hans van de Groenendaal, ZS6AKV, president of AMSAT S.A., the SARL has been working behind the scenes for several years and "has based their proposal to the South African authorities on the proposed UK Novice license."

"The introduction of the Novice license," says van de Groenendaal, "will stimulate the growth of Amateur Radio in South Africa and will serve as a model for other countries in Southern Africa. Industry sees the introduction as a move to involve more young people in communications and electronics."

The new Novices, who will receive ZU1 call signs, will be allowed 5 watts DC input (or 20 watts PEP output), and will be able to use phone, CW and data on 160 meters; CW and data on 80 and 15 meters; and CW, data, and phone on 10 meters and 70 cm.

SARL is preparing to begin giving code tests, and the first technical examinations will be held in November.

NEW USER FEES TO SUPPORT DXCC

The ARRL DX Century Club will institute a new fee schedule Oct. 1. DXCC, while affecting a relatively small percentage of its members, is a substantial financial burden on the League. User fees, approved by the League's board of directors, will go toward better service (quicker turnaround time).

The fee structure is intended to encourage participants to send less frequent individual submissions to DXCC. Here is the basic outline:

1) After Oct. 1, every first-time applicant for DXCC will be charged $10.00, in addition to the usual charge for return postage. DXCC members as of Oct. 1, 1990 are exempt from this registration fee.

2) ARRL and CRRL members will be allowed free of charge one submission per calendar year; this annual submission may include any number of QSLs, any number of DXCC awards, and any combination of new and endorsement applications. It does not include a person's all-time first submission.

3) Non-League members outside the US and Canada will be charged $10.00 for their first DXCC submission of any kind each calendar year.

4) US and Canadian DXCC participants who submit more than once in a calendar year will be charged $10.00 for each submission after the first one. Foreign non-members will be charged $20.00 for their additional submissions.

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NEW TEST PROCEDURES FOR DISABLED

People suffering certain disabilities will get a break on Morse code requirements, FCC announced June 15 at the sixth annual meeting of Volunteer Examiner Coordinators.

The new procedures will allow volunteer examiners more flexibility in administering exams to handicapped or disabled people.

Given a physician's statement attesting to the handicap or disability, examiners may be able to substitute a Morse sending test for one in receiving, to allow spoken instead of written copy, and to use a Morse code recognition exam. More details on this will be forthcoming.

On other matters, the VEC Question Pool Committee, chaired by Ray Adams, N4BAQ, recommended continuation of all current questions, pending outcome of proposals to change the licensing structure (namely, the FCC's Communicator Class proposal).

FCC personnel listened to comments on the proposed Communicator Class license from the Communicator Recommendations Committee, as well as a summary of the League's "Strawman" position (see July *QST*, p 54).

The CRC also recommended that the 6- and 2-meter bands be included as privileges for the Communicator since "main- streaming" these new amateurs is one of the many goals of the new proposed license class. Also recommended was that all Novice examining be brought under the auspices of the VEC program.

The subject of fraudulent applications was discussed with no consensus reached on the extent of the problem (if indeed a problem exists).

Tom Ingram, K4OOV, of the Central Alabama VEC, was voted Chairman of the Conference for the next year.

The meeting, held in Gettysburg, PA, was attended by 12 of the 18 VECs, seven FCC staff members, Harry Dannals, W2HD (representing QCWA), two ARRL directors (W3ABC and N4MM), Evelyn Garrison, WS7A (of ICOM, representing

manufacturers), and observers from the Military Affiliate Radio System (MARS).

PROGRESS FOR INJURED SOVIET HAM

A 25-year-old Soviet amateur is making progress following injuries sustained in an automobile accident, thanks to the assistance of radio amateurs both here and abroad.

As reported last issue, Oleg Porugov, UA4FAY, was in a coma following the May 25 accident, and it has not been possible to move him from a hospital in Ryazan to better facilities. Through the efforts of several American hams, three shipments of supplies have been sent to Ryazan. An additional shipment of intravenous feeding solution has been sent by West German amateurs.

Medical consultation between Dr. Joseph Izzo, of Foster City, CA, Dr. Lawrence M. Probes, ND8S, and Dr. Charles L. Starke, NX2T, and Soviet physicians continues by both Amateur Radio and Telex messages.

A month after the accident, Porugov's condition continues to improve and the doctors are guardedly optimistic. Porugov is able to see and recognize friends, his partial paralysis appears to be abating, and he now is breathing entirely on his own.

RADIOSPORT EVENT RECEIVES GRANT

The World Radiosport Team Championship (see May *QST*, p 48) has received a check for more than seven thousand dollars from the ARRL Mullan Fund, the balance of a grant from the T. Mullan Foundation established to enhance goodwill between the peoples of the US and the Soviet Union.

Final arrangements for operating permission for visiting amateurs from the Soviet Union and several eastern European countries are being hammered out at this time.

Amateur Radio press kits for the WRTC, as announced in May *QST*, are ready for mailing; send an SASE for yours.

TEXAS HAMS WIN TOWER RIGHTS

Amateurs in Bedford, TX won a major tower victory earlier this month. On June 12 the city council of this Dallas-Ft. Worth suburb unanimously approved a 65-foot tower ordinance. A dispute which had begun in October, 1989 over the 60-foot tower of Mike Simpson, WB5SUF, had escalated to include virtually every amateur in the city.

The Simpson case, according to ARRL volunteer counsel Lanny Priddy, K5LP, was not a PRB-1 case, because it concerned plat and deed restrictions, not a local ordinance. Priddy did, however, cite PRB-1 in his arguments.

Ironically, Simpson praised the homeowners who had complained to the city. "They allowed the city to clear up the entire antenna question," Simpson said, because "before the ordinance hams had been given a plethora of conflicting information at city hall."

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IARU MEMBERS TO VOTE ON BURMA

Member societies of the International Amateur Radio Union are being asked to vote on the possible termination of membership of the Burma Amateur Radio Transmitting Society (BARTS). IARU Calendar 149, sent to all IARU societies June 12, notes that Proposal 195 was directed by the IARU Administrative Council at its April meeting in Spain.

Amateur Radio was officially banned by the Burmese government on January 10, 1964. It now is believed that "there is no one presently alive and living in Burma who has any connection with BARTS." The last communication from BARTS to the IARU occurred in 1976, from Zaw Yee, ex-XZ2SY, indicating that the society was inactive. Zaw Yee died the following year.

Votes are due no later than Nov. 12, 1990.

DISASTER RESPONSE DISCUSSED

A meeting of League and emergency response volunteers met June 12 sought to cement emergency planning through the National Disaster Medical Service. The Service, formed in 1983, would be called into operation in the event of a catastrophe beyond even the ability of an entire state or region to handle, only upon a state's request.

Communications still is a sticking point of the plan. While the National Communications System (NCS) is the major player, holding government communications assets such as leased and government-owned telephone lines, microwave systems, satellites and HF radios, the government agencies using these services necessarily will put their own needs first. It is impossible to determine in advance how much excess capacity will be available for medical evacuation and related purposes.

The lead agency for communications is the Federal Emergency Management Agency. FEMA's main mission is to coordinate federal response to disasters. Its plans for handling NDMS messages are unclear.

While all NDMS members at the meeting agreed that amateurs will be a part of any response to a major disaster, the League has expressed its concern that amateurs will be thrust into a de facto *primary* role. Since amateurs would already have been mobilized at the local level, their numbers and resources would likely be strained by a "national call-up."

Further discussion addressed amateurs' assignments and roles, as well as the establishment of message formats and protocols. A drill planned for October likely will include the ARRL in some yet-to-be-determined capacity.

Ultimately, the ARRL Board of Directors will decide whether to approve a formal Memorandum of Understanding between the NDMS and the ARRL.

Further talks are scheduled for July 12 in Washington.

FIELD DAY

Conditions were--to put it gently--rotten. But they tested our mettle as communicators, and that's what ARRL Field Day is all about.

Novices in particular, lulled by superb 10 meter conditions the past couple of years, may have been shocked by the white noise on that band over the June 23-24 weekend. They were treated to a taste of what's to come when the sun quiets down in another year or two.

Alternate modes of communication, particularly VHF packet and satellites, were kept especially busy this FD. Messages appeared on various packet clusters from FD stations in the field, and activity on AMSAT as well as Soviet and Japanese satellites was healthier than ever.

W1AW made a couple thousand FD contacts, in the process shaking down both new aerials and equipment at the visitors' operating positions. Six operators used computers for logging at four operating positions, running prototype FD software developed by ARRL contest assistant Mark Burke, KA1MIS.

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BRIEFS

* Corrections: Gay Milius, W4UG, who died June 6, was not ARRL Hudson Division Vice Director in 1951 and 1952.

The name of Allen Singer, N2KW, was misspelled in Volume 9, Number 12.

* FCC recently adopted an order implementing the license fees for most radio services other than amateur which had been established by Congress in the Budget Reconciliation Act of 1989. An unclearly drafted item in that order relating to duplicate licenses has been misinterpreted, leading many amateurs to believe that a 35-dollar fee is required for duplicate amateur licenses. This is not true--FCC collects no fees for any amateur license transactions.

* Congratulations to Leon A. Faber, W7EH, of Phoenix, and A.G. Wentzel, W2HX, of Trenton, NJ, both of whom recently marked seventy years as League members.

* The new target launch date for Shuttle STS-35 (and SAREX) is August 12 at 0506 UTC.

* Amateurs needing Kenwood parts now can phone toll free 800-637-0388 to place orders at the Kenwood USA facility in Long Beach, CA.

* On June 11 the Shelby (TN) County Commission unanimously approved an amendment allowing Amateur Radio towers up to a height of 65 ft., according to Atty. Albert C. Burnham, W4RIM. Previously, the Memphis City Council and the Land Use Control Board had approved the amendment. Completion of the process now has raised the allowable height from 35 to 65 feet.

* Nathan Gidron, general manager of Motorola Israel, has announced Motorola's "adoption" of the Israel Amateur Radio Club. Operating for years without a home, the club began a fund drive a few years ago that fell short.

Thus, Motorola will be allocating a room of 40 square meters for use as the offices of IARC, which is Israel's national society. (From *HaGal*, 4X1MK and 4X1AT, editors).

* Satellite enthusiasts and AMSAT members are advised that the former *Amateur Satellite Report*, now called *Oscar Satellite Report*, no longer is included in AMSAT membership. As of April 1, *OSR* is received by subscription from R. Myers Communications, PO Box 175, Litchfield CT 06759. AMSAT has, according to Myers (who is W1XT), "provided encouragement and support" during the changeover. Myers has been editor of the publication since its inception in 1981.

* Ham club officers will be interested in the latest (1990-91) edition of the *ARRL Club President's Workbook*. Complimentary copies already have been sent to ARRL officials and ARRL affiliated club presidents. Additional copies are available from HQ.

* Is there anyone who doesn't love museums? We can heartily recommend the Antique Wireless Association's museum, located in the Finger Lakes region of western New York, near Canandaigua. The whole family can enjoy this trip back in time, as the AWA Museum features not only Amateur Radio but just about every kind of wireless, as well. Next door is the East Bloomfield Historical Society with exhibits of interest to everyone.

AWA Museum hours are 2-5 pm Sunday, 2-4 pm Saturday, and 7-9 pm Wednesday, through Oct. 31. Group tours are available by appointment. Bruce Kelley, W2ICE, is curator. AWA Museum, Main Street, Holcomb NY 14469. Phone 716-657-6260.

* First call for papers for the AMSAT-NA Space Symposium, to be held Oct. 10-12 in Houston. The symposium will feature talks on the latest technology in both the manned and unmanned aspects of the Amateur Radio space program. Talks on MICROSAT utilization are particularly wanted. Send summaries of proposed papers to AMSAT-NA, 850 Sligo Ave., Suite #600, Silver Spring MD 20910 by July 15. Those selected for presentation will be notified by August 1.

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

4129. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-11 01:52:02 UTC
From: chuck@eng.umd.edu
Message-ID: <1990Jul11.015202.12250@eng.umd.edu>
Source record: 10385

....Stuff about ungrounded filters and a CORRECT explanation...
>>
>>It works just fine. I guess a lot of people are confused about this, so
>>I'll expand further.
>>
>>The transmitter generates RF voltage BETWEEN the center conductor of the
>>output coax and the shield. Note that this voltage is NOT referred to
>>earth ground. The chassis could be at 1,000,000 volts (AC or DC) with
>>respect to earth, but there is still the same RF voltage existing between
>>coax center conductor and shield -- the transmitter doesn't care.
>>
>>AL N1AL

...And now the wrong answer...
>
>I'm afraid that YOU are the one that is confused. When an unbalanced filter
>is used to bypass unwanted RF energy to the chassis and the chassis is
>not connected to ground, the chassis structure and the outside of the
>coax shield, the microphone cord, the powerline, and any other wires
>connected to the chassis become RADIATING ELEMENTS for that unwanted
>RF. Thus the desired effect of preventing unwanted radiation is lost.
>The currents between the coax center conductor and shield are supressed,
>but that is of little use if the outside of the coax becomes "hot".
>
>Gary KE4ZV

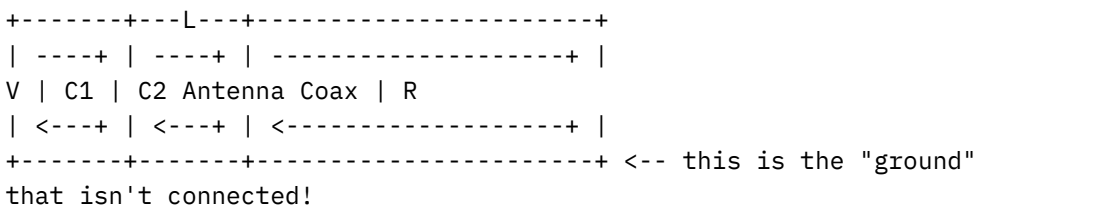
Gary, get your electrical engineering books out, and look up a Faraday
shield. That is the thing that you get when you make a tight metal box.
The shield (note the name) on the coax is also an example of a Faraday
shield.

The transmitter is full of RF generating stuff that has frequencies that
we don't want to radiate, so the manufacturer bottles it all up in a "tight
metal box", and filters the unwanted RF off of any leads that leave the box.

NO RF can get out of the box anywhere except thru the Coax.

All of the "unbalanced filters" literally short out the coax for frequencies
that are unwanted. This has the effect of sending the unwanted freq's
power back into the transmitter where it is dissapated as heat.

As an example, look at this PI filter. Remember that at "High" frequencies
capacitors get lower in reactance (kinda like resistance), and inductors
get higher in reactance. Notice how C1 and C2 conduct the High frequency
current back to the voltage source, and how L blocks the High frequencies by
being a high reactance (open circuit).



Current can only flow where there is a circuit. This filter's circuit is complete whether or not there is a ground connected anywhere along the bottom "wire".

How does the transmitter's case get "hot" with RF? It does so by near field coupling with the antenna. If you would feed your balanced "dipole" like antenna with a balanced source (eg. use a balun), and move the antenna out of your bedroom you would find that much of your problem would go away.

Chuck Harris - WA3UQV

4130. Re: What is Phase Noise?

Newsgroup: rec.ham-radio
Date: 1990-07-11 04:02:17 UTC
From: mcmahan@netcom.UUCP
Message-ID: <11913@netcom.UUCP>
Source record: 10386

In a previous article, carmijo@hpnmdla.HP.COM (Chris Armijo) writes:
>>> To me, phase noise IS a form of FM modulation, since one can
>>>slightly change the signal frequency for an instant to shift phase. The stuff
>>>I see on a spectrum analyzer is definately different in appearance, though.
>>>I have asked them to expain it, but can't seem to make sense of the answer.
>>>Can someone please tell me why phase noise is NOT considered a form of FM
>>>modulation?
>
>First, let me say that I'm no expert on the subject -- I've done a little
>work with it, though.

From your post, I assume 'a little' is a lot more than most!

>Phase noise CAN be considered to be a form of FM modulation (or,
>alternatively, Phase Modulation). Essentially, the phase of a CW signal is
>varying over time. The reason that Phase Noise on a carrier looks
>so radically different than narrowband FM (with two discrete sidebands)
>is that the phase varies RANDOMLY with time. This random variaion
>causes the characteristic "smearing" of the CW signal

Of course! This makes sense. When I look at a true FM signal, it is usually
being driven by a constant tone. The tone combines with the sweep rate of the
spectrum analyzer to give the output display I'm familiar with. Even a signal
that causes very little deviation of the FM carrier would appear different than
true phase noise. Thanks for the clarification.

>There are four basic methods to measure the phase noise of a CW source:
> 1. Measure it directly with a spectrum analyzer
> 2. Mix the signal down to a lower frequency and use a counter
> to measure the variance of the frequency.

Doesn't this mean you need to sue a LO that is MUCH more stable than the
amount of phase noise you are trying to measure? Then again, I guess the
spectrum analyzer LO must also be very pure to make this kind of measurement.

> 3. Use a phase detector to measure the difference in phase
> between your source and a reference source. The output of
> the phase detector is displayed on a spectrum analyzer.
> 4. Use a frequency discriminator to demodulate the "FM" signal
> and measure the output on a spectrum analyzer.

I guess this assumes that the discriminator is capable of doing some very
quick and accurate demodulation of the signal. If phase noise is truely
random (which it must be to be considered 'noise'), what kind of instantaneous
jumps in discriminator output would one observe using this technique?

>I hope this answers your question. Phase Noise is actually a very
>interesting subject, once you dig into it. It's also one of those
>subjects that are rarely discussed a standard E.E. curriculum.

I know only two RF gurus that are really comfortable talking about this subject. It is HIGHLY important for good communications work, though. They both learned in the lab by looking and playing, with a little help from mentors who knew more than they. Are there any good tips or techniques you (or anyone) can suggest to ensure good phase noise performance?

>Chris Armijo

-dave

4131. Re: Running a PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-11 04:11:15 UTC
From: mcmahan@netcom.UUCP
Message-ID: <11914@netcom.UUCP>
Source record: 10387

In a previous article, faunt@dustbin.cisco.com (Doug Faunt N6TQS 415-688-8269) writes:
>I would like to be able to run a standard PC/AT clone on 12V,
>efficiently. Where can I get information on buying or building a
>reasonably low cost power supply for this?
>thanx, and 73, doug

I have done this for a project. We used deep cycle marine batteries to supply the 12 VDC and a power inverter to provide 120 VAC. We found that to drive a monitor, we had to have 120 VAC and couldn't just do conversions with DC-to-DC converters. For the power inverter, we found that the typical square wave output seemed to work just fine for the PC. We did this for a PC-XT and a PC-II a few years back. The power inverter we used was from GTO Electronics and had a model number of PACS-325SM. The latest info on address for GTO I have is:

GTO Electronics
430 Ritt St.
St. Peter, MN 56082
(507) 931-4137

This stuff is dated 1985, so may be a little old. We used a regular old car battery charger to charge the batteries. Don't use regular car batteries. They don't have the ability to deep-cycle many times, which is what I assume you want. The system shipped to Italy, and last I heard they had replaced our battery charger with a local equivalent that ran off local power, but the rest of the system worked fine.

> faunt@cisco.com 415-688-8269

-dave

4132. Positioning weather satellite pictures

Newsgroup: rec.ham-radio
Date: 1990-07-11 04:14:45 UTC
From: chris@bcl.co.nz
Message-ID: <1990Jul11.041445.770@bclwn.bcl.co.nz>
Source record: 10388

Hi,

I'm receiving polar orbiting weather satellite photos on my system
and I would like to plot latitude and longitude lines, coastlines
etc on them.

Does anyone out there have the algorithms required to translate
scan line pixels to lat & long or vice versa?

Cheers,

Chris.

--

_ _
/ /_) / / / / / Chris Mackerell <chris@bcl.co.nz> [a/h chris@owdjim.gen.nz]
/ /_) / /_ / /_ / Ph: +64 (4) 801-6716 Fax: +64 (4) 85-2752
Business Computers Ltd, Box 3236, Wellington 6000, NEW ZEALAND.

4133. Wanted: supplier of Drake SPR-4 crystals

Newsgroup: rec.ham-radio
Date: 1990-07-11 04:18:30 UTC
From: chris@bcl.co.nz
Message-ID: <1990Jul11.041830.869@bclwn.bcl.co.nz>
Source record: 10389
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Does anyone know of a good supplier of crystals for a Drake SPR-4 receiver
(preferably cheap too!).

Cheers,

Chris.

--

_ _
/ /_) / / / / / Chris Mackerell <chris@bcl.co.nz> [a/h chris@owdjim.gen.nz]
/ /_) / /_ / /_ / Ph: +64 (4) 801-6716 Fax: +64 (4) 85-2752
Business Computers Ltd, Box 3236, Wellington 6000, NEW ZEALAND.

4134. One-chip KEYer info. needed .

Newsgroup: rec.ham-radio
Date: 1990-07-11 04:38:17 UTC
From: 870383@JPNTSUK2.BITNET
Message-ID: <9007110447.AA17033@ucsd.edu>
Source record: 10390

Dear OMs,
I'm interested in electric keyer . Do you know '8044 one-chip Keyer'
made by CURTIS Electro Devices ? Any information is welcome .
Thank you .

/ KOMATSU Toshiki
Dept.of CHEMISTRY,Univ.of Tsukuba. E-mail:870383@JPNTSUK2.bitnet
phone :+81-(0)298-514590 mail :P.O.Box 53,Tsukuba-Gakuen,
HAMnet:JF7WED@JI1ZMW.#12.JNET1.JPN Ibaraki 305 JAPAN

4135. Re: General Radiotelephone Operator License

Newsgroup: rec.ham-radio
Date: 1990-07-11 04:50:51 UTC
From: schu@drutx.ATT.COM
Message-ID: <5857@drutx.ATT.COM>
Source record: 10391
Cross-posted to: rec.ham-radio,rec.radio.noncomm

in article <1710KOSSACKB@RICEVM1>, KOSSACKB@RICEVM1.BITNET (Jordan Kossack) says:
> Xref: drutx rec.ham-radio:21082 rec.radio.noncomm:173
>
>
> I'm looking for information on the FCC General Radiotelephone
> Operator License. Specifically, I would like to know the difference
> between the Class A, B and C licences - what they're required for, what
> is covered on the exams, etc.
>
> I'm an EE student with an interest in RF engineering and I have a
> Restricted Radiotelephone license, but that simply requires that one
> is able to fill out the requisite form. Are there any jobs where one is
> still required to have a Class A [or Class B or C] license? Any
> information would be appreciated. Unless you think your response is of
> general interest, please send e-mail. TNX.
> - Jordan, n5qvi
>

As such there are several classes of RADIOTELEPHONE Operator Licenses.
The General RTPOL is issued to all previous holders of First Class and Second
Class Licenses and Third Class Permits (47 CFR 13.2). The General RTPOL
is valid for the lifetime of the holder (47 CFR 13.4). The Exam, taken
after the paperwork, covers only Element 3. Radiotelephone Licenses may
be renewed upto five years after expiration with loss of operating
priviledges during the grace period.

"(3) Technical, legal, and other matters, including basic operating
practices and provisions of laws, treaties, and regulations,
applicable to the operation of radiotelephone stations other than
broadcast. (47 CFR 13.21(3)) ".

Transmitter operating, maintenance, and repair duties of transmitters
used in accordance with Parts 73, 74, 80, and 87 of 47 Code of Federal
Regulations may require a licensed commercial operator (47 CFR 13.61).
Part 73 is Radio Broadcast Services i.e. AM, FM, TV, etc. Part 74 is
Experimental, Auxiliary, and Special Broadcast Services. Part 80 is
Stations in the Maritime Services. Part 87 is Aviation Services.

All citations are from the 1986 edition of CFR, changes may have occured.

ADVICE Warning!!!!!!

Unless you intend to use an EE degree to repair transmitters,
then a General RadioTelephone Operators License is of small
value. Good engineering practice in the design of RF circuits

is more valuable than the rubber stamp of the FCC. RF circuits
can be designed to be both rugged and frequency stable. Commercial
operators are needed to keep the transmitters in good working order,
i.e. on frequency and with in the power envelope. I am a degreed
Electrical Engineer and a licensed General Radiotelephone Operator,
and I have repaired transmitters for a living.

4136. Re: Was Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-11 05:03:58 UTC
From: <>
Message-ID: <1990Jul11.050358.23531@bellcore-2.bellcore.com>
Source record: 10392

>In article <42720@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
>>
>> >I haven't read the latest 73's, but Wayne always seemed to have
>> >plenty of common sense in the past.
>>
>> When was this? I must have missed it....

Wayne does drop a few pearls of wisdom now and then (e.g., his strong support of no-code and the role that amateur radio should play in encouraging young people to enter technical careers, even if he does overstate the League's culpability in destroying American technological prowess.)

But he squanders any credibility he might have gained when he mixes in his off-the-wall ramblings about Scientology or UFOs or whatever. Not to mention his continuing to carry the Maxcom antenna-matcher ads. Two Daytons ago I confronted him about these frauds. Believe it or not, he actually tried to tell me that he had no control over what his Editor-in-Chief printed in the magazine he (Wayne) published...

Phil

4137. Re: flourescent light noise

Newsgroup: rec.ham-radio
Date: 1990-07-11 05:11:07 UTC
From: <>
Message-ID: <1990Jul11.051107.23603@bellcore-2.bellcore.com>
Source record: 10393

Low frequency (e.g., AM broadcast band) interference generated by appliances is almost always conducted back out the AC power cord and either radiated by the house wiring or conducted directly into a receiver. Many tabletop receivers use the power cord as an antenna, so interference isn't that surprising. Try putting an AC power line filter on the lamp and see if that helps. You can find power line filters of all shapes and sizes at just about any hamfest, including units with built-in AC power line connectors.

Phil

4138. AM Noise from Flourescent Lamps

Newsgroup: rec.ham-radio
Date: 1990-07-11 11:44:36 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007111144.AA02472@cmr.ncsl.nist.gov>
Source record: 10394

Phil Karn says that some AM radios use the line cord for the antenna. I'll agree if he changes this to ** FM **. All the built-in-antenna AM radios that I have seen (back to 1939 or so) used a loop. In the last few decades it has been wound on a ferrite core. This is generally tuned and is the entire pre-mixer selectivity.

The loop is far less sensitive to conducted noise than using the power line.

Phil is RIGHT in identifying that the noise is getting out of the lamp onto the AC line. Has the line filter gone bad?

Couldn't let this pass (;<))) (Yes, I'm getting a double chin.)

Bob W3OTC

4139. Bearcat 200XLT mods (QUERY)

Newsgroup: rec.ham-radio
Date: 1990-07-11 12:48:06 UTC
From: fayne@tellabs.com
Message-ID: <2981@tellab5.tellabs.com>
Source record: 10395
Cross-posted to: rec.radio.shortwave,rec.ham-radio,sci.electronics

I'm sure this has been requested before, but I don't have any previous
requests in my archives:

I just picked up a Bearcat 200XLT and was wondering what sort
of mods are available (ie. blocked out freqs, scan speedups, etc.)?

I've seen ads for a book by Dr Rigor Mortis (nice name :)) that
covers mostly the PRO series but is supposed to have mods for the
200XLT. Does anybody have a copy of this book and if so what are
the mods for the 200XLT? BTW, anybody in the Chicago area know where
this book is available?

Any pointers or any "Gee, all you gotta do is clip out the third
diode from the left" type info would be greatly appreciated :^)

Thanks in advance,

Jeff

--


```
------------------------------------------------------------------------------

F-14 | _ | | Jeffrey M. Fayne
Tomcat | /^ ^\ | | Tellabs, Inc.
___________|_( . )_|___________ | Lisle, IL (708)-512-7726
--*/--|_| (___) |_|--\*-- | fayne@tellabs.com
* O O * fjs | Standard Disclaimer Applies
------------------------------------------------------------------------------
```

4140. Re: Some CW procedure questions (reply is LONG)

Newsgroup: rec.ham-radio
Date: 1990-07-11 13:05:06 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2186@ryn.esg.dec.com>
Source record: 10396

> "RST 559" is the correct way to send a signal report. 55N has no defined
> meaning - it is absolute laziness to not send the character "9" in morse
> code. If the practice were uniform, your "RST 559" would become "RST
> FFN". The problem with this, of course is that you do not know if you
> received a 559, 549, or 449!

An interesting thought, and if your interpretation of "N" was correct,
then probably it would also be true. However, the "N" doesn't stand for
"Nine" it is cut-code -- asystem of dash concatenation in sending numbers.

"N" is a number consisting of dashes followed by a single dit. the only
number that meets that description is 9. Sending a "D" would mean
dashes followed by two dits (8) sending an "A" would mean a dit followed
by all dashes (1) sending a "U" means two dits followed by all dashes
(2) etc. Thus 5 remains a series of 5 dits, since there are no dashes.
10 concatenates to "T".

Cut-code was developed by your beloved commercial telegraphers who did
not receive early retirement for the practice,nor were they considered
LIDs. The dah concatentation was considered a good thing because dah
were hard to send on a bug, while dits just required holding the paddle.
Cut code was (and still is) only used when there it is unambiguous that
you are sending a number.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Copyright (c) 1990 Patrick Taber all rights reserved.
This message may not be used by any law enforcement agency nor may it be
used in any legal proceeding. That's the law.

4141. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-11 13:09:38 UTC
From: gary@ke4zv.UUCP
Message-ID: <960@ke4zv.UUCP>
Source record: 10397

In article <1250192@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>>I'm afraid that YOU are the one that is confused. When an unbalanced filter
>>is used to bypass unwanted RF energy to the chassis and the chassis is
>>not connected to ground, the chassis structure and the outside of the
>>coax shield, the microphone cord, the powerline, and any other wires
>>connected to the chassis become RADIATING ELEMENTS for that unwanted
>>RF. Thus the desired effect of preventing unwanted radiation is lost.
>>The currents between the coax center conductor and shield are supressed,
>>but that is of little use if the outside of the coax becomes "hot".
>
>>Gary KE4ZV
>----------
>
>OK, I'll try to explain it one more time. Perhaps a picture will help.
>
> TRANSMITTER COAX L. P. FILTER COAX
>_____ _____
>| | | |
>| --- ---
>| Transistor Collector----------+--coil--+---------- antenna
>| --- | | ---
>| Transistor Emitter-+ | | cap cap |
>| | | | | | |
>|_____|___| |___|_____|___|
>
>Please excuse the crude schematic.
>
>The transmitter generates an RF potential between the coax center
>conductor and "ground" (= chasses = coax shield). I have omitted the
>tranmitter output coupling network for clarity, but the same principle
>holds -- both input and output of the network are referenced to chassis
>"ground".
>
>The rf current going out the tranmsitter coax center conductor is matched
>by an equal and opposite return current flowing in the shield. Because of
>skin effect, this return current flows on the inside of the shield -- no
>current flows on the outside of the coax. In other words, there is no
>"common mode" current on the coax; it is all "differential mode" which
>means the two equal and opposite currents cancel and there is no radiation
>from the feedline.
>
>The filter acts the same way. To see this, you can ignore what is inside
>the unit and consider it a "black box". Kirchoff's law says that current
>is not created or destroyed in a circuit. If the two currents (center

>conductor and shield) entering on the left sum to zero (equal and opposite),
>then the same must be true of the currents in the center/shield of the coax
>exiting to the right.
>
>Note that the drawing above does not show an earth ground. All voltages
>inside the transmitter and filter are WITH RESPECT TO CHASSIS GROUND, NOT
>EARTH GROUND. You could connect a 1000 volt battery between chassis and
>earth without affecting circuit operation. Or a 1000V RF source.
>
>Even though the low-pass filter circuit is referenced to "ground", this
>does not imply "earth ground".
>
>Al N1AL

All of the above is true, including the part quoted from my earlier posting. The apparant difference between our views is that your explanation is correct in theory and mine is true in practice. The difference between theory and practice is due to the fact that practical flexible coax doesn't have perfect shielding, the skin effect depth is greater than the depth of the shield, the transmitter chassis is not a perfect Faraday cage, and misc other cables exit and enter the transmitter cabinet to interconnect other necessary operating equipment. All of this creates a SYSTEM that will radiate. I have fought these problems in practice for 25 years at broadcast plants and amateur installations over much of the Eastern US. Careful grounding has been the only practical answer to these problems.

In mobile installations, we have to make every part of the system as tight as possible so that we approach as closely as possible the theoretical case since we have no large disipative ground field to take care of incidental radiation. Luckily most mobile installations use relatively low power and any leakage is not severe. In addition, the mobile system is inclosed in a metal structure (car, plane, etc) that acts as a second shield. However, in high power fixed installations, the problem can be really severe even after we have tightened every leakage point as much as is practical.

This is not voodoo electronics, this is the real world.

Gary KE4ZV

4142. Alinco 2 meter Amplifier/Kenwood TH225 HT

Newsgroup: rec.ham-radio
Date: 1990-07-11 13:14:50 UTC
From: rwilgus@PICA.ARMY.MIL
Message-ID: <9007110914.aa27949@FSAC1.PICA.ARMY.MIL>
Source record: 10398

N2KRQ purchased this amplifier for mobile use,working
with KZ2X,W2DDN & KB3TS during the installation of this
amplifier it was noticed that the center pin on the 10 volt
output jack of the amplifier was negative and the center pin
of the input jack on the Kenwood TH225 was positive.A word
of caution to all HAMS considering purchasing this amplifier
to observe the polarity of the connector.
Once properly installed the Alinco Amplifier performs
like a champion and N2KRQ is a satisfied customer.

de KZ2X

4143. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-11 13:26:53 UTC
From: gary@ke4zv.UUCP
Message-ID: <961@ke4zv.UUCP>
Source record: 10399

In article <1990Jul11.015202.12250@eng.umd.edu> chuck@eng.umd.edu (Chuck Harris) writes:
>Gary, get your electrical engineering books out, and look up a Faraday
>shield. That is the thing that you get when you make a tight metal box.
>The shield (note the name) on the coax is also an example of a Faraday
>shield.

Chuck, get your test equipment out and MEASURE how good your shield really
is. I haven't ever met a perfect Faraday shield cabinet in the real world.

>
>The transmitter is full of RF generating stuff that has frequencies that
>we don't want to radiate, so the manufacturer bottles it all up in a "tight
>metal box", and filters the unwanted RF off of any leads that leave the box.
>
>NO RF can get out of the box anywhere except thru the Coax.

It is to laugh. If you really believe this, you haven't TESTED some of the
equipment in regular use.

>
[simple theory of filters stuff deleted]
>
>How does the transmitter's case get "hot" with RF? It does so by near
>field coupling with the antenna. If you would feed your balanced "dipole"
>like antenna with a balanced source (eg. use a balun), and move the antenna
>out of your bedroom you would find that much of your problem would go away.

OK, this is real. Feeding a balanced antenna with an unbalanced line is
a no no. Of course, in this case we are talking about RF of the fundimental
frequency coming back down the coax not incidental radiation at undesired
frequencies which is what this disscussion started out to be about.

Please note that I don't disagree with the theory that several posters
have quoted. I am merely trying to point out that, in practical equipment
that I have had personal experience with, things aren't so simple.

Gary KE4ZV

4144. Re: Alligators and kerchunking

Newsgroup: rec.ham-radio
Date: 1990-07-11 14:45:05 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500021@hpfcso.HP.COM>
Source record: 10400

Re: Kerchunking

I've been thinking and watching this discussion. I have some understanding
of the irritation that frequent kerchunking can bring but, in some ways,
kerchunking is useful.

I carry my Icom 02AT when I go dayhiking in the mountains here in
Colorado. I regard it as a safety device. I cover various parts of the
state and don't necessarily know where the repeaters I reach are.
If I should need communications for an emergency, I would probably
wind up in a search-for-a-kerchunk mode to find a usable repeater since
I don't carry the weight of a repeater directory (yeah I could copy the pages
but it still leaves an awful lot of choices to try) nor can I be
sure of what I can reach (one side of a ridge will have a different
selection of machines than the other side). Minimizing transmit time
would definitely be a concern in the situation where battery conservation
is required so a kerchunk would be more efficient.

Without kerchunking, I might have to listen all day (especially during
the week) to find a usable repeater. With repeaters that don't kerchunk,
I might not find them at all.

Then again, I suppose most of the concerns come from urban areas. Hell,
(old fart voice ON) I remember when you could ragchew on the Tyson's Corner
34/94 machine in N. Virginia.... (old fart voice OFF)

Maybe if the UPS had taken 2 meters we would all be better off..... :-)

Ron NW0U (formerly WB4UWH)

4145. Ramblings on Low Pass Filters

Newsgroup: rec.ham-radio
Date: 1990-07-11 15:19:23 UTC
From: elmore@virga.ucar.edu
Message-ID: <7950@ncar.ucar.edu>
Source record: 10401

All of this stuff about LP filters fascinates me. As an Asst. Tech. Coordinator for the ARRL (or Evil Empire, take your pick) I get to play with lots of TVI cases. Especially so since near Denver we are cursed with a channel 2 *and* a channel 6!

Anyway, a few months ago someone wrote an article in QST about dissipative LP filters. I think it was Jon Bloom. Anyway, he pointed out that all a filter does is present a mismatch to the unwanted frequencies and that if the filter were made up only of reactive components, none of the unwanted energy would be dissipated, only reflected. Thus it may get dissipated someplace, but then it just may get radiated, too.

Well, having built a dissipative LP filter, it isn't for the timid. I'm not sure how you'd build one without some good inductance and capacitance meters and get it to work. But, what about some ferrite beads slipped over the coax on either side of the filter? Wouldn't they act to dissipate whatever "gets out"? Now, I'm only a research meteorologist, not a EE, but it makes sense to me.

Turns out that my ground system looked like a 1/4 wave at 56 MHz... So I tried this. It appeared to work very well. I also used the dissipative filter ("Heck, I built it... might as well.") and it helped a little, too. But, by far most progress seemed to be made by judicious use of ferrite beads in strategic places. The idea was to turn the unwanted RF into heat in a controlled fashion, instead of depending on it finding its way to earth ground.

So, all you EE gurus out there: Is this voodoo? Am I all wet? Was I just incredibly lucky? What have I missed?

73, Kim Elmore (N5OP)

****
Disclaimer: NCAR couldn't care less...
****

4146. Kenwood RZ-1 Birdies

Newsgroup: rec.ham-radio
Date: 1990-07-11 15:23:21 UTC
From: charlie@oakhill.UUCP
Message-ID: <3516@radio.oakhill.UUCP>
Source record: 10402
Cross-posted to: rec.ham-radio,rec.radio.shortwave,rec.radio.noncomm

I purchased (as-is) a Kenwood RZ-1 wideband receiver at a hamfest (you know that place where 'honest' people go to give you an 'honest' deal). The thing was dead below 60 MHz. I sent it to Kenwood and for a reasonable price they replaced all the band switching diodes in the front end (this radio is surface mount technology and a bitch to work on). Apparently someone had shot a good dose of RF energy up the radio's antenna terminals thus blowing the diodes (nice going bright guys). The radio has bigtime birdies. Lotsa birdies. I traced the source to the control microprocessor. I added a supply bypass cap and the noise went down somewhat but it still has lotsa birdies! The Kenwood service tech says the 2 MHz clock on the control board radiates harmonics. OK so why do I have birdies at less than 2 MHz intervals?? No answer from Kenwood.

My question is ..... does anybody else have one of these little beasties? No self-respecting Japanese engineer would have let this type of behavior out of the design lab and I think there are some surface mount bypass caps that have cracked...thus causing the radiation. I don't believe this is normal behavior for the radio although Kenwood hinted that nothing could be done.

Thanks in advance,

Charlie Thompson (birdwatcher) WB4HVD

4147. TS-140/440 computer interface.

Newsgroup: rec.ham-radio
Date: 1990-07-11 15:55:31 UTC
From: georgez@synopsys.com
Message-ID: <550@synopsys.COM>
Source record: 10403

YES, you can pole the status of the radio. In the case of the Kenwood line of HF radios, TS-140/440/940 you send it the INFORM command thus...

IF;

The radio will respond with a string of about 36 ASCII characters which you must then break up into fields. This string contains the current vfo frequency, mode, Rit On/Off status, Rit offset, Split on/off, rx/tx, and other goodies.

73 de George KJ6VU Internet: georgez@synopsys.com

4148. Re: Ramblings on Low Pass Filters

Newsgroup: rec.ham-radio
Date: 1990-07-11 16:00:23 UTC
From: sde@larry.sal.wisc.edu
Message-ID: <1111@larry.sal.wisc.edu>
Source record: 10404

Reactive filters reflect power back to the source, so whether or not harmonics are radiated depends on what the source looks like. If there is no way for the harmonics to leak out of the source, they will not radiate. Unfortunately, many transmitters and amplifiers are not shielded and filtered well enough to prevent this type of radiation. A dissipative filter may help, but a more reliable solution is usually to shield and filter the RF source. This means, of course, that ALL the wires and cables passing through the RF source shield must be filtered. It's not always easy to do, but it is foolproof. If the harmonics can't get out, they can't radiate. Then it makes no difference how the system is connected to earth ground. Measures such as improving ground connections and placing ferrite beads all over the place are likely to be marginally effective methods of reducing radiation of harmonics which should never have been allowed to get out of the final amplifier in the first place.

Scott Ellington K9MA
sde@larry.sal.wisc.edu

4149. Re: Some CW procedure questions (reply is LONG)

Newsgroup: rec.ham-radio
Date: 1990-07-11 16:16:06 UTC
From: rwc@critz.mv.com
Message-ID: <234@critz.mv.com>
Source record: 10405

In article <900710-121240-5799@Xerox> "wayne_a._lightsey.RochXRC"@XEROX.COM writes:
>"BT" is used for a break in the conversational flow . "II" is another
>abbreviation sometimes used for the same purpose. In traffic handling, the
>various elements of the message header, e.g. message number, "II", message
>precedence, "II", check (group count),"II", time, "II", etc. are seperated
>by the double-I sequence for clarity. After the address information in a
>mesage, there is a "BT" - seperating the heading/address from the text
>about to be sent. In voice traffic handling, the "BT" is sent as "break".
>After the text, another "BT" is sent (in military protocol signaling the
>end of the message, i.e. in lieu of "AR") seperating the text from the
>signature information (in ARRL NTS format).
>

While this is true in some cases for commerical traffic, it is
ABSOLUTELY WRONG in NTS procedure. The entire preamble of an NTS
message is sent with no punctuation or additional verbiage (excepting
the NR on digital modes <yes, CW is digital> and the word "number" on
voice modes), regardless of mode. "II" normally means that the
operator has made a mistake and will resend the previous word.

>"DE Callsign" is an extended break-in process except when fulfilling the
>10-minute identification rule. You are not required to send the other
>stations callsign EXCEPT at the beginning and end of a series of
>transmissions.
>

This is not true. The only time you are EVER required to send the
other station's callsign is when you have just passed a piece of 3rd
party traffic to a station not in the U.S.

>"SK", In traffic handling parlance means you have sent the last of a
>series of messages and have no other traffic to send. (You never send

The "SK", though part of the procedure in commercial traffic, is
ununsed in NTS traffic handling. You may use it as part of completing
a pairing on a net but it is not a part of the traffic itself. On CW,
a message ends "AR B" or "AR N" indicating more traffic or no more
traffic to follow, respectively.

Rich KB4N
STM NH
--
Richard W. Critz, Jr. | ...{decvax!ubbs-nh, decuac}!critz!rwc
141 Hills Ferry Road | rwc@critz.mv.com
Nashua, NH 03060 | Packet: KB4N @ KB4N.NH.USA.NA

4150. Which Rig is Best??

Newsgroup: rec.ham-radio
Date: 1990-07-11 16:18:18 UTC
From: paul+@andrew.cmu.edu
Message-ID: <laap5-y00WBL41hV1H@andrew.cmu.edu>
Source record: 10406

I am planning on buying an HF tranciever in the near future.
I have narrowed down the choices to the following:

Yaesu FT-757 GXII (new) or Kenwood TS940 (new) or Kenwood TS440(new)
or ICOM IC745(used).

I would like to take a simple poll.Which one of the above is best, second
best etc.(Assuming the used ICOM is in very good shape).
My last radio was an FT-101EE, so I'm not very familiar with the merits
of any of the above radios. Please don't waste the net bandwidth. EMAIL
me directly, and when I have all the responses, I'll post the results
of the poll. Thanks
Paul

WA3TLD
pauld@fs1.ece.cmu.edu or paul@andrew.cmu.edu

Remember: Only you can prevent me from buying a BUM rig!

4151. Re: Was Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-11 16:29:44 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <13329@shlump.nac.dec.com>
Source record: 10407

In article <1990Jul11.050358.23531@bellcore-2.bellcore.com>, karn@thumper..bellcore.com (Phil R. Karn) writes...
>But he squanders any credibility he might have gained when he mixes in
>his off-the-wall ramblings about Scientology or UFOs or whatever. Not to
>mention his continuing to carry the Maxcom antenna-matcher ads. Two
>Daytons ago I confronted him about these frauds. Believe it or not, he
>actually tried to tell me that he had no control over what his
>Editor-in-Chief printed in the magazine he (Wayne) published...

It's possibly true. When I worked there way back in '75 (yes, I admit it, I'm one of a zillion alumni), Wayne bought articles and wrote editorials, but the (mainly non-ham) staff did most of the work. But he owned it then and could exercise control. A few years ago he sold the whole operation (mostly computer mags) to Patrick McGovern (CW Communiations, as in "Computerworld", not "code") who gives him a long leash but no doubt still wants ad revenue...

Besides, he's possibly even more cynical than I.

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

4152. Re: What is Phase Noise?

Newsgroup: rec.ham-radio
Date: 1990-07-11 16:51:10 UTC
From: carmijo@hpnmdla.HP.COM
Message-ID: <1250193@hpnmdla.HP.COM>
Source record: 10408

>>There are four basic methods to measure the phase noise of a CW source:
>> 1. Measure it directly with a spectrum analyzer
>> 2. Mix the signal down to a lower frequency and use a counter
>> to measure the variance of the frequency.
>
>Doesn't this mean you need to sue a LO that is MUCH more stable than the
>amount of phase noise you are trying to measure? Then again, I guess the
>spectrum analyzer LO must also be very pure to make this kind of measurement.

Correct. This is why LO phase noise is an important spec for
spectrum analyzers. As you might expect, high priced spectrum analyzers
have the best phase noise. Lower priced instruments can have quite
bad phase noise. In any case, if you doing the measurement using a
spectrum analyzer, it's important for you to check the specs on the
instrument. 20 dB better than what you are measuring should be o.k.

>> 3. Use a phase detector to measure the difference in phase
>> between your source and a reference source. The output of
>> the phase detector is displayed on a spectrum analyzer.
>> 4. Use a frequency discriminator to demodulate the "FM" signal
>> and measure the output on a spectrum analyzer.

>>I guess this assumes that the discriminator is capable of doing some very
>>quick and accurate demodulation of the signal. If phase noise is truely
>>random (which it must be to be considered 'noise'), what kind of instantaneous
>>jumps in discriminator output would one observe using this technique?

The discriminator should have the same bandwidth as you are trying to
measure for the phase noise. For example, if you want to look at the
phase noise 100kHz away from the CW signal, you will need at least 100kHz
of discriminator bandwidth. This is usually not a big problem because
we are most often interested in phase noise close in to the signal.

>> Are there any good tips or techniques you (or anyone) can
>>suggest to ensure good phase noise performance?

I, like a lot of others, learned from a good mentor. A good
reference book is:
"Phase Noise", A. Robbins (I think this is right)
If you are really more interested, drop me a note by e-mail and
I can try to find some copies of the H.P. application notes about
phase noise. They're pretty good (i.e., readable and down to earth).

Chris Armijo
carmijo@hpnmdla.hp.com

4153. Re: Alinco 2 meter Amplifier/Kenwood TH225 HT

Newsgroup: rec.ham-radio
Date: 1990-07-11 17:15:38 UTC
From: cep@cci632.UUCP
Message-ID: <38606@cci632.UUCP>
Source record: 10409

I've tried this operation, also, in my alinco 230 amplifier (with pre-amp). I found that the ratings on the output power jack of the amp SHOULD have allowed me to operate the HT in low power directly from that jack. In reality, when I key up the HT using the amp as the power source, the thing shuts down completely. Power cycling the amplifier makes it work again.

Anybody else seen this? I simply gave up on that connector and don't use it.

Chris

4154. Wayne, state of ham radio (Was Re: The Demise of HR Magazine...)

Newsgroup: rec.ham-radio
Date: 1990-07-11 17:40:53 UTC
From: winter@Apple.COM
Message-ID: <42871@apple.Apple.COM>
Source record: 10410

In article <1990Jul10.170828.12138@cbnewsh.att.com> mrb1@cbnewsh.att.com (maurice.r.baker) writes:
>In article <42720@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
>> [someone else wrote]:
>> >I haven't read the latest 73's, but Wayne always seemed to have
>> >plenty of common sense in the past.
>>
>> When was this? I must have missed it....
>
>Well, he started BYTE magazine and advised hams to get started making
>money in the upcoming (we're talking 1975 here) microcomputer revolution.
>Apple Computer [your employer] seems to have done pretty well,
>along those lines.

Yes, Apple has done fine, but I don't think we can give Wayne Green credit for it. :-)

I'm not aware of any hams in the early Apple staff. We had a veep a few years ago, but that was 'way after the period you're talking about. And we didn't get John Sculley (ex-ham) until just few years ago. So as far as Apple is concerned, I don't know of any hams who took Wayne's advice to make money from microcomputers. Any of the other Apple hams out there know of any?

I agree with Phil Karn: Wayne has some good ideas, but they're lost in the noise. Besides, people who are against more things than they're for drive me up the wall.

>Just a bunch of rabblerousers, armchair lawyers and
>frustrated police-wannabe's for the most part (rec.ham-radio is an interesting
>microcosm of all this).

I'm sorry that this has been your experience. Yes, there's too much of this kind of activity. But there are also lots of super nice people, including some who will travel anywhere anytime to help with emergency communication. I know because there are many of those people in my area. I strongly suspect that there are plenty of nice hams in your area, too.

Patty

p.s. I'm actually a contractor, just for the record.
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4155. Re: Worldwide network of HF propagation beacons. . .

Newsgroup: rec.ham-radio
Date: 1990-07-11 17:46:54 UTC
From: winter@Apple.COM
Message-ID: <42872@apple.Apple.COM>
Source record: 10411

In article <7527@gollum.twg.com> sawyer@twg.com (Bruce B. Sawyer) writes:
>Now that you know at least some of what NCDXF does, why not learn more? I
>think you'ld be amazed at the list of expeditions NCDXF has supported.
[edited]
> Do yourself and other DXers a favor--drop a line to W6OAT and ask
>how you can help.

Actually, it would be best to use the address I posted in my followup
to the beacon question last week. Refresher course:

NCDXF
P.O. Box 2368
Stanford, CA 94309

That way it will be given directly to the person who handles information
requests.

73,
Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4156. Bearcat 200XLT mods (QUERY)

Newsgroup: rec.ham-radio
Date: 1990-07-11 17:52:59 UTC
From: fayne@tellabs.com
Message-ID: <2987@tellab5.tellabs.com>
Source record: 10412

I'm sure this has been requested before, but I don't have any previous
requests in my archives:

I just picked up a Bearcat 200XLT and was wondering what sort
of mods are available (ie. blocked out freqs, scan speedups, etc.)?

I've seen ads for a book by Dr Rigor Mortis (nice name :)) that
covers mostly the PRO series but is supposed to have mods for the
200XLT. Does anybody have a copy of this book and if so what are
the mods for the 200XLT? BTW, anybody in the Chicago area know where
this book is available?

Any pointers or any "Gee, all you gotta do is clip out the third
diode from the left" type info would be greatly appreciated :^)

Thanks in advance,

Jeff

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```
------------------------------------------------------------------------------

F-14 | _ | | Jeffrey M. Fayne
Tomcat | /^ ^\ | | Tellabs, Inc.
___________|_( . )_|___________ | Lisle, IL (708)-512-7726
--*/--|_| (___) |_|--\*-- | fayne@tellabs.com
* O O * fjs | Standard Disclaimer Applies
------------------------------------------------------------------------------
```

4157. Re: Some CW procedure questions (reply is LONG)

Newsgroup: rec.ham-radio
Date: 1990-07-11 17:56:29 UTC
From: winter@Apple.COM
Message-ID: <42873@apple.Apple.COM>
Source record: 10413

In article <1990Jul10.212044.473@math.lsa.umich.edu> hideg@spsd3260a.erim.org (Steve Hideg) writes:
>You are not required to send the other station's callsign at all in U.S.
>domestic QSOs.
>
>You are not required to send your callsign at the beginning of a U.S.
>domestic QSO, only at 10-minute intervals and at the end of the QSO.

Unless something has changed recently (are you there, KA6S?), it doesn't matter whether it's a domestic QSO or not. All U.S. hams have to do is ID at the end of the QSO, and every 10 minutes if it's longer than that.

However, if you're transmitting third-party traffic, you do need to give the callsign of the station you're talking to, at the end of the QSO.

Patty

p.s. I left the default distribution on this because I know there are some overseas hams who hold U.S. licenses or operate here under their home calls.

p.p.s. How come lots of postings I see don't have a specified distribution? Are there news posting programs that don't require it? Does that mean they don't even prompt the poster to make a choice? Seems like that could account for a lot of postings that wind up with worldwide distribution unnecessarily.

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4158. Re: Half baked satellite idea

Newsgroup: rec.ham-radio
Date: 1990-07-11 18:14:50 UTC
From: winter@Apple.COM
Message-ID: <42874@apple.Apple.COM>
Source record: 10414

In article <1990Jul10.223934.1550@ameristar> rick@ameristar.uucp (Rick Spanbauer) writes:
>On NPR this evening it was mentioned that there may be a joint
>USSR-US satellite launch facility built in Australia. The idea
>is to use Soviet rockets to launch US (& presumably other) satellites.
>What does this have to do with Amateur Radio? Well, it was mentioned
>that the first two launches will be with "dummy" payloads. Which
>sets the mind to wondering whether an amateur radio satellite could
>take advantage of the free ride (& potentially be larger than usual
>since the ride is for testing anyways). Have the amateur radio satellite
>types started pursuing this angle? Enquiring minds want to know ;-)

Hmmm. In addition to AMSAT-NA and the Soviet RS satellite developers,
maybe we need to make sure these guys know about it:

From: lindley@ditsyda.oz (Craig.Lindley)
Newsgroups:aus.general,aus.radio,aus.radio.amsat,sci.space,sci.physics,sci.astro
Subject: Amateur Space Engineering Group
Keywords: spacecraft,amsat
Message-ID: <2679@ditsyda.oz>
Date: 6 Jul 90 02:58:19 GMT
Distribution: aus
Organization: CSIRO DIT Sydney, Australia

Formative Meeting for an
Australian Amateur Space Engineering Group

1. Possible projects. Initial suggestions are:
- take on the construction of an Australian AMSAT.
(Already proposed in association with the ALV project.)
- a small space science payload.
- an orbiting telescope (bandwidth?).
- discussion of launchers (to build, buy, borrow, or piggyback).

2. Resources avaiable. This includes
- money
- time
- expertise
- engineering support - facilities, etc..
- operational support - ground stations, etc., many of which
already exist for AMSAT.

3. Organizational structure and methods of communication.
This includes the number of people to involve, and the issue
of whether or not to become a formal group.

4. Existence of related groups, and the formation of
relationships with them.

Contact: Craig Lindley, 887 9441
email: lindley@ditsyda.oz

****

Anyone know what the "ALV project" is???

Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4159. Re: Kenwood TS140s computer interface ? & TS140s vs TS440s

Newsgroup: rec.ham-radio
Date: 1990-07-11 18:31:06 UTC
From: koning@koning.enet.dec.com
Message-ID: <13336@shlump.nac.dec.com>
Source record: 10415

>
> Does the command set inside these radios (TS-440, 140, icom, kenwood, etc.)
> allow you to poll the radio for its current frequency, or do they just
> could your electronic logger automatically "grab" the frequency from the
> radio and store it in the computer). I have not seen the command set for
> any of these computer interfaces.

The Kenwood radios definitely offer what you need, in two ways:
1. You can poll the current state of the radio (not just frequency
but various mode information as well)
2. You can instruct the radio to report the state whenever it changes,
automatically. When you tune around the band, the report comes out
as soon as you stop moving the tuning knob for about a second.

Either mechanism is great for logging. I've used #2 to check for subband
violations or contest-specific band limits (put up a bold blinking message
when the frequency is wrong). Kenwood has a datasheet for the computer
connect box that gives one-line summaries of the commands. More details
were posted here on the net a year or two ago.

paul

4160. Mods wanted for Kenwood TR2500

Newsgroup: rec.ham-radio
Date: 1990-07-11 18:45:34 UTC
From: jmcvey@hpdmd48.HP.COM
Message-ID: <530013@hpdmd48.HP.COM>
Source record: 10416

Where can I find out about mods for a Kenwood TR2500 HT?
I am interested in weather band. Any chances?

Thanks in advance,

John McVey
jmcvey%hpbslq@hplabs.hp.com

4161. Re: Kenwood TS140s computer interface ? & TS140s vs TS440s

Newsgroup: rec.ham-radio
Date: 1990-07-11 18:45:55 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720074@hplsla.HP.COM>
Source record: 10417

OK, there seems to be some interest, so here's the command set for the
TS-440. I have received mail from someone who tells me that, yup,
ALL the kenwood rigs understand pretty much the same commands.

Command Descriptions for Kenwood TS-440

Auto Information
AIn; The radio will send the status info automatically when
the operator changes any control covered in the IF;
command.
n = 0 for Auto Info OFF
n = 1 for Auto Info ON

See IF; for response

Display Memory
DMnnnn; This is a factory diagnostic and is of no practical
use.

nnnn = MPU address in hex

Response is:
DMnnnn-aabbccddeeffgghhiijjkk;
nnnn = MPU address in hex
aa~kk = 16 bytes of data in hex

Down
DN; The frequency or memory channel will go down by one
step.
(KX7L note: The UP; and DN; commands seem to have a bug, at least
in our '440. It will only let you do one UP or DN cmd. i.e.
UP;UP;UP; changes the frequency the same as UP;)

Read Frequency
FA; Read VFO A.
FB; Read VFO B.

Response is:
Fxggmmmkkkhhh;
x = A or B
gg = GHz.
mmm = MHz.
kkk = KHz.
hhh = Hz.

Load VFO register
Fxggmmmkkkhhh; Loads a frequency into a VFO:

x = A or B (selects VFO)
gg = GHz. (May be 00 or spaces)
mmm = Mhz.
kkk = KHz.
hhh = Hz.

Function Select
FNn; Select VFO or memory
n = 0 for VFO A
n = 1 for VFO B
n = 2 for memory

Identify Model Request
ID; The radio will respond with:
ID001; for a TS-940
ID004; for a TS-440

The radio may respond with:
ID002; for a TS-811
ID003; for a TS-711

Read Information Request
IF; The radio will respond with:
IFggmmmkkkhhhsnnnzrxyytdfcp;
ggmmmkkkhhh is the frequency (See Fx;)
s = "+" or "-" value of RIT/XIT
nnn = value of RIT/XIT
z = "0" (I am not sure what this is)
r (see RT;)
x (see XT;)
yy = memory channel number
t = 0 for Receive
= 1 for Transmit
d (see MD;)
f (see FN;)
c (see SC;)
p (see SP;)

Lock Knob
LKn; Enable or disable manual frequency control:
n = 0 for LOCK OFF (manual control enabled)
n = 1 for LOCK ON (manual control disabled)

Memory Channel Select
MCmmm; Select a memory channel:
mmm = channel number (000 to max for radio)

Mode Select
MDn; Select mode:
n = 1 for LSB
n = 2 for USB
n = 3 for CW

n = 4 for FM
n = 5 for AM
n = 6 for FSK

Memory Read
MRnrrr; Read contents of memory channel:
n = 0 for RX VFO
n = 1 for TX VFO (split channels only)
rrr = channel number (000 to max for radio)

The radio will respond with:
MRnrrrggmmmkkkhhhdxxxxx;
n = 0 for RX VFO
n = 1 for TX VFO
rrr = channel number
ggmmmkkkhhh is freq. (See FA;)
d = mode (See MD;)
xxxxx = not used (seem to always be "0 ")

Memory Write
MWnrrrggmmmkkkhhhdxxxxx;
Write a memory. See MR; for format

RIT/XIT Clear
RC; The RIT/XIT register will be set to 0.00 KHz.

RIT/XIT Down
RD; Decrement the RIT/XIT register by 0.01

RIT/XIT Up
RU; Increment the RIT/XIT register by 0.01

RIT Enable
RTn; Enable or diable the RIT function
n = 0 for RIT OFF
n = 1 for RIT ON

Receive
RX; Enter receive mode.

Scan Enable
SCn; Turns scan on and off
n = 0 for Scan off
n = 1 for scan on

Transmit
TX; Enter transmit mode.

UP
UP; The frequency or memory channel will increment one
step

XIT Enable/Disable
XTn; Turns XIT on and off

n = 0 for XIT off
n = 1 for XIT on

---

courtesy of - Mark Bramwell, VE3PZR

Charlie Panek (UUCP: hplabs!hp-pcd!hplsla!charlier)
KX7L (domain: charlier%hplsla@hplabs.hp.com)

4162. Re: Kenwood PB-2 nicad packs, open w/o destroying?

Newsgroup: rec.ham-radio
Date: 1990-07-11 18:48:24 UTC
From: jmcvey@hpdmd48.HP.COM
Message-ID: <530014@hpdmd48.HP.COM>
Source record: 10418

I have just repaired two Kenwood PB-25 packs. After I slid
them off of the HT I just pried apart the two halves from the
top. They are snap fit. No screw removal was necessary.

My packs needed new nicads.

Good luck,

John Mcvey
jmcvey%hpbslq@hplabs.hp.com

4163. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-11 19:10:08 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <326.269B79E0@w8grt.fidonet.org>
Source record: 10419

> From: john@anasaz.UUCP (John Moore)
> Date: 10 Jul 90 19:20:13 GMT
> Organization: Anasazi, Inc.
> Message-ID: <2670@anasaz.UUCP>
> Newsgroups: rec.ham-radio
>
> In article <319.2697A4C5@w8grt.fidonet.org> jim.grubs@w8grt.fidonet.org
> (Jim Grubs) writes:]No. I don't think of ham radio as an antique
> wireless museum, which is
>]basically what happens on HF. I think of ham radio as a National Park
>]of the
>]Mind where the curious can go adventuring on the frontiers of
>]technology. THAT
>]is happening on VHF and up.
>
> Ah... don't get too down on HF. There are plenty of technical challenges
> left on HF. For example:
> (1) continued research on propagation;
> (2) how to do packet radio EFFECTIVELY given the problems of HF
> propagation, bandwidth and the inevitable hidden terminal problem;
> (3) antenna work (antennae are a LOT more predictable at VHF
> because they don't interact with funky grounds as much);
> (4) noise reduction/cancellation techniques.
>
> I don't think that the future of amateur radio is just on VHF and up!
> HF has unique problems, and it also has unique capabilities. Don't
> neglect it just because a lot of old farts hang out there and
> chew the rag.

Well, we could argue the point ad nauseum. I think the main thrust of ham radio in the future (although obviously not to the total exclusion of all else) is in the area of computer networking. Most of the opportunities for research that were listed also happen to be the main reasons why HF is not particularly suitable for mainline networking. That it works at all on HF is a marvel.

In the first place, I don't think we are going to gain HF bands anyway. From what I have read, it is entirely possible we may lose 30 meters and 40 meters to SW broadcasting. (Talk about your basic dinosaurs!)

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____

```
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"
```

4164. Re: Some CW procedure questions (reply is LONG)

Newsgroup: rec.ham-radio
Date: 1990-07-11 19:38:04 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13339@shlump.nac.dec.com>
Source record: 10420

In article <900710-121240-5799@Xerox>, "wayne_a._lightsey.RochXRC"@XEROX.COM writes...

>"RST 559" is the correct way to send a signal report. 55N has no defined
>meaning - it is absolute laziness to not send the character "9" in morse
>code. If the practice were uniform, your "RST 559" would become "RST
>FFN". The problem with this, of course is that you do not know if you
>received a 559, 549, or 449!

I don't know the history of sending 'N' in place of 9. However, based on other letters that are similarly abbreviated, the 'N' is not an abbreviation for the 'n' in Nine, but rather the abbreviation for "----." Here are the common abbreviations

0 - T
1 - A
9 - N

Numbers are special because there's a pattern to them. Once you hear the transition from "dah" to "dit" you know what number it is. For example, once you hear two "dits", then the first "dah", you know the number is going to be a 2. So you could (if you wanted to), abbreviate 2 as U. So I would guess that T means 0 because there are no dits to transition to. A means 1 because once you get the 1st dit, then the 1st dah, you know the rest are dahs and you know it's a 1. So actually, by this pattern, you would abbreviate 6 as dah-dit (which is an N), but someone decided this would be 9. I wouldn't abbreviate 5 as F, but rather as E (see the 0 case above).

I don't think sending 'N' instead of '9' is a bad practice at all, why waste our bandwidth sending stuff that can be abbreviated? 9 is one of the longest characters in the entire code (besides 0) anyway.

"Seventy Threes and Thank You for the Contact. Hope to See you again"

"73 TKS 4 QSO HPE CU AGN"

Tell me, which one exchanges the info faster?

jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4165. Antenna question

Newsgroup: rec.ham-radio
Date: 1990-07-11 19:49:47 UTC
From: perley@trub
Message-ID: <9638@crdgw1.crd.ge.com>
Source record: 10421

I was planning on making the delta-v antenna described in the recent antenna issue of Ham Radio (may?), and have a couple of questions.

Since this a high impedance (800 ohm) non-resonant antenna with a terminating resistor, is it safe to assume that the wire conductivity is less important than with a resonant antenna? I was hoping to use 14 guage steel fence wire (at ~1 cent/foot, plus I already have enough) rather than copper.

Second, what is the usual practice for enclosing the terminating resistor? Since it may have to dissipate up to 100 watts (not with my current rig), an airtight enclosure doesn't sound ideal. Per the article's suggestion, the termination will be 50 39 Kohm 2 watt resistors in parallel.

-don perley, ke2tp

perley@trub.crd.ge.com

4166. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-11 19:49:56 UTC
From: elliott@optilink.UUCP
Message-ID: <4007@optilink.UUCP>
Source record: 10422

In article <956@ke4zv.UUCP>, gary@ke4zv.UUCP (Gary Coffman) writes:
] In article <1250189@hpnmdla.HP.COM> alanb@hpnmdla.HP.COM (Alan Bloom) writes:
] >
] >>How effective is a filter which includes a ground as part of the design,
] >>if you leave it UNGROUNDED?
] >[...]
] >If you have an external low-pass TVI filter, its internal circuitry is
] >likewise referenced to CHASSIS ground (same as coax shield).
] >[...]
]
] I'm afraid that YOU are the one that is confused. When an unbalanced filter
] is used to bypass unwanted RF energy to the chassis and the chassis is
] not connected to ground, the chassis structure and the outside of the
] coax shield, the microphone cord, the powerline, and any other wires
] connected to the chassis become RADIATING ELEMENTS for that unwanted
] RF. Thus the desired effect of preventing unwanted radiation is lost.
] The currents between the coax center conductor and shield are supressed,
] but that is of little use if the outside of the coax becomes "hot".

It still seems to me that the "floating" coaxial filter would do a good job,
*provided*that* the transmitter shielding is good and the cable from the
transmitter to the filter is short. A completely shielded enclosure
will not radiate, regardless of what is inside, or what is connected to
the outside. If the filter is very close to the enclosure, it can be
considered as part of the shield, and will isolate the external
connections from the internal ones. Of course real-world filters and
shields are not perfect, so maybe that's what we are shouting about (er..
"discussing")..

In any case, perhaps this argues for the use of the "dissapative" type
of filters (the ones that are effectively diplexers with dummy load
to convert the spurious R.F. to heat). Thus you dont have as much of
a problem with stray R.F. circulating around, looking for a way to get out.

-Paul wb6cxc
--
Paul M. Elliott Optilink Corporation (707) 795-9444
{uunet, pyramid, tekbspa}!optilink!elliott
"an archetypal entity..., superimposed on our culture by a cosmic template."

4167. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-11 19:50:52 UTC
From: mo@messy.bellcore.com
Message-ID: <25204@bellcore.bellcore.com>
Source record: 10423

Wayne Green didn't start Byte, he started a competitor to Byte
called Kilobaud. It lasted about a year. I still have a compete set.

Byte was started by Carl Helmers. I heard of Byte through the grapevine
and sent him a letter subscribing to whatever he was doing.
His reply letter is bit of cherished youthful memorobelia.

-Mike

4168. Re: Dentron dummy antenna oil leak warning

Newsgroup: rec.ham-radio
Date: 1990-07-11 19:54:31 UTC
From: smesko@hpdmd48.HP.COM
Message-ID: <530015@hpdmd48.HP.COM>
Source record: 10424

I purchased a Cantenna from Heathkit 17 years ago. It still has the
original mineral oil and is in good shape - inside and out. No leaks.

Steve WB7Y

4169. Online Callbook

Newsgroup: rec.ham-radio
Date: 1990-07-11 20:48:30 UTC
From: DXANDY%widener@PUCC.PRINCETON.EDU
Message-ID: <5A070B0F2C1F0256-MTABWIDENER*DXANDY@widener>
Source record: 10425

Hi!
There used to be an online callbook for US callsigns that was located at callbook@sat.datapoint.com, but recently I have not been able to get any response from it. Is it still up? There was an article recently on the digest about a callbook server on packet, is this accessable from BITNET or Internet?

Andy Greenshields N3IGS
[dxandy@widener.BITNET]

4170. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-11 21:45:39 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007112154.AA02737@ti.com>
Source record: 10426

As in so many other discussions, here is another case of different arguments being correct while at the saame time not addressing the central point. In this case, TVI. What has been neglected up to now is the fact that it is the receiving point, not the transmitting point, that is getting the interference. Al (N1AL) correctly points out that unwanted radiation *going to the antenna* is filtered out. Correctomento. But TVI may not be introduced from the transmitting antenna: As someone pointed out, it can come from the feedline, or any other metal object connected to the transmitter.

The confusion seems to arise over what is the common point. The only point that is common to both the transmitter and the TV in this hypothetical problem is the ground...Earth Ground. Therefore, any rf potential that is generated with reference to Earth Ground is likely to be seen by the TV. Unless some point of the transmitter (usually its "ground") is connected to the Earth Ground, any rf potential between any point of the "floating" transmitter and Earth Ground may become TVI. Phase differentials generated within the set, and even within the filters themselves, can create enough rf potential to cause problems.

I think your best and easiest move to try to eliminate TVI is to use a good Earth Ground for your transmitter first, and then use filtering and shielding.

73,
Dube Todd N5PDK

4171. Re: Online Callbook

Newsgroup: rec.ham-radio
Date: 1990-07-11 21:49:00 UTC
From: lcz@dptspd.sat.datapoint.com
Message-ID: <579@dptspd.sat.datapoint.com>
Source record: 10277

DXANDY%widener@PUCC.PRINCETON.EDU writes:
>Hi!
> There used to be an online callbook for US callsigns that was located at
>callbook@sat.datapoint.com, but recently I have not been able to get any
>response from it. Is it still up?

Andy, the server is still up and running! The log shows requests from
you on 6/14, 7/3, and 7/11. No bounces on any of them. Btw, the
first two requests came from dxandy%widener.bitnet@cornellc.cit.cornell.edu,
and the last from dxandy%widener@pucc.princeton.edu.

If you or anyone else is having problem receiving replies from the server,
you might try including a "path" command in the text of your message. For
example:

path user@domain
or
path bang!path

as appropriate. The path should be either a domain address accessable from
the internet, or a uucp bang path (relative from uunet is fine; my mailer
knows at least how to get there).

The path shouldn't be necessary, of course, but it's there if needed. If
you can't seem to get it to work at all, please drop me a note!

73/Lee, N5LYT
lcz@sat.datapoint.com

4172. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-12 01:10:41 UTC
From: tad@ssc.UUCP
Message-ID: <890@ssc.UUCP>
Source record: 10303

In article <1250189@hpnmdla.HP.COM>, alanb@hpnmdla.HP.COM (Alan Bloom) writes:
>
> >How effective is a filter which includes a ground as part of the design,
> >if you leave it UNGROUNDED?
>
> ---------
>
> It works just fine. I guess a lot of people are confused about this, so
> I'll expand further.
>
> The transmitter generates RF voltage BETWEEN the center conductor of the
> output coax and the shield. Note that this voltage is NOT referred to
> earth ground. with
>
> If you have an external low-pass TVI filter, its internal circuitry is
> likewise referenced to CHASSIS ground (same as coax shield).
>

So you could leave the chassis ungrounded, and NOT experience the "hot
chassis" phenomena that you have when the ground lead is high impedance?

Everything seems to work a lot better in my station with it grounded!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4173. Re: Ramblings on Low Pass Filters

Newsgroup: rec.ham-radio
Date: 1990-07-12 02:04:07 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <254@ultrix.uhasun.hartford.edu>
Source record: 10278

In article <7950@ncar.ucar.edu>, elmore@virga.ucar.edu (kim elmore) writes:
>
> Anyway, a few months ago someone wrote an article in QST about dissi-
> pative LP filters. I think it was Jon Bloom. Anyway, he pointed out that all

Nope, it wasn't me.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

4174. Re: TS-140/440 computer interface.

Newsgroup: rec.ham-radio
Date: 1990-07-12 02:14:02 UTC
From: winter@Apple.COM
Message-ID: <42900@apple.Apple.COM>
Source record: 10279

In a previous posting, it is written:
>YES, you can pole the status of the radio. In the case of the Kenwood line
>of HF radios, TS-140/440/940 you send it the INFORM command thus...

Can you also czech it??

Patty

p.s. Sorry, I couldn't resist. Ever since this discussion of polling
the Kenwood started, I knew someone would set him/herself up with a
a misspelling....
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4175. Re: Wayne, state of ham radio (Was Re: The Demise of HR Magazine...)

Newsgroup: rec.ham-radio
Date: 1990-07-12 02:19:59 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <255@ultrix.uhasun.hartford.edu>
Source record: 10280

In article <42871@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
>
> I agree with Phil Karn: Wayne [Green] has some good ideas, but they're lost
> in the noise. Besides, people who are against more things than they're
> for drive me up the wall.

And he's a bit shy of specifics, too. For example, in the latest diatribe
(I think it's the latest one) he rakes ARRL over the coals for not policing
ham radio. He fails to explain how an organization with no police or
governmental powers is supposed to do that. (Just imagine the howls from
Wayne if ARRL tried to acquire such powers. Come to think of it, I'd
howl too :-)

> >Just a bunch of rabblerousers, armchair lawyers and
> >frustrated police-wannabe's for the most part (rec.ham-radio is an interesting
> >microcosm of all this).
>
> I'm sorry that this has been your experience. Yes, there's too much
> of this kind of activity. But there are also lots of super nice people,
> including some who will travel anywhere anytime to help with emergency
> communication. I know because there are many of those people in my area.
> I strongly suspect that there are plenty of nice hams in your area, too.

I attended the Central Division convention in Indianapolis last week. At
the banquet on Saturday night a number of awards were given out. Nothing
unusual about that, right? But these awards were given to hams who had
provided tornado tracking information (from the field, you understand,
where the tornadoes were); who ran the net supplying, as the National
Weather Service official at the banquet said, "the meteorologists dream:
more data than we could even process"; and who organized the program with
the help of RACES and the state emergency management folks. (The state
emergency management director handed out some of the awards.) Of course,
by the tenets of some people on this net, these folks are just old farts
stuck in the past because they aren't experimenting with microwaves or
computers. Feh!

(That last comment isn't intended to apply to Patty, BTW. Her posting
just provided a convenient place to say this.)

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

4176. Re: Running a PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-12 02:23:18 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul12.022318.26754@bellcore-2.bellcore.com>
Source record: 10281

In article <11914@netcom.UUCP>, mcmahan@netcom.UUCP (Dave Mc Mahan) writes:
|> For the power inverter, we found that the typical square
|> wave output seemed to work just fine for the PC.

On the subject of power inverters, anyone looking for one should be aware that the technology has progressed quite a bit in the past 5-10 years. The main advance has been the power MOSFET. Units with remarkably low "on" resistances are available, and their use in inverters greatly increases efficiency. For example, my Heart Interface 600W model is rated at 95% efficiency at about 100 watts, and it stays in the 90's up almost to rated power. The older bipolar units are lucky to make 70-80%. And my unit draws only about 70mA when idling, so I don't even bother to turn it off when I'm not using it.

Another advance has been what's called the "modified sine wave" output. This is not actually a sine wave, but a square wave modified to have 50% duty cycle, i.e., 0V, +160V, 0V, -160V, etc. This waveform is nice because it simultaneously matches the peak and RMS values of AC power, so it can be used with peak-responding loads (like power supplies) along with RMS-responding loads like lamps. Older square wave units will either burn out light bulbs if they are set to produce the necessary peak voltage for power supplies, or they will not produce enough raw DC voltage in a power supply if they are set for lamps. Another big advantage of the modified sine wave inverter is improved efficiency; the "off" period between each peak voltage swing avoids the current spike that occurs in square wave inverters when both transistors switch simultaneously.

So I would look around for one of the newer MOSFET/modified sine wave units, as I think they are worth the extra money. (Note that the common TRIPP-LITE units are mostly square-wave units.) Heart's main competition is Trace; their products and prices are comparable, although Heart seems to be going after the marine/RV market while Trace sells primarily to the alternative/off-grid energy market.

I use my inverter in a continuous online UPS for my home computers. A pair of surplus 80A 6V Lambda switching power supplies produces 12V for the inverter, and a deep cycle lead-acid battery floats on the 12V bus. The bus also provides power for all my radios.

Phil

4177. Can you help me?

Newsgroup: rec.ham-radio
Date: 1990-07-12 02:28:19 UTC
From: JARVIS@DGAESO51.BITNET
Message-ID: <9007120228.AA24708@ucsd.edu>
Source record: 10282

Date: 12-JUL-1990 04:11:40.58
From: JARVIS AT DGAESO51
To: EARN::"info-hams@wsmr-simtel20.army.mil"
Subj: Can you help me?
This is an appeal for help. I have been trying to deal with a computer
company in Canoga Park, CA 91303 called VALUE PLUS COMPUTERS.
Two months ago they took a $3000.00
order from me on my credit card and I have not seen the goods.
Furthermore I cannot get any sort of shipping information from them.
They were to be shipped to Miami.
I have made countless international phone calls to no avail.
I am now cancelling my order naturally, but I would like to have the
address of their local BETTER BUSINESS BUREAU.

Would some kind sole who knows this earea and can e-mail me the address
please help. The reason I cannot do this myself is that I am trying to do all
this from Chile.

Brian Jarvis JARVIS@DGAESO51.BITNET
VK7XD/CE2

4178. Wayne Green and 73 magazine.

Newsgroup: rec.ham-radio
Date: 1990-07-12 03:35:29 UTC
From: jgd@rsiatl.UUCP
Message-ID: <3143@rsiatl.UUCP>
Source record: 10283

karn@thumper..bellcore.com (Phil R. Karn) writes:

>But he squanders any credibility he might have gained when he mixes in
>his off-the-wall ramblings about Scientology or UFOs or whatever. Not to
>mention his continuing to carry the Maxcom antenna-matcher ads. Two
>Daytons ago I confronted him about these frauds. Believe it or not, he
>actually tried to tell me that he had no control over what his
>Editor-in-Chief printed in the magazine he (Wayne) published...

He is probably telling it pretty much straight. About 5 years ago, I interviewed with Wayne for the position of Editor in Chief of 73. You may remember when he advertised the position. The first thing that impressed me is how small 73 is. It and Digital Review share about 4000 sq ft of space. The next thing that impressed me was Wayne's absence. He writes his editorials at home and drops in for a few minutes once a week to drop off the copy. (Which is probably one reason the magazine is in such bad shape.)

The editor and publisher had almost complete autonomy. The continuation of this autonomy was a ground rule for my considering the interview. His editorial page was to be off-limits but the rest would be under my and the publisher's control. Unfortunately, the publisher at the time was Norm Strumburg (or something like that) and we had immediate bad chemistry. So I declined the offer. The prospect of a pay cut also entered into the picture.

Trying to deal with Wayne reminds me somewhat of the exercise of trying to nail jello to the wall. He's got a thousand thought processes going at once and none seem focused. Some thoughts are whacky, others are pretty good.

One thing I don't understand is why the ham community does not make him put up or shut up. He hollers repeatedly about the dearth of technical expertise in ham radio. So why don't some of the technical writers submit technical - really technical - articles for publication. His page rate is as good as any so it would be worth your effort. He SAYS he wants to publish technical articles so why don't we call his bluff? Perhaps 73 is a resource the technical community could tap.

John

--
John De Armond, WD4OQC | We can no more blame our loss of freedom on congress
Radiation Systems, Inc. | than we can prostitution on pimps. Both simply
Atlanta, Ga | provide broker services for their customers.
{emory,uunet}!rsiatl!jgd| - Dr. W Williams | **I am the NRA**

4179. Re: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-12 04:43:53 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <36903@shemp.CS.UCLA.EDU>
Source record: 10284

In article <22480003@hpcuha.HP.COM> nicholso@hpcuha.HP.COM (Ron Nicholson) writes:
>Hi. I've got some questions that maybe the net hams could answer,
>at least those with experience in CW. I'm new to this hobby and have
>been learning about and making some CW contacts in the HF bands. I
>hear all kinds of CW procedures being used, and am wondering what
>procedures are the correct ones.
>
Everyone has their own style. Here's what *I* do....(your mileage
may differ! :-)!

>- BT vs. periods for punctuation,
Actual periods ("didahdidahdidah") are preferred when transcribing
text (from a book, article, etc); BT is preferred in general
conversation.

>- one or two BT's at a time,
Generally, only one BT is needed, although during
"breaks" in thought I'll send two or three BT's
(like saying "uh....uh....uh" during conversation?)

>- R R R vs. FB,
No real difference, I'm used to R R myself, so I use it.

>- R R R before or after the callsigns,
Again, I'm used to hearing "R R N6YMK DE W#XXX", so that's what
I usually do.

>- 559 vs 55N for the 2nd RST report,
"N" here is just a shorthand for "9". (By the way, with most of
the modern equipment out there, I have never sent/received/heard
an RST with anything but a "9" for 'tone quality'. Of course when
it comes to certain homebrew Soviet stations....)

>- differing amounts of abbreviations,
Most people use the abbreviations they've heard before; the
list provided in the "ARRL Handbook" and other ham radio
books is a good source of abbbreviations.

>- BK vs. BK TU vs. callsigns DE callsign KN,
This gets funny. I've heard "BK TU", "BK2U" (thought that was some
foreign call at first!) and all kinds of permutations of this. Whether
you use it or not is up to you.
However, I've always heard "W#XXX DE K#YYY KN" at the end of each
transmission. This alone should be sufficient in indicating that
it's your turn to transmit, making the "BK2U" business mentioned
earlier redundant.

>- when to use AR (I've only heard it used twice),
AR ("didahdidahdit") is normally used right after the end of your message, but before the W#XXX DE K#YYY KN. It is the end-of-message marker, and I use it instead of the "BK TU" constructions mentioned earlier. (It has the advantage of being much shorter than BK TU, etc.)

In formal message handling, the procedural signal AS ("didahdididit") is used at the beginning of each transmission; however I have *never* heard it outside of W1AW bulletins and the like; it's not used in informal QSO's.

>- leaving out one callsign and just send DE callsign,
Occasionally I've heard this; I've also heard stations sending the last three letters of the other station's callsign (e.g. MXR DE W6XUZ)....I know the FCC requires you to send your own callsign every 10 minutes; I'm not absolutely sure about the rules for sending the other station's callsign.

>- just ending with BK and no callsigns,
Bad form. AT LEAST send your own callsign at the end of each transmission.

>- SK before or after the closing callsign,
I think the form is "SK W6TTT DE N4WA"....but most hams know that SK means end of QSO anyway, so I don't think it's a real serious matter if you send "W6TTT DE N4WA SK".

>- the dit dit at the end of contacts.
I know about this....after the two hams have just signed off, one of them will send "dit didit dit dit", and the other will then send "dit dit". I don't know how long this has been going on, but I see nothing wrong with it, just a harmless bit of fun.

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

4180. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-12 13:06:54 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2196@ryn.esg.dec.com>
Source record: 10300

>
> Wayne Green didn't start Byte, he started a competitor to Byte
> called Kilobaud. It lasted about a year. I still have a compete set.
>
> Byte was started by Carl Helmers. [...]

Au Contraire, Weird Wayne was the original publisher of BYTE and Helmers was the Editor.
Then they had a fight/custody battle which Helmers won. Wayne went off in a corner and
threatened to start a magazine called "KILOBYTE" which after some legal action turned into
KILOBAUD. I susbscribed to KILOBYTE and received KILOBAUD for years -- it was to computer
magazines as 73 is to ham radio magazines (i.e. a good mag if you don't read the publisher's
column.)

I also subscribed to BYTE up until it became too uncomfortable to read it -- it would leave a
divot on your chest if you tried to read it while lying on the couch. I still have the first 24
issues of BYTE -- I keep hoping they'll be worth something someday. It was a different
world then.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Copyright (c) 1990 Patrick Taber all rights reserved.
This message may not be used by any law enforcement agency nor may it be used in any legal proceeding. That's the law.

4181. Antenna question

Newsgroup: rec.ham-radio
Date: 1990-07-12 13:29:30 UTC
From: perley@trub
Message-ID: <9675@crdgw1.crd.ge.com>
Source record: 10295

I was planning on making the delta-v antenna described in the recent antenna issue of Ham Radio (may 1990), and have a couple of questions.

Since this a high impedance (800 ohm) non-resonant antenna with a terminating resistor, is it safe to assume that the wire conductivity is less important than with a resonant antenna? I was hoping to use 14 guage steel fence wire (at ~1 cent/foot, plus I already have enough) rather than copper.

Second, what is the usual practice for enclosing the terminating resistor? Since it may have to dissipate up to 100 watts (not with my current rig), an airtight enclosure doesn't sound ideal. Per the article's suggestion, the termination will be 50 39 Kohm 2 watt resistors in parallel.

-don perley, ke2tp

perley@trub.crd.ge.com

4182. Re: Which Rig is Best??

Newsgroup: rec.ham-radio
Date: 1990-07-12 13:31:49 UTC
From: jimallen@hpcuha.HP.COM
Message-ID: <22480004@hpcuha.HP.COM>
Source record: 10285

I bought the Yaesu about a month ago.
I am very pleased with it so far. It
gets my vote!

Regards,

Jim Allen

4183. Re: Running a PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-12 13:48:04 UTC
From: davet@tsdiag.ccur.com
Message-ID: <1039@tsdiag.ccur.com>
Source record: 10286

In a previous article, faunt@dustbin.cisco.com (Doug Faunt N6TQS 415-688-8269) writes:
>I would like to be able to run a standard PC/AT clone on 12V,
>efficiently. Where can I get information on buying or building a
>reasonably low cost power supply for this?
>thanx, and 73, doug

How about using straight voltage regulators in conjunction with those cheap
DC-DC voltage converters? Something like this:

```
+13.8V----------------[ +12V regulator ]------------------> to PC
|
|
-----------[ +5V regulator ]------------------> to PC
|
|
-----------[ -12V converter ]------------------> to PC
|
|
-----------[ -5V converter ]------------------> to PC
```

I'd think this would be a little more efficent than using an inverter feeding
another power supply.
--
David E. Tiller davet@tsdiag.ccur.com | Concurrent Computer Corp.
FAX: 201-870-5952 Ph: (201) 870-4119 (w) | 2 Crescent Place, M/S 117
UUCP: ucbvax!rutgers!petsd!tsdiag!davet | Oceanport NJ, 07757
ICBM: 40 16' 52" N 73 59' 00" W | N2KAU @ NN2Z

4184. Re: Motorola 77-satellite cellular plan

Newsgroup: rec.ham-radio
Date: 1990-07-12 14:23:23 UTC
From: kthompso@entec.Wichita.NCR.COM
Message-ID: <586@entec.Wichita.NCR.COM>
Source record: 10313

Mike and others,
This global cellular system has been discussed at length lately in
sci.electronics. It should still be there if you pick up subscription
to that newsgroup.

--
Ken Thompson N0ITL
NCR Corp. 3718 N. Rock Road
Wichita,Ks. 67226 (316)636-8783
Ken.Thompson@wichita.ncr.com

4185. TECHNICAL HAMS - Where are You?!

Newsgroup: rec.ham-radio
Date: 1990-07-12 15:49:39 UTC
From: reichert@motcid.UUCP
Message-ID: <4018@cocoa46.UUCP>
Source record: 10312

I hope that K2EEK comments "Conversation with K2EEK, Editor CQ Magazine (Long)" doesn't really indicate that the "Homebrewer" or Innovative Ham is a thing of the past, but past experience has indicated we're a dieing breed!
The demise of HR and lack of good technical articles in QST, and yes QEX leaves me wondering if there's any method out there for exchanging technical ideas.

My impression of CQ and 73 Magazines is if thats what you want, buy it! QST seems to exist for the Advertiser and not the Amateur interest.

Are there any Hams out there who still tinker, design, build there own? Are there any Hams out there who write there own design, utility programs?
Are there any Hams who still know what Ohm's Law is and why we use the term Hz instead of Cycles?

Sure "homebrewing" is only one facet of Ham Radio, but to ignore the one aspect that nutured this endeavor from the beginning is short of sacrilegious!

So, if there is anyone still out there, please drop me a line at the QTH, I still like talking shop!

73's Chuck Reichert KD9JQ
955 Concord Lane
Hoffman Estates, IL. 60195

Opinions are my own and in no way reflect those of Motorola Management!

4186. TH-76 comming soon?

Newsgroup: rec.ham-radio
Date: 1990-07-12 16:24:57 UTC
From: billt@hprnd.HP.COM
Message-ID: <1140036@hprnd.HP.COM>
Source record: 10287

Does any know if Kenwood is going to come out with a small dual bander, such as a TH-76, which would compete with the Yaseu 411 and Icom 24sAT?

I am looking for a 5W dual bander with cross band repeat capability and a receiver that can recieve the weather broadcasts at 162.5 MHz.

The reason for Kenwood is our family has four hams, 3 TH-25ATs, and one IC-02AT. When our youngest gets his license, I would like to get a dual bander and give him one of the 25ATs. Therefore, Whatever I get should be able to use all the TH-25AT accessories such as the rapid charger.

4187. Re: What is Phase Noise?

Newsgroup: rec.ham-radio
Date: 1990-07-12 16:55:58 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250194@hpnmdla.HP.COM>
Source record: 10288

I don't know if this is more detail than you want but the term
phase noise can get used to describe a whole class of random sources.

If v(t) = V cos[2 Pi F t + Delta(t)] represents a signal with linearly
growing phase component 2 Pi F t and a randomly fluctuating term
Delta(t) its possible to talk about either phase fluctuations or
freuency fluctuation and be talking about the same signal. We are dealing
with angular modulation.

Usually short and long term stabilities are separated. Long term gets
called drift or aging while short term variations get called phase noise.
Where you separate short/long term depends on your interest.

The way these effects appear in frequency domain, that is
the slope of their spectral density, result in some special names:

Name of noise Slope

Random walk F **-4
Flicker FM F **-3
Random Walk Phase (White FM) F **-2
Flicker Phase F **-1
White Noise F ** 0

For angular modulation only, the spectral display is symmetric about
the carrier (If it's not, then there is some amplitude component present too).
I think I got all this right, someone can correct me if I didn't.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

4188. Re: Re: 440 MHz filtering

Newsgroup: rec.ham-radio
Date: 1990-07-12 17:07:45 UTC
From: glenne@hpnmdla.HP.COM
Message-ID: <1250195@hpnmdla.HP.COM>
Source record: 10289

I have had good success using Cu water pipe coaxial resonators at 400 MHz. 5/8" pipe for the inner conductor and 2" or so(whatever the common diameter available at plumbing supplies is) for the outer with a piece of 1/16" flashing at the bottom makes a good high Q line. RF connectors mounted on opposite sides of the outer conductor about 1" from the bottom with loops on them are fine for coupling. You will have to play with coupling loop sizes and positions to get an optimum compromise of insertion loss and operating Q.

I used the one I made (15 years ago I think) as part of an EME system to keep strong out of band signals from intermoding my receiver and raising the noise floor. As I remeber I got around .25 dB insertion loss and a perhaps 10 MHz of 3 dB bandwidth.

I think I still have it in the junk box at home if you need more details.

Glenn Elmore -N6GN-

N6GN @ K3MC
glenn@n6gn.ampr.org
glenne@hpnmd.hp.com

4189. Re: Wayne Green and 73 magazine.

Newsgroup: rec.ham-radio
Date: 1990-07-12 18:23:08 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul12.182308.29325@bellcore-2.bellcore.com>
Source record: 10307

KA9Q: Believe it or not, he
KA9Q: actually tried to tell me that he had no control over what his
KA9Q: Editor-in-Chief printed in the magazine he (Wayne) published...

WD4OQC: He is probably telling it pretty much straight.

I'd find this more likely if I hadn't talked about the Maxcom ads with
the person who did get the Editor-in-Chief job (Brian Hastings, NS1B)
only a few minutes before I talked to Wayne. Brian said that he didn't
like them either, but that he couldn't override Wayne.

WD4OQC: So why don't some of the technical writers
WD4OQC: submit technical - really technical - articles for publication [to 73].

I have, and they've been published. 73 periodically runs special
issues on packet radio with guest editors (first NK6K and then
WB6RQN). In the first I ran a fairly detailed discussion of higher
layer protocols, and in the second I reviewed the WA4DSY 56kb/s modem.
In both cases, my articles appeared almost exactly as I wrote them.

I came close to refusing to deal with 73 the second time around
because of their cynical attitude regarding the Maxcom ads, but I
figured that it wouldn't accomplish much. I was happy to get the
exposure in a mainstream amateur publication. I seriously doubt that
they would have been published in QST in as timely a fashion, if at
all, and I suspect that they would have been heavily edited.

Phil

4190. Re: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-12 18:25:27 UTC
From: sawyer@twg.com
Message-ID: <7563@gollum.twg.com>
Source record: 10317

In article <9007050147.AA11447@ti.com> rlwest@flopn2.csc.ti.com (Bob West, WA8YCD) responds to a request from Ron Nicholson for Some CW procedure questions:

>
> <lot's of stuff I agree with>
>
>> - when to use AR (I've only heard it used twice),
> QSOs? Maybe never. It is a formalism. It is used to mark specific END OF
> TRANSMISSION in formal third party traffic and in Net operation.
> When you're rag-chewing or contact chasing, it's probably not really
> necessary.
>
> <more stuff I agree with>
>
>> - the dit dit at the end of contacts.
> Silliness... Shave-and-a-haircut, Two Bits. That's how it started, and
> has sort of degraded to just the dit-dit.
>

As you can guess, there are two places I disagree with Bob! First, the AR does serve a purpose. It's just like EOB in good old bisynch. If you lose your place copying the other guy's transmission, you are likely to pick out the AR and know that what comes next is your callsign, "de", and then his call-sign. Actually, I'm selfish on this point. I tend often to find a QSO in progress where the sending station sounds like he might be DX. Lots of times I go into automatic mode and do other things, like fill in QSL's. But I've got the brain programmed to scan the incoming stream for the AR, and then immediately take note of the two call signs.

The "dit dit" may have started out the way Bob described it, but it too serves a useful purpose. The final transmission from the other station may have had some info content besides the usual courtesy stuff. I send the "dit dit" to let him know I did copy it all and didn't just run off to grab another one while he was telling me how great the contact was, etc. I think it is superflous for the last station sending a real message to use it, but it is a courtesy statement from the receiving side.

Just another 2 cents worth.
AA6KX

4191. MODS database Address (Request)

Newsgroup: rec.ham-radio
Date: 1990-07-12 18:57:39 UTC
From: mhall@ducvax.auburn.edu
Message-ID: <5976@emory.mathcs.emory.edu>
Source record: 10320

Would someone please post/e-mail directly the address for the modifications database? Any assistance will be much appreciated. Thanks!

4192. Re: How to deal with TVI

Newsgroup: rec.ham-radio
Date: 1990-07-12 19:01:35 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250196@hpnmdla.HP.COM>
Source record: 10290

>All of the above is true, including the part quoted from my earlier
>posting. The apparant difference between our views is that your
>explanation is correct in theory and mine is true in practice. The
>difference between theory and practice is due to the fact that
>practical flexible coax doesn't have perfect shielding, the skin
>effect depth is greater than the depth of the shield, the transmitter
>chassis is not a perfect Faraday cage, and misc other cables exit and
>enter the transmitter cabinet to interconnect other necessary operating
>equipment. All of this creates a SYSTEM that will radiate. I have
>fought these problems in practice for 25 years at broadcast plants
>and amateur installations over much of the Eastern US. Careful grounding
>has been the only practical answer to these problems.

...

>This is not voodoo electronics, this is the real world.

>Gary KE4ZV

I understand that theory and practice do not always coincide. "RF in the shack" can be caused by poor coax (typically a bad connection on the connector shield), poor shielding or other radiation from the transmitter AC leads, etc. In my experience, however, the problem is usually caused by common-mode currents on the outside of the coax shield caused by a problem in the antenna system such as unwanted coupling between antenna and coax (not run at right angles), a bad feedline connection, or inadequate decoupling of the coax shield at the antenna (the old "feeding a balanced antenna with unbalanced feedline" problem.)

Normally, feeding a half-wave dipole with coax (no balun) works reasonably well, because the quarter-wave half of the dipole connected to the shield presents a low impedance -- most of the return currents flow into the antenna instead of into the shield. However, if the length of the coax and other metallic conductors connected to it is such as to present a low impedance at the antenna (odd multiple of a quarter wavelength long), then substantial current will flow in the coax shield, possibly causing "RF in the shack", poor SWR and distortion of the radiation pattern. This problem can usually be corrected by connecting a balun between antenna & feedline.

If your microphone "bites" you whenever you transmit, then it seems to me you should correct the problem. Messing around with the grounds will often reduce or eliminate the symptom, but will not cure the disease -- the leakage or imbalance is still present, you have just changed the standing waves on your ground system to put a node at the operating position.

At legal amateur power levels, using properly shielded/filtered equipment, with good quality coax properly installed, you should not have an "RF grounding" problem. Properly grounding your station is important from a safety standpoint, but should not be necessary for proper operation of the equipment.

AL N1AL

4193. Re: Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-12 19:18:44 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250197@hpnmdla.HP.COM>
Source record: 10291

/ hpnmdla:rec.ham-radio / mo@messy.bellcore.com (Michael O'Dell) / 12:50 pm Jul 11, 1990 /
Wayne Green didn't start Byte, he started a competitor to Byte
called Kilobaud. It lasted about a year. I still have a compete set.

Byte was started by Carl Helmers. I heard of Byte through the grapevine
and sent him a letter subscribing to whatever he was doing.
His reply letter is bit of cherished youthful memorobelia.

-Mike

4194. Re: Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-12 19:19:15 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250198@hpnmdla.HP.COM>
Source record: 10292

/ hpnmdla:rec.ham-radio / alanb@hpnmdla.HP.COM (Alan Bloom) / 12:18 pm Jul 12, 1990 /
/ hpnmdla:rec.ham-radio / mo@messy.bellcore.com (Michael O'Dell) / 12:50 pm Jul 11, 1990 /
Wayne Green didn't start Byte, he started a competitor to Byte
called Kilobaud. It lasted about a year. I still have a compete set.

Byte was started by Carl Helmers. I heard of Byte through the grapevine
and sent him a letter subscribing to whatever he was doing.
His reply letter is bit of cherished youthful memorobelia.

-Mike

4195. Re: Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-12 19:21:54 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250199@hpnmdla.HP.COM>
Source record: 10293

/ hpnmdla:rec.ham-radio / alanb@hpnmdla.HP.COM (Alan Bloom) / 12:18 pm Jul 12, 1990 /
/ hpnmdla:rec.ham-radio / mo@messy.bellcore.com (Michael O'Dell) / 12:50 pm Jul 11, 1990 /
>Wayne Green didn't start Byte, he started a competitor to Byte
>called Kilobaud. It lasted about a year. I still have a compete set.

>Byte was started by Carl Helmers. I heard of Byte through the grapevine
>and sent him a letter subscribing to whatever he was doing.
>His reply letter is bit of cherished youthful memorobelia.

My understanding is that Wayne DID start Byte way back when. To save on
income taxes, he put it in his wife's name. When they divorced, she ended
up with the magazine, so Wayne started a new magazine called "Kilobyte".
She sued him for trademark infringrment and won. So he changed the
name to "Kilobaud Microcomputing" which lasted for a few years. I think
it is now defunct.

Al N1AL

4196. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-12 19:44:02 UTC
From: markz@ssc.UUCP
Message-ID: <892@ssc.UUCP>
Source record: 10294

In article <25204@bellcore.bellcore.com>, mo@messy.bellcore.com (Michael O'Dell) writes:
> Wayne Green didn't start Byte, he started a competitor to Byte
> called Kilobaud. It lasted about a year. I still have a compete set.
>
> Byte was started by Carl Helmers. I heard of Byte through the grapevine
> and sent him a letter subscribing to whatever he was doing.
> His reply letter is bit of cherished youthful memorobelia.
>
> -Mike

Wayne Green was the first publisher of Byte. It was a spin off
of the microcomputer articles in "73". He lost it through some
strange maneuver with a ex-wife or a tax dodge or the like.

He then started "Kilobyte" but didn't get trademark registry of the
name. Byte then started (Real Quick) a monthly cartoon called Killobyte
(or Kil O'byte), and the magazine had to change its name to "Kilobaud".

"Kilobaud" went through a name shift to become "Microcomputing". (They
got some strange letters from people describing the effort to get their
librarians to get a magazine called "Kill a Bod".) It lasted for 5 or 6
years before being folded into "80 Micro".

Markz@ssc.uucp

4197. Alinco 2m Amp.

Newsgroup: rec.ham-radio
Date: 1990-07-12 19:58:17 UTC
From: d.reeves@oxy.edu
Message-ID: <102845@tiger.oxy.edu>
Source record: 10321

About the 10V connection on the Alinco 2m amp:
I have used it for a while on my Kenwood 25AT, and I have found that it
works fine. Also, the polarity is a problem. Fourtiantely for me,
I checked tyhe polarity before making up a cable. Even so, the DC-1
adapter required for the 25AT series radios has diodes to insure that
you don't smoke your radio.

73s, de N6XHW

B. Douglas Reeves (N6XHW) D. Reeves@oxy.edu (Internet, of course!)
(213)-341-4763 (ma Bell) 1600 Campus Rd., La, Ca, 90041 (USnail)
"Cogito, ergo es." Occidental College Society of the Clueless

4198. Wayne Green and 73 magazine.

Newsgroup: rec.ham-radio
Date: 1990-07-12 20:29:18 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <327.269CDE88@w8grt.fidonet.org>
Source record: 10296

> From: jgd@rsiatl.UUCP (John G. DeArmond)
> Date: 12 Jul 90 03:35:29 GMT
> Organization: Radiation Systems, Inc. (a thinktank, motorcycle, car and
> gun works facility) Message-ID: <3143@rsiatl.UUCP> Newsgroups: rec.ham-
> radio
>
> my and the publisher's control. Unfortunately, the publisher
> at the time was Norm Strumburg (or something like that) and we had

Norm Sternberg, W2JUP????? Smart man, short fuse. Wrote the AEA PK-232 tech manual.

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____________________________________
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

4199. Re: Remotely Tuned HF Beam Antenna

Newsgroup: rec.ham-radio
Date: 1990-07-12 21:31:57 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880182@hpfcdc.HP.COM>
Source record: 10297

In addition to electrically altering the length of the elements with reactance, you could also physically alter the length with worm gears and sliding transmission-line-style traps(*). (I dunno the real name for the method, but I see them on the commercial tribanders by KLM, on my venerable Butternut HF6VX, et.al.). This approach could also apply to shifting boom length as well as element length.

Whatever you decide upon, I'm interested in hearing how you approach the problem. Now, who was that who said something about HF being a museum ?

one OF to another,

Perry Scott
KF0CA

(*) I think this thingy works by being a shorted 1/4 wave stub, which transforms to an open at the end of the 1/4 wave radiator. To switch bands, you change the length of the stub and its attachment to the driven element. I have some mechanical concerns about all this.

```
feed ====================+-----------------------+----/ arbitrary /---
| length
------------------------+
1/4 wave radiator 1/4 wave stub
```

4200. Re: What is Phase Noise?

Newsgroup: rec.ham-radio
Date: 1990-07-12 21:38:28 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880183@hpfcdc.HP.COM>
Source record: 10298

>>Doesn't this mean you need to sue a LO that is MUCH more stable than the
>>amount of phase noise you are trying to measure? Then again, I guess the
>>spectrum analyzer LO must also be very pure to make this kind of measurement.
>
> Correct. This is why LO phase noise is an important spec for
>spectrum analyzers.

This begs the question: how do you measure the phase noise of the
LO in a state-of-the-art phase measurement device ? :-)

Just curious.

Perry Scott
KF0CA

4201. Re: Info-Hams Digest V1 #72

Newsgroup: rec.ham-radio
Date: 1990-07-12 21:59:18 UTC
From: MURDOCK@MATHOM.CISCO.COM
Message-ID: <12605172267.25.MURDOCK@mathom.cisco.com>
Source record: 10322

- - - - - - -

4202. 2 meter quad construction plans

Newsgroup: rec.ham-radio
Date: 1990-07-12 22:07:13 UTC
From: rfc@briar.Philips.Com
Message-ID: <103634@philabs.Philips.Com>
Source record: 10299

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
30164 BF 1246 2 08-Jul 0547 AA6MZ 3524_WA6PEZ QUAD@NYNET ()
Sb: Easy 2 Meter Quad

2 Meter, 4 Element Quad Antenna

This describes method for manufacturing a 4 element quad antenna from
easily obtainable materials. I have made this antenna and it works
great with and SWR below 1.2:1 across the entire 2 meter band.

This project should take about 3 hours to finish.

Material List

1. 8 each 3/8" wood Dowel
2. 1 each 8 foot long, 1 inch dia.
PVC Pipe, Heavy wall
3. 1 each 1 inch PVC TEE
4. 25 feet #14 or #16 gage solid
insulated wire
5. 1 each PL-259 Socket

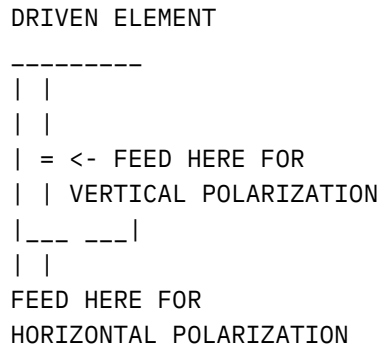
FROM CENTER OF REFLECTOR TO CENTER OF DRIVEN ELEMENT = 20.5 INCHES
FROM CENTER OF DRIVEN ELEMENT TO CENTER OF DIRECTOR 1 = 12 5/16 INCHES
FROM CENTER OF DIRECTOR 1 TO CENTER OF DIRECTOR 2 = 12 5/16 INCHES

CUT LENGTHS

ELEMENT WIRE LENGTH HOLE TO HOLE ON DOWEL *

REFLECTOR 86 1/8 INCH 30 1/8 INCH
DRIVEN EL. 81 15/16 INCH 28 5/16 INCH
DIRECTOR 1 77 15/16 27 1/4 INCH
DIRECTOR 2 74 INCH 25 7/8 INCH

* CUT DOWELS ABOUT 1 INCH LONGER THAN THESE LENGTHS.



After you have put your antenna together, solder the wires of each element (except the driven) end to end. Run the coax (RG58U is best) and secure with electricians tape. Solder the center of the coax onto one end of the driven element, and solder the shield onto the other end of the driven element. This project begs for creativity. See what you can do to improve this antenna (I made mine in small sections so I could put it into my trunk for portable operations). After you get it built, try it out on a T-hunt. A one sheet instruction sheet, with better information than I was able to pass on here, is available for an SASE to: Tom Shelton, AA6MZ 40672 178th Street East Lancaster, CA. 93535 Make sure you enclose a short note telling me what you want. Have fun with this antenna... 73 de Tom
AA6MZ @ WA6PEZ.CA

Pls write to him direct. WA2ISE
I haven't tried this, proceed at your own risk.

4203. Re: Renewing operators licenses

Newsgroup: rec.ham-radio
Date: 1990-07-12 23:30:59 UTC
From: jblake@hprnd.HP.COM
Message-ID: <1140037@hprnd.HP.COM>
Source record: 10301

larry@tapa.uucp (Larry Pajakowski) writes:
> Since I've been out of broadcasting for some time perhaps someone can be of
> help. My general radiotelephone license is in need of renewing. What are the
> current procedures for doing this. Since I once held a First Phone do I have
> to do anything to keep my transmitter prividges?
>
> Your help is appreciated.
>

Larry,

I received my general radiotelephone license in August 1988. It required an application to the regional FCC office and taking the 100-question-multiple-guess exam. Incidentally, my license has no expiration date on it. Are you sure yours needs to be renewed? I was told mine was good for life.

****
John Blake Email: jblake@hprnd.hp.com

"The opinions expressed on this program are those of the participants and guests, and do not necessarily reflect those of this station, its management, or sponsors."
****

4204. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-12 23:47:59 UTC
From: rick@ameristar
Message-ID: <1990Jul12.234759.4984@ameristar>
Source record: 10234

In article <2196@ryn.esg.dec.com> taber@ultnix.enet.dec.com (Patrick Taber) writes:
>divot on your chest if you tried to read it while lying on the couch. I
>still have the first 24
>issues of BYTE -- I keep hoping they'll be worth something someday. It
>was a different
>world then.

I'll use this thread of rec.ham-radio to put a plug in for
Circuit Cellar. If you're still into hacking your own hw/sw
systems then check out Circuit Cellar magazine. Though it
definitely has a bent towards computerized embedded systems,
lets just say that it has the requisite number of schematics
in any issue to make a hardware hacker happy. The magazine
definitely has the early spirit of BYTE recreated in toto by
Steve Ciarcia & pals. They've convered some fringe RF/radio
weanie stuff like monitoring Soviet TV satellites and building
your own weather sat monitoring setup. The strangest thing
written about to date is the soda bottle rocket launcher :-)

You can subscribe to Circuit Cellar magazine by calling:

(203) 875-2199

Note that I have no association with these guys except that
I like their rag and will give it a plug whenever I see the
chance :-)

> Patrick St. Joseph Teahan Taber

Rick Spanbauer
Ameristar

4205. MicroSat Satellite Status Report

Newsgroup: rec.ham-radio
Date: 1990-07-12 23:53:14 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <317@ka2qhd.UUCP>
Source record: 10302
Cross-posted to: rec.ham-radio,sci.space

NK6K Provides MICROSAT Bulletin Board System (BBS) Status Report

Harold Price (NK6K) this week has provided the AMSAT News Service (ANS) with a complete run down on the MICROSAT Bulletin Board System (BBS) software (S/W) development effort. Working in close collaboration with Harold is Jeff Ward (K8KA) at the University of Surry (UoS) on the UO-14 BBS S/W. The following is a brief synopsis of the current progress.

It was decided early on to use UO-14 as a testbed for all MICROSAT BBS development. NK6K points out that there are several advantages to this. First off, all S/W devloped for UO-14 is completely portable to the MICROSATs due to a device programmers call high-level Application Programming Interfaces (API). The APIs hide the differences between the different computer architecture of the MICROSATs and UO-14. The APIs perform the "nitty-gritty" tasks that are peculiar to the hardware of a particular computer system. For example, one of the most common task performed by all computer systems is Input/Ouput (I/O) operations. Thus, to the programmer it makes little difference if the BBS S/W he is writing is for the MICROSATs or for the Packet Communication Experiment (PCE) on UO-14, as long as he uses the APIs.

Another advantage for using UO-14 as a testbed is the 9600 baud uplink/downlink that it uses. NK6K says that he can load new S/W in two passes as compared to eight passes for the MICROSATs. The MICROSATs use the much slower but more common 1200 baud. Also, UO-14 has a completely separate computer system for the PCE operations. The UO-14 On-board Computer (OBC) which controls the satellite is unaffected by what happens with the secondary PCE computer. So if the the BBS S/W crashes, UO-14 will continue to operate normally. If the BBS S/W causes a crash of the OBC on a MICROSAT, a great deal of S/W needs to be reloaded. Although an OBC crash doesn't put a MICROSAT at great risk, it is inconvenient to the users. Except for DOVE, most S/W reloads of a MICROSAT OBC are not very difficult to accomplish.

Lets go down the list of MICROSATs and give the present status for each one:

AO-16

AO-16 is in good shape. RAM memory tests will be done this week in preparation for uploading the BBS S/W. According to NK6K, at the present time, the BBS S/W for AO-16 is targeted to be installed and operational by August. Until that time digipeating operation will be possible.

DO-17

DOVE is still transmitting on S-Band only. Full recovery has been delayed due to an unexplained anomaly in the S-Band transmitter. N4HY has to rely on the S-Band transmitter because the 2M transmitter blocks the 2M receiver on DOVE.

This anomaly has required N4HY to use his considerable programming skills to write special Digital Signal Processing (DSP) S/W to work around this problem. Another problem plauging the DOVE recovery is that N4HY's hastily assembled S-band station is about 5 dB SNR lower than what is required for reliable reception. N4HY has, however, been able to use the high quality S-Band station of K0RZ in Boulder, Colorado via phone patch during mutually visible passes for software loading. N4HY has given the DOVE recovery top priority. At press time (Saturday July 7), DOVE had again crashed as evidenced by MBL transmissions from the S-Band beacon. Analysis was under way to determine whether the crash was due to a problem in one of the tricky software upload sessions or, less likely, another hardware problem. Two meter transmissions were not expected before Tuesday July 10.

WO-18

WO-18 is in good shape. The third version of the imaging S/W was uploaded last week. The Weber State University (WSU) engineers haved added more "tunning knobs" to the picture taking S/W in order to improve the contrast of the earth images. Addiditonal information has been added to the image header giving the solar array currents and horizon sensor values when the picture was snapped. These added items will provide more information about where the lens was pointed when the picture was taken. The impact detector, which was orginally designed to indicate when WO-18 was hit by micrometeorites, is being used to verify that the CCD camera iris shutter has clicked. When the shutter is snapped, the impact detector instantaneously sees the vibration that the shutter operations cause in the spacecraft structure.

Each day several images have been downloaded and those who have WeberWare 1.0 can turn the binary data into pictures on CRT screens. Finally, the 1.2 GHz Fast Scan TV receiver was tested and the horizontal sync was detected. A full image is expected to require more gain and/or much more accurate antenna pointing.

One good quality picture of earth features has finally been taken and will be transmitted every evening for the next several days so that WeberWare 1.0 users will be sure to have a chance to capture it. Other testing will continue during each day.

LO-19

LO-19 is in good shape. The RF power output of LO-19 is though to have been varying because of the simultaneous operation of the CW beacon. Once the RAM memory checking S/W has been finished and checked out on AO-16, the same RAM memory check will be performed on LO-19. Eventually the AMSAT-LU Group will take over all the S/W development for LO-19 after the BBS S/W is installed. At the present time all general housekeeping and monitoring tasks are performed by the AMSAT-LU team.

--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,

neat and wrong." -- H.L. Mencken

4206. alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-13 01:37:36 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <22480005@hpcuha.HP.COM>
Source record: 10304

When listening to DX stations I've been hearing a seemingly standard phonetic alphabet, different from the published International Phonetic Alphabet. The letters that I've seen used are:

A America
G Germany
I Italy
J Japan
K Kilowatt
M Mexico
N Norway
R Radio
U United
W Washinton
Y Yokohama

Is this a defacto international standard? What are the words for the rest of the letters?

====

Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>
KK6MP (formerly N6YWU) private pilot ASEL 151 hours

4207. transmitting Farnsworth CW?

Newsgroup: rec.ham-radio
Date: 1990-07-13 01:47:38 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <22480006@hpcuha.HP.COM>
Source record: 10305

CW users: There are a bunch of new hams out here who have learned Morse code by listening to tapes and computer programs using the Farnsworth method. It sounds normal to me to hear code with 18-23 WPM characters spaced out to half that speed.

Can I transmit CW like that (Farnsworth), or do I need to relearn some real slow sounding characters to match my true send/receive speed?

====

Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>
KK6MP (formerly N6YWU) private pilot ASEL 151 hours

4208. Re: Alligators and kerchunking

Newsgroup: rec.ham-radio
Date: 1990-07-13 02:16:07 UTC
From: bote@csense.uucp
Message-ID: <1990Jul13.021607.550@csense.uucp>
Source record: 10306

From article <7500021@hpfcso.HP.COM>, by ron@hpfcso.HP.COM (Ron Miller):
> (old fart voice ON) I remember when you could ragchew on the Tyson's Corner
> 34/94 machine in N. Virginia.... (old fart voice OFF)
> Ron NW0U (formerly WB4UWH)

Should have said old fart memory on; it is 31/91 :) :)

They have chased most of the people off of there nowadays; most got
tired of the b.s. and it sits quiet most of the time now.

--
John Boteler {uunet | ka3ovk}!media!csense!bote
NCN NudesLine: 703-241-BARE -- VOICE only, Touch-Tone (TM) accessible

4209. Callsign Server

Newsgroup: rec.ham-radio
Date: 1990-07-13 04:02:08 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007130402.AA20268@tecnet1.jcte.jcs.mil>
Source record: 10235

I once had this information but have lost it (really dumb of me I know), but could anyone send me the IP number and socket for the callsign server, and is it still in existance?

Are there any OTHER servers "out there" that support other interesting functions that are "well kept secrets"?

Thanks for your time.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

p.s. I am talking about an internet IP number and am not referring to the ampr servers. "You can't get there from here" :-)

4210. Re: Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-13 04:38:49 UTC
From: ritchie@hpdmd48boi.hp.com
Message-ID: <530016@hpdmd48boi.hp.com>
Source record: 10308

Actually, Wayne started Byte, and his wife divorced him and was awarded it in the divorce settlement.

Dave Ritchie N4DJS

4211. Electronics magazines -- was Re: Conversation with K2EEK, Editor CQ Magazine (Long)

Newsgroup: rec.ham-radio
Date: 1990-07-13 04:48:24 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <36942@shemp.CS.UCLA.EDU>
Source record: 10238

In article <877@ssc.UUCP> markz@ssc.UUCP (Mark Zenier) writes:
>Closer to home, the Ziff-Davis company tried 2 or 3 times to "broaden"
>the appeal of "Popular Electronics". Since the "Modern Electronics" staff
>was formed by veterans of this, maybe the editor at CQ should talk to
>the people across the hall.
>
What happened with Popular Electronics , as well as Elementary
Electronics (remember that one?), was that they became general
interest computer magazines during the time when the "home"
computers (Atari 400/800, TI 99/4, Vic 20, Timex-Sinclair)
were very popular. With the advent of the IBM PC clones, the
home computers became less popular, and many, if not all of the
magazines which covered four or five different machines went
out of business.

It's true that Modern Electronics was formed from some of the old
Popular Electronics staff; it's also true that Popular Electronics
has returned in its original form--as a general electronics
magazine.

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

4212. Re: Was Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-13 06:19:05 UTC
From: tad@ssc.UUCP
Message-ID: <894@ssc.UUCP>
Source record: 10309

In article <1990Jul11.050358.23531@bellcore-2.bellcore.com>, karn@thumper..bellcore.com (Phil R. Karn) writes:
> Wayne does drop a few pearls of wisdom now and then
>
> But he squanders any credibility he might have gained when he mixes in
> his off-the-wall ramblings about Scientology or UFOs or whatever.

I have been reading Wayne for YEARS, and he is entertaining...but pretty off the wall. I have a large collection of ham magazines going back to long before I was born, and once in awhile I pick up an old CQ back from the 1950s when he was editor, and before that, when he was editor of the RTTY column in CQ.

He always acts like he is at the forefront of developing technology, when in fact he is pretty vague about the details. In the 1950s (and in later retrospectives) he acted like he invented RTTY....same is true for ham FM in the 70s. He talks about how he was a real inovator in ham microwave communications, when in fact I think he rounded up a couple of techie friends and did a little mountaintopping. Of course, years later the truth gets stretched a bit.

The funny thing is that even if you read the early RTTY columns from the 50s, it reads JUST LIKE one of his editorials today! It is hard to tell the difference. Sometimes I think the guy takes methamphetamine before he types.

Back in the mid-60s he formed this alternative to the ARRL, and it took in a fair ammount of money in memberships. They were going to be a lobbying organization, and he had all kinds of ideas about things they were going to do. Funny thing....it kinda faded away, and Wayne found less and less to write about it. Where did the money go?

About 10 years ago he wrote a couple of editorials about how he was going to start a fund for sending ham gear to developing third world nations. Of course, this was going to lead to all kinds of great things....like small African nations developing their on self-sufficient electronics industry from all of the resulting electronic talent. Wayne announced that from then on he was going to donate all of his fees from speaking engagements to this fund.... a most generous offer. Only thing is, I have never read about what happened to this fund or all of the speaking fees he has collected since then. Musta been a nice tax write off! There have been no details about his fund sending ham gear anywhere.

Lately he has been lambasting us for not using wideband digital voice instead of SSB on 20 meters. He has vague visions of some grand ISDN

on 20, yet this guy isn't even active on packet! Try doing a query
to the WP server for W2NSD.....he aint there!

Wayne is entertaining, and although his criticism of the league over
the years has been unfair, they probably needed a kick in the butt.
But it is hard to take this guy seriously!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4213. Re: Wayne, state of ham radio (Was Re: The Demise of HR Magazine...)

Newsgroup: rec.ham-radio
Date: 1990-07-13 06:45:12 UTC
From: tad@ssc.UUCP
Message-ID: <896@ssc.UUCP>
Source record: 10310

In article <42871@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
> In article <1990Jul10.170828.12138@cbnewsh.att.com> mrb1@cbnewsh.att.com
(maurice.r.baker) writes:
> >In article <42720@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
> >> [someone else wrote]:
> >> >I haven't read the latest 73's, but Wayne always seemed to have
> >> >plenty of common sense in the past.
> >>
> >> When was this? I must have missed it....
> >
> >Well, he started BYTE magazine and advised hams to get started making
> >money in the upcoming (we're talking 1975 here) microcomputer revolution.
> >Apple Computer [your employer] seems to have done pretty well,
> >along those lines.
>
> Yes, Apple has done fine, but I don't think we can give Wayne Green
> credit for it. :-)

Does anyone recall reading one of Wayne's editorials from the 1970s
when he traveled around the country and visited many of the small
computer companies springing up? His description of the early Apple
was quite interesting. He drove up to a suburban home, went to the
front door, and met a woman who said "the boys are out in the garage."
In the garage he found Jobs and Wozniak, putting together Apple I
kits! I think there were 3 people working there.

>
> I'm not aware of any hams in the early Apple staff. We had a veep a
> few years ago, but that was 'way after the period you're talking about.

Steve Wozniak mentioned awhile back that he got his ham license when he
was a teenager. He went on to bigger and better things!

> And we didn't get John Sculley (ex-ham) until just few years ago. So

I didn't know Sculley was an ex-ham! Was this when he was a teen?

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4214. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-13 06:51:29 UTC
From: tad@ssc.UUCP
Message-ID: <897@ssc.UUCP>
Source record: 10311

In article <25204@bellcore.bellcore.com>, mo@messy.bellcore.com (Michael O'Dell) writes:
> Wayne Green didn't start Byte, he started a competitor to Byte
> called Kilobaud. It lasted about a year. I still have a compete set.

Yes, Wayne DID start Byte. He started Kilobaud after his wife and the
editor of Byte took off with the magazine. He had it in his wife's name
because of tax problems. He started Baud after Byte, but was sued by
the new Byte, so he changed it to KILObaud.
>
> Byte was started by Carl Helmers. I heard of Byte through the grapevine
> and sent him a letter subscribing to whatever he was doing.
> His reply letter is bit of cherished youthful memorobelia.
>

Carl was the editor that Wayne hired to run Byte.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4215. Info-hams from /DEV/NULL?

Newsgroup: rec.ham-radio
Date: 1990-07-13 08:41:22 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <13.Jul.90.09
Source record: 10240

Hi; *** what happened to the SIMTEL20 feed?***
I used to get files via Tel Aviv (TAUNIVM) but then they stopped...
I got nothing for about a month, then these ones start coming from /DEV/NULL
on UCSD.EDU, which causes my mailer some grief! (/DEV/NULL is a damn fool name
for a mail originator!)

Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

Please use the following addresses for reply: + "/Natural
+ "/"Environment
JANET : PJML@UK.AC.NERC-WALLINGFORD.IBMA + "/"/Research
Internet : PJML%IA.NWL.AC.UK@NSFNET-RELAY.AC.UK + "/"/"Council
EARN : PJML%UK.AC.NWL.IA@UKACRL + NERC Computer Services
AX25 : G6WBJ@GB7SDN.GBR.EU "144.650MHz" + Holbrook House
SPAN : STAR::"PJML%IA.NWL.AC.UK@NSFNET-RELAY.AC.UK + Station Road
PHONE : +44 (0)793411613 + SWINDON SN1 1DE
FAX : +44 (0)793411503 + GREAT BRITAIN
++
+ 'The One-Nighters' 86.437.5 +
++

4216. Re: Wayne, state of ham radio (Was Re: The Demise of HR Magazine...)

Newsgroup: rec.ham-radio
Date: 1990-07-13 12:23:24 UTC
From: jay@splut.conmicro.com
Message-ID: <CKC&X1+@splut.conmicro.com>
Source record: 10314

In article <255@ultrix.uhasun.hartford.edu> jbloom@uhasun.hartford.edu (Jon Bloom) writes:
>[about hams who got awards for doing good public service:] Of course,
>by the tenets of some people on this net, these folks are just old farts
>stuck in the past because they aren't experimenting with microwaves or
>computers. Feh!

Why, they're probably even more interested in (gasp!) HF.

I agree with Jon: Feh!

Ham radio is no more a technical hobby than it is a public service hobby -
and no less, either.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4217. Re: Callsign Server

Newsgroup: rec.ham-radio
Date: 1990-07-13 12:49:00 UTC
From: dhp1@GTE.COM
Message-ID: <9451@bunny.GTE.COM>
Source record: 10315

The callsign server is marvin.cs.buffalo.edu bsocket 2000 (IP address 128.205.32.4). It has a help facility....

--
Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com
(617) 455-5704 | dhp1@gte.com
| km3t@jjmhome.m2c.org
| UUCP: ....!gte.com!edcd.dnet!pascoe

4218. Re: TECHNICAL HAMS - Where are You?!

Newsgroup: rec.ham-radio
Date: 1990-07-13 12:51:09 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2201@ryn.esg.dec.com>
Source record: 10316

> Are there any Hams out there who still tinker, design, build there own? Are
> there any Hams out there who write there own design, utility programs?
> Are there any Hams who still know what Ohm's Law is and why we use the
term Hz
> instead of Cycles?

Are there hams out there who know the difference between "there" and
"their"? Are
there hams out there who also think that the reason we went from Cycles
to Hertz
was because we were afraid the common folk understood what Cycles meant?

If you find yourself bristling over the correction on grammar, now you
know what
hams who don't give a hoot about a soldering iron feel when they get
upbraided by
some self-inflated yutz who thinks anyone who doesn't like building
equipment is
dogmeat. There are many hobbies within this hobby -- each has a perfect right
to exist and none have the moral high ground over the other.

And yes, I've been designing/building electronic stuff since the early 70's.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

Copyright (c) 1990 Patrick Taber all rights reserved.
This message may not be used by any law enforcement agency nor may it be
used in any legal proceeding. That's the law.
NOTE TOI CORRESPONDANTS: NO, the above copyright is unenforceable. It's a
joke -- get it? Don't take signature files seriously.

4219. Fundamental Overload (was FCC TVI Complaint)

Newsgroup: rec.ham-radio
Date: 1990-07-13 13:54:15 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9007131353.AA08667@uunet.uu.net>
Source record: 10318

I N T E R O F F I C E M E M O R A N D U M

Date: 11-Jul-1990 09:48am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS%UCSD.EDU@UUNET.UU.NET)

Subject: Fundamental Overload (was FCC TVI Complaint)

John Broughton writes, in his tale of TVI tribulations....

(lots deleted)

> to time, duration and channel. I also sent her a drawing of a filter
> setup from a TVI talk given by a TVI expert at my club's hamfest the
> end of January. He claimed 90% of TVI is fundamental overload and
> the filter configuration he suggested worked in almost all cases.

(lots more deleted)

At the extreme risk of showing my ignorance, I'm a bit curious as to what filter configuration helps cut down fundamental overload. I always thought fixing that required relocation of the rig, the TV, the antennas, or some combination thereof.

73,

Jeff Miller WD6CQV/KH6 AFA8JM

4220. Re: Running a PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-13 15:04:54 UTC
From: henkp@nikhefk.UUCP
Message-ID: <760@nikhefk.UUCP>
Source record: 10319

```
In article <1039@tsdiag.ccur.com> davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:
-In a previous article, faunt@dustbin.cisco.com (Doug Faunt N6TQS 415-688-8269) writes:
->I would like to be able to run a standard PC/AT clone on 12V,
->efficiently. Where can I get information on buying or building a
->reasonably low cost power supply for this?
->thanx, and 73, doug
-
-How about using straight voltage regulators in conjunction with those cheap
-DC-DC voltage converters? Something like this:
-
-+13.8V----------------[ +12V regulator ]------------------> to PC
- |
- |
- -----------[ +5V regulator ]------------------> to PC
- |
- |
- -----------[ -12V converter ]------------------> to PC
- |
- |
- -----------[ -5V converter ]------------------> to PC
-
-I'd think this would be a little more efficent than using an inverter feeding
-another power supply.
To make it much more efficient, use a down converter for the +5V.
The load for the negative voltages is low. You could generate a unregulated
negatieve voltage from the +5V converter and use 3 wire regulators for
the -12V and -5V.
Use a low drop PNP pass transistor in the +12V regulator.

Henk Peek, PA0HZP henkp@nikhef.nl
```

4221. DEUTSCHLAND-RUNDSPRUCH DES DARC NR. 26/90 VOM 06.07.1990

Newsgroup: rec.ham-radio
Date: 1990-07-13 16:25:13 UTC
From: bpk@infoac.rmi.de
Message-ID: <884@infoac.rmi.de>
Source record: 10242
Cross-posted to: dnet.ham,rec.ham-radio

DEUTSCHLAND-RUNDSPRUCH DES DARC NR. 26/90 VOM 06.07.1990

TRIER:

Der langjaehrige Redakteur des DX-Rundspruchs Hans-Georg Goebel, DK1RV, hat das DX-Referat aus persoenlichen Gruenden gebeten, den DX-Rundspruch in neue Haende zu legen. Die deutschen DX-Amateure sind DK1RV zu grossem Dank verpflichtet fuer die zuverlaessige Gestaltung des DX-Rundspruchs in den vergangenen Jahren. Gleichzeitig teilt das DX-Referat mit, dass der DX-Rundspruch des DARC und des RSV ab sofort ueber die Station Y62DXR abgestrahlt wird. Redaktion und Bearbeitung liegen bei Ulf Ehrlich, Y42MK. Der Rundspruch wird wie bisher freitags um 17:00 UTC auf etwa 3.745 kHz abgestrahlt. Die zentrale Lage der Rundspruchstation in Thueringen garantiert optimale Empfangsmoeglichkeiten zu allen Jahreszeiten. Der Rundspruchredakteur wird in naechster Zeit ebenfalls mit dem DX-Packet-Cluster verbunden sein, so dass aktuelle Informationen direkt verarbeitet werden koennen.

DUISBURG:

Am 27.06.1990 fand vor dem Oberverwaltungsgericht Muenster die Verwaltungsrechtsberufungssache Gerd Kautz, DL5JP, gegen die Deutsche Bundespost Telekom statt. Seit 1985 verursachte der Klaeger in verschiedenen Empfangsanlagen seiner Nachbarn erhebliche Stoerungen. Messungen der Funkstoerungsmessstelle Duisburg ergaben, dass sowohl die mit FTZ-Nummer versehenen Empfangsanlagen der Nachbarn als auch die Geraetschaften des Funkamateurs in Ordnung waren. Gemaess Paragraph 16 Absatz 4 DV-AFuG wurde dem Funkamateur zur Auflage gemacht, eine Sendeleistung von maximal 10 Watt einzuhalten oder ausserhalb der ortsueblichen Fernsehsendezeiten Funkbetrieb durchzufuehren. Bei der Verhandlung im November 1988 vor dem Verwaltungsgericht Duesseldorf wurde vorgeschlagen, die Leistungsbeschraenkung von 10 Watt in 100 Watt abzuaendern. Das akzeptierte seinerzeit der Klaeger. Diese abgeaenderte Leistungsbeschraenkung war jedoch aus grundsaetzlichen Erwaegungen heraus nicht annehmbar. Im Berufungsprozess vor dem Oberverwaltungsgericht Muenster wurde neu verhandelt, ob derartige verfuegende Massnahmen ueberhaupt berechtigt seien. Dank der guten Argumentation des DARC-Justitiars Boyke Dettmers, DJ4KD, gegen diese Leistungsbeschraenkung hob die Deutsche Bundespost vor dem Senat des Oberverwaltungsgerichts in Muenster die Ordnungsverfuegung vom 17.12.1987 und den Widerspruchsbescheid vom

12.12.1989 komplett auf.

DARMSTADT:

Im ersten Halbjahr 1990 stieg die Zahl der Amateurfunklizenzen in der Bundesrepublik Deutschland um 840 auf 64.013, d. h. um 1,3 %. Die Verteilung der 61.024 Individuallizenzen blieb prozentual gleich, das heisst 54 % in der Klasse B, 3 % in der Klasse A und 43 % in der Klasse C. Club- und Relaisfunkstellen verzeichneten einen Zuwachs von 2 %. 1.164 zivile Auslaender stellen weiter 1,9 % der Individuallizenzen.

FRIEDRICHSHAFEN:

Vom 29.06. bis 01.07. fand in Friedrichshafen die 15. Ham Radio statt. Mit 16.429 Besuchern aus ueber 30 Laendern, 160 Direktausstellern aus neun Laendern sowie der erstmals grossen Beteiligung aus der DDR wurde eine neue Dimension dieser Ausstellung erreicht. Ueber 31 % der Gaeste kamen aus dem Ausland. Gleichzeitig mit der Ham Radio 90 beging der DARC als ideeller Traeger das 41. Bodenseetreffen. Neben zahlreichen Vortraegen und Treffen wurden vor allem die aktuellen Probleme des Amateurfunks in der Bundesrepublik diskutiert. So warnte der erste Vorsitzende des DARC, Guenther Matz, DJ8BN, in seiner Eroeffnungsrede davor, allein aus wirtschaftlichen Gesichtspunkten heraus das 70-cm-Band zu Gunsten anderer Bedarfstraeger zu beschneiden. Ebenso verfolge man, so DJ8BN, die Belegung der Sonderkanaele im Breitband-Kabelnetz der Deutschen Bundespost mit grosser Sorge. Die Ham Radio 1991 findet vom 28.-30.06. auf dem Friedrichshafener Messegelaende statt.

TOURS:

Im Rahmen einer Montblanc-Expedition im August soll eine Amateurfunkstation vom Gipfel des mit 4.810 m hoechsten Berges Europas betrieben werden. Die Expedition wird zwischen dem 10. und 20.08. 1990, abhaengig von der Wetterlage, aufbrechen und mindestens vier Tage, bei gutem Wetter zwei Tage laenger, dauern. Dabei ist ein 24stuendiges Biwak auf dem Gipfel vorgesehen. Unter dem Rufzeichen F8UFT werden die Operateure versuchen, mit moeglichst vielen Funkamateuren in Kontakt zu treten. Als Arbeitsfrequenzen sind vorgesehen: 144,100 MHz in CW, 144,330 MHz in SSB, 145,550 MHz in FM, 145,350 MHz via Relais FZ8VHB, 145,725 MHz via Relais HB9G, 438,500 MHz in ATV mit der Rueckruffrequenz 144,170 MHz in SSB und 144,150 MHz in FM. Ausserdem wird eine CW-Bake auf 144,050 MHz installiert. Vom Basislager gibt es aktuelle Informationen um 21:00 Uhr Ortszeit auf 3.610 kHz in SSB sowie um 21:30 Uhr Ortszeit auf 3.545 kHz in CW. QSL-Karten gehen via FD1JMH.

DOEBRIACH:

Vom 21.07.-12.08. findet in Doebriach am Millstaetter See in

Kaernten/Oesterreich das diesjaehrige DX-Camp statt. Obwohl das DX-Camp in erster Linie fuer Freunde des Kurzwellen- und UKW-Rundfunks gedacht ist, sind auch Funkamateure sehr willkommen. Vom 29.07.-03.08. stellt die ADXB-OE eine Amateurfunkstation fuer Kurzwelle und UKW mit dem Rufzeichen OE8XBC zur Verfuegung.

FUNKWETTERBERICHT: (03.07.)

Der ausgepraegte periodische Verlauf der Sonnenaktivitaet, der sich seit Jahresanfang herausgebildet hatte und der mit dem Monatsrhythmus zusammenfiel, scheint nun zu Ende zu gehen. Ursache war eine sehr ungleichmaessige Verteilung der Aktivitaetsgebiete auf der Sonne. Ob diese Umorientierung eine Erhoehung der Sonnentaetigkeit mit sich bringen wird, laesst sich zur Zeit noch nicht abschaetzen. Der Anstieg der Sonnenfleckenzahl und der 10-cm-Strahlung, der Ende Juni begonnen hatte, setzt sich weiter fort. Am 02.07. erreichte die Radiostrahlung 252 Einheiten. Wegen Verzoegerungen bei der Datenzustellung liegen keine aktuellen R-Werte hier vor. Jedoch duerfte Ende Juni nach der Skala von Boulder/Colorado die Grenze von 300 Einheiten ueberschritten worden sein. Die Magnetik war bisher ruhig, allerdings sind schnelle Aenderungen dieses Zustandes jederzeit moeglich. Infolgedessen muss im Vorhersagezeitraum mit sehr wechselhaftem Funkwetter gerechnet werden.

BAUNATAL:

Fuer den Deutschland-Rundspruch beginnt jetzt eine mehrwoechige Sommerpause. Der naechste Rundspruch wird am 24.08. herausgegeben. Allen Lesern wuenscht die Redaktion eine erholsame Urlaubszeit.

Ende des DL-RS Nr. 26/90 vom 06.07.1990

Bearbeitung: DC7XJ
...-.-

4222. Re: TECHNICAL HAMS - Where are You?!

Newsgroup: rec.ham-radio
Date: 1990-07-13 17:09:01 UTC
From: mlau@hpspcoi.HP.COM
Message-ID: <860004@hpspcoi.HP.COM>
Source record: 10323

All the old Hams here gave up on Radio and became Hamputers and tinker with computers. I have met at least 3 retired ham junkies that have more interest in computers than radio. Can't say I blame them there are more free channels in computers that there are in radio.

mlau@hpscpoi

4223. Re: transmitting Farnsworth CW?

Newsgroup: rec.ham-radio
Date: 1990-07-13 17:36:21 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2202@ryn.esg.dec.com>
Source record: 10324

>
> Can I transmit CW like that (Farnsworth), or do I need to relearn some
> real slow sounding characters to match my true send/receive speed?
>

You're a licensed ham now, you can do whatever you like. If the
guy on the other end understands you, fine. If not, slow down a
bit. If you listen to what's being sent on the air, you'll note there's
a wide range of styles that fall into the acceptable category.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

My employer doesn't care what I think. I, in turn, don't care what
you think. You probably don't care what my empolyer thinks. Thus is
life a circle.

4224. Request For Info. on HAM!

Newsgroup: rec.ham-radio
Date: 1990-07-13 17:37:06 UTC
From: RAVI%UMUC@PUCC.PRINCETON.EDU
Message-ID: <9007131854.AA09838@ucsd.edu>
Source record: 10325

Greetings!

I am posting this request on behalf of a friend who is an
office holder within a non-profit organization in the Washington D.C
area. Since he doesn't have access to Internet, I was cajoled into
posting this.

He wants to know, what it takes to setup a ham radio facility and any
info. or pointers on this matter (even better, any info./docs that
have a 'sort of' cookbook approach) will be much appreciated.

Since, I'm not subscribed to this forum, please send the info. via
e-mail directly to me and if sufficient interest warrants, then
I shall go ahead and post the summary to this group.

ADmany_thanksVANCE for any info. and/or help you may provide in this
regard.

W/ kindest regards,
/Ravi.
[e-Mail Internet: Ravi@Umuc.Umd.Edu]

4225. Re: Was Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-13 18:00:34 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul13.180034.2980@bellcore-2.bellcore.com>
Source record: 10326

In article <894@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
|> He always acts like he is at the forefront of developing technology, when
|> in fact he is pretty vague about the details.

Yes. My very first encounter with Wayne was on a flight from Boston to Dayton way back in 1981 or so. He noticed my AMSAT name badge and he made some comment about how terrible it was that the FCC killed amateur satellites by taking all our frequencies away. Rather than challenge his basic assertion (since the amateur satellite service was and still is very much alive) I humored him by saying something like "Yeah, the FCC never did let us turn on the 2304 MHz beacon on Oscar 7."

Wayne then tried to tell me that the AO-7 beacon was on 1296. I knew better and politely tried to tell him so, but he insisted that he was right. I dropped the subject, but our brief conversation did illuminate certain facets of his personality to me.

Phil

4226. phonetics

Newsgroup: rec.ham-radio
Date: 1990-07-13 18:03:17 UTC
From: oo7@ut-emx.UUCP
Message-ID: <33956@ut-emx.UUCP>
Source record: 10227

nicholso@hpcuha.HP.COM (Ron Nicholson) says:

When listening to DX stations I've been hearing a seemingly standard
phonetic alphabet, different from the published International Phonetic
Alphabet. The letters that I've seen [sic] used are:

A America
G Germany
I Italy
J Japan
K Kilowatt
M Mexico
N Norway
R Radio
U United
W Washin[g]ton
Y Yokohama

I think most of these come from the earlier phonetic list that was in
use more than 20 years ago (at least, my G call in the mid-60s was
Germany 3 Norway Mexico Xray, whereas now it would be
Golf 3 November Mike Xray).

I don't think these are so bad to use - in fact, I have to think hard
whether I is now India or Italy, and whether U is Uniform or United.

In fact, I suggest that some of them are better than what we use now.
"Mike" is not nearly as clear as "Mexico" (I suppose the argument is
that there are only 2 single-syllable phonetics at the moment, and
there is rarely confusion between Mike and Golf). Our club call is
W5EHM, quite often if I use Whiskey 5 Echo Hotel Mexico (instead of
Mike), then someone who hears me only weakly will say "who's the
station with Mexico in the call?" Same thing (I think) with
Kilowatt as against Kilo. It also makes sense to use T = Tokyo
in the Japan DX contests :-) I believe H = Hotel is a bad one,
since in many countries the stress is on the second syllable, with
the H not even sounded. In some cases, Hotel can sound strangely
like Alpha - I listened to what I thought was a 9A station for a long
time (strong signal) before it dawned on me that it was 9H (the clues
were (1) there aren't any 9As, and (2) the guy said "on the island of
Malta" eventually :-)).

Anyway, the ones listed by the poster are in common use, and while the
purists may frown on them, they are a whole lot better than those "cute"

ones that, along with CB expressions, 10-10 numbers given in dollars and cents, callsigns "for ID" and other abominations drive many of us up the wall - or, in my case, back to the relative peace of CW :-)

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu
oo7@emx.utexas.edu

4227. Re: HRO-500

Newsgroup: rec.ham-radio
Date: 1990-07-13 18:05:10 UTC
From: wmartin@STL-06SIMA.ARMY.MIL
Message-ID: <9007131909.AA10539@ucsd.edu>
Source record: 10228

WOW! An HRO-500 for $150?!?!?! If it works OK, that will be a FANTASTIC buy!!!!

That was an over-$1500 rx back when a dollar bought something! (mid '60's, I do believe -- my references are at home....) It was a "dream receiver" that lots of SWLs and hams pined for and could only hope...

As I recall, it was National's second-to-last receiver; there was an HRO-600, but I don't know how it differed from the 500.

To bring things down to earth a bit, though, I do seem to recall that these were NOT easy to fix if anything was wrong. It may well be that this is sitting there for $150 because it requires impossible-to-find parts to fix, or has some nasty glitch that will require expertise to remedy, and the last expert in these retired 12 years or so ago...

The other thing to consider is that early high-end solid-state receivers tended to be more hype than substance. The digital readout was so snazzy to those of us that were used to drum-dial and disc-dial analog tube rxs, and the instant-on and "eternal life" of transistors vs. tubes was so enticing, that these features blinded us to the basic defects of that generation of solid-state electronics. It was like the early high-end transistorized hi-fi gear, which really sounded far worse than the tube gear people replaced with it. That generation of solid-state receivers had cross-modulation and dynamic range problems that were far worse than the mature tube-rx designs they replaced. I made the foolish mistake, back in '68 or thereabouts, of trading in my fine Hallicrafters SX-96 and paying full list ($895! sob!) for a Hy-Gain Galaxy R-530. That was a reciver you bought if you couldn't afford or justify the HRO-500 -- it didn't have actual digital frequency display, but it had a dial readout to 1 kHz accuracy. Sounds silly in these days of $50 DAK digital-display radios, but it was a big deal back then...

Be that as it may, I'd jump at the chance for an HRO-500 anyway. Even if it doesn't work, it still looks sexy in shack photos! Love that National HRO dial... (which is a mechanical nightmare inside, I believe... :-).

I seem to recall that the HRO-500 used nixie tube displays for the digital readout; am I right in that? Those do wear out; can you get replacements these days?

Regards, Will
wmartin@st-louis-emh2.army.mil OR wmartin@stl-06sima.army.mil

PS Please end your items with a simple mailing-address line like the above; the note I'm responding to on the SWL list had a garbaged "From:" field that equated to the "news" account on the originating system, it seems, and there was no poster-furnished address to use. WM

4228. Re: Was Re: The Demise of HR Magazine and Comments on CQ

Newsgroup: rec.ham-radio
Date: 1990-07-13 18:45:26 UTC
From: markz@ssc.UUCP
Message-ID: <898@ssc.UUCP>
Source record: 10229

In article <894@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
>
> Back in the mid-60s he formed this alternative to the ARRL, and it took
> in a fair ammount of money in memberships. They were going to be a
> lobbying organization, and he had all kinds of ideas about things they
> were going to do. Funny thing....it kinda faded away, and Wayne found
> less and less to write about it. Where did the money go?

When he gets into his "Poor old Wayne" mode and I start to feel sorry for
him, I remember an editorial circa 1968 about how he made a killing in
Silver Futures. Hmmmm, the timing is about right.

markz@ssc.uucp

4229. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-13 19:26:25 UTC
From: tad@ssc.UUCP
Message-ID: <899@ssc.UUCP>
Source record: 10230

In article <897@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
> In article <25204@bellcore.bellcore.com>, mo@messy.bellcore.com (Michael O'Dell) writes:
> > Wayne Green didn't start Byte, he started a competitor to Byte
> > called Kilobaud. It lasted about a year. I still have a compete set.
>
> Yes, Wayne DID start Byte. He started Kilobaud after his wife and the
> editor of Byte took off with the magazine. He had it in his wife's name
> because of tax problems. He started Baud after Byte, but was sued by
> the new Byte, so he changed it to KILObaud.

OOPS! I was a bit confused here. Must be getting old. Wayne started
KILOBYTE after Byte "moved out" of his offices. (He told me at a hamfest
once that he never knew that someone could "steal" a magazine). Lawyers
intervened, so he changed it to KILOBAUD.

>
Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4230. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-13 19:27:44 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <330.269E311B@w8grt.fidonet.org>
Source record: 10231

```
> In an article of <9 Jul 90 20:45:00 GMT>, phil@ux1.cso.uiuc.edu writes:
>
> pA>@EID:16d6 14eab880
> pA>@UFGATE newsin 1.27
> pA>From: phil@ux1.cso.uiuc.edu
> pA>Date: 9 Jul 90 20:45:00 GMT
> pA>Message-ID: <30500590@ux1.cso.uiuc.edu>
> pA>Newsgroups: rec.ham-radio
> pA>
> pA>If businesses keep folding and/or dropping from the ham market, where
> pA>are
> pA>we going to buy all our appliances?
> pA>
>
> How about trying to build your gear? We are suppposed to be
> experimenters aren't we?
>
>
> Dwayne Rich/KC4ADW

Knowing Phil Howard, I'm sure he was kidding.... I hope.

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____________________________________________
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"
```

4231. Equipment question.

Newsgroup: rec.ham-radio
Date: 1990-07-13 20:48:57 UTC
From: sharpe@plx.UUCP
Message-ID: <2428@plx.UUCP>
Source record: 10232

I have acquired the following list of Heathkit tube type HAM radio
gear and I would like to know what it is, when it was made, and
where I can get a hold of the receiver to complete the set.

Antenna coupler...model AC-1
VFO..............model VF-1
Transmitter.......model AT-1

73
David W. Sharpe kc6fcc
sun!plx!sharpe

4232. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-13 20:56:05 UTC
From: jkaidor@synoptics.COM
Message-ID: <21723@mvis1.com>
Source record: 10233

I had a subscription to 73 magazine in the early seventies, and
editorial space in several issues was devoted to blasting the IRS.
Very entertaining reading.
- Jerry Kaidor, KF6VB

4233. Re: Some CW procedure questions

Newsgroup: rec.ham-radio
Date: 1990-07-13 21:06:34 UTC
From: hideg@spsd3260a.erim.org
Message-ID: <1990Jul13.210634.5649@math.lsa.umich.edu>
Source record: 10236

In article <36903@shemp.CS.UCLA.EDU> cccph@eel.cs.ucla.edu (Charles Hobbs)
writes:

> In formal message handling, the procedural signal AS ("didahdididit")
> is used at the beginning of each transmission; however I have
> *never* heard it outside of W1AW bulletins and the like; it's not
> used in informal QSO's.

AS means "stand by." I've *never* heard it at the beginning of a transmission
in a traffic net. I have only heard stations (NCS in particular) use it to
say "stand by".

73
--Steve N8HSC
Net Manager, Southeastern Michigan Traffic Net

Steve Hideg (N8HSC)

hideg@spsd3260a.erim.org

4234. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-13 21:09:17 UTC
From: chuck@eng.umd.edu
Message-ID: <1990Jul13.210917.9153@eng.umd.edu>
Source record: 10237

In article <25204@bellcore.bellcore.com> mo@messy.UUCP (Michael O'Dell) writes:
>Wayne Green didn't start Byte, he started a competitor to Byte
>called Kilobaud. It lasted about a year. I still have a compete set.
>
>Byte was started by Carl Helmers. I heard of Byte through the grapevine
>and sent him a letter subscribing to whatever he was doing.
>His reply letter is bit of cherished youthful memorobelia.
>
> -Mike

- Guess Again! Wayne did too start Byte. He hired Carl Helmers as his
- Editor.
- Wayne's wife divorced him, and Byte was the divorce settlement.
- (she then went and married the new editor Pesche or something like that)
- Since Wayne believed that a microcomputer magazine was a good idea, he
- Started "KiloByte" magazine (get the pun, so did Byte!). Byte made him
- change its name, and that started "Kilobaud".

- I seem to recall that Helmers was publishing a small newsletter before
- Byte, but I am vague on this.

- Chuck Harris - WA3UQV
- chuck@eng.umd.edu

4235. Re: Fundamental Overload (was FCC TVI Complaint)

Newsgroup: rec.ham-radio
Date: 1990-07-13 22:13:17 UTC
From: chuck@eng.umd.edu
Message-ID: <1990Jul13.221317.9449@eng.umd.edu>
Source record: 10239

In article <9007131353.AA08667@uunet.uu.net> 1843eie@HICKAM-EMH.AF.MIL ("1843 EIG/EIE") writes:
>At the extreme risk of showing my ignorance, I'm a bit curious as to what
>filter configuration helps cut down fundamental overload. I always thought
>fixing that required relocation of the rig, the TV, the antennas, or some
>combination thereof.
>
>73,
>
>Jeff Miller WD6CQV/KH6 AFA8JM
>

"Fundamental overload" is the overload of a receiver's front end by a transmitter's intended (fundamental) output frequency. It is caused when the receiver's filters and shields are inadequate to prevent the receiver's front end from being overloaded by the transmitter's output power.

It should understood here that the transmitter is not operating on the same frequency that the receiver is intended to receive.

If the receiver is adequately shielded, fundamental overload can sometimes be helped by providing the receiver with better bandpass filters. That is, bandpass filters that strongly attenuate any frequencies that are outside of the receiver's intended frequency range.

The shielding on receivers intended for the mass consumer market is generally, ...well...cheap. Very few if any of the manufacturers intended for their receivers to be used in the near vicinity of transmitters. If they had, TVI and its cousins might be non-existant.

Chuck Harris - WA3UQV
chuck@eng.umd.edu

4236. QRP kits?

Newsgroup: rec.ham-radio
Date: 1990-07-13 22:29:19 UTC
From: swilhel@cadev4.intel.com
Message-ID: <2480@inews.intel.com>
Source record: 10241

Does anyone know where I might get QRP rig kits? I'm interested in
single band and multiple band kits.

TNX,

Spence Wilhelm
swilhel@cadev4.intel.com
KB5CYX
(602)554-5050

4237. Re: alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-13 22:59:44 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <27087@netnews.upenn.edu>
Source record: 10243

In article <22480005@hpcuha.HP.COM> nicholso@hpcuha.HP.COM (Ron Nicholson) writes:
>When listening to DX stations I've been hearing a seemingly standard
>phonetic alphabet, different from the published International Phonetic
>Alphabet. The letters that I've seen used are:
[stuff deleted]

As far as I know, they aren't any sort of a standard. Some of them sort
of make sense because they are easier to pick out than the standard
phonetics, especially when a heavily-accented voice is saying them.
The ones that use geographic names are particularly useful. It's pretty
hard to make "America" sound like anything other than "America", regardless
of the accent. At least to me it is. Here's a slightly expanded list
of some of the more common ones I hear on a regular basis.

A America, Alaska, Atlantic N Nancy, Norway
B Boston, Baker O Ocean, Ontario
C Canada P Peter, Portugal, Portugal
D Dog, Denmark Q none that I can think of
E Edward, England R Radio, Russia
F Frank, Fox, Frequency S Santiago, Spain
G Germany, George T Texas, Tokyo
H Honolulu, Henry U Uncle, United
I Italy, Ida, Item V Victory
J Japan W Washington, William, Willy
K Kilowatt, Kentucky X none that I can think of
L Lincoln, London Y Yellow, Yokohama
M Mexico Z Zanzibar

Note that some of them (e.g. Frank, George, Ida, etc.) come from the public
safety standard. If you look at a full list of the public safety ones
(Adam, Boy, Charles, etc.) you'll notice that most of them are very
short - and many are American first names. I'm guessing that this
was done because most police/fire/rescue communications are done on
local FM frequencies where long phonetics are not needed to make
them more distinguisable. Plus the shorter ones take less time to say.

Personally, I prefer some of the "alternate" phonetics. I usually use
the standard phonetics, but if copy is real difficult and the standard
ones don't cut it the first time, I'll use some of the alternates
in the hope that they will be more recognizable to the receving station,
particularly when it's a DX contact with a person that seems to know
English as a second language.

--- Jeff
+----------------------+---+
| Jeff DePolo N3HBZ/AA | Internet: depolo@eniac.seas.upenn.edu |

```
| Univ. of Pennsylvania | RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia) |
| Computer Science Eng. | Twisted pair: (215) 386-7199 home |
| Class of 1991 | Carrier pigeon: 420 South 42nd St. Philly, PA 19104 |
+-----------------------+-----------------------------------------------------+
```

4238. Re: HAM RADIO IN DANGER

Newsgroup: rec.ham-radio
Date: 1990-07-13 23:12:02 UTC
From: Dwayne.Rich@p20.f1000.n151.z1.fidonet.org
Message-ID: <329.269E3114@w8grt.fidonet.org>
Source record: 10244

In an article of <9 Jul 90 20:45:00 GMT>, phil@ux1.cso.uiuc.edu writes:

pA>@EID:16d6 14eab880
pA>@UFGATE newsin 1.27
pA>From: phil@ux1.cso.uiuc.edu
pA>Date: 9 Jul 90 20:45:00 GMT
pA>Message-ID: <30500590@ux1.cso.uiuc.edu>
pA>Newsgroups: rec.ham-radio
pA>
pA>If businesses keep folding and/or dropping from the ham market, where
pA>are
pA>we going to buy all our appliances?
pA>

How about trying to build your gear? We are suppposed to be
experimenters aren't we?

Dwayne Rich/KC4ADW

--- QM v1.00
* Origin: Beancounter's Paradise Point (1:151/1000.20)

--
|\/\/\/|
| | Dwayne Rich - via FidoNet node 1:234/1
| (o)(o) UUCP: ...!ncar!asuvax!stjhmc!w8grt!151!1000.20!Dwayne.Rich
| _) INTERNET: Dwayne.Rich@p20.f1000.n151.z1.fidonet.org
| ,___| ____
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

4239. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-14 03:43:35 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <36972@shemp.CS.UCLA.EDU>
Source record: 10245

In article <21723@mvis1.com> jkaidor@synoptics.COM (Jerome Kaidor) writes:
>
> I had a subscription to 73 magazine in the early seventies, and
>editorial space in several issues was devoted to blasting the IRS.
>Very entertaining reading.

"Blasting" the IRS is putting it lightly. In several of those
issues during the late 60's and early seventies, he
told all kinds of horror stories about alleged abuses by IRS
agents, etc. Also, Wayne also used a certain 7-letter word beginning
with "B" to refer to the IRS agents (and printed this word in the
magazine, which was considered unthinkable in those days)

Someone on the net mentioned that Wayne might have been convicted
for tax evasion. I have no way of knowing for sure, of course....

Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

4240. Re: Alligators and kerchunking

Newsgroup: rec.ham-radio
Date: 1990-07-14 07:45:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500592@ux1.cso.uiuc.edu>
Source record: 10246

Ron makes a good case for having kerchunkable repeaters.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4241. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-14 08:13:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500593@ux1.cso.uiuc.edu>
Source record: 10247

> My solution is give the communicator the same limitations that
> Novice class have now and give Novice the rest of the band. Also, when
> you upgrade from Communicator to Novice you automatically lose your
> Communicator call sign. This way we can make sure that they stay within
> the allocated frequency. Nobody is going to make a different radio for
> Communicators only.

This will allow other hams to segregate Communicators. Why not do the
same thing for Novices or other classes?

What if a Communicator upgrades to Extra and there are no more Extra
calls?

> As for testing, Communicator make code free. Same with Novice.
> If they are serious about getting into it more into ham, they should make
> 5 wpm code under Tech. class. The more you get into the hobby, the more
> problems you will get with undesirables satisticly. This may weed out
> those not really serious about the service/hobby.

It has already been concluded that the code does NOT make a good weed-out
filter. Maybe we need one, but code won't do it.

> My suggestion is not a solution to the debate, but only someone
> who wants to voice his opinion about the discussion. What ever the results
> are, you will not please everybody. The best way is to educate the future
> hams at the school level in ham clubs.

Well, voicing opinions is definitely needed. One way you can do it is by
filing your comments with the FCC. By the way, it will more likely get read
and be taken seriously if you state logical and reasonable arguments based
on facts. Just expressing an opinion doesn't do too much; but if that is all
you have, go ahead and file it anyway.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4242. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-14 14:26:10 UTC
From: jra@usday32.Dayton.NCR.COM
Message-ID: <275@usday32.Dayton.NCR.COM>
Source record: 10257

In article <25204@bellcore.bellcore.com> mo@messy.UUCP (Michael O'Dell) writes:
>Wayne Green didn't start Byte, he started a competitor to Byte
>called Kilobaud. It lasted about a year. I still have a compete set.
>
>Byte was started by Carl Helmers. I heard of Byte through the grapevine
>and sent him a letter subscribing to whatever he was doing.
>His reply letter is bit of cherished youthful memorobelia.
>
> -Mike

Sorry, but Wayne <did> start Byte. He published the first several issues along with his wife Virginia, but their relationship soured and, because the mag was technically in her name (long story, there...) when she moved out she literally took it with her. She remained publisher until she sold to McGraw Hill in the early 80s.

Wayne founded Kilobaud after that, and in fact it was called Kilobyte at first until threats of legal action convinced him to change. KB lasted quite a bit more than a year (it was still going under the name Kilobaud Microcomputing in 1982), but I'm not sure when it folded.

I worked for Wayne Green, Inc. in 1981-82. It was a silly place.

4243. Ham Radio Magazine

Newsgroup: rec.ham-radio
Date: 1990-07-14 14:52:09 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <333.269F73CB@w8grt.fidonet.org>
Source record: 10251

I just got a call from Terry Northup, the editor of the now-defunct HAM RADIO magazine. She says:

(1) 3 of the articles in the July issue of CQ were in fact originally accepted by HAM RADIO;

(2) the HAM RADIO presence in CQ is going to increase considerably; there will be more technical items, and they will even go through the HAM RADIO editorial office in New Hampshire, which will remain open.

Hmmm, could we persuade 'em to start their magazine back up, before it dies out completely? It seems to be lingering...

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| ____
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

4244. Re: Wayne, state of ham radio (Was Re: The Demise of HR Magazine...)

Newsgroup: rec.ham-radio
Date: 1990-07-14 17:40:43 UTC
From: kchen@Apple.COM
Message-ID: <42962@apple.Apple.COM>
Source record: 10254

tad@ssc.UUCP (Tad Cook) writes:

>In article <42871@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
>> And we didn't get John Sculley (ex-ham) until just few years ago. So
>
>I didn't know Sculley was an ex-ham! Was this when he was a teen?

In Sculley's (actually, written by John Byrne) book "Odyssey," he
mentioned not playing with toys (I guess, back then, there were no
Icoms, Kenwoods, and Yaesus :-) but instead he tinkered with
"electrical things." For Christmas, when he was 5, he was given
"a dry-cell battery, a buzzer and hook-up wire; and he proceeded to
blow fuses in his parents' apartment. He would read _The Radio
Amateur's Handbook_ until they were "shopworn and dogeared." He
became a Ham at 11.

So, Tad, I guess Sculley got his ticket *before* his teens :-) :-).

73,

Kok Chen, AA6TY kchen@apple.com
Apple Computer, Inc.

4245. Equipment question.

Newsgroup: rec.ham-radio
Date: 1990-07-14 18:22:59 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <334.269F73D4@w8grt.fidonet.org>
Source record: 10252

> From: sharpe@plx.UUCP (Dave Sharpe)
> Date: 13 Jul 90 20:48:57 GMT
> Organization: Plexus Computers, San Jose, CA.
> Message-ID: <2428@plx.UUCP>
> Newsgroups: rec.ham-radio
>
>
> I have acquired the following list of Heathkit tube type HAM radio
> gear and I would like to know what it is, when it was made, and
> where I can get a hold of the receiver to complete the set.
>
>
> Antenna coupler...model AC-1
> VFO..............model VF-1
> Transmitter.......model AT-1

The AC-1 was either a pi-section or L (I forget which) matching unit between the AT-1 (a 30 to 50 watt transmitter) and a random length Hertz (inverted L) antenna. The VF-1 was a single tube (plus voltage regulator) variable frequency oscillator using the Clapp (series tuned Colpitts) circuit. I vaguely recall there was a receiver called the AR-1 (what else?).

The AT-1 was basically a crystal controled unit for Novices and you plugged the output of the VF-1 into the front panel crystal socked when you upgraded to General.

Simple, basic starter equipment for beginners of a sort (and cost) that sadly no longer exists.

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| ____
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

4246. John Sculley (Was Wayne Green, state of ham radio, etc.)

Newsgroup: rec.ham-radio
Date: 1990-07-14 18:34:31 UTC
From: winter@Apple.COM
Message-ID: <42965@apple.Apple.COM>
Source record: 10249

In article <896@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>
>I didn't know Sculley was an ex-ham! Was this when he was a teen?

Kok Chen answers this specific question in a later posting, but I'll just add for those who don't know that long before John started selling soft drinks, his field was electronics. And I don't mean marketing; I believe he holds some patents.

Patty

p.s. That story about Wayne Green visiting Steve and Steve in The Garage sounds awfully apochryphal. Can anyone (except Wayne) verify it?
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4247. Re: Running a PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-14 20:06:16 UTC
From: jgd@rsiatl.UUCP
Message-ID: <3190@rsiatl.UUCP>
Source record: 10250

davet@tsdiag.ccur.com (Dave Tiller N2KAU) writes:

>>I would like to be able to run a standard PC/AT clone on 12V,
>>efficiently. Where can I get information on buying or building a
>>reasonably low cost power supply for this?
>>thanx, and 73, doug

>How about using straight voltage regulators in conjunction with those cheap
>DC-DC voltage converters? Something like this:

```
>+13.8V----------------[ +12V regulator ]------------------> to PC
> |
> |
> -----------[ +5V regulator ]------------------> to PC
> |
> |
> -----------[ -12V converter ]------------------> to PC
> |
> |
> -----------[ -5V converter ]------------------> to PC
```

>I'd think this would be a little more efficent than using an inverter feeding
>another power supply.

That would be terribly inefficient unless switching regulators were used.
To equal a 200 watt PC power supply, the 5 volt supply must be able to
supply over 30 amps. 30 amps at 5 volts is 150 watts. But dumping
the excess power in a pass regulator involves (13.5-5) * 30 or 255 watts.
This is about 30% efficiency.

Most PCs don't fully load the power supply anymore so this is the worst
case scenario but it would be a poor idea to underrate this much.
Many disk drives and peripherals draw a LOT of inrush current.

Switchmode regulators are very easy to build and work well. However,
the cheapest and probably most reliable solution is to buy a small
inverter. Tripp-lite sells a small 200 watt unit for about $140.
The inverter will run an average PC and a monochrome monitor if the
PC is not too full of goodies.

The Tripp-Lite inverters work very well and are very reliable. I have
a 1 kw unit here that is the centerpiece of my homemade UPS.

John

--
John De Armond, WD4OQC | We can no more blame our loss of freedom on congress

Radiation Systems, Inc. | than we can prostitution on pimps. Both simply
Atlanta, Ga | provide broker services for their customers.
{emory,uunet}!rsiatl!jgd| - Dr. W Williams | **I am the NRA**

4248. Re: phonetics

Newsgroup: rec.ham-radio
Date: 1990-07-14 21:35:30 UTC
From: julian@bongo.UUCP
Message-ID: <177@bongo.UUCP>
Source record: 10256

In article <33956@ut-emx.UUCP>, oo7@ut-emx.UUCP (Constructive Frivolling) writes:
>> nicholso@hpcuha.HP.COM (Ron Nicholson) says:
>>
>> When listening to DX stations I've been hearing a seemingly standard
>> phonetic alphabet, different from the published International Phonetic
Yes it was standard during WWII (OFP Old Fart's Phonetics)
>
> I think most of these come from the earlier phonetic list that was in
> use more than 20 years ago (at least, my G call in the mid-60s was

Piles of stuff deleted.

Back in the old days when men were men and aeroplanes had propellers, every nation had its own phonetics. Each nation was proud of its phonetics and each service in each nation just to prove they were made of stern stuff had their own phonetics. This was so pilots with hairy chests would not be confused with effete ambulance drivers. Telephone operators each had their own national set of phonetics that each girl was proud to know and happy to impart to a frustrated caller.

But then Hitler lost the war and they took the propellers off planes. Someone found out that if you took the propellers away they went faster and further. This meant that planes could now fly to foreign lands and instead of dropping Dupont Chemicals encased in steel, they landed and people got out and wandered around looking for honest cab drivers.

This if course caused much confusion with air traffic controllers. They now had to be nice to people who were a few years earlier shooting at them. So instead of all planes being "George Able ..." They now had funny foreign planes with foreign pilots to deal with. Much confusion here. So the ICAO (International Civil Aviation Organisation) formed a committee to draft some international phonetics. Some that all countries could use. They chose words that were common to most languages. Hence Tango, Delta, Golf, Hotel etc. They left out some other international words like Girl, Bar, Sexy, Taxi and Dollar. But maybe they didn't want to offend the air hostesses.

These phonetics were such a success that they were soon adopted by NATO. Some countries refer to these phonetics as "NATO Code". NATO of course had a similar problem. People who spoke different languages and used to shoot at each other now needed to communicate over radios and telephones. The telephone people liked it too as international calls were becoming more common. Large 50 circuit undersea cables were being installed and operators now had to put up with all sorts of shifty

foreigners making phone calls. So the ITU, adopted these phonetics as did CCITT and CCIR.

So now they are the correct phonetics to use anywhere in the free world and are pretty much understood in the unfree parts too. Of course there were provincial police departments, phone companies etc who considered the ICAO code to be part of the Metric system conspiracy and stuck to the old way. Then some people have never figured out why anyone would want to use phonetics and make 'em up as they go along. If you do make them up, it is essential that you never use the same word twice, as may lead to improved understanding.

So simply, if you want a hotel clerk in Adis Abeba to get your name right use the phonetics he probably learned at school. They much better than shouting and using the phonetics the good ol' boys in the sheriffs dept use.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

4249. re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-14 21:49:46 UTC
From: msw1633@rigel.tamu.edu
Message-ID: <6573@helios.TAMU.EDU>
Source record: 10255

I thought that the idea of the communicator class license was to increase the numbers of operators in the Amateur Service (pse note that I hesitate to refer to the putative communicator licensee as a HAM). The Amateur Radio Service , I believe, would be stronger having greater numbers and would be less likely to lose anymore bands or subbands etc... I personally would never have dreamed of getting such a license.

Also, I am new to both HAM radio (having just passed my exams for Novice) as well as to posting to this news server (correct term?) I would appreciate any hints on how to post more effectively and also any suggestions for a brand new HAM who is incredibly short on cash all the time and really can't afford all the gear and such.

TNX 73 DE MARK WHITSITT (still awaiting his operator license and call sign.)

4250. RTTY DX Notes, 7/13/90

Newsgroup: rec.ham-radio
Date: 1990-07-15 01:02:30 UTC
From: gws@n8emr.UUCP
Message-ID: <1561@n8emr.UUCP>
Source record: 10259

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ ALLUSA $RTDX0713
RTTY DX Notes, 1of3, 7/13/90

RTTY DX Notes for Weekending 13th June 1990.
Part 1 of 3.
BID: $RTDX0713

Confusion reigns. From reports received, it would appear that some
bulletin boards are adding their own endings to the BID, such as OC.,
AU., AUSNET., ASIANET., EURONET ETC. May i assure you that most of
these additions are occurring because of non-standard headings used by
a number of BBS's and are not the fault of the originator of the DX
notes. Maybe we will come to some agreement on traffic handling soon.
Who knows?

Information was supplied this week by I5FLN, I5ICY, I5IGQ, JA1BLV,
OD5NG, TG9VT, W2JGR and the Tri-State DX Association VHF packet
cluster. Thank you all for your news and views.

Bandpass:

Friday 6:
ZP5AEA 14072 at 0120Z ARQ
JY9SR 14085 at 0220Z
LY2WW 14085 at 0258Z
TA3D 14088 at 0300Z
EA9MY 14081 at 0305Z
FK8BK 14074 at 1110Z ARQ
YL20LSF 21090 at 1905Z QSL
EA6ZP 14089 at 1946Z
UA3DJY 21089 at 2210Z

Saturday 7:
UZ9CWA 21090 at 0310Z
TA3D 14086 at 0315Z
LY2WW 14088 at 0520Z
TJ1MW 14085 at 0633Z
YB0GI 14090 at 0713Z
UQ2HO 14082 at 0718Z
VU2BMW 14074 at 1445Z ARQ
TZ1DE 14083 at 2010Z
```

V85FH 14085 at 2019Z
HK4UH 21080 at 2028Z
DU1ANG 21088 at 2303Z
VP2VF 21072 at 2330Z ARQ

Continued in part 2.
/EX
SB RTTYDX @ ALLUSA $RTDX0714
RTTY DX Notes, 2of3, 7/13/90

RTTY DX Notes for Weekending 13th June 1990.
Part 2 of 3.
BID: $RTDX0714

Sunday 8:
TA3D 14088 at 0306Z
RB5MT 14090 at 0315Z
SV0CR 14074 at 0435Z ARQ
5N0ETP 14082 at 0524Z QSL
LY2WW 14089 at 0550Z
UQ2HO 21088 at 0918Z
UM8NC 21087 at 0928Z
FK8BK 14074 at 1000Z ARQ
JX9CAA 14084 at 1606Z
OD5SK 21086 at 1622Z
EA9MY 21093 at 1636Z
9Q5BG 21089 at 1656Z

Monday 9:
LY2WW 21088 at 0200Z
UM8MU 14087 at 0210Z
RB5QV 14082 at 0257Z
EA9MY 14083 at 0830Z
UG7GWY 14088 at 0835Z
UT5RP 21074 at 1134Z ARQ/Note
SV0GB 14088 at 1606Z

Tuesday 10:
LY2WW 21087 at 0053Z
EA9MY 14083 at 0144Z
J39BS 14091 at 0154Z
AL7BB 14091 at 0300Z
RB5QV 14084 at 0338Z
FK8BK 14074 at 0500Z ARQ
PJ2MI 14074 at 1000Z ARQ
HK0BKX 21088 at 1604Z Note

Wednesday 11:
IS0GDM 14086 at 0515Z
EA9MY 14083 at 0518Z
UZ3AYR 14090 at 0526Z
5N8ALE 14075 at 0552Z ARQ

BV4QA 14084 at 1241Z
FK8BK 14074 at 1250Z ARQ
TA3D 14088 at 1650Z
EA6ZP 14095 at 1654Z
VQ9RB 28078 at 1700Z QSL
YL1WW 21088 at 2314Z

Thursday 12:
VQ9RB 21093 at 0013Z
HK4CYR 21083 at 0148Z
UZ3AXJ 14091 at 0150Z RBBS/Note
UA4WGW 14089 at 0200Z QSL
YL1WW 14091 at 2306Z

QSL Information:

YL20LSF will QSL via YL1WW.

5N0ETP says to QSL all Russian calls to UA9QCQ and all other calls to N6QCQ, which is his home call. (Note from KT7H: Did I miss something here?)

Continued in part 3.
/EX
SB RTTYDX @ ALLUSA $RTDX0715
RTTY DX Notes, 3of3, 7/13/90

RTTY DX Notes for Weekending 13th June 1990.
Part 3 of 3.
BID: $RTDX0715

VQ9RB (formerly S79D) requests cards via WA4DPU, or otherwise you might try Dick Barnes, c/o Ford Aerospace Corp, NAV SUPPFAC, Box 55 FPO San Francisco, CA 96685-2000 USA.

UA4WGW cards go via Box 3113, Izhevsk 426006 USSR.

VK9LI says to QSL via VK2SG. Cards have been printed and should be in the post in a week or so, we hope.

Notes Of Interest:

UT5RP, Dima, has his IC720 repaired and is now on AMTOR ARQ and is looking for contacts. He may be the first Russian station to use that mode.

VQ9RB is Diego Garcia on Chagos Islands. He will be there for some time, and should be very active.

UZ3AXJ is a Russian bulletin board station, which is new for the Russians. This may be the first BBS from the USSR. At the moment he is beaconing.

The HK0 station is on San Andres, not Malpelo Island.

6W6JX will be active from C53, signing C53/6W6JX from August 9th to 23rd.

Now for the bad news. Ron, ZL1AMO, who has helped a lot of people obtain some of the rare South Pacific islands, proceeded to the Solomon Islands to operate from there, but unfortunately his equipment has disappeared somewhere along the way. Ron is asking for assistance to acquire new gear. If anyone is willing to help Ron, contact him at his home address.

GL DE DX1 (VK2SG) AT TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

4251. * SpaceNews 16-Jul-90 *

Newsgroup: rec.ham-radio
Date: 1990-07-15 02:23:16 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <320@ka2qhd.UUCP>
Source record: 10248
Cross-posted to: rec.ham-radio,sci.space

SB SPACE @ ALLBBS $SPC0716
* SpaceNews 16-Jul-90 *

=========
SpaceNews
=========

MONDAY JULY 16, 1990

SpaceNews originates at KD2BD in Wall Township, New Jersey, United States.
It is published every week and is made available for unlimited distribution.

* CRRES INFO *
==============
The launch of the Combined Release and Radiation Effects Satellite (CRRES)
is scheduled for no earlier than July 17, 1990, at 3:31 PM EDT (1941 UTC).
CRRES will be placed into a highly elliptical, geosynchronous transfer orbit
of approximately 217 by 22,236 miles and will conduct complex scientific
research in the space environment just above the earth's atmosphere,
including the ionosphere and magnetosphere.

CRRES will carry 24 cannisters of various chemicals into orbit and release
them over time. When released, the chemicals will be ionized by the Sun's
ultraviolet light creating large luminous clouds that will elongate along
the Earth's magnetic field lines, briefly "painting" these invisible
structures. The mission will be complemented by 10 sounding rockets to
perform releases that require precise targeting of location, local time and
altitude. Six rockets are to be launched from Puerto Rico and four from
Kwajalein, Marshall Islands.

* MICROSAT NEWS *
==================
AMSAT-OSCAR-16 is doing well and is due to receive a RAM test and BBS
software that will become operational by next month. DOVE-OSCAR-17
suffered an apparent on-board computer (OBC) crash shortly after coming
back to life on VHF. The cause of the crash is being investigated.
WEBER-OSCAR-18 recently received the third version of CCD color imaging
software. Each day, several Earth images are transmitted by WO-18 and
may be viewed on computers running WeberWare 1.0 software. LUSAT-OSCAR-19
is also doing well and is due to have a RAM test performed shortly.

* HUBBLE TROUBLE *
==================
Evidence now strongly suggests that the Hubble Space Telescope primary
mirror is at fault, having about 0.5 RMS wavelength of spherical aberration.

The radii of curvature is correct, but there is a 1% error in the eccentricity of the perboloid. The aberration is not correctable by either using primary mirror actuators or by replacing the secondary mirror in orbit. The primary mirror actuators consist of two rings of twelve force actuators capable of 10 pounds of force each. They are located at 0.5 and 0.87 radii at the nodes in the spherical aberration curve. The actuators will not be used to correct for the aberration because it will deform the mirror into an even more complex shape. The final focus alignment is to be completed today.

The HST mirror problem is believed to have been caused by a "low-tech" error, such as mistyping the mirror dimensions into the mirror grinding computer, or using a mislabelled null-corrector when testing the mirror.

* WALL HISTORY *
================
SpaceNews orginates from Wall Township, in central New Jersey, USA. It was from Wall Township that Guglielmo Marconi's 1913 American Wireless Company transmitted the first transoceanic radio signals from a group of radio towers located along Shark River. On January 10, 1946, the US Signal Corps bounced the first radar signals off the moon and back to Earth. The dish antenna still stands on Marconi Road. Wall Township is also the home town of Apollo astronaut Russell L. Schweickart, who performed a spacewalk in March 1969 during the Apollo 9 space mission.

* FEEDBACK WELCOMED *
======================
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ...!uunet!masscomp!ocpt!ka2qhd!kd2bd
AMPR : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
765 Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

(The callbook address also works.)

/EX
--
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple, neat and wrong." -- H.L. Mencken

4252. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-15 03:33:50 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007150333.AA21267@tecnet1.jcte.jcs.mil>
Source record: 10258

Subject: Communicator Class

>> As for testing, Communicator make code free. Same with Novice.
>> If they are serious about getting into it more into ham, they should make
>> 5 wpm code under Tech. class. The more you get into the hobby, the more
>> problems you will get with undesirables satisticly. This may weed out
>> those not really serious about the service/hobby.

ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!phil@ucsd.edu (Phil Howard, KA9WGN) replies:

>It has already been concluded that the code does NOT make a good weed-out
>filter. Maybe we need one, but code won't do it.

Whoa! Wait a minute! The issue of how good or how bad a "filter" CW is for Amateur Radio was debated long and hard for months! It got really hot there for awhile on this subject... however nothing was ever "CONCLUDED". You may have believed that one side or the other WON the argument, or you might have happened to agree that your point of view was espoused most heavily, but the issue was NEVER "concluded". To use that word means that all (or even most) parties agreed to that viewpoint, and such was definitely not the case.

In addition, it is IMPOSSIBLE to judge a bandpass filter by looking at what got through and never knowing what was KEPT OUT!

People can complain about CW, they can flame those that feel there is a need for a "filter" at all, and they can argue the pro's and con's till the Sun burns out, but in my humble opinion... you will never be able to convince me that learning Morse Code doesn't demonstrate a desire to WORK towards a goal, and I am a strong believer in the adage that the more that you work for something, the more you will value it.

Is it perfect? No. (Obviously far from it)
Is it also keeping out a lot of potentially good hams? Maybe.
Is it also keeping out a lot of potentially bad hams? Maybe.
Do people that work harder for a ham license tend to respect it more? Yes.

Does the CW requirement make a good weed-out filter? I don't think that we will ever really know for sure.

Ok.. so I seem to be supporting CW.. not really. I would like to see a WRITTEN test that was about 50 times harder than the one currently in existence... or maybe a better way of saying it would be: Have a test that really requires one to demonstrate KNOWLEDGE of what one is supposed to know to begin with. No more multiple guess questions... maybe even (heavens forbid) a PRACTICAL! Hard to implement? You betcha.. but worth it.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

4253. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-15 05:07:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500594@ux1.cso.uiuc.edu>
Source record: 10261

Ham radio needs more people on the VHF, UHF, and SHF bands. I think most all of us agree we need FEWER hams on the HF bands. Quality instead of quantity is the buzzword for ALL frequencies.

Sure, we do need more technically oriented people. I also think of people who are interested in public service aspects of ham radio as being technically oriented. They just happen to be in ways some of us might not think applies to ham radio, but it sure does.

There is a way to deal with the diversity in technical interests.
The exam can be arranged in parts:
1. Rules and regulations
2. Basic operating procedures
3. Basic electrical theory
4. Basic radio theory
5. Electrical, radio, and site safety
What I would like to see is that it be required to pass EACH of the above sections separately. If you fail ONE, you don't get the license. That will help prevent someone who is super bright in one area to skip another. The electrical engineer Ph.D. is going to have to learn the rules and regulations.

Now to the above 5 parts we add one more part that must also be passed, but it can be CHOSEN from one of the following:
6a. Basic Morse Code (at some speed)
6b. Signal and information theory (FFT's FIR's)
6c. Computers and networking (programming, TCP/IP)
6d. Advanced operating skills
6e. Advanced UHF and microwave theory

This allows us to require the basic essentials all hams need, and also encourages competency in a chosen area of specialization. If you pass 6a you also get on HF. If you pass at least THREE of the special areas, maybe there can be an advanced class of license.

Also, the part on Rules and Regulations needs to emphasis a working understanding of the rules, not memorization. Rules changes, and one who memorizes them now will be out of place in the future. So the idea I have for this is OPEN BOOK. That's right, while you take the test on the rules and regulations, you will have access to reading a copy of the rules and regulations. The questions will be designed knowing that you are reading the rules, so they won't be that easy. They will test you ability to figure out the rules. For instance, is an ATV repeater using AM or FM and a modulating video signal up to 4 Mhz legal? Can you say "sidebands in the 435-438 range"?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4254. Awesome Code system

Newsgroup: rec.ham-radio
Date: 1990-07-15 05:46:35 UTC
From: vtcqa@shamash.cdc.com
Message-ID: <23475@shamash.cdc.com>
Source record: 10260
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

Gee, I have seen alot of postings where people bitch about learning the code to get a ticket. It makes me think back to when I went to night school to get my ticket when I was eleven. The instructor was Bob Schoeing, W0BE, and he had the whole class doing code in 7 days ! (!!!!). It worked on phoenetics. I have lost the entire alphabet, and would like to get it, since I have bragged to a few people that I will have them pass the code test in 2 weeks (like Bob had us do). If you know what this is, you might have the whole alphabet - PLEASE send it to me:

L Liberia
O Old Crow Booze
H Hit it a bit
A about
V victory vee
B badminton set

Thats all I remember - Bob had the whole class doing 3 WPM after 2 classes with this system, including numbers and punctuation. (I was shocked)

If you can complete the list or have a different one, PLEASE get it to me somehow. It would be greatly appreciated.

Thanks in advance !

Jeff - NR0D
vtcqa@shamash.cdc.com
umn-cs!bungia!vware!brainiac!jrc
umn-cs!kksys!edgar!brainiac!jrc
70436,1410 on CIS
Mail: 6143 - 4th Ave. South * Minneapolis, Minnesota 55419

4255. QSL help, please?

Newsgroup: rec.ham-radio
Date: 1990-07-15 10:24:24 UTC
From: lkay@ecs.umass.edu
Message-ID: <10245.26a04458@ecs.umass.edu>
Source record: 10253

Some QSLing help, please? E-mail appreciated, tnx!

I'm trying to QSL an old contact with N7DKX. Unfortunately, he's changed his call since the contact (N7DKX not listed in 90 CB). I sent a card to his 83 CB address (Cody, WY) but it was returned by the PO. Can someone help? Somewhere in a CB between 84-89 his new address/callsign change must be listed. I'm closing up my 5BWAS and WY contacts are so hard to come by. Help!

Also, could someone with the 90CB supplement give me a QSL route for ZB2JB? He's Not in the GO list.

Many tnx.
Len

Leonard Kay, KB2R UMass/Amherst | "It's always darkest just
(413)545-4762 lkay@ecs.umass.edu | before it's totally black"

4256. Re: Fundamental Overload trap

Newsgroup: rec.ham-radio
Date: 1990-07-15 15:04:55 UTC
From: rfc@briar.Philips.Com
Message-ID: <103743@philabs.Philips.Com>
Source record: 10262

One way to reduce or eliminate fundamental overload on a TV is to try a stub trap on the antenna terminals. cut a piece of twinlead or coax 1/4 wavelength long (taking into account propagation factor of the twinlead or coax) of the amateur freq. Leave the far end open. You may need to fine tune trim it. This helped keep my packet 2m station out of the TV and VCR. (Using the same mast for the 2m and TV antennas probably didnt help).

hope this helps 73 de WA2ISE

4257. 2 meters (144Mhz band) and wet trees

Newsgroup: rec.ham-radio
Date: 1990-07-15 15:09:27 UTC
From: rfc@briar.Philips.Com
Message-ID: <103744@philabs.Philips.Com>
Source record: 10263
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.radio.shortwave

Been having this problem with my packet setup: During the summer, during wet weather, my ability to get a reliable connection to my home BBS (KD6TH) gets bad. I used to use an antenna in the attic, but since replaced that with one mounted on a mast above the roof. That helped much. (the attic antenna was useless in all summer weather, though in other seasons it worked fine). The roof antenna works good in dry weather, but we had several days of rain here, and the quality went poor. Dry weather returned, and it got better. Question is: Is the attenuation of wet tree leaves significant at 145Mhz? Lot more than the same trees dry? And without leaves (ie, winter)? I thought this sort of thing was only significant up in the microwave freqs.

No, I don't think that water is getting into the coax (that wouldn't explain the attic antenna performance). Or maybe I'm at the point where a dB difference makes or breakes it. (2m FM packet).

73 de WA2ISE@KD6TH

4258. Re: Awesome Code system

Newsgroup: rec.ham-radio
Date: 1990-07-15 16:04:59 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <36994@shemp.CS.UCLA.EDU>
Source record: 10265

In article <23475@shamash.cdc.com> vtcqa@shamash.cdc.com (VTC) writes:
>Gee, I have seen alot of postings where people bitch about learning
>the code to get a ticket. It makes me think back to when I went to
>night school to get my ticket when I was eleven. The instructor was
>Bob Schoeing, W0BE, and he had the whole class doing code in 7
>days ! (!!!!). It worked on phoenetics. I have lost the entire alphabet,
>
>L Liberia
>O Old Crow Booze
>H Hit it a bit
>A about
>V victory vee
>B badminton set
>
>Thats all I remember - Bob had the whole class doing 3 WPM after 2 classes
>with this system, including numbers and punctuation. (I was shocked)
>
I remember Tom Kneitel describing a similar system in one of his
magazines ("Popular Communications", "S9", etc.) Unfortunately
he did not give the entire alphabet but only two letters.
The letter "C" was associated with the phrase "Coca-Cola", while
the letter "Q" was described only as being "somewhat unprintable"
(he did not give the 'phonetic' equivalent for "Q")

This system was described as once being used in the U.S. military
to teach code. Maybe someone on here will be more familiar with it
than we are and can give us the whole alphabet.

With a system like this, the concept of a code-free licence may become
a moot point....

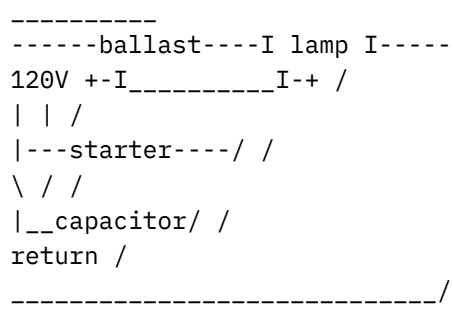
Charles P. Hobbs, N6YMK @ K6VE....
Internet: cccph.eel.cs.ucla.edu Plink: oar001 Genie: C.HOBBS

4259. florescent qrn reduction

Newsgroup: rec.ham-radio
Date: 1990-07-15 16:38:33 UTC
From: rfc@briar.Philips.Com
Message-ID: <103747@philabs.Philips.Com>
Source record: 10264
Cross-posted to: rec.radio.shortwave,rec.ham-radio

It's been asked what to do about florescent light noise. Here's one trick
that I found helps: (a pe-posting from 1/2 year ago)

Florescent RFI reduction
Here is something to try when confronted with RFI from a florescent
light. I found that connecting a 0.01 to 0.1 uF @ 1.4kV capacitor will help
reduce the RFI in most cases. Connect it like this:



The 2 pins on one end of the bulb are connected to a heater filament,
and likewise on the other end. You should connect the cap so that it
has to go thru one or both filaments before it reaches the ballast
and/or the return side of the power line. This will make the filaments
act like a fuse if the cap shorts out. Be sure to use a capacitor
rated at least 1.4KV. The starter makes a large inductive spike when
it starts the bulb. It's also a good idea to use high rated parts if
you install this cap in a fixture attached to the house, for safety
reasons. And be sure to make sure that, when installed, the leads of
the cap are well insulated and can't short to anything. For florescent
lights that don't have starters, you could try putting the cap across
the bulb like above. In this case, You'll have to depend on the
ballast itself to limit current if the cap shorts. Use a higher
voltage cap like 5KV in 2X40W fixtures. Just be sure that you don't
create a safety hazard when you do this! So, proceed with caution, at
your own risk. Near as I can tell, this has no effect on bulb life.

4260. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-15 19:32:02 UTC
From: jim.grubs@w8grt.fidonet.org
Message-ID: <336.26A09B83@w8grt.fidonet.org>
Source record: 10273
Body handling: HTML body converted to readable text

> From: mgb@TECNET1.JCTE.JCS.MIL
> Date: 15 Jul 90 03:33:50 GMT
> Organization: The Internet
> Message-ID: <9007150333.AA21267@tecnet1.jcte.jcs.mil>
> Newsgroups: rec.ham-radio
>
>
>
> Subject: Communicator Class
>
> >> As for testing, Communicator make code free. Same with Novice.
> >> If they are serious about getting into it more into ham, they should make
> >> 5 wpm code under Tech. class. The more you get into the hobby, the more
> >> problems you will get with undesirables satisticly. This may weed out
> >> those not really serious about the service/hobby.
>
> ux1.cso.uiuc.edu!ux1.cso.uiuc.edu!phil@ucsd.edu (Phil Howard, KA9WGN)
> replies:
>
> >It has already been concluded that the code does NOT make a good weed-out
> >filter. Maybe we need one, but code won't do it.
>
>
> Whoa! Wait a minute! The issue of how good or how bad a "filter" CW is
> for
> Amateur Radio was debated long and hard for months! It got really hot
> there
> for awhile on this subject... however nothing was ever "CONCLUDED". You
> may
> have believed that one side or the other WON the argument, or you might
> have
> happened to agree that your point of view was espoused most heavily, but
> the
> issue was NEVER "concluded". To use that word means that all (or even
> most)
> parties agreed to that viewpoint, and such was definitely not the case.
>
> In addition, it is IMPOSSIBLE to judge a bandpass filter by looking at
> what
> got through and never knowing what was KEPT OUT!
>
> People can complain about CW, they can flame those that feel there is a
> need

> for a "filter" at all, and they can argue the pro's and con's till the
> Sun
> burns out, but in my humble opinion... you will never be able to
> convince me
> that learning Morse Code doesn't demonstrate a desire to WORK towards a
> goal,
> and I am a strong believer in the adage that the more that you work for
> some-
> thing, the more you will value it.

I do wish ham radio operators would break themselves of the silly delusions that ham radio is important in today's world and that FCC regulations are intended only to preserve the status exclusivity of those who are already licensed.

Hard, brutal truth #1: In today's world ham radio's only real value is as a National Park of the Mind - for recreation and learning.

Hard, brutal truth #2: Tough, exclusionary licensing processes do not contribute to truth #1.

Hard, brutal truth #3: Because of #1 and #2 above, present ham radio operators are the last people who should be listened to about the no-code petition.

Hard, brutal truth #4: The FCC is well aware of #3.

73 de Jim Grubs, W8GRT

--
|\/\/\/|
| | Jim Grubs, W8GRT - aka FidoNet node 1:234/1
| (o)(o) UUCP: {ncar!asuvax!stjhmc!,iuvax!ndmath!nstar}!w8grt!jim.grubs
| _) INTERNET: jim.grubs@w8grt.fidonet.org
| ,___| _____
| / "I wanna go to the ham radio National Park
/____\ of the Mind and ride the NOS!"

4261. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-07-15 22:23:05 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9007152227.AA06553@ucsd.edu>
Source record: 10266

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #720 -
Alouette 1
1 00424U 62B-A 1 90192.70736421 .00000170 00000-0 19423-3 0 3322
2 00424 80.4633 261.8991 0022426 207.0003 152.9977 13.67365462386044
ATS 3
1 03029U 67111 A 90174.59713386 -.00000074 00000-0 99999-4 0 3932
2 03029 13.2228 21.1964 0013921 209.5552 150.3412 1.00272595 82851
Cosmos 398
1 04966U 71 16 A 90193.29694016 .00067639 17708-4 37692-3 0 9717
2 04966 51.5218 175.6992 2253968 194.7555 157.5163 11.09856078594482
Starlette
1 07646U 75010 A 90191.06397744 -.00000049 00000-0 85280-5 0 876
2 07646 49.8269 68.2181 0205864 266.6932 91.0732 13.82139452778943
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1 08820U 76039 A 90184.39409696 .00000002 00000-0 00000 0 0 858
2 08820 109.8527 0.6704 0044605 234.6685 124.9782 6.38664210 74978
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1 10684U 78020 A 90187.38221003 .00000007 00000-0 99999-4 0 4496
2 10684 63.7215 88.9802 0107963 199.9474 159.6657 2.00554942 76237
GPS-0002
1 10893U 78 47 A 90185.36504259 -.00000025 00000-0 00000 0 0 2039
2 10893 64.3788 329.8825 0164726 26.4361 334.3843 2.00544302 89010
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1 10953U 78062 A 90189.87383348 .00000105 00000-0 99999-4 0 9166
2 10953 6.9987 66.1709 0008475 72.6926 287.3683 1.00257534 4855
SeaSat 1
1 10967U 78064 A 90191.45412716 .00000628 00000-0 25987-3 0 3521
2 10967 108.0232 8.1800 0003254 242.2965 117.7887 14.35745362629794
GPS-0003
1 11054U 78093 A 90190.13726162 -.00000024 00000-0 00000 0 0 2433
2 11054 63.9106 325.9851 0060443 118.5847 242.0307 2.00567716 86121
Nimbus 7
1 11080U 78098 A 90184.15098146 .00000090 00000-0 97447-4 0 6832
2 11080 99.1945 88.7147 0009928 42.2736 317.9183 13.83441567590240
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1 11141U 78112 A 90191.73416645 .00000007 00000-0 00000 0 0 4039
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2 11141 63.7219 88.7013 0059675 316.1721 43.4427 2.00556077 84859
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1 11690U 80 11 A 90190.38003918 .00000008 00000-0 00000 0 0 9962
2 11690 64.1930 90.8570 0115499 203.0641 156.7448 2.00555667 90680
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1 11783U 80 32 A 90192.18293680 -.00000024 00000-0 00000 0 0 1641
2 11783 63.7054 325.4918 0151469 60.7842 300.6971 2.00558155 74808
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1 12472U 81049 A 90176.68212053 -.00000176 00000-0 99999-4 0 9419
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2 12624 89.0068 147.6964 6203982 274.9744 21.5725 3.51015720262985
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2 13138 51.6003 180.8778 0002247 43.2923 316.7891 15.65886534468666
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1 13301U 82 66 A 90185.73230742 .00000075 00000-0 81009-4 0 5834
2 13301 82.9304 287.9148 0028945 110.7466 249.6793 13.67834126400070
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1 13367U 82 72 A 90192.84960611 .00000413 00000-0 10156-3 0 3870
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Cosmos 1447
1 13916U 83 21 A 90191.06039783 .00000091 00000-0 90376-4 0 7335
2 13916 82.9432 355.1452 0039807 75.1629 285.3938 13.74049199365810
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2 14189 63.3775 87.1548 0147742 219.0469 139.9370 2.00703319 51222
LandSat 5
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2 14780 98.2035 252.5801 0001643 114.2225 245.9145 14.57111142338318
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2 15331 82.5377 338.4866 0021183 253.1418 106.7471 14.78280251311665
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Cosmos 1686
1 16095U 85 86 A 90192.89458202 .00062964 00000-0 60586-3 0 6933
2 16095 51.5974 178.9362 0003780 47.4514 312.4992 15.65938241269824
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2 16881 82.5203 37.0665 0020139 270.0084 89.8821 14.77751575212795
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1 16969U 86 73 A 90193.29612781 .00000459 00000-0 21769-3 0 4501
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1 18123U 87 53 A 90193.31462243 .00000351 00000-0 20424-3 0 6389
2 18123 98.8189 23.5784 0014013 315.2768 44.7274 14.14077943157955
RS-10/11
1 18129U 87 54 A 90192.81494048 .00000073 00000-0 72985-4 0 2510
2 18129 82.9290 310.3307 0013055 55.2587 304.9804 13.72097914152825
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1 18312U 87 68 A 90192.62411816 .00000219 00000-0 18868-3 0 4568
2 18312 82.5537 270.9204 0011321 179.1000 181.0182 13.83661049146369
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1 18820U 88 5 A 90192.91527670 .00000097 00000-0 81796-4 0 3140
2 18820 82.5453 330.7997 0015241 254.5921 105.3555 13.84351699123602
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1 18822U 88 6 A 90193.33079229 .00000022 00000-0 18535-4 0 5558
2 18822 98.6416 71.8428 0006296 189.9933 170.1162 14.21486174126399
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2 19216 56.9975 146.4527 6986158 231.0027 43.2637 2.09695848 15887
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2 19274 82.5184 135.7262 0023617 45.8567 314.4487 14.77100713108565
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1 19336U 88 64 A 90192.57869552 .00000391 00000-0 99999-3 0 5252
2 19336 82.5405 260.1706 0015560 250.7632 109.1793 13.16900235 94162
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1 19531U 88 89 A 90193.32918854 .00000328 00000-0 20073-3 0 3109
2 19531 98.9837 141.6667 0011681 209.1738 150.8778 14.11647077 92514
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1 19548U 88 91 B 90188.69220174 .00000114 00000-0 99999-4 0 1425
2 19548 0.1628 85.7700 0006248 81.0052 193.2474 1.00275652 467
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1 19796U 89 11 A 90192.61546838 -.00001026 00000-0 99999-4 0 5448
2 19796 63.3026 89.8277 7077964 319.8858 5.3004 2.00599296 10293
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1 19802U 89 13 A 90191.87654583 .00000016 00000-0 99999-4 0 1412
2 19802 55.0568 196.4816 0053804 166.0235 194.1443 2.00644214 10223
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1 19822U 89 16 A 90192.43338337 .00021274 00000-0 13375-2 0 6771
2 19822 75.0946 226.9742 4174014 206.3432 124.6336 7.12195080 1568
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1 19851U 89 18 A 90192.53192138 .00000042 00000-0 32246-4 0 2599
2 19851 82.5190 209.0593 0012652 299.9972 59.9935 13.83987167 68931
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1 19883U 89 21 B 90192.31000318 -.00000234 00000-0 99999-4 0 1447
2 19883 0.2074 76.0353 0001492 127.6888 156.2653 1.00273286 75193
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1 20185U 89 64 A 90190.53357977 .00000016 00000-0 99999-4 0 1345
2 20185 54.9238 197.4037 0023956 160.4210 199.6884 2.00624498 6511
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1 20305U 89 86 A 90192.54974308 -.00000061 00000-0 -17388-3 0 1667
2 20305 82.5499 200.8081 0014455 269.0409 90.9026 13.15860317 34151
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1 20322U 89 89 A 90191.09876437 .00002843 00000-0 18677-2 0 1469
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1 20335U 89 93 A 90191.75849017 .00022020 00000-0 24489-3 0 2970
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1 20439U 90 5 D 90190.22580162 .00000383 00000-0 16807-3 0 920
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1 20494U 90 14 A 90192.84556552 .00019061 00000-0 21249-3 0 1949
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2 20508 82.9503 41.8773 0043200 279.4434 80.1845 13.73218717 18360
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1 20510U 90 18 A 90192.85122897 .00001516 00000-0 23084-3 0 2085
2 20510 82.5265 75.0155 0019087 189.8750 170.2019 14.73258722 19702
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1 20523U 90 21 A 90192.80329067 .00010313 00000-0 73669-3 0 2119
2 20523 28.3446 102.2658 0017559 90.7430 269.6347 15.02780350 18158
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2 20639 52.5158 315.1529 0074503 358.3877 1.6875 15.20114840 5158
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1 20640U 89100 N 90164.84157702 .00302012 00000-0 12684-1 0 287
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2 20646 62.8502 223.4305 7413449 280.1396 11.0122 2.00630704 585
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2 20662 1.5615 268.5796 0015846 293.5252 67.0470 1.00516475 206
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2 20664 62.8175 99.9018 0165093 124.6023 235.8814 15.89147243 2970
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1990 056C
1 20669U 90 56 C 90187.33272697 .00004344 00000-0 18739-2 0 94
2 20669 24.2378 259.6867 7414708 8.8202 359.2468 2.10783513 271
Meteor 2-19
1 20670U 90 57 A 90190.71054433 .00000169 00000-0 14260-3 0 120
2 20670 82.5475 270.7909 0015085 220.3947 139.6098 13.83838708 1633
1990 057B
1 20671U 90 57 B 90189.62351797 -.00000304 00000-0 -27867-3 0 54
2 20671 82.5489 271.6497 0014243 226.3577 133.6398 13.84156886 1482
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
```

4262. AMSAT Bulletins, 7/14/90

Newsgroup: rec.ham-radio
Date: 1990-07-16 01:14:17 UTC
From: tad@ssc.UUCP
Message-ID: <907@ssc.UUCP>
Source record: 10268

SB ALL @ AMSAT $ANS-195.01
DOVE RCVRY EFFORT CONTINUES

HR AMSAT NEWS SERVICE BULLETIN 195.01 FROM AMSAT HQ
SILVER SPRING, MD JULY 14, 1990
TO ALL RADIO AMATEURS BT

DOVE Software Reload & Recovery Effort Continues Despite Temporary Setback

On Sunday, July 8th at 02:30 UTC N4HY was able to successfully command DOVE back on 2M and, for a short time, the familiar ASCII telemetry was heard again. However, by the time DOVE reappeared over North America at around 05:00 UTC, it was evident that its on-board computer (OBC) had crashed. During the short time in which DOVE was sending telemetry, K0RZ copied several minutes of that telemetry which N4HY subsequently studied to evaluate the health of the spacecraft. From these first few frames of telemetry, N4HY declared that DOVE's batteries are in excellent condition with the bus voltage showing 10.9 volts. Also, the RAM memory appeared to be in good condition. Overall, DOVE has survived its four month hiatus very well.

In spite of this initial setback in returning DOVE to regular service, N4HY by no means given up or declared the task impossible. N4HY says that he plans to carefully study the several minutes of telemetry and the diagnostic memory "dumps" in order to discover the cause of the OBC crash. Keep in mind that this is the very first attempt to load software into DOVE using the "auditory" method, i.e., using the ear to tell when a packet stream has been successfully received and then manually sending the next packet group. N4HY further adds that he thinks one of the probable causes of the OBC crash this time was due to his thinking he heard an Acknowledge packet when in fact there was no ACK during the software loading process.

Stay tuned to AMSAT News Service (ANS) bulletins for further updates on the DOVE recovery effort.
/EX
SB ALL @ AMSAT $ANS-195.02
AO-16 OBC RESET COMMANDED

HR AMSAT NEWS SERVICE BULLETIN 195.02 FROM AMSAT HQ
SILVER SPRING, MD JULY 14, 1990
TO ALL RADIO AMATEURS BT

AO-16 On-Board Computer Reset For New Software

On July 12, 1990 at 01:17 UTC N4HY manually reset the AO-16 on-board computer (OBC). This reset was necessary so that new software updates could be loaded. These updates include improvements to the Whole Orbit Data (WOD) data collection routines. MICROSAT engineers were ready to make the changes

to these telemetry functions. AO-16 users should not be alarmed if they see no telemetry coming from AO-16 for the days following the reset. NK6K will load the new software as quickly as possible. N4HY wishes to stress that ALL IS WELL with AO-16 and this is a routine procedure to load new software.
/EX
SB ALL @ AMSAT $ANS-195.03
AO-13 ORBIT DECAY ANALYSES

HR AMSAT NEWS SERVICE BULLETIN 195.03 FROM AMSAT HQ
SILVER SPRING, MD JULY 14, 1990
TO ALL RADIO AMATEURS BT

Further Studies Continue To Examine AO-13 Orbital Decay

In the ever continuing analysis of AO-13's orbital decay situation, more work has been recently done by an orbital dynamics expert to characterize the nature of this problem more fully. Using a very large and detailed mathematical model of the earth's gravitational field and the perturbations to AO-13's orbit due to the sun and moon, the results show a mostly linear decay, but with a few wiggles, in the perigee altitude until 1992. At that point the perigee altitude will start to trend upwards until early 1994 when it will reach a peak. Then it turns around and the math model subsequently predicts that the perigee altitude will plunge to 200 KM by mid 1996. By late 1996 the math model shows that AO-13's perigee will reach 100 KM and eventual reentry into the earth's atmosphere.

HOWEVER, before all AO-13 users start to mourn the loss of this most popular OSCAR, keep in mind the old computer programming axiom, GIGO: "Garbage In, Garbage Out." At the present time this very large computer program used to generate these results is like a "black box." The analyst's answers are only as good as the assumptions that were used in building this computer program and the initial data available to work with. All AO-13 users are requested to keep this in mind when contemplating the impending reentry of AO-13.
/EX
SB ALL @ AMSAT $ANS-195.04
ZRO TEST ROUND NOW COMPLETE

HR AMSAT NEWS SERVICE BULLETIN 195.04 FROM AMSAT HQ
SILVER SPRING, MD JULY 14, 1990
TO ALL RADIO AMATEURS BT

WA5ZIB Reports Success in Recent ZRO Test Runs

The ZRO Tests in June went very well. More will be scheduled when AO-13 is again oriented for NADIR pointing. During the June 30th "JL" run time ran out for the "J" uplink before W6HDO could complete the test but the Mode "B" test went as planned.

Response to the ZRO Tests has been excellent. If you copied any of the June runs please send your results to WA5ZIB, Andy MacAllister, 14714 Knightsway Drive, Houston, TX 77083 U.S.A. A report will be returned after the numbers copied have been checked with the lists from WA5ZIB (mode "B") and W6HDO (mode "JL").

Due to the large volume of reports many certificate requests have been delayed. All replies will be in the mail by the end of July and a new schedule for the Fall will be announced as soon as AO-13's schedule for that period has been released.
/EX
SB ALL @ AMSAT $ANS-195.05
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 195.05 FROM AMSAT HQ
SILVER SPRING, MD JULY 14, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

16 Jul 90 0115 130 B N5BF Sunday
27 Jul 90 0030 130 B N5BF Thursday
07 Aug 90 0130 170 J/L N5BF Monday
18 Aug 90 0045 170 J/L N5BF Friday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your nearby AMSAT Regional Coordinator
/EX
SB ALL @ AMSAT $ANS-195.06
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 195.06 FROM AMSAT HQ
SILVER SPRING, MD JULY 14, 1990
TO ALL RADIO AMATEURS BT

A new Transponder Schedule for AO-13 was put into effect on July 3.

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 003 to MA 165
Mode-JL : MA 165 to MA 190
Mode-LS : MA 190 to MA 195 (Mode S Beacon only)
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 240
Off : MA 240 to MA 003
Omni Antennas : MA 240 to MA 060

Cross mode B and S QSOs are possible from MA 200 to 205.

The current attitude estimate:

BLON = 207 and BLAT = +1

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

Much activity has been heard on AO-10 centering around a popular calling frequency of 145.910 MHz.
/EX
SB ALL @ AMSAT $ORBS-195.O
Orbital Elements 195.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JULY 14, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90177.47365881
Element set: 530
Inclination: 26.0107 deg
RA of node: 197.5005 deg
Eccentricity: 0.5961085
Arg of perigee: 154.3991 deg
Mean anomaly: 254.3150 deg
Mean motion: 2.05881318 rev/day
Decay rate: -4.10e-07 rev/day^2
Epoch rev: 5292

Satellite: UO-11
Catalog number: 14781
Epoch time: 90191.57502339
Element set: 757
Inclination: 97.9492 deg
RA of node: 243.3660 deg
Eccentricity: 0.0012377
Arg of perigee: 168.3760 deg
Mean anomaly: 191.7741 deg
Mean motion: 14.65481731 rev/day
Decay rate: 1.145e-05 rev/day^2
Epoch rev: 33939

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90192.81494048
Element set: 251
Inclination: 82.9290 deg
RA of node: 310.3307 deg
Eccentricity: 0.0013055
Arg of perigee: 55.2587 deg
Mean anomaly: 304.9804 deg
Mean motion: 13.72097914 rev/day
Decay rate: 7.30e-07 rev/day^2

Epoch rev: 15282

Satellite: AO-13
Catalog number: 19216
Epoch time: 90191.14540911
Element set: 137
Inclination: 56.9975 deg
RA of node: 146.4527 deg
Eccentricity: 0.6986158
Arg of perigee: 231.0027 deg
Mean anomaly: 43.2637 deg
Mean motion: 2.09695848 rev/day
Decay rate: 1.90e-06 rev/day^2
Epoch rev: 1588

Satellite: FO-20
Catalog number: 20480
Epoch time: 90190.15289263
Element set: 92
Inclination: 99.0367 deg
RA of node: 232.5114 deg
Eccentricity: 0.0541245
Arg of perigee: 358.8748 deg
Mean anomaly: 1.1095 deg
Mean motion: 12.83158249 rev/day
Decay rate: 3.30e-07 rev/day^2
Epoch rev: 1956
/EX
SB ALL @ AMSAT $ORBS-195.D
Orbital Elements 195.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JULY 14, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90191.21810701
Element set: 178
Inclination: 98.7007 deg
RA of node: 267.2604 deg
Eccentric12520
Arg of perigee: 87.6306 deg
Mean anomaly: 272.6321 deg
Mean motion: 14.28655575 rev/day
Decay rate: 5.56e-06 rev/day^2
Epoch rev: 2415

Satellite: AO-16
Catalog number: 20439
Epoch time: 90190.22580162
Element set: 92

Inclination: 98.7036 deg
RA of node: 266.3813 deg
Eccentricity: 0.0012855
Arg of perigee: 90.1085 deg
Mean anomaly: 270.1579 deg
Mean motion: 14.28758401 rev/day
Decay rate: 3.83e-06 rev/day^2
Epoch rev: 2401

Satellite: DO-17
Catalog number: 20440
Epoch time: 90190.22116930
Element set: 96
Inclination: 98.7028 deg
RA of node: 266.3884 deg
Eccentricity: 0.0012941
Arg of perigee: 90.0577 deg
Mean anomaly: 270.2094 deg
Mean motion: 14.28805398 rev/day
Decay rate: 4.48e-06 rev/day^2
Epoch rev: 2401

Satellite: WO-18
Catalog number: 20441
Epoch time: 90191.18913990
Element set: 96
Inclination: 98.7038 deg
RA of node: 267.3753 deg
Eccentricity: 0.0013288
Arg of perigee: 86.7771 deg
Mean anomaly: 273.4946 deg
Mean motion: 14.28901266 rev/day
Decay rate: 3.28e-06 rev/day^2
Epoch rev: 2415

Satellite: LO-19
Catalog number: 20442
Epoch time: 90191.18105482
Element set: 96
Inclination: 98.7039 deg
RA of node: 267.3869 deg
Eccentricity: 0.0013589
Arg of perigee: 87.9843 deg
Mean anomaly: 272.2894 deg
Mean motion: 14.28971275 rev/day
Decay rate: 4.32e-06 rev/day^2
Epoch rev: 2415
/EX
SB ALL @ AMSAT $ORBS-195.M
Orbital Elements 195.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JULY 14, 1990
TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90192.51169570
Element set: 375
Inclination: 51.6003 deg
RA of node: 180.8778 deg
Eccentricity: 0.0002247
Arg of perigee: 43.2923 deg
Mean anomaly: 316.7891 deg
Mean motion: 15.65886534 rev/day
Decay rate: 3.3467e-04 rev/day^2
Epoch rev: 46866
Satellite: MIR
Catalog number: 16609
Epoch time: 90192.52584680
Element set: 786
Inclination: 51.6114 deg
RA of node: 207.9040 deg
Eccentricity: 0.0010622
Arg of perigee: 130.7690 deg
Mean anomaly: 229.4185 deg
Mean motion: 15.62780689 rev/day
Decay rate: 1.7139e-04 rev/day^2
Epoch rev: 25190

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 90191.63102895
Element set: 125
Inclination: 28.4710 deg
RA of node: 100.4328 deg
Eccentricity: 0.0005385
Arg of perigee: 11.6955 deg
Mean anomaly: 348.3876 deg
Mean motion: 14.84576560 rev/day
Decay rate: 2.717e-05 rev/day^2
Epoch rev: 1146
/EX
SB ALL @ AMSAT $ORBS-195.W
Orbital Elements 195.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JULY 14, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90193.26836137

Element set: 602
Inclination: 99.1684 deg
RA of node: 193.6802 deg
Eccentricity: 0.0014361
Arg of perigee: 300.7705 deg
Mean anomaly: 59.2051 deg
Mean motion: 14.12616769 rev/day
Decay rate: 4.32e-06 rev/day^2
Epoch rev: 28752

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90193.29612781
Element set: 450
Inclination: 98.5976 deg
RA of node: 220.6777 deg
Eccentricity: 0.0013064
Arg of perigee: 192.8958 deg
Mean anomaly: 167.1887 deg
Mean motion: 14.23661383 rev/day
Decay rate: 4.59e-06 rev/day^2
Epoch rev: 19818

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90192.62411816
Element set: 456
Inclination: 82.5537 deg
RA of node: 270.9204 deg
Eccentricity: 0.0011321
Arg of perigee: 179.1000 deg
Mean anomaly: 181.0182 deg
Mean motion: 13.83661049 rev/day
Decay rate: 2.19e-06 rev/day^2
Epoch rev: 14636

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90192.91527670
Element set: 314
Inclination: 82.5453 deg
RA of node: 330.7997 deg
Eccentricity: 0.0015241
Arg of perigee: 254.5921 deg
Mean anomaly: 105.3555 deg
Mean motion: 13.84351699 rev/day
Decay rate: 9.70e-07 rev/day^2
Epoch rev: 12360

Satellite: MET-3/2
Catalog number: 19336

Epoch time: 90192.57869552
Element set: 525
Inclination: 82.5405 deg
RA of node: 260.1706 deg
Eccentricity: 0.0015560
Arg of perigee: 250.7632 deg
Mean anomaly: 109.1793 deg
Mean motion: 13.16900235 rev/day
Decay rate: 3.91e-06 rev/day^2
Epoch rev: 9416

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90193.32918854
Element set: 310
Inclination: 98.9837 deg
RA of node: 141.6667 deg
Eccentricity: 0.0011681
Arg of perigee: 209.1738 deg
Mean anomaly: 150.8778 deg
Mean motion: 14.11647077 rev/day
Decay rate: 3.28e-06 rev/day^2
Epoch rev: 9251

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90192.53192138
Element set: 259
Inclination: 82.5190 deg
RA of node: 209.0593 deg
Eccentricity: 0.0012652
Arg of perigee: 299.9972 deg
Mean anomaly: 59.9935 deg
Mean motion: 13.83987167 rev/day
Decay rate: 4.20e-07 rev/day^2
Epoch rev: 6893

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90192.54974308
Element set: 166
Inclination: 82.5499 deg
RA of node: 200.8081 deg
Eccentricity: 0.0014455
Arg of perigee: 269.0409 deg
Mean anomaly: 90.9026 deg
Mean motion: 13.15860317 rev/day
Decay rate: -6.10e-07 rev/day^2
Epoch rev: 3415

Satellite: MET-2/19
Catalog number: 20670
Epoch time: 90190.71054433
Element set: 12
Inclination: 82.5475 deg
RA of node: 270.7909 deg
Eccentricity: 0.0015085
Arg of perigee: 220.3947 deg
Mean anomaly: 139.6098 deg
Mean motion: 13.83838708 rev/day
Decay rate: 1.69e-06 rev/day^2
Epoch rev: 163

/EX

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4263. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-16 01:21:38 UTC
From: tad@ssc.UUCP
Message-ID: <908@ssc.UUCP>
Source record: 10269

In article <530016@hpdmd48boi.hp.com>, ritchie@hpdmd48boi.hp.com (David Ritchie) writes:
>
>
> Actually, Wayne started Byte, and his wife divorced him and was awarded it
> in the divorce settlement.
>

Not true. Because of earlier problems with the IRS, Wayne thought he would
be smart and put it in his wife's name. So when his wife AND his staff got
fed up with his antics, they just left with the magazine....no settlement
was needed, since NONE of it was in his name!

>
Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4264. Re: Fundamental Overload (was FCC TVI Complaint)

Newsgroup: rec.ham-radio
Date: 1990-07-16 01:27:07 UTC
From: tad@ssc.UUCP
Message-ID: <909@ssc.UUCP>
Source record: 10270

In article <9007131353.AA08667@uunet.uu.net>, 1843eie@HICKAM-EMH.AF.MIL ("1843 EIG/EIE") writes:
>
>
> Subject: Fundamental Overload (was FCC TVI Complaint)
>
> John Broughton writes, in his tale of TVI tribulations....
>
> (lots deleted)
>
> > to time, duration and channel. I also sent her a drawing of a filter
> > setup from a TVI talk given by a TVI expert at my club's hamfest the
> > end of January. He claimed 90% of TVI is fundamental overload and
> > the filter configuration he suggested worked in almost all cases.
>
> (lots more deleted)
>
> At the extreme risk of showing my ignorance, I'm a bit curious as to what
> filter configuration helps cut down fundamental overload. I always thought
> fixing that required relocation of the rig, the TV, the antennas, or some
> combination thereof.
>
>

If I am transmitting at 14.2 Mhz, that is the fundamental frequency. If I install a Low Pass filter at the transmitter, this does nothing to attenuate the fundamental signal, but should keep the FCC off my back concerning harmonics above 30 MHz.

At the TV set, if I install a Hi Pass filter that attenuates signals below 50 MHz, then this attenuates the fundamental (14 MHz) signal and lessens fundamental overload.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4265. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-16 01:44:15 UTC
From: tad@ssc.UUCP
Message-ID: <910@ssc.UUCP>
Source record: 10271

In article <3721@altos86.Altos.COM>, jerry@altos86.Altos.COM (Jerry Gardner) writes:
>
> I've also read someplace that Wayne Green was convicted of felony tax evasion
> in the seventies.

You ought to read some of the trial transcripts for a good laugh. There
was a book published when he was running for Vice President of the United
States called "Run Wayne Run" detailing some of his more outrageous exploits.
They had some copies of the testmimony in his tax evasion trial. In it,
the judge was lambasting Wayne for lying to the court, and Wayne's response
was this rambling, self-pitying testimony about how all his life he had
suffered from an inferiority complex due to his small penis size!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
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MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4266. Re: John Sculley (Was Wayne Green, state of ham radio, etc.)

Newsgroup: rec.ham-radio
Date: 1990-07-16 01:57:46 UTC
From: tad@ssc.UUCP
Message-ID: <912@ssc.UUCP>
Source record: 10272

In article <42965@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
>
> p.s. That story about Wayne Green visiting Steve and Steve in The Garage
> sounds awfully apochryphal. Can anyone (except Wayne) verify it?

I normally take anything Wayne says with a LARGE grain of salt, but this one (I think) is true. The reason I believe it is that Wayne published it back when Apple was one of a few garage operations around the country shipping kits....not later when they made it big.

You're right thought.....it does SOUND apochryphal!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4267. TUBES NEEDED (BRITISH DESIGNATION, I THINK)

Newsgroup: rec.ham-radio
Date: 1990-07-16 03:39:14 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990Jul16.033914.15532@cbnewsk.att.com>
Source record: 10267
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

I am looking for the following tubes for a friend in XX9 - Macau.
If you know where I might find some of these, please fire me a
note. Please include your phone number, so that I can give you a
ring (even if you are in Europe, where I may have to call to get these!)

KTW61 or KTW62 or KTW63 (need 3)
X65 or X66 (need 1)
MHLD6 or DL63 (need 2)
Y61 or Y63 or 6US (need 1)

thanks!
73 steve ku9c
--
Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

4268. Re: Online Callbook

Newsgroup: rec.ham-radio
Date: 1990-07-16 03:41:02 UTC
From: baxter@kuhub.cc.ukans.edu
Message-ID: <24964.26a0f0fe@kuhub.cc.ukans.edu>
Source record: 10275

In article <579@dptspd.sat.datapoint.com>, lcz@dptspd.sat.datapoint.com (Lee Ziegenhals) writes:
> DXANDY%widener@PUCC.PRINCETON.EDU writes:
>>Hi!
>> There used to be an online callbook for US callsigns that was located at
>>callbook@sat.datapoint.com, but recently I have not been able to get any
>>response from it. Is it still up?
>
> Andy, the server is still up and running! The log shows requests from
> you on 6/14, 7/3, and 7/11. No bounces on any of them. Btw, the
> first two requests came from dxandy%widener.bitnet@cornellc.cit.cornell.edu,
> and the last from dxandy%widener@pucc.princeton.edu.
>
> If you or anyone else is having problem receiving replies from the server,
> you might try including a "path" command in the text of your message. For
> example:
>
> path user@domain
> or
> path bang!path
>
> as appropriate. The path should be either a domain address accessable from
> the internet, or a uucp bang path (relative from uunet is fine; my mailer
> knows at least how to get there).
>
> The path shouldn't be necessary, of course, but it's there if needed. If
> you can't seem to get it to work at all, please drop me a note!
>
> 73/Lee, N5LYT
> lcz@sat.datapoint.com

As a new reader of this newsgroup, how does one access this fileserver.
I presume a message is sent to callbook@sat.datapoint.com, but how is
the message structured so that it interprets the query correctly?

Kirk Baxter, N0FPZ

4269. Dual-band comments wanted

Newsgroup: rec.ham-radio
Date: 1990-07-16 03:47:40 UTC
From: baxter@kuhub.cc.ukans.edu
Message-ID: <24965.26a0f28d@kuhub.cc.ukans.edu>
Source record: 10276

I'd like to solicit comments from current users of dual-bander radios (2meter/440) on their feelings about the model of radio they are using

I'm interested in anyone who may have tested the new Alinco 570, and what their opinion of the radio is.

Also, if anyone has compared the ICOM-2400 vs Kenwood's 731.

Any input would be appreciated.

4270. World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-16 06:39:26 UTC
From: tad@ssc.UUCP
Message-ID: <913@ssc.UUCP>
Source record: 10274

SB DXTEST @ ALLUSA $KT7H0716
Radiosport Test, pt. 1 of 2.

World Radiosport Team Championship
Bulletin ID: $KT7H0716
Part 1 of 2.

All beams will be on Seattle July 20-21st! The best of the best contesters will be competing in the first ever World Radiosport Team Championship. This will be a 10-hour sprint with lots of fun and action.

Join in and search out the 7-land/WG calls!

In cooperation with the 1990 Goodwill Games Cultural Exchange program, invited teams from around the world will compete in Seattle for the World Championship. There will be 22, 2-operator teams from 17 countries signing with special designator /WG (World Games). They will not be identifying their nationality, and they will all be running barefoot using identical Icom radios and similar antennas. All WRTC stations will be in the Seattle area. The local competition to be a host station was almost as intense as the contest itself!

This historic event will take place on July 20-21, 2100-0700 UTC. Modes will be CW and SSB on 80-40-20-15-10 meters. There are multiple categories, all CQWW rules. Work any station once per band/mode.

Continued in part 2.
/EX
SB DXTEST @ ALLUSA $KT7H0717
Radiosport Test, pt. 2 of 2.

World Radiosport Team Championship
Bulletin ID: $KT7H0717
Part 2 of 2.

Exchange RST and serial number starting with 001.
Points: 50 pts. each WRTC/WG each band/mode.
3 pts. different continent.
2 pts. same continent, different country.
2x pts each CW QSO.
Multipliers: US, VE, JA call areas, DXCC countries, WRTC stations.
Scoring: QSO points x multipliers = final score.

Prizes to be awarded will be gold, silver, and bronze medals, and plaques for the winning WRTC teams. Any contestant scoring in the top 500 will receive a WRTC T-shirt. You can get a certificate for 5 /WG

contacts, or a pin for 30 WRTC /WG contacts. Logs must be postmarked
by 8/20/90, to:

WRTC
4821 - 51st Ave. SW,
Seattle, WA 98116-4329
USA.

A video of the event will be shot. Watch for it in a few months!

This operating event is endorsed by the ARRL and the Soviet Radiosport
Federation. Sponsors include Icom, MFJ, US Tower, Ham Radio Outlet,
CQ magazine, Joe Mullen W3RLR, and other local suppliers.

73,
Tad KT7H @ N7HFZ.WA.USA.NA.
/EX
SP KT7H @ N7HFZ.WA.USA.NA.
WRTC
7/16/90
/EX

4271. Re: Dual-band comments wanted

Newsgroup: rec.ham-radio
Date: 1990-07-16 11:02:55 UTC
From: dhp1@GTE.COM
Message-ID: <9464@bunny.GTE.COM>
Source record: 10179

In article <24965.26a0f28d@kuhub.cc.ukans.edu>, baxter@kuhub.cc.ukans.edu writes:
> I'd like to solicit comments from current users of dual-bander radios
> (2meter/440) on their feelings about the model of radio they are using

I own a Kenwood TM-701A dual-band mobile radio and think it is great. The sensitivity and selectivity are excellent and the microprocessor control functions are fairly intuitive....Kenwood made use of a function key to keep the size of the radio down while providing lots of functionality. Some functions require you to hit the F key before the function and others require you to hold the F key down for two seconds and then select the function.

There is a modification available to make the 701 a cross-band simplex repeater.

The TM-701A is a cost-effective dual-bander when you compare its cost to the other alternatives (TM-731A and other brands, e.g. Icom, etc.).

Good luck /73

--
Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com
(617) 455-5704 | dhp1@gte.com
| km3t@jjmhome.m2c.org
| UUCP: ....!gte.com!edcd.dnet!pascoe

4272. Which Rig is Best??

Newsgroup: rec.ham-radio
Date: 1990-07-16 11:32:00 UTC
From: tom@ARO-EMH1.ARMY.MIL
Message-ID: <9007161140.AA08701@ucsd.edu>
Source record: 10177

I own both the Yaesu and the Icom, and much prefer the Yaesu.
It's only drawback is its lousy out-of-band receive sensitivity,
which (for me) is a non-issue. Size-wise they compare well: you
really need to carry the extra battery for the Icom. I prefer the
features of the Yaesu.
Tom, N9CGD

4273. Re: alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-16 12:39:40 UTC
From: billg@cs.tamu.edu
Message-ID: <6596@helios.TAMU.EDU>
Source record: 10178

In article <27087@netnews.upenn.edu> depolo@eniac.seas.upenn.edu.UUCP (Jeff DePolo) writes:
>The ones that use geographic names are particularly useful. It's pretty
>hard to make "America" sound like anything other than "America", regardless
>of the accent. At least to me it is. Here's a slightly expanded list
>of some of the more common ones I hear on a regular basis.

But the same isn't necessarily true if you are the person with the
heavy accent.

>F Frank, Fox, Frequency S Santiago, Spain

This is the line I was waiting for.
Spain is only valid to english speaking people. Others don't call it that.
In germany it is Espana (sp?) and when I lived over there I saw a few cases
of the pen moving faster than the thought processes. A person would say
"Washington 3 Norway Spain Italy" and the guy on the receiving end would
write, without realizing it, "W3NEI". Because people in the US learn so
little about their neighbors in the rest of the world, we tend to assume
they do everything the same as we do. Unfortunately (for us) they don't.
I can give you other examples but I hope by now you get the point. Using
anything other than legitimate standards for international communications
is just asking for a misunderstanding. Keep that in mind when you send in
your QSL for Albania and the QSL Manager says "sorry, your not in the logs."

bill KB3YV

4274. Re: John Sculley (Was Wayne Green, state of ham radio, etc.)

Newsgroup: rec.ham-radio
Date: 1990-07-16 12:49:30 UTC
From: billg@cs.tamu.edu
Message-ID: <6597@helios.TAMU.EDU>
Source record: 10180

In article <42965@apple.Apple.COM> winter@Apple.COM (Patty Winter) writes:
>
>p.s. That story about Wayne Green visiting Steve and Steve in The Garage
>sounds awfully apochryphal. Can anyone (except Wayne) verify it?

As long as we're bringing up anecdotes about the founding fathers of the micro-computer revolution, here's my entry:

Does anyone remember the old Popular Electronics??
Does anyone remember their recepticle for anecdotes called "Just when I forgot my soldering iron!"
Does anyone remember that one of the entries was from Steve Wozniak!!

I don't remember the issue or the anecdote off hand, but if enough people call me a liar, I still have all of them and could probably find it if forced to. :-) :-)

bill KB3YV

4275. My Comments (official) Sent to the FCC

Newsgroup: rec.ham-radio
Date: 1990-07-16 12:52:17 UTC
From: magid@select.enet.dec.com
Message-ID: <13466@shlump.nac.dec.com>
Source record: 10181

Before the
Federal Communications Commission
Washington, D. C. 20554

In the matter of)
)
Amendment of Part 97 of the) PR Docket 90-55
Commission's Rules Concerning)
the Establishment of a Codeless)
Class of Amateur Operator License)

To: The Commission

COMMENTS OF Joel M. Magid
47 Drumlin Hill Road
Groton Mass.
01450

1. These comments are written in support for the creation of a Communicator Class License.

2. The following is a proposal for such a class and its privileges in addition to changes in the current structure of other licenses.

Extra Class Elements 2,3a,3b,4a,4b, 20 WPM - code
Advanced Class Elements 2,3a,3b,4a, 13 WPM - code
General Class Elements 2,3a,3b, 10 WPM - code
Technician Class Elements 2,3a, 5 WPM - code
Communicator Class Elements 2,3a

No new Novice Class licenses would be issued although ALL current licenses must be grandfathered for current Novices not wishing to upgrade. It also must be noted here that any changes to a current class not effect the member of that class already licensed.

No re-allocation of privileges is proposed here for any class at this time.

The Communicator Class privileges are proposed as follows:

All current amateur privileges above 50 Mhz. As the only difference in this class .vs. the Technician is the code speed of 5 WPM I believe the privileges afforded the Communicator above 50 Mhz be the same.

ALL exams shall come under the direction of the current VEC system.

The exam for the Communicator Class shall have 30 questions derived from the current pool of elements 2 and 3a that would be applicable to the operation of stations in this class.

ALL current certificates of completion must still be honored until their expiration.

Call signs for the Communicator Class shall come from the current group D allocations.

3. The rationale for this proposal is that we can now offer the use of a codeless class of license to those who desire it. It would be now allow a single entry point into the service as well with the reduction of the code speed to 10 WPM from the current 13 WPM in the General Class an incentive for all to upgrade their current licenses.

4276. Re: Lat and Long listings?

Newsgroup: rec.ham-radio
Date: 1990-07-16 13:32:09 UTC
From: Lee_-_Reynolds@cup.portal.com
Message-ID: <31782@cup.portal.com>
Source record: 10189

Hi, all.

I need something that can provide accurate (but not down to
seconds) Lat and Long coordinates for a given city or area
.

Anyone have any suggestions (programs (MSDOS, pse.) text files)??

Thanks,

Lee

4277. Re: alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-16 13:45:28 UTC
From: depolo@eniac.seas.upenn.edu
Message-ID: <27133@netnews.upenn.edu>
Source record: 10183

In article <6596@helios.TAMU.EDU> billg@cs.tamu.edu (William Gunshannon) writes:
>But the same isn't necessarily true if you are the person with the
>heavy accent.
>
>>F Frank, Fox, Frequency S Santiago, Spain
>
>This is the line I was waiting for.
>Spain is only valid to english speaking people. Others don't call it that.
[deleted stuff]
>Keep that in mind when you send in
>your QSL for Albania and the QSL Manager says "sorry, your not in the logs."
>
>bill KB3YV

_
I realize that Spain is probably useless - in Spanish it's Espana. That
one is probably a bad example - I was just naming a few of the ones
I've heard, and said I preferred _some_of them, Spain definately not being
one of them. However, I have heard it used by DX stations in countries
where English is not customarily the common language. Why, I don't know.

By the way, already have a card from Albania ;-)

QRZ DX from Nasty Three Kinky Zebra

--- Jeff

+----------------------+---+
Jeff DePolo N3HBZ/AA	Internet: depolo@eniac.seas.upenn.edu
Univ. of Pennsylvania	RF: 146.685- 224.40- 442.70+ 144.455s (Philadelpia)
Computer Science Eng.	Twisted pair: (215) 386-7199 home
Class of 1991	Carrier pigeon: 420 South 42nd St. Philly, PA 19104
+----------------------+---+

4278. Civil Air Patrol Information Transfer Alias

Newsgroup: rec.ham-radio
Date: 1990-07-16 14:16:30 UTC
From: aviator@athena.mit.edu
Message-ID: <1990Jul16.141630.25788@athena.mit.edu>
Source record: 10184
Cross-posted to: rec.aviation,misc.emerg-services,rec.ham-radio

Those of you that requested to be on the Civil Air Patrol mailing list should have received a test issue of CAPITAL - Civil Air Patrol Information Transfer Alias. If you are interested in being added to this mailing list, please send your name, rank, callsign, squadron name, charter no, squadron location, and preferred e-mail address to aviator@athena.mit.edu. If you are already on the mailing list, and do not want to receive the newsletter, send a request to the same address.

Submissions on any CAP topic are welcome. Once again, same address applies.

Could the following people submit improved e-mail addresses to me:

Brian Boyter boyter@fstc-chville.army.mil (Host unknown)
Jack Forman jjf@mid.epps.kodak.com (Host unknown)
Gerry Baumgartner gerry@ssd.csd.harris.com (Read error)
Ward Carpenter wardc@orieneb.uunet.uu.net (Host unknown)
Carl Chalek chalekc@crd.ge.com (User unknown)
Ken Gianino ken@swbtatl.uucp (Host unknown)
Dale Gunn dgunn@decwrl.dec.com (User unknown)
William Miner billm@hpmtlbm.lvld.hp.com (Service unavailable)
Michael Heil mheil@cupertin.portal.com (Unknown subdomain)

Any hints to reach these addresses from athena.mit.edu would be appreciated. I'll try as hard as possible to make sure everyone gets the newsletter.

Finally, if you have requested to be included on the mailing list, but did not receive CAPITAL, I'd like to hear from you.

My apologies for posting to three newsgroups - I expect everything to be set up and running smoothly soon.

...Joakim
--
Joakim Karlsson | aviator@athena.mit.edu
Flying Fanatic in Training | Flying Status: 26.1 hrs dual and counting.
"Oh, I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings"

4279. Re: Half baked satellite idea

Newsgroup: rec.ham-radio
Date: 1990-07-16 15:30:38 UTC
From: mac@idacrd.UUCP
Message-ID: <747@idacrd.UUCP>
Source record: 10191

From article <1990Jul10.223934.1550@ameristar>, by rick@ameristar.uucp (Rick Spanbauer):
> On NPR this evening it was mentioned that there may be a joint
> USSR-US satellite launch facility built in Australia. The idea
> since the ride is for testing anyways). Have the amateur radio satellite
> types started pursuing this angle? Enquiring minds want to know ;-)
>

Yes Rick:

We have been pursuing these launch opportunities since they were brought
up at a meeting in Marburg West (at the time ;-) Germany in April. Keep
bringing these things up though, sooner or later we are bound to miss
one ;-).

Bob
N4HY

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

4280. Re: Online Callbook & Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-16 15:34:31 UTC
From: lcz@dptspd.sat.datapoint.com
Message-ID: <585@dptspd.sat.datapoint.com>
Source record: 10188

KOSSACKB@RICEVM1.BITNET (Jordan Kossack) writes:

>ONLINE CALLBOOK:

>I recently saw the articles regarding the Online Callbook located at
>callbook@sat.datapoint.com and the Callsign Server at marvin.cs.buffalo.edu
>and was wondering what the format for requests is. How do we use them?
>I'm posting this rather than mailing since I figure there must be other folk
>out there who would like the information. tnx

The callbook server on sat.datapoint.com is a mail server, installed for
those who (like me) do not have direct access to the Internet. Since I
recently posted the info, I won't post the entire help file. To get help,
send a message to "callbook@sat.datapoint.com" with the word "help" on a
single line. If you have any problems, just drop me a note!

73/Lee, N5LYT
lcz@sat.datapoint.com

4281. Re: Equipment question.

Newsgroup: rec.ham-radio
Date: 1990-07-16 15:36:55 UTC
From: durham@w2xo.UUCP
Message-ID: <122@w2xo.UUCP>
Source record: 10182

>
> I have acquired the following list of Heathkit tube type HAM radio
> gear and I would like to know what it is, when it was made, and
>
> Antenna coupler...model AC-1
> VFO..............model VF-1
> Transmitter.......model AT-1
>

I started in Ham Radio with an AT-1 in 1954. The AT-1 is a 6ag7
oscillator/buffer (it's a buffer when you use a VFO), a 6l6 final
amplifier which *doubles* in the final on most bands, with link
coupled output(fixed). The power output of the AT-1 is about 25
watts on a good day on 80 meters and about 5 watts on 10 meters.
You could plate modulate the AT-1 via an octal socket on the rear
apron of the chasis. The power supply was self-contained, with
a conventional transformer and 5u4 combination.
The VF-1 is a one-tube VFO that steals power from another octal
socket on the back of the AT-1 and plugs into the xtal socket using
one of those "300 ohm" twin lead plugs. It is basically identical to
the vfo in the DX-100 (remember the DX-100?).
I once used an AR-1, but never built one. It is a lousy receiver.
I remember a slide-rule dial and a circuit basically like a standard
5-tube AM broadcast set of the era. We actually did maintain communications
with this thing, but it was pretty crude.
I never saw or used an AC-1.

I may have a manual for the VF-1. I sold mine long ago but evidently
didn't supply the manual with it.

-73
Jim, W2XO

4282. Re: Alligators and kerchunking

Newsgroup: rec.ham-radio
Date: 1990-07-16 15:41:16 UTC
From: ron@hpfcso.HP.COM
Message-ID: <7500022@hpfcso.HP.COM>
Source record: 10203

> From article <7500021@hpfcso.HP.COM>, by ron@hpfcso.HP.COM (Ron Miller):
> > (old fart voice ON) I remember when you could ragchew on the Tyson's Corner
> > 34/94 machine in N. Virginia.... (old fart voice OFF)
> > Ron NW0U (formerly WB4UWH)
>
> Should have said old fart memory on; it is 31/91 :) :)
>
> They have chased most of the people off of there nowadays; most got
> tired of the b.s. and it sits quiet most of the time now.
>
> --
> John Boteler {uunet | ka3ovk}!media!csense!bote
> NCN NudesLine: 703-241-BARE -- VOICE only, Touch-Tone (TM) accessible

Geez! I guess memory *IS* the second thing to go! :-)))

Well, how about this- "Oh brrrrr. I remember when 146.94 was a SIMPLEX
frequency !"

Is that better? :-) (I still have the 94/94 xtals in my TR-22)

Losing bits at age 33,
Ron

4283. ?: RFI from a Hercules Card

Newsgroup: rec.ham-radio
Date: 1990-07-16 16:04:40 UTC
From: mwester@sunbird.central.sun.com
Message-ID: <350@texsun.Central.Sun.COM>
Source record: 10190

I just replaced my PC in the shack with an old original IBM PC... all is well, except the Hercules graphics card generates boatloads of crud on 147.555 Mhz. I rearranged the cards, shielded all the cables, and even put a ground-plane on the Hercules card. This dropped the RFI from S3 to S1 on the radio, better but not good enough.

Any suggestions? Can I shift the clock a bit? Any leads to filter? Or should I just buy a better-engineered card (any recommendations)?

Thanks
Mike (KA9WSB) Mike.Westerhof@Central.Sun.COM

4284. 1.6GHz receiving converter?

Newsgroup: rec.ham-radio
Date: 1990-07-16 16:55:04 UTC
From: paul@hpldola.HP.COM
Message-ID: <12120041@hpldola.HP.COM>
Source record: 10204

Can anyone think of a supplier for ~1.6GHz to "something reasonable"
receiving converters? I recall somebody sells 1.6GHz to 137MHz converters
for converting GEOS weather satellites down to NOAA frequencies. This is
targetted at a PRO2004 so most any output frequency between 25MHz and 1.3GHz
is fine.

-Paul "Spice is the Variety of Life"
paul@hpldola.hp.com N0KCL

4285. Re: TH-76 comming soon?

Newsgroup: rec.ham-radio
Date: 1990-07-16 17:17:29 UTC
From: laubach@aspen.IAG.HP.COM
Message-ID: <3080005@aspen.IAG.HP.COM>
Source record: 10185

When I bought my TH-26AT several months ago, I send a note off to Kenwood asking them if/when a TH-76AT model would be out. They did not reply [and I didn't think they would realy, but it was worth the letter], however they did send me a new products catalogs. Alas, the TH-75 was still there in the product line.

Mark, N3BMN

4286. Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-16 17:23:07 UTC
From: winter@Apple.COM
Message-ID: <43034@apple.Apple.COM>
Source record: 10195

In article <336.26A09B83@w8grt.fidonet.org> jim.grubs@w8grt.fidonet.org (Jim Grubs) writes:
>
>Hard, brutal truth #1: In today's world ham radio's only real value is as a
>National Park of the Mind - for recreation and learning.

That will come as a considerable surprise to the six hams who are currently on the other side of that mountain over there (see that one? over to my left?) helping the California Department of Forestry with a fire. There are three additional hams at CDF's Morgan Hill regional HQ.

They're staffing the incident base and following CDF personnel around on foot and in trucks and copters. They're relaying crucial status reports and requests for equipment. They're using voice and packet. And if previous incidents are any guideline, they're probably providing inter-agency communications between CDF and other California emergency officials.

Amateur radio is indeed an excellent crucible for experimentation. And it's also a lot of fun. But anyone who thinks that's all it is can't have been paying very close attention.

Patty
--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4287. RE>>FWD>Info-Hams Digest V1

Newsgroup: rec.ham-radio
Date: 1990-07-16 17:36:22 UTC
From: Loren_Thompson@MCTGATE.MCT.ANL.GOV
Message-ID: <9007161547.AA16532@ucsd.edu>
Source record: 10187

Reply to: RE>>FWD>Info-Hams Digest V1 #17
just thought you might want the new numbers
actually it was an accident!

Date: 7/14/90
To: Loren Thompson
From: Chuck Beck
WHAT IS THE USE OF FORWARDING ME ALL THIS SHI#?

Date: 6/11/90
To: Chuck Beck
From: Loren Thompson
Info-Hams Digest Sat, 9 Jun 90 Volume 90 : Issue 17

Today's Topics:

- Current NASA Prediction Bulletins #707 -
Alouette 1
1 00424U 62B-A 1 90143.97482870 .00000248 00000-0 28755-3 0 3260
2 00424 80.4630 309.9464 0023488 337.6047 22.4082 13.67348077379387
ATS 3
1 03029U 67111 A 90151.66034044 -.00000074 00000-0 99999-4 0 3820
2 03029 13.1859 21.3716 0015101 210.9434 148.9146 1.00272196 82623
Cosmos 398
1 04966U 71 16 A 90157.64682096 .00074385 17346-4 41232-3 0 9079
2 04966 51.5077 265.4854 2280288 127.3380 255.7838 11.04308279590535
Starlette
1 07646U 75010 A 90157.51573560 .00000167 00000-0 22642-3 0 815
2 07646 49.8225 200.6145 0203658 155.8244 205.2283 13.82144149774306
LAGEOS
1 08820U 76039 A 90155.11151443 .00000002 00000-0 00000 0 0 838
2 08820 109.8519 350.6475 0044611 240.8397 118.7855 6.38664271 73101
GPS-0001
1 10684U 78020 A 90155.47091011 .00000007 00000-0 99999-4 0 4327
2 10684 63.7236 89.9508 0117389 199.1014 160.4309 2.00556802 75598
GPS-0002
1 10893U 78 47 A 90154.94772732 -.00000025 00000-0 00000 0 0 1930
2 10893 64.3934 330.8205 0164724 26.0941 334.7260 2.00545329 88404
SeaSat 1
1 10967U 78064 A 90156.40757967 .00000773 00000-0 31024-3 0 3404
2 10967 108.0166 295.8371 0002359 246.4380 113.6480 14.35689827624769
GPS-0003
1 11054U 78093 A 90156.73194876 -.00000024 00000-0 00000 0 0 2331

```
2 11054 63.9214 327.0514 0060334 117.5287 243.0859 2.00567300 85453
Nimbus 7
1 11080U 78098 A 90150.23174242 .00000147 00000-0 16206-3 0 6775
2 11080 99.1974 55.5638 0009343 126.7484 233.4523 13.83434684585558
GPS-0004
1 11141U 78112 A 90156.33258608 .00000007 00000-0 00000 0 0 3858
2 11141 63.7439 89.8035 0060238 316.6931 42.8076 2.00557366 84141
GPS-0005
1 11690U 80 11 A 90155.47651219 .00000008 00000-0 00000 0 0 9832
2 11690 64.1721 91.9181 0119932 203.1963 156.2488 2.00555246 89985
GPS-0006
1 11783U 80 32 A 90154.78731032 -.00000024 00000-0 00000 0 0 1531
2 11783 63.7148 326.7147 0150709 60.8950 300.6108 2.00557638 74051
GOES 5
1 12472U 81049 A 90151.74245802 -.00000177 00000-0 99999-4 0 9351
2 12472 3.4380 76.1453 0004762 252.1896 106.8950 1.00148172 32068
DE 1
1 12624U 81 70 A 90154.94579701 .00000378 00000-0 17339-2 0 4473
2 12624 88.9352 148.0227 6202534 286.6997 17.0446 3.51021965261659
SME
1 12887U 81100 A 90157.36014481 .00021595 00000-0 38485-3 0 6849
2 12887 97.6363 204.1504 0003038 97.1878 262.9722 15.50125999479592
Salyut 7
1 13138U 90158.21426006 .00027475 00000-0 29800-3 0 3092
2 13138 51.6033 354.7111 0001640 169.8273 190.2785 15.63305589463296
Cosmos 1383
1 13301U 82 66 A 90148.93808898 .00000141 00000-0 15440-3 0 5770
2 13301 82.9274 314.8799 0026057 212.3583 147.5979 13.67828297395043
LandSat 4
1 13367U 82 72 A 90156.79860944 .00000407 00000-0 10031-3 0 3563
2 13367 98.1660 219.5506 0003824 148.8429 211.2997 14.57138558419645
IRAS
1 13777U 83 4 A 90151.04001392 .00000194 00000-0 15827-3 0 7791
2 13777 99.0258 348.1000 0013985 77.1669 283.1050 13.98784104 44549
Cosmos 1447
1 13916U 83 21 A 90149.04385117 .00000150 00000-0 14772-3 0 7275
2 13916 82.9436 26.2109 0036769 191.2634 168.7704 13.74041873360045
TDRS 1
1 13969U 83 26 B 90151.00000000 .00000128 00000-0 99999-4 0 9993
2 13969 4.4329 65.8056 0001047 18.4789 353.0624 1.00268768 92946
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1 14050U 83 41 A 90153.89443675 .00000116 00000-0 99999-4 0 1854
2 14050 2.1661 78.6431 0000971 250.5098 108.2760 1.00290166 10126
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1 14129U 83 58 B 90157.09033828 -.00000065 00000-0 00000 0 0 5274
2 14129 25.9956 200.7381 5958911 148.8920 266.8516 2.05881905 24509
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1 14189U 83 72 A 90157.31650164 .00000006 00000-0 99999-4 0 7691
2 14189 63.3537 88.2218 0147823 219.0765 139.8278 2.00705561 50544
LandSat 5
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1 14780U 84 21 A 90156.82596767 -.00000197 00000-0 -38636-4 0 2145
2 14780 98.2062 217.0655 0000389 44.5431 315.5798 14.57109643333069
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1 14781U 84 21 B 90156.61567397 .00000860 00000-0 16760-3 0 7446
2 14781 97.9462 209.5469 0011698 287.2040 72.7880 14.65389143334278
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1 15039U 84 59 A 90154.92659091 .00000006 00000-0 00000 0 0 9461
2 15039 63.0904 87.4927 0021045 238.5319 121.2408 2.00612209 43773
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1 15055U 84 62 A 90156.25712067 .00000146 00000-0 14569-3 0 8838
2 15055 82.9570 71.1067 0028672 359.6003 0.5121 13.73358060298433
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1 15271U 84 97 A 90156.82878847 -.00000024 00000-0 00000 0 0 8475
2 15271 63.2257 326.1849 0105519 327.2953 32.0527 2.00556131 40925
Cosmos 1602
1 15331U 84105 A 90157.11218551 .00002269 00000-0 30916-3 0 3059
2 15331 82.5405 11.1834 0024076 13.0630 347.1115 14.78130265306456
NOAA 9
1 15427U 84123 A 90156.71989706 .00000163 00000-0 10956-3 0 5894
2 15427 99.1664 156.2832 0016025 44.3419 315.9035 14.12583291282365
Cosmos 1686
1 16095U 85 86 A 90156.87181822 .00026722 00000-0 29085-3 0 6573
2 16095 51.6041 1.5048 0001268 180.3937 179.6965 15.63231255264183
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1 16129U 85 93 A 90157.01633112 .00000007 00000-0 00000 0 0 5401
2 16129 63.8791 88.3801 0122683 149.3112 211.3932 2.00510552 34138
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2 16609 51.6143 20.9704 0010772 15.9591 344.2325 15.60941065246544
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2 16613 98.7346 230.8301 0000890 156.0442 204.0787 14.20037170 62238
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1 16969U 86 73 A 90156.60881657 .00000617 00000-0 28704-3 0 4383
2 16969 98.6027 184.8145 0013018 308.0247 51.9755 14.23626479192966
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1 17527U 87 18 A 90156.23547063 -.00000247 00000-0 -17085-3 0 5701
2 17527 99.1106 228.9414 0001147 112.2816 247.8467 13.94851561167593
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1 17561U 87 22 A 90153.60387927 .00000077 00000-0 99999-4 0 5493
2 17561 0.0171 20.3779 0048741 239.7389 99.8136 0.99328507 5277
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1 17845U 87 30 A 90156.75987091 -.00153865 00000-0 -18695-2 0 1588
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1 18312U 87 68 A 90156.46754170 .00000219 00000-0 18868-3 0 4349
2 18312 82.5505 299.5764 0011428 292.9706 67.0229 13.83649868141362
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1 18820U 88 5 A 90156.99370699 .00000167 00000-0 13946-3 0 2851
2 18820 82.5449 359.3631 0017422 0.8056 359.3129 13.84345313118634
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1 18822U 88 6 A 90156.86905236 .00000472 00000-0 23294-3 0 5030
2 18822 98.6504 36.1357 0006386 315.8695 44.1969 14.21453543121212
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1 19274U 88 56 A 90158.23959183 .00000326 00000-0 44547-4 0 8137
2 19274 82.5150 167.8346 0022971 151.2605 208.9749 14.76982904103454
Meteor 3-2
1 19336U 88 64 A 90157.85755550 .00000392 00000-0 99999-3 0 4975
2 19336 82.5402 284.7291 0018110 344.3398 15.7102 13.16898493 89592
NOAA 11
1 19531U 88 89 A 90157.39337851 .00000328 00000-0 20095-3 0 2886
2 19531 98.9815 105.6890 0011353 319.0808 40.9513 14.11614778 87447
TDRS 2
1 19548U 88 91 B 90152.78897618 .00000113 00000-0 99999-4 0 1349
2 19548 0.0907 87.0989 0017504 52.2280 220.4072 1.00262977 126
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1 19796U 89 11 A 90157.72677111 -.00001034 00000-0 99999-4 0 4998
2 19796 63.2130 94.1996 7091103 319.9399 5.1434 2.00673222 9595
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1 19802U 89 13 A 90142.03861096 .00000016 00000-0 99999-4 0 1303
2 19802 55.0581 198.4458 0055803 164.4555 195.7971 2.00642300 9225
Akebono
1 19822U 89 16 A 90157.69625927 .00025094 00000-0 17716-2 0 6276
2 19822 75.1160 243.9668 4178937 228.5100 87.3760 7.10291187 32685
Meteor 2-18
1 19851U 89 18 A 90154.64893920 .00000243 00000-0 20864-3 0 2344
2 19851 82.5236 239.2428 0016253 45.5452 314.7035 13.83979217 63691
TDRS 3
1 19883U 89 21 B 90154.00000000 -.00000236 00000-0 99999-4 0 1340
2 19883 0.0904 72.6212 0000439 153.4348 343.7667 1.00277031 74792
GPS BII-02
1 20061U 89 44 A 90157.19570947 -.00000032 00000-0 00000 0 0 1366
2 20061 54.7550 16.2398 0086227 172.8349 187.3452 2.00485486 7278
Nadezhda 1
1 20103U 89 50 A 90156.80876097 .00000094 00000-0 94094-4 0 1337
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2 20103 82.9585 293.3830 0039498 70.2655 290.2754 13.73593794 46157
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1 20185U 89 64 A 90157.13918754 .00000016 00000-0 99999-4 0 1283
2 20185 54.9022 198.6985 0024309 159.3722 200.8240 2.00626333 5841
Activnyi
1 20261U 90158.29956211 .00000561 00000-0 17286-3 0 5387
2 20261 82.5964 234.8436 1257934 0.8168 359.4599 12.43728992 31365
Activnyi RB
1 20262U 89 80 C 90155.28413880 .00000309 00000-0 94910-4 0 2397
2 20262 82.5949 236.8011 1261388 7.8075 354.0725 12.43197158 30985
Magion 2
1 20281U 90158.35106130 .00000453 00000-0 13782-3 0 5379
2 20281 82.5957 234.7406 1257603 0.5604 359.6563 12.43988275 31376
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1 20302U 89 85 A 90156.43405920 -.00000028 00000-0 99999-4 0 1313
2 20302 54.6273 317.5443 0031592 318.8925 40.8724 2.00374350 4631
Meteor 3-3
1 20305U 89 86 A 90158.25758036 .00000034 00000-0 75770-4 0 1371
2 20305 82.5550 224.9950 0016118 359.3191 0.7905 13.15855924 29641
COBE
1 20322U 89 89 A 90157.06744326 .00004381 00000-0 28787-2 0 1360
2 20322 99.0196 167.3866 0009990 44.3898 315.8062 14.02273853 27936
Kvant-2
1 20335U 89 93 A 90156.82369817 -.00043141 00000-0 -50744-3 0 2617
2 20335 51.6150 28.0685 0010566 7.8203 352.0365 15.60844212 29985
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1 20361U 89 97 A 90156.17029847 .00000015 00000-0 99999-4 0 800
2 20361 54.9860 140.8057 0062556 46.6808 313.9547 2.00579991 3486
SPOT 2
1 20436U 90 5 A 90158.24371357 -.00003117 00000-0 -14569-2 0 2235
2 20436 98.7345 232.8674 0001659 84.3734 275.7462 14.20033042 19333
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1 20437U 90 5 B 90157.25043101 .00000110 00000-0 51686-4 0 1611
2 20437 98.7088 233.4001 0012400 180.1294 179.9886 14.28624817 19307
UO-15
1 20438U 90 5 C 90158.25299533 .00001430 00000-0 58804-3 0 911
2 20438 98.6989 234.3758 0010733 177.3715 182.7528 14.28376096 19442
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1 20439U 90 5 D 90158.29152781 .00000382 00000-0 16757-3 0 836
2 20439 98.7019 234.5188 0011186 180.6504 179.4668 14.28730423 19450
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1 20440U 90 5 E 90157.23747009 .00000464 00000-0 20042-3 0 860
2 20440 98.7038 233.4739 0011196 182.3300 177.7827 14.28775949 19301
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1 20441U 90 5 F 90156.24698547 .00000472 00000-0 20304-3 0 852
2 20441 98.7040 232.5010 0011787 186.8265 173.2720 14.28874390 19169
LO-19
1 20442U 90 5 G 90158.20120028 .00000224 00000-0 96556-4 0 864
2 20442 98.7038 234.4690 0012274 181.7350 178.3790 14.28941930 19442
GPS BII-06
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1 20452U 90 8 A 90147.83563653 .00000001 00000-0 99999-4 0 755
2 20452 54.5567 256.8002 0028456 44.6049 315.6465 2.00875970 2439
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1 20478U 90 13 A 90157.84059613 .00000084 00000-0 75563-4 0 2919
2 20478 99.1903 228.1033 0001798 93.9160 266.2061 13.94842011 16694
DEBUT
1 20479U 90 13 B 90158.26403898 -.00000072 00000-0 -13252-3 0 772
2 20479 99.0392 206.6464 0541781 71.0355 294.8623 12.83156596 15478
FO-20
1 20480U 90 13 C 90157.17501493 .00000048 00000-0 15597-3 0 802
2 20480 99.0408 205.7596 0542049 73.5802 292.4161 12.83136818 15337
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1 20491U 90 13 D 90158.07262524 .00000056 00000-0 15088-3 0 818
2 20491 99.0380 209.8719 0471504 54.9996 309.4446 13.02718520 15089
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1 20494U 90 14 A 90156.75950432 -.00040572 00000-0 -47667-3 0 1556
2 20494 51.6210 28.3954 0010529 7.7024 351.1921 15.60847906 17886
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1 20496U 90 15 A 90158.08524949 .00002837 00000-0 18211-3 0 1628
2 20496 43.0970 18.2377 0015244 289.3117 70.6085 15.10503846 16995
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1 20497U 90 15 B 90157.96371997 .00007765 00000-0 22395-3 0 1632
2 20497 43.1040 355.8221 0018695 276.9709 82.8911 15.35938890 17267
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1 20508U 90 17 A 90156.27980339 .00000091 00000-0 91038-4 0 888
2 20508 82.9547 68.6881 0045708 20.9415 339.3603 13.73212551 13375
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1 20510U 90 18 A 90158.27948448 .00000864 00000-0 13062-3 0 1642
2 20510 82.5260 106.8498 0018553 311.1933 48.7706 14.73128082 14612
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1 20523U 90 21 A 90157.87360466 -.00006666 00000-0 -48863-3 0 1637
2 20523 28.3467 331.2429 0015658 84.4123 275.8501 15.03104486 12895
GPS BII-07
1 20533U 90 25 A 90140.98718512 -.00000032 00000-0 00000 0 0 473
2 20533 55.0719 17.0265 0033840 99.7665 260.6670 2.00594792 1054
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1 20540U 90 27 A 90157.70828851 .01021835 -65614-4 18085-2 0 1364
2 20540 143.1923 92.2139 0586142 189.0492 169.9981 14.88786265 9255
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1 20546U 90 28 A 90157.55574584 .00002454 00000-0 15538-3 0 1083
2 20546 94.1208 209.4551 0150803 11.4357 349.0374 15.00214947 9245
1990 030B
1 20559U 90 30 B 90133.67279168 .00011178 00000-0 37832-2 0 528
2 20559 31.2905 11.0753 7319241 198.5461 105.1812 2.22962208 811
Cosmos 2072
1 20568U 90 33 A 90133.90710463 .00331011 56513-4 42018-3 0 1052
2 20568 64.7618 49.0650 0033867 86.1627 274.2603 16.05900007 4844
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1 20570U 90 34 A 90137.02166144 -.00000317 00000-0 99999-4 0 514
2 20570 0.0523 15.3218 0007680 110.1335 231.8008 1.00108506 295
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1 20571U 90 34 B 90135.25637826 .00001978 00000-0 32479-3 0 554
2 20571 22.7504 176.4934 0628149 118.0040 248.5409 13.82067297 4332
1990 034C
1 20572U 90 34 C 90135.84989660 .00032231 00000-0 39037-2 0 491
2 20572 18.9297 347.9472 7375661 200.8035 96.7659 2.18270624 692
Cosmos 2074
1 20577U 90 36 A 90136.03907435 .00000094 00000-0 93615-4 0 474
2 20577 82.9451 138.3064 0025496 217.6457 142.2914 13.73710956 3463
1990 036B
1 20578U 90 36 B 90142.63696705 .00000143 00000-0 13889-3 0 539
2 20578 82.9423 133.3810 0019220 181.1997 178.9117 13.75020736 4373
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1 20580U 90 37 B 90157.74572456 .00002439 00000-0 26731-3 0 829
2 20580 28.4703 316.0141 0005785 20.6795 339.3984 14.84389289 6428
Cosmos 2075
1 20581U 90 38 A 90144.24709396 -.00004275 00000-0 -17923-3 0 877
2 20581 74.0254 356.0235 0023185 277.7210 82.1092 15.23022306 4379
1990 038B
1 20582U 90 38 B 90142.57824248 .00024584 00000-0 98348-3 0 723
2 20582 74.0294 359.4297 0031040 293.1471 66.6509 15.24541833 4124
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1 20583U 90 39 A 90144.15730607 .00000070 00000-0 -16867-2 0 793
2 20583 62.7982 183.9973 7353596 288.2139 9.5835 2.00619305 573
1990 039B
1 20584U 90 39 B 90144.83967752 .03903616 41472-4 10039-2 0 1048
2 20584 62.7619 78.2685 0067648 125.7776 235.2487 16.21902308 4540
1990 39D
1 20586U 90 39 D 90143.60954820 .00000419 00000-0 68663-3 0 226
2 20586 62.8248 184.0281 7395335 288.1806 9.3720 1.96420289 535
Cosmos 2076
1 20596U 90 40 A 90151.40303225 -.00001233 00000-0 79009-3 0 438
2 20596 63.0666 334.8186 7375665 318.5072 4.4103 2.00587266 669
1990 40B
1 20597U 90 40 B 90148.20589656 .39662252 43947-4 29451-3 0 822
2 20597 62.7886 226.6703 0013442 121.7004 238.9820 16.52106649 4698
1990 40D
1 20599U 90 40 D 90150.97163910 -.00000504 00000-0 -84377-3 0 296
2 20599 63.1771 334.5570 7351260 318.5828 4.4750 2.03474794 660
Cosmos 2077
1 20604U 90158.37886313 .00725924 40759-4 27080-3 0 814
2 20604 62.8257 333.1699 0060076 101.9574 258.8145 16.19247749 4933
1990 043A
1 20607U 90 43 A 90154.58485080 .00001120 00000-0 20723-3 0 192
2 20607 89.8914 194.9155 0111658 193.2628 166.5623 14.60797763 3634
1990 043B
1 20608U 90 43 B 90156.63732514 .00001208 00000-0 22219-3 0 243
2 20608 89.8880 194.8777 0113098 185.9515 174.0359 14.60976579 3936
1990 043C
1 20609U 90 43 C 90158.04272350 .00002861 00000-0 46262-3 0 259
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2 20609 89.6516 194.0171 0061245 223.5827 136.0538 14.69865436 4163
Cosmos 2078
1 20615U 90158.37720371 .00197490 70517-5 14302-3 0 671
2 20615 69.9871 355.5385 0057186 63.4735 297.2329 16.11825372 3705
Cosmos 2079
1 20619U 90 45 A 90158.34964756 -.00000015 00000-0 99999-4 0 327
2 20619 64.8781 39.3223 0112084 293.8514 65.0395 2.16695999 413
Cosmos 2080
1 20620U 90 45 B 90157.95794243 -.00000015 00000-0 99999-4 0 316
2 20620 64.8642 39.3398 0008394 35.3122 323.5262 2.13116105 415
Cosmos 2081
1 20621U 90 45 C 90158.01787985 -.00000015 00000-0 99999-4 0 275
2 20621 64.8936 39.3435 0011990 201.8322 158.1664 2.13104100 412
1990 045E
1 20623U 90 45 E 90157.58152101 -.00000015 00000-0 99999-4 0 140
2 20623 64.8887 39.3528 0010572 338.3290 21.6928 2.13414266 400
Cosmos 2082
1 20624U 90 46 A 90157.93797763 .00000192 00000-0 12640-3 0 276
2 20624 70.9987 331.8707 0004985 24.6719 335.4671 14.12167408 2229
1990 046B
1 20625U 90 46 B 90157.50064328 .00000135 00000-0 82761-4 0 127
2 20625 71.0017 332.7393 0015618 324.5381 35.4708 14.13306829 2163
RESURS-F
1 20632U 90158.33324088 .00058061 00000-0 89185-4 0 308
2 20632 82.3325 12.5786 0009662 279.1301 80.8865 16.03998167 1458
Kristall
1 20635U 90158.47684551 .00037857 00000-0 52092-3 0 283
2 20635 51.6219 19.6431 0025887 300.6576 49.2469 15.56490615 1123
1990 048B
1 20636U 90 48 B 90158.01145399 .01322133 56734-4 70784-3 0 199
2 20636 51.6289 20.9710 0047722 115.2729 246.2898 16.16274986 951
1990 049A
1 20638U 90 49 A 90157.50950153 .00001326 00000-0 13464-3 0 96
2 20638 52.9871 97.6478 0013898 313.0357 46.9464 14.97548511 687
1990 049B
1 20639U 90 49 B 90156.12811349 .00006926 00000-0 31515-3 0 51
2 20639 52.5172 97.3647 0075626 258.1541 101.0934 15.19333934 494
1989 100N
1 20640U 89100 N 90158.39260232 .00104636 00000-0 49542-2 0 98
2 20640 73.5286 114.0673 0012065 203.4022 156.5470 15.18754076 24608
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

>>>>OTHER MEANINGLESS DRIBBLE DELETED!!!<<<<<<
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4288. Re: TH-76 comming soon?

Newsgroup: rec.ham-radio
Date: 1990-07-16 17:39:49 UTC
From: mlau@hpspcoi.HP.COM
Message-ID: <860005@hpspcoi.HP.COM>
Source record: 10186

>/ hpspcoi:rec.ham-radio / billt@hprnd.HP.COM (Bill Thomas) / 9:24 am Jul 12, 1990 /
>Does any know if Kenwood is going to come out with a small dual bander,
>such as a TH-76, which would compete with the Yaseu 411 and Icom 24sAT?
^^^
470 ???

>
>I am looking for a 5W dual bander with cross band repeat capability and
>a receiver that can recieve the weather broadcasts at 162.5 MHz.
>
>The reason for Kenwood is our family has four hams, 3 TH-25ATs, and one
>IC-02AT. When our youngest gets his license, I would like to get a dual
>bander and give him one of the 25ATs. Therefore, Whatever I get should be
>able to use all the TH-25AT accessories such as the rapid charger.
>----------

4289. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-16 17:51:00 UTC
From: winter@Apple.COM
Message-ID: <43035@apple.Apple.COM>
Source record: 10196

In article <913@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>World Radiosport Team Championship
>Bulletin ID: $KT7H0717
>
>Points: 50 pts. each WRTC/WG each band/mode.
>3 pts. different continent.
>2 pts. same continent, different country.
>2x pts each CW QSO.
>Multipliers: US, VE, JA call areas, DXCC countries, WRTC stations.
>Scoring: QSO points x multipliers = final score.

Tad--

With all the interest being generated within the United States about
this contest (such as by packet messages like the ones you posted :-)),
it seems unfortunate that once a Seattle contest station has worked
each of the 10 U.S. call areas, no further stateside QSOs will count
for anything.

It seems to me that could cause the contesters to get frustrated at
having lots of strong U.S. signals calling them (or having to ask U.S.
stations to stand by) at the same time all the stateside hams think
they're helping the contesters by working them.

I guess it's too late to change the rules at this point, but it
seems like an unfortunate decision.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4290. Re: alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-16 18:19:23 UTC
From: gin@stcvax.STORTEK.COM
Message-ID: <365@stcvax.STORTEK.COM>
Source record: 10197

In article <27087@netnews.upenn.edu>, depolo@eniac.seas.upenn.edu (Jeff DePolo) writes:
> In article <22480005@hpcuha.HP.COM> nicholso@hpcuha.HP.COM (Ron Nicholson) writes:
> >When listening to DX stations I've been hearing a seemingly standard
> >phonetic alphabet, different from the published International Phonetic
> >Alphabet. The letters that I've seen used are:
> [stuff deleted]
>
> As far as I know, they aren't any sort of a standard. Some of them sort

I don't believe there is a universally agreed upon Phonetic Alphabet but
many countries do require and/or test their amateurs for use of the
locally defined/approved Phonetic Alphabet. I know of Japan atleast
tests the hams, this is perhaps the main reason all the Japanese stations
use the same Phonetics.

As an aside, I wish the Japanese would use something different than
"Florida" for "F" in the DX contests (its virtually impossible to
understand Florida with their accent....)

4291. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-16 20:38:33 UTC
From: mrb1@cbnewsh.att.com
Message-ID: <1990Jul16.203833.20955@cbnewsh.att.com>
Source record: 10194

In article <910@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
>
> You ought to read some of the trial transcripts for a good laugh. There
> was a book published when he was running for Vice President of the United
> States called "Run Wayne Run" detailing some of his more outrageous exploits.

Could someone post the full details on this book, i.e., author, publisher,
date of publication, etc? I'd really like to get a copy!

I've never seen it listed in 73 under the Uncle Wayne's Bookshop (or whatever
it's called) advertisement :-)

M. Baker, WA3ZXO
homxc!jj1028 -or- jj1028 @ homxc.att.com

4292. Re: Awesome Code system

Newsgroup: rec.ham-radio
Date: 1990-07-16 20:50:49 UTC
From: jim@ghp.UUCP
Message-ID: <635@ghp.UUCP>
Source record: 10205

In article <23475@shamash.cdc.com> vtcqa@shamash.cdc.com (VTC) writes:

>... The instructor was
>Bob Schoeing, W0BE, and he had the whole class doing code in 7
>days ! (!!!!). It worked on phoenetics. I have lost the entire alphabet,
>and would like to get it, since I have bragged to a few people that I will
>have them pass the code test in 2 weeks (like Bob had us do). If you know
>what this is, you might have the whole alphabet - PLEASE send it to me:

>L Liberia
>O Old Crow Booze
>H Hit it a bit
>A about
>V victory vee
>B badminton set

I had an uncle that taught me bits of the code using:

V - intro to Beethoven's 5th (??)
Q - intro to he comes the bride

Is this what you meant? Post it if you get the whole set,
even though I'm not a code person, it sounds interesting--
based on the way I learned the above two letters.
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

4293. Re: phonetics (especially for ve3yz)

Newsgroup: rec.ham-radio
Date: 1990-07-16 20:56:07 UTC
From: jim@ghp.UUCP
Message-ID: <636@ghp.UUCP>
Source record: 10206

In article <177@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:

> Back in the old days when men were men and aeroplanes had propellers,
> But then Hitler lost the war and they took the propellers off planes.

...now they only wear them on their heads...:-)
--
Jim Stewart, VE3SRJ
UUCP: jim%ghp@mnetor.uucp
BELL: (416)862-0430

4294. Re: Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-16 21:13:22 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <13523@shlump.nac.dec.com>
Source record: 10192

In article <1250199@hpnmdla.HP.COM>, alanb@hpnmdla.HP.COM (Alan Bloom) writes...

>My understanding is that Wayne DID start Byte way back when. To save on
>income taxes, he put it in his wife's name. When they divorced, she ended
>up with the magazine, so Wayne started a new magazine called "Kilobyte".
>She sued him for trademark infringrment and won. So he changed the
>name to "Kilobaud Microcomputing" which lasted for a few years. I think
>it is now defunct.

Among all the postings, that's one of the closest, but it's not quite
accurate. I should know. I was there!

Error: Virginia was NOT Wayne's wife at the time they started Byte.
Wayne and Virginia married in 1960, just after founding 73 in Brooklyn,
when Wayne was ca. 33 and Virginia 18 years old. They divorced around
1963, with Virginia taking custody of their daughter Tully (who was on
the cover of 73 last year, climibing a tower).

After a second divorce and then a while later, Virginia went to work
with Wayne again; this was around 1973-4. Wayne had lost a tax evasion
suit in '73, so when he and Virginia (who was essentially the business
manager of his whole operation) decided to start a computer hacker's
magazine, he put it in her name. They both did a lot of work to get it
to press in less than two months! The first issue was July, 1975; Carl
Helmers (who had put out a little newsletter called ECS) was editor.

Wayne and Carl had some disagreements. Carl wanted a more technical
journal for serious computerniks; Wayne wanted a more tutorial one for
novice hackers. Virginia sided with Carl and one Wednesday night, moved
the magazine out.

Carl didn't last much longer, but the whole story is best left to be
told in a novel, under thin cover of fiction. It's too unreal to pass
of otherwise.

BTW, Wayne added the "I/O" section to 73 shortly thereafter, and then
planned to start Kilobyte. (Read it as three words.) But he announced
the name too early, and Byte instantly added the comic strip
'Kilobyte(TM)', featuring the Scottish computer jockey Kilt O'Byte.
That clinched the trademark. Hence the mag became Kilobaud, thence
Kilobaud Microcomputing, thence Microcomputing, thence history.

Fred R. Goldstein goldstein@carafe.enet.dec.com
k1io or goldstein@delni.enet.dec.com
voice: +1 508 486 7388
opinions are mine along; sharing requires permission

4295. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-16 21:47:29 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <13528@shlump.nac.dec.com>
Source record: 10193

In article <908@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes...
>... Because of earlier problems with the IRS, Wayne thought he would
>be smart and put it in his wife's name.

One point I forgot in my other posting. When he started Kilobaud, he
put it in the name of Wayne Sanger Green Sr. That's his father, aka
The Ancient Aviator.

One of his anti-IRS tirades said that they saw his 1960's book,
"How to make a million dollars", and believed he must have done so.
Check it out -- it explains what he did in 1986, when he sold out.
(Summary: Start a business and sell out.)
fred k1io

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

4296. Re: John Sculley (Was Wayne Green, state of ham radio, etc.)

Newsgroup: rec.ham-radio
Date: 1990-07-16 22:10:05 UTC
From: bobh@hpcuhb.HP.COM
Message-ID: <10510010@hpcuhb.HP.COM>
Source record: 10210

I remember a note to the editor back in ~1972 +/- from Bill Gates who was complaining that due to the high piracy rate for the Basic compiler he had developed for the Altair 8800 that he had only made $2.00/hr for his effort.

Does anyone have the exact reference for that? I would love to get the real copy...

Bob Headrick, not a billionaire...
bobh@hpda.HP.COM

4297. Re: Awesome Code system

Newsgroup: rec.ham-radio
Date: 1990-07-16 23:06:16 UTC
From: sandyl@divine.EBay.Sun.COM
Message-ID: <2647@male.EBay.Sun.COM>
Source record: 10199

I'm studying to get my NOVICE ticket. I seem to be familiar enough now to send code, I'm just having a real rough time copying it.

Any help, such as the phoenetic system Jeff mentioned, would be great.

BTW, I have no problem with having to learn code to get a license and look forward to it being a challenging part of my new hobby.

Thanks,

Sandy

4298. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-17 01:35:02 UTC
From: cs00jmc@unccvax.uncc.edu
Message-ID: <2494@unccvax.uncc.edu>
Source record: 10198

In article <43035@apple.Apple.COM> winter@Apple.COM (Patricia Winter) writes:
>it seems unfortunate that once a Seattle contest station has worked
>each of the 10 U.S. call areas, no further stateside QSOs will count
>for anything.
>

What?? I believe you get QSO points for EVERY QSO (1 for phone, 2 for CW,
more for DX or WG stations).

Your total QSO points are multiplied by the total number of multipliers
(total meaning total for the 10 hour contest) giving your final score.
If you accumulate 50 multipliers then every QSO is worth at
least 50 points.

At least, that's the way it has worked in most other contests.
--
John Covington WN4BBJ Internet: cs00jmc@unccvax.uncc.edu
P.O. Box 217122 MCI Mail: JCOVINGTON 342-6957
Charlotte, NC 28221-7122 Packet Radio Mail: WN4BBJ @ W4BFB.NC.USA.NA
(704) 537-7653 "Give it back, Eric, it's not yours" (the ICOM)

4299. Re: alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-17 01:49:03 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <22480007@hpcuha.HP.COM>
Source record: 10209

I found where some other phonetic alphabet words came from.
Listed as Spanish Phonetics, on page 17-16 of "The ARRL Operating Manual",
1990 edition:

America Norvega
Brasil Ontario
Canada Portugal
Dinamarca Quito
Espana Roma
Francia Santiago
Grenada Toronto
Holanda Uniforme
Italia Victoria
Japon Washington
Kilowatio Xilofono
Lima Yucatan
Mejico Zelandia

BTW, although the Operating Manual seems to have lots of stuff on
DX awards and contesting; as a new ham, I found it very skimpy on basic
operating procedures.
====
KK6MP (formerly N6YWU)
Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>

4300. QRP information response

Newsgroup: rec.ham-radio
Date: 1990-07-17 03:59:26 UTC
From: wheatley@cbnewsk.att.com
Message-ID: <1990Jul17.035926.6148@cbnewsk.att.com>
Source record: 10207

Someone was looking for QRP kits .... suggest you contact W1FB, Doug Demaw, somewhere in michigan (look at the ads in the classifieds of QST)....he sells a bunch of stuff for QRP, and writes a lot of articles and books for QST (used to be their tech. guru, now retired)

--

Steven Wheatley AT&T Consumer Products (317) 845-3927

....!att!inuxz!wheatley

4301. Re: Online Callbook & Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-17 04:19:56 UTC
From: bowen@acsu.buffalo.edu
Message-ID: <30861@eerie.acsu.Buffalo.EDU>
Source record: 10202

In article <1713KOSSACKB@RICEVM1>, KOSSACKB@RICEVM1.BITNET (Jordan Kossack) writes:
> I recently saw the articles regarding the Online Callbook located at
> callbook@sat.datapoint.com and the Callsign Server at marvin.cs.buffalo.edu
> and was wondering what the format for requests is. How do we use them?
> I'm posting this rather than mailing since I figure there must be other folk
> out there who would like the information. tnx

The callsign server on marvin is only available to sites on the Internet
through the telnet protocol. Any Internet user may connect by using telnet
to get to marvin.cs.buffalo.edu (128.205.32.4) port 2000. This is usually
done with the command "telnet 128.205.32.4 2000" but your milage may vary.

Once connected the session is interactive. You're given a prompt and help
is available to describe all the commands and features. You can make as
many queuries as you'd like and when you're done you just disconnect with
the "quit" command. There is no helper documentation besides the help
command. Everyone seems to find that satisfactory.

I have promised to add a mail based server, but I've been putting it off
since there is now one available on the net.

Devon

4302. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-17 06:01:51 UTC
From: winter@Apple.COM
Message-ID: <43066@apple.Apple.COM>
Source record: 10201

In article <2494@unccvax.uncc.edu> cs00jmc@unccvax.UUCP (John Covington WN4BBJ) writes:
>In article <43035@apple.Apple.COM> winter@Apple.COM (Patricia Winter) writes:
>>it seems unfortunate that once a Seattle contest station has worked
>>each of the 10 U.S. call areas, no further stateside QSOs will count
>>for anything.
>>
>
>What?? I believe you get QSO points for EVERY QSO (1 for phone, 2 for CW,
>more for DX or WG stations).
>
>At least, that's the way it has worked in most other contests.

John--

If that's true of WRTC, it wasn't mentioned in the packet posting that
was forwarded to Usenet. I hope that posting was wrong and you're right.

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4303. HAM Fun and Mickey Mouse

Newsgroup: rec.ham-radio
Date: 1990-07-17 06:54:20 UTC
From: richard@hpfcdc.HP.COM
Message-ID: <7880184@hpfcdc.HP.COM>
Source record: 10200

Is ham radio fun? Yes, let me bore you with the details :-)
On Saturday morning I went to the Denver Radio Club's annual hamfest.
It's nice to be in a room full of people that share interests. Everyone
I met was friendly and willing to help me (a newcomer) understand the
various aspects of the hobby. After I got my call and name engraved on
a badge, people started talking to me by name. Friendly! I bought a few
goodies for my HT, and finding $40 left in my pocket (I'd been saving),
I stumbled on an MIT ALTAIR 680 computer. Hey, how can you pass-up a
computer that requires you to set address-switches. None of that
"keyboard" stuff for me :-) It even works. Love those LEDs.

Back at home in the afternoon, I'm programming my new hp48sx to talk
to my Kenwood 440's serial interface, (yea, the VISA is near meltdown),
when the Kenwwod scans past 28.450 and I hear this high-falsetto saying:

CQ CQ CQ calling all ham-radio operators, this is N6MM Mickey Mouse.

I've heard about mickey-mouse operators, but this was too much. It WAS
Mickey Mouse, and a DisneyLand Amateur Radio Club special event.
Needless to say, there was a lot of people trying. I tried twice but
was drownd-out by some big-rigs. I waited and waited, suddenly, as if
the band closed, everyone was gone except Mickey. (10-meter IS strange)
I got a clean QSO with Mickey and Cristy (the operator) and have sent
a QSL. I look forward to seeing their card.

Somehow, I wish I started doing this years ago.

73's

Richard Artz / N0LZR / 303-229-2036 / richard@hpfcww.fc.hp.com

4304. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-17 10:59:45 UTC
From: jay@splut.conmicro.com
Message-ID: <.9G&SP@splut.conmicro.com>
Source record: 10208

In article <910@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>[...] when [Wayne Green] was running for Vice President of the United
>States [...]

...and I'd thought I'd heard of everything.

Tad, are you serious? When was this? Who'd run with him?

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4305. Lat and Long listings?

Newsgroup: rec.ham-radio
Date: 1990-07-17 11:14:00 UTC
From: tom@ARO-EMH1.ARMY.MIL
Message-ID: <9007171126.AA18235@ucsd.edu>
Source record: 10211

For MS-DOS, you can use PC USA to get the latitude and longitude of cities within the US...I imagine you will have the same capability using PC Globe for international use (don't have that one to try though).

73, Tom N9CGD

4306. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-17 12:59:18 UTC
From: k2ph@cbnewsj.att.com
Message-ID: <1990Jul17.125918.12471@cbnewsj.att.com>
Source record: 10225

From article <43035@apple.Apple.COM>, by winter@Apple.COM (Patricia Winter):
> In article <913@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>>
>>Points: 50 pts. each WRTC/WG each band/mode.
>>3 pts. different continent.
>>2 pts. same continent, different country.
>>2x pts each CW QSO.
>>Multipliers: US, VE, JA call areas, DXCC countries, WRTC stations.
>>Scoring: QSO points x multipliers = final score.
>
> Tad--
>
> With all the interest being generated within the United States about
> this contest (such as by packet messages like the ones you posted :-)),
> it seems unfortunate that once a Seattle contest station has worked
> each of the 10 U.S. call areas, no further stateside QSOs will count
> for anything.

... lots of stuff deleted along the way ...

The rules that I have, courtesy of Chod Harris and the DX Magazine,
say 1 point for QSOs with the same country. So, stateside QSOs will
still count. However, they will be able to work a million JAs, etc.
for three times as many points!

Looks like a pretty curious contest. I really don't have a clue as
to strategy for this one!

Anywho, good luck to everybody!

****
* These lines added so our news mailer doesn't barf all over this *
* posting. Sorry about the wasted bandwidth. *
****

--
==========
Bob Schreibmaier K2PH | UUCP: att!oblivion!k2ph or k2ph@oblivion.att.com
AT&T Bell Laboratories | ARPA: k2ph%oblivion@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

4307. YAESU FT1000 or KENWOOD TS950S

Newsgroup: rec.ham-radio
Date: 1990-07-17 13:20:00 UTC
From: Paul_Adler.NEROSM@XEROX.COM
Message-ID: <900717-062708-5294@Xerox>
Source record: 10214

I am planning to buy a new rig. Does anyone have any comments or
experience with the YAESU FT1000 (basic model) or KENWOOD TS950S (without
DPS option)?
73
Paul KW1L
203 325-6119

4308. Re: Lat and Long listings?

Newsgroup: rec.ham-radio
Date: 1990-07-17 14:38:49 UTC
From: eakin@rsmas.miami.edu
Message-ID: <8142.26a2eab9@rsmas.miami.edu>
Source record: 10216

In article <9007171126.AA18235@ucsd.edu>, tom@ARO-EMH1.ARMY.MIL ("T-DOLIGALSKI") writes:
> For MS-DOS, you can use PC USA to get the latitude and longitude of cities
> within the US...I imagine you will have the same capability using PC Globe
> for international use (don't have that one to try though).
>
> 73, Tom N9CGD

PC Globe is a little restricted in its listings, but works OK for capitols and
a few other cities in each country (I was annoyed that it didn't have Miami!).

73 de Mark

--
C. Mark Eakin
Internet: Eakin@RSMAS.miami.edu
Amateur Radio: N4SYK Packet Radio: N4SYK@AB4LU.FL.USA.NA
USnail: Univ. of Miami, RSMAS-BLR, 4600 Rickenbacker Cswy. Miami, FL 33149-1098

4309. Leap second

Newsgroup: rec.ham-radio
Date: 1990-07-17 14:44:19 UTC
From: kak@CYGX3.USNO.NAVY.MIL
Message-ID: <9007171447.AA23953@ucsd.edu>
Source record: 10212

For those of you who really care....

The International Earth Rotation Service (IERS) announced the following:

A positive leap second will be introduced at the end of December 1990.

The sequence of dates of the UTC second markers will be :

1990 December 31, 23h 59m 59s
1990 December 31, 23h 59m 60s
1991 January 1, 0h 0m 0s

Just thought you'd like to know.

Kerry Kingham WA4BQM kak@CygX3.usno.navy.mil

U.S. Naval Observatory
Washington, D.C.

4310. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-17 15:26:46 UTC
From: dhp1@GTE.COM
Message-ID: <9482@bunny.GTE.COM>
Source record: 10213

QSO's with US stations are worth 1 point in the WRTC. I checked the rules.

--
Dave Pascoe KM3T/1 | Internet: pascoe@edcd.gte.com
(617) 455-5704 | dhp1@gte.com
| km3t@jjmhome.m2c.org
| UUCP: ....!gte.com!edcd.dnet!pascoe

4311. DSP Mania and books

Newsgroup: rec.ham-radio
Date: 1990-07-17 17:07:49 UTC
From: mac@idacrd.UUCP
Message-ID: <748@idacrd.UUCP>
Source record: 10218
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,sci.electronics

RE: DSP Mania and books on the subject

Howdy:

Many people send me notes asking what DSP texts should be considered for an introduction. They always want the impossible however. One that is trivial to understand, does not require mathematics, and tells them how to write V.32 full duplex echo cancelling modems with the fastest Viterbi trellis decoder on the planet or does all the ham radio modes without operator intervention ;-). It should be clear that all these goals are contradictory (I don't want to say mutually exclusive even if I do personally believe this). I have two favorites, which show my bias towards modems.

Theory and Practice of Modem Design by John A.C. Bingham, Wiley-Interscience

and

Digital Communication by Edward Lee and ??? Messerschmidt.

(I can never remember Messerschmidt's first name or initial). I've forgotten the publisher and I left the book at home.

All the other applications that I need to do code for (speech encoders, FFT code, etc.) can be sewn together from the code given away by the chip/board manufacturers. There are no real practical `how to' books that give code examples to aid you in putting together modems that I know of with the single exception of a booklet put out by TI. The individual chip manufacturers run BBS's, have PD libraries with loads of source,etc. and TI has put out a booklet for a 300/1200 bps telephone modem. This booklet has source, little aid in putting it together as a working system, and almost no information on the criteria which went into the modem design. It also uses 1st generation DSP chip technology from TI and a major translation job is required. Motorola has given away source for a V.32 trellis Viterbi decoder for the DSP56001. Not included is the rest of the modem which includes the difficult equalization, near-far echo cancellation, and data aided carrier recovery for the `non-round' constellation. The technical discussion given with the V.32 trellis decoder is appallingly bad. Don't hope to understand what is being done on the basis of what is in this booklet. Having written these decoders for a number of projects (always before in a high level language) I became so confused that I decided to start from scratch, but it is there for the taking. I am certain that I am being thick and just didn't like the exposition. Maybe for you it will all be crystal clear. It can be gotten from any Motorola Semiconductor division outlet from their tech manual/ reference works library. Just walk in grab a plastic bag (paper sack if you are environmentally conscious) and walk out with more books than you can

carry. I am sure that TI does the same, I just haven't had the opportunity to do this yet. TAPR and AMSAT are working on DSP hardware for amateur radio modem use and will consist of a TMS320C25 plug in card with 85C30 for protocol work. There is code available from the TAPR AMSAT project available for anonymous ftp on tomcat.gsfc.nasa.gov. This code was written for the Delanco Spry TMS320C10 boards we were using at the time. I am sure it will be translated to the 320C25.

I hope this helps some.

Bob McGwier
<N4HY>
--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

4312. RE>>>FWD>Info-Hams Digest V

Newsgroup: rec.ham-radio
Date: 1990-07-17 18:13:29 UTC
From: Chuck_Beck@MCTGATE.MCT.ANL.GOV
Message-ID: <9007171610.AA27737@ucsd.edu>
Source record: 10215

```
Reply to: RE>>>FWD>Info-Hams Digest V1 #17
WHAT HAPPENED HERE?

------------------------------------
Date: 7/16/90
To: Chuck Beck
From: Loren Thompson
just thought you might want the new numbers
actually it was an accident!

------------------------------------
Date: 7/14/90
To: Loren Thompson
From: Chuck Beck
WHAT IS THE USE OF FORWARDING ME ALL THIS SHI#?

------------------------------------
Date: 6/11/90
To: Chuck Beck
From: Loren Thompson
Info-Hams Digest Sat, 9 Jun 90 Volume 90 : Issue 17

Today's Topics:

- Current NASA Prediction Bulletins #707 -
Alouette 1
1 00424U 62B-A 1 90143.97482870 .00000248 00000-0 28755-3 0 3260
2 00424 80.4630 309.9464 0023488 337.6047 22.4082 13.67348077379387
ATS 3
1 03029U 67111 A 90151.66034044 -.00000074 00000-0 99999-4 0 3820
2 03029 13.1859 21.3716 0015101 210.9434 148.9146 1.00272196 82623
Cosmos 398
1 04966U 71 16 A 90157.64682096 .00074385 17346-4 41232-3 0 9079
2 04966 51.5077 265.4854 2280288 127.3380 255.7838 11.04308279590535
Starlette
1 07646U 75010 A 90157.51573560 .00000167 00000-0 22642-3 0 815
2 07646 49.8225 200.6145 0203658 155.8244 205.2283 13.82144149774306
LAGEOS
1 08820U 76039 A 90155.11151443 .00000002 00000-0 00000 0 0 838
2 08820 109.8519 350.6475 0044611 240.8397 118.7855 6.38664271 73101
GPS-0001
1 10684U 78020 A 90155.47091011 .00000007 00000-0 99999-4 0 4327
2 10684 63.7236 89.9508 0117389 199.1014 160.4309 2.00556802 75598
GPS-0002
1 10893U 78 47 A 90154.94772732 -.00000025 00000-0 00000 0 0 1930
2 10893 64.3934 330.8205 0164724 26.0941 334.7260 2.00545329 88404
```

```
SeaSat 1
1 10967U 78064 A 90156.40757967 .00000773 00000-0 31024-3 0 3404
2 10967 108.0166 295.8371 0002359 246.4380 113.6480 14.35689827624769
GPS-0003
1 11054U 78093 A 90156.73194876 -.00000024 00000-0 00000 0 0 2331
2 11054 63.9214 327.0514 0060334 117.5287 243.0859 2.00567300 85453
Nimbus 7
1 11080U 78098 A 90150.23174242 .00000147 00000-0 16206-3 0 6775
2 11080 99.1974 55.5638 0009343 126.7484 233.4523 13.83434684585558
GPS-0004
1 11141U 78112 A 90156.33258608 .00000007 00000-0 00000 0 0 3858
2 11141 63.7439 89.8035 0060238 316.6931 42.8076 2.00557366 84141
GPS-0005
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2 18822 98.6504 36.1357 0006386 315.8695 44.1969 14.21453543121212
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Meteor 2-18
1 19851U 89 18 A 90154.64893920 .00000243 00000-0 20864-3 0 2344
2 19851 82.5236 239.2428 0016253 45.5452 314.7035 13.83979217 63691
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Magion 2
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2 20281 82.5957 234.7406 1257603 0.5604 359.6563 12.43988275 31376
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tkelso@blackbird.afit.af.mil Air Force Institute of Technology

>>>>OTHER MEANINGLESS DRIBBLE DELETED!!!<<<<<<
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4313. ARRL/QSL bureaus

Newsgroup: rec.ham-radio
Date: 1990-07-17 18:21:30 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990Jul17.182130.26397@ecn.purdue.edu>
Source record: 10217

>>From: winter@Apple.COM (Patty Winter)
>In article <1990Jul10.225004.8472@iex.uucp> bert@neptune.iex.com (Bert Campbell) writes:
>>He wanted a QSL, and asked if he should just send his "through the bureau".
>>I didn't know much what he was talking about, except that you needed
>>to be an ARRL member to get this service, so I said, "OK", and mailed
>>in my $25.
>Not true. You don't need to be a League member in order to receive
>QSLs mailed to you from other countries--only to send them out yourself
>through the ARRL bureau.

Well, it is ALMOST as bad - trying to send a DX QSL card out direct
is a very distinctly hit-and-miss operation as best. I get the idea,
from talking to and listening to, hams who do a lott of overseas DX
that direct mailing results in about a 50% or less response. Going
out through the bureau results in a much higher percentage if for
no other reason than the persons at both ends are in the "businesss"
fo dealing with QSL's (referring to bureau managers here). Thus, the
league, while saying "sure, you can send us xx bucks and we'll send
you anything we might happen to have for you" is turning around and
slapping you with the other hand and saying "but, you can't use our
service EVEN if you want to pay for it unless you are a member".

Which means, if you want to DX but you don't want to be an ARRL member
you are partly screwed as far as cards go. Since you need confirmation
to get an award like DXCC (and I suppose you have to be a memmber to
get that too......) you are in deep doo-doo if you are only getting
a 50% or less response!

Duane
WB9OMC

4314. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-17 19:38:35 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120127@hpcupt1.HP.COM>
Source record: 10138

From July 1990 CQ:

Multipliers are US, VE, and JA call areas. Multipliers count per band/mode.

Scoring: QSO points times multipliers.
credit 50 pts. for WRTC stations(signing /WG),
3 points for different continent
2 points for same continent/different country
1 point in same country
CW QSO's 2X QSO point multiplier.

As I read it, you can only get 31? multipliers per band times 5 bands (80-10)
for a total of 310 multipliers. This times the point score for QSO's plus
the credit for the /WG stations. You can only work a station once per band.
Therefore the /WG stations will be working more than one US station per
band/mode, but only the first counts for the multiplier.

Jim, WA6SDM
jholly@hpcupt1.hp.com

4315. callsign servers sources available

Newsgroup: rec.ham-radio
Date: 1990-07-17 20:42:33 UTC
From: bowen@cs.Buffalo.EDU
Message-ID: <30912@eerie.acsu.Buffalo.EDU>
Source record: 10219

A number of people have asked me in the past for the sources to my callsign server and my standard answer has been that the code is really awful and I wanted to clean it up before sending it out. Well, that cleaning hasn't taken place and the queue keeps getting larger rather than smaller so I'm just going to make it available as is.

Anyone interested can ftp it from ftp.cs.buffalo.edu. It's in the pub/ham-radio directory. I'm willing to mail it out to anyone interested that's not on the Internet. You'll need compress and tar to unpack it. And it uses Berkeley style regular expression libraries. So you may need to tweak that to fit your own system.

Good luck and if you make any improvements or have any questions, please let me know.

Devon

4316. Re: Awesome Code system

Newsgroup: rec.ham-radio
Date: 1990-07-17 21:20:01 UTC
From: medin@cod.NOSC.MIL
Message-ID: <2002@cod.NOSC.MIL>
Source record: 10222

In article <635@ghp.UUCP> jim@ghp.UUCP (Jim Stewart) writes:
>In article <23475@shamash.cdc.com> vtcqa@shamash.cdc.com (VTC) writes:
>>Bob Schoeing, W0BE, and he had the whole class doing code in 7
>>days ! (!!!!). It worked on phoenetics. I have lost the entire alphabet,
>>H Hit it a bit
>>A about
> V - intro to Beethoven's 5th (??)

Problem with this is your mind cant handle this reading higher speeds (>13wpm)
Think you have to learn the sounds like a musical note and not count dits
and dahs. Any way thats one mans opinion. I have found that i can copy
20 wpm but cant write 20 wpm :-(

4317. Fundamental Overload

Newsgroup: rec.ham-radio
Date: 1990-07-17 21:26:48 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9007172126.AA09266@uunet.uu.net>
Source record: 10221

I N T E R O F F I C E M E M O R A N D U M

Date: 17-Jul-1990 11:18am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS%UCSD.EDU@UUNET.UU.NET)

Subject: Fundamental Overload

>"Fundamental overload" is the overload of a receiver's front end by a
>transmitter's intended (fundamental) output frequency. It is caused when
>the receiver's filters and shields are inadequate to prevent the receiver's
>front end from being overloaded by the transmitter's output power.
>
>It should understood here that the transmitter is not operating on the same
>frequency that the receiver is intended to receive.
>
>If the receiver is adequately shielded, fundamental overload can sometimes
>be helped by providing the receiver with better bandpass filters. That is,
>bandpass filters that strongly attenuate any frequencies that are outside of
>the receiver's intended frequency range.
>
>The shielding on receivers intended for the mass consumer market is generally,
>...well...cheap. Very few if any of the manufacturers intendefor their
>receivers to be used in the near vicinity of transmitters. If they had, TVI
>and its cousins might be non-existant.
>
> Chuck Harris - WA3UQV
> chuck
Thanks, Chuck, and the others who responded...I told you I was risking
showing my ignorance!

I already realized that filters will help eliminate harmonics and in cases
where the receiver is well-shielded...guess I just jumped into the assumption
that all receivers are poorly shielded (seems that way, these days :-(:-( ).

73,
Jeff Miller WD6CQV/KH6 AFA8JM
1843eie "at" HICKAM-EMH.AF.MIL

4318. Re: ARRL/QSL bureaus

Newsgroup: rec.ham-radio
Date: 1990-07-17 21:49:20 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13568@shlump.nac.dec.com>
Source record: 10128

In article <1990Jul17.182130.26397@ecn.purdue.edu>, wb9omc@ea.ecn.purdue.edu (Duane P Mantick) writes...

>Which means, if you want to DX but you don't want to be an ARRL member
>you are partly screwed as far as cards go. Since you need confirmation
>to get an award like DXCC (and I suppose you have to be a memmber to
>get that too......) you are in deep doo-doo if you are only getting
>a 50% or less response!

I'd just like to clarify several points brought up here. Sending QSLs direct to DX stations shouldn't result in a lower return rate than for US hams, except for a few instances:

1. Sometimes local post office employees at the DX end pilfer the money or IRCs out of the envelope. Sometimes even the card! Especially if callsigns are used on the envelopes.

2. US Money or IRCs for sending QSLs don't necessarily work all over the world (though IRCs should, but not in the USSR).

3. South Americans are the poorest QSLers, IMHO. JAs are the best.

4. Some DXers stay out on expeditions for a long time and QSL when they get home. This results in delays. But delays are inevit- able through the bureau system.

5. Some DXers keep the money/IRCs you send them and return the QSLs via the bureau. If all you do is QSL direct and don't have envelopes on file, you won't get cards.

Yes, you do need to be an ARRL member to apply for DXCC. Yes, you can only send QSLs via the ARRL Outgoing QSL Bureau if you are a member. Yes, even if you work just a little DX, keep envelopes on file at your QSL bureau.

Hope this helps.

73 - jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4319. Re: alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-17 22:26:00 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250200@hpnmdla.HP.COM>
Source record: 10129

>I don't believe there is a universally agreed upon Phonetic Alphabet but
>many countries do require and/or test their amateurs for use of the
>locally defined/approved Phonetic Alphabet. I know of Japan atleast
>tests the hams, this is perhaps the main reason all the Japanese stations
>use the same Phonetics.

There is indeed a "standard" phonetic alphabet. The "ICAO" (International Civil Aviation Organization) has enforced a standard one for years. It is the one that starts "ALPHA, BRAVO, CHARLIE, DELTA ..."

The ARRL used to have it's own phonetic alphabet back in the 50's (ABLE, BAKER, CHARLIE, DOG ...), but they switched over to ICAO in the interest of uniformity.

AL N1AL

4320. Re: Awesome Code system

Newsgroup: rec.ham-radio
Date: 1990-07-17 22:48:19 UTC
From: jimd@gold.GVG.TEK.COM
Message-ID: <1179@gold.GVG.TEK.COM>
Source record: 10127

In article <2002@cod.NOSC.MIL> medin@cod.nosc.mil.UUCP (Ted Medin) writes:

(deleted discussion of code mnemonics)

> Problem with this is your mind can't handle this reading higher speeds
>(>13wpm) Think you have to learn the sounds like a musical note and not
>count dits and dahs.

I agree with Ted. The mnemonic technique works fine for getting to
5wpm, but can be a barrier to getting above 13wpm. It's like you've
added one more level of indirection to getting from the sound to the
letter (or the word), and you take an extra hit in delay: ear ->
mnemonic -> letter -> fist. Once you've gotten used to hearing the
mnemonic, it's hard to get rid of it.

4321. Re: a question about crystals

Newsgroup: rec.ham-radio
Date: 1990-07-17 23:08:22 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250201@hpnmdla.HP.COM>
Source record: 10130

"Parallel-resonant" crystals are identical to "series-resonant" crystals, but are specified differently. (A parallel-resonant 10 MHz crystal will be series-resonant at a lower frequency.)

With 15 pF to ground on one end of the crystal and 30 pf on the other end, total parallel capacitance is 10 pF plus circuit strays. I would specify 12 pF parallel C -- that should be close enough.

AL N1AL

4322. Re: liscence

Newsgroup: rec.ham-radio
Date: 1990-07-17 23:27:10 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880187@hpfcdc.HP.COM>
Source record: 10220

> The good news is the U.S. licence is free and lasts 10 years...

The Novice test is free, but expect to pay $4-5 to the examiners to
cover the costs of the higher level tests. (Still one heck of a deal.)

4323. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-17 23:34:56 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880189@hpfcdc.HP.COM>
Source record: 10223

> If hams are so public-service oriented, do all of YOU know CPR? (etc)...

Nicely put. I agree.

> I personally would never have dreamed of getting [a Communicator
> license].

Why not? If it met your needs?

I've had my Tech for five busy weeks and read this group for about that long. It seems to me like a lot of people get caught up in the (relatively arbitrary) social structures and conventions of this hobby and forget about "reality". Such as: What do you enjoy about using the radio? What are your personal interests, goals, and exciters? What must you do to attain them?

I got into ham because I saw HTs in action (marine band) and wanted 2 meter privileges. Keeping that goal in mind has helped me focus my time and energy. (Alas, there are a lot of related "funs", I'm finding, like creating a personal 12V connector system for all my various toys, and exploring 10m HF, and checking into nets, and ...)

4324. Re: Lat and Long listings?

Newsgroup: rec.ham-radio
Date: 1990-07-17 23:45:34 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880190@hpfcdc.HP.COM>
Source record: 10224

> I need something that can provide accurate (but not down to seconds) Lat
> and Long coordinates for a given city or area.

Do you mean a computer database, or a Global Positioning Satellite (GPS)
receiver?

If you want great data for any one state, at about $75/tape, contact the
US Geological Survey. Send me mail for details.

If you don't mind looking up and transcribing from paper, check the back
of various atlases at a library. In particular, I like Rand McNally's
"Earth and Man" for worldwide locations accurate to 1 minute.

4325. So, what's YOUR favorite surplus place?

Newsgroup: rec.ham-radio
Date: 1990-07-18 00:50:59 UTC
From: mikef@hpsadle.HP.COM
Message-ID: <1530047@hpsadle.HP.COM>
Source record: 10137

Being relatively new to California, I need help finding those gems
in the rough ... good surplus outfits. I'm particularly interested
in the San Francisco Bay Area, but get down to LA occasionally, and would
like to get pointers to them, as well. So, what's YOUR favorite surplus
place? I'd like info on whether they're mostly RF/Analog, Computer, or
Scrap Metal (for antennas, of course). Many thanks in advance ...
I'll post a summary if I get enough responses.

-mike, WA2ZPQ

Mike Ferrara M/S 2LRR
HP Signal Analysis Div R&D
1212 Valley House Drive
Rohnert Park, CA 94928
(707) 794-4479
mikef%hpsadle@hp-sde.sde.hp.com
mikef@hpsadle.hp.com

4326. Re: TECHNICAL HAMS - Where are You?!

Newsgroup: rec.ham-radio
Date: 1990-07-18 00:53:10 UTC
From: mikef@hpsadle.HP.COM
Message-ID: <1530048@hpsadle.HP.COM>
Source record: 10140

Hey, count me in ... here's my e-mail address:

-mike, WA2ZPQ

Mike Ferrara M/S 2LRR
HP Signal Analysis Div R&D
1212 Valley House Drive
Rohnert Park, CA 94928
(707) 794-4479
mikef%hpsadle@hp-sde.sde.hp.com
mikef@hpsadle.hp.com

4327. Re: Kenwood PB-2 nicad packs, open w/o destroying?

Newsgroup: rec.ham-radio
Date: 1990-07-18 01:53:34 UTC
From: bmp@hp-ptp.HP.COM
Message-ID: <2700012@hp-ptp.HP.COM>
Source record: 10226

I got the PB-2 apart. It was a big job and took a combination
of prying and cutting through the joints with a knife. If
you do it use a short bladed knife so you don't cut into the
cells. Glue was used liberally inside. Mine has 2 dead cells
(of seven). I ended up cutting all the seams. If possible,
there are two seams not to cut that would make it go back
together easier. Those are on the top of the pack and
run from front to halfway back on each side. They are the guides
that align the front and back and work like drawer guides.
I suspect they don't get glue applied.

Brian

4328. Re: Battery Pack Meltdown

Newsgroup: rec.ham-radio
Date: 1990-07-18 03:38:44 UTC
From: rbn@umd5.umd.edu
Message-ID: <6905@umd5.umd.edu>
Source record: 10132

Melted the teflon? If you've got something that gets hot enough
during normal operation to melt the teflon, you're in real trouble.

-Ron

4329. Re: Carrying NiCd packs on airplanes

Newsgroup: rec.ham-radio
Date: 1990-07-18 03:42:14 UTC
From: rbn@umd5.umd.edu
Message-ID: <6906@umd5.umd.edu>
Source record: 10131

I just fold over one of my business cards. It's just about twice the width of the top of the Yaesu batteries. It's also nice because it identifies it as my batteries (we've got a number of people here with the same radio).

-Ron

4330. RTTY DX Notes, 1of3, 7/13/90

Newsgroup: rec.ham-radio
Date: 1990-07-18 03:50:44 UTC
From: gws@n8emr.UUCP
Message-ID: <1564@n8emr.UUCP>
Source record: 10133

```
============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ ALLUSA $RTDX0713
RTTY DX Notes, 1of3, 7/13/90

RTTY DX Notes for Weekending 13th June 1990.
Part 1 of 3.
BID: $RTDX0713

Confusion reigns. From reports received, it would appear that some
bulletin boards are adding their own endings to the BID, such as OC.,
AU., AUSNET., ASIANET., EURONET ETC. May i assure you that most of
these additions are occurring because of non-standard headings used by
a number of BBS's and are not the fault of the originator of the DX
notes. Maybe we will come to some agreement on traffic handling soon.
Who knows?

Information was supplied this week by I5FLN, I5ICY, I5IGQ, JA1BLV,
OD5NG, TG9VT, W2JGR and the Tri-State DX Association VHF packet
cluster. Thank you all for your news and views.

Bandpass:

Friday 6:
ZP5AEA 14072 at 0120Z ARQ
JY9SR 14085 at 0220Z
LY2WW 14085 at 0258Z
TA3D 14088 at 0300Z
EA9MY 14081 at 0305Z
FK8BK 14074 at 1110Z ARQ
YL20LSF 21090 at 1905Z QSL
EA6ZP 14089 at 1946Z
UA3DJY 21089 at 2210Z

Saturday 7:
UZ9CWA 21090 at 0310Z
TA3D 14086 at 0315Z
LY2WW 14088 at 0520Z
TJ1MW 14085 at 0633Z
YB0GI 14090 at 0713Z
UQ2HO 14082 at 0718Z
VU2BMW 14074 at 1445Z ARQ
TZ1DE 14083 at 2010Z
```

V85FH 14085 at 2019Z
HK4UH 21080 at 2028Z
DU1ANG 21088 at 2303Z
VP2VF 21072 at 2330Z ARQ

Continued in part 2.
/EX
SB RTTYDX @ ALLUSA $RTDX0714
RTTY DX Notes, 2of3, 7/13/90

RTTY DX Notes for Weekending 13th June 1990.
Part 2 of 3.
BID: $RTDX0714

Sunday 8:
TA3D 14088 at 0306Z
RB5MT 14090 at 0315Z
SV0CR 14074 at 0435Z ARQ
5N0ETP 14082 at 0524Z QSL
LY2WW 14089 at 0550Z
UQ2HO 21088 at 0918Z
UM8NC 21087 at 0928Z
FK8BK 14074 at 1000Z ARQ
JX9CAA 14084 at 1606Z
OD5SK 21086 at 1622Z
EA9MY 21093 at 1636Z
9Q5BG 21089 at 1656Z

Monday 9:
LY2WW 21088 at 0200Z
UM8MU 14087 at 0210Z
RB5QV 14082 at 0257Z
EA9MY 14083 at 0830Z
UG7GWY 14088 at 0835Z
UT5RP 21074 at 1134Z ARQ/Note
SV0GB 14088 at 1606Z

Tuesday 10:
LY2WW 21087 at 0053Z
EA9MY 14083 at 0144Z
J39BS 14091 at 0154Z
AL7BB 14091 at 0300Z
RB5QV 14084 at 0338Z
FK8BK 14074 at 0500Z ARQ
PJ2MI 14074 at 1000Z ARQ
HK0BKX 21088 at 1604Z Note

Wednesday 11:
IS0GDM 14086 at 0515Z
EA9MY 14083 at 0518Z
UZ3AYR 14090 at 0526Z
5N8ALE 14075 at 0552Z ARQ

BV4QA 14084 at 1241Z
FK8BK 14074 at 1250Z ARQ
TA3D 14088 at 1650Z
EA6ZP 14095 at 1654Z
VQ9RB 28078 at 1700Z QSL
YL1WW 21088 at 2314Z

Thursday 12:
VQ9RB 21093 at 0013Z
HK4CYR 21083 at 0148Z
UZ3AXJ 14091 at 0150Z RBBS/Note
UA4WGW 14089 at 0200Z QSL
YL1WW 14091 at 2306Z

QSL Information:

YL20LSF will QSL via YL1WW.

5N0ETP says to QSL all Russian calls to UA9QCQ and all other calls to N6QCQ, which is his home call. (Note from KT7H: Did I miss something here?)

Continued in part 3.
/EX
SB RTTYDX @ ALLUSA $RTDX0715
RTTY DX Notes, 3of3, 7/13/90

RTTY DX Notes for Weekending 13th June 1990.
Part 3 of 3.
BID: $RTDX0715

VQ9RB (formerly S79D) requests cards via WA4DPU, or otherwise you might try Dick Barnes, c/o Ford Aerospace Corp, NAV SUPPFAC, Box 55 FPO San Francisco, CA 96685-2000 USA.

UA4WGW cards go via Box 3113, Izhevsk 426006 USSR.

VK9LI says to QSL via VK2SG. Cards have been printed and should be in the post in a week or so, we hope.

Notes Of Interest:

UT5RP, Dima, has his IC720 repaired and is now on AMTOR ARQ and is looking for contacts. He may be the first Russian station to use that mode.

VQ9RB is Diego Garcia on Chagos Islands. He will be there for some time, and should be very active.

UZ3AXJ is a Russian bulletin board station, which is new for the Russians. This may be the first BBS from the USSR. At the moment he is beaconing.

The HK0 station is on San Andres, not Malpelo Island.

6W6JX will be active from C53, signing C53/6W6JX from August 9th to 23rd.

Now for the bad news. Ron, ZL1AMO, who has helped a lot of people obtain some of the rare South Pacific islands, proceeded to the Solomon Islands to operate from there, but unfortunately his equipment has disappeared somewhere along the way. Ron is asking for assistance to acquire new gear. If anyone is willing to help Ron, contact him at his home address.

GL DE DX1 (VK2SG) AT TG9VT.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU.
/EX

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

4331. Re: Equipment question.

Newsgroup: rec.ham-radio
Date: 1990-07-18 04:52:04 UTC
From: k2ph@cbnewsj.att.com
Message-ID: <1990Jul18.045204.12071@cbnewsj.att.com>
Source record: 10135

In article <2428@plx.UUCP>, sharpe@plx.UUCP (Dave Sharpe) writes:
>
> I have acquired the following list of Heathkit tube type HAM radio
> gear and I would like to know what it is, when it was made, and
> where I can get a hold of the receiver to complete the set.
>
> Antenna coupler...model AC-1
> VFO..............model VF-1
> Transmitter.......model AT-1
>
> 73
> David W. Sharpe kc6fcc
> sun!plx!sharpe

Dave,

I was looking fondly through a September 1955 CQ Magazine and found those items advertised in the two-page Heathkit spread. Lessee... the AC-1 antenna coupler was to properly match your end-fed long wire antenna to your low power transmitter. It had a tapped inductor and variable "condenser" as well as a neon RF indicator and was good for up to 75 watts on 10 through 80 meters. Here's a scream: it sold for $14.50 in 1955!

The VF-1 VFO was a newly introduced model featuring 3 basic oscillator bands, but calibrated for 7 bands, 160 through 10 meters, including 11 meters. Used a 6AU6 in an electron-coupled Clapp oscillator circuit with an 0A2 voltage regulator tube. The price: $19.50.

The AT-1 was for 80 through 10 meters (including 11 meters, of course) and ran as much as 35 watts input. It used a 6AG7 oscillator-multiplier, a 6L6 amplifier-doubler, and a 5U4G rectifier. The price: $29.50.

In the same advertisement, Heath showed an AR-2 communications receiver (I assume it replaced the AR-1). This was a six-tube receiver covering 535 Kc. to 35 Mc. with an electrical bandspread scale "for tuning and logging convenience." It used a 12BE6 mixer-oscillator, 12BA6 IF amplifier, 12AV6 detector-AVC-audio, 12BA6 BFO, 12A6 beam power output tube for audio output, and the ever popular 5Y3GT rectifier. The price: $25.50. By the way, instead of metal it used a proxylin impregnated fabric cover plywood cabinet. Only cost $4.50 extra.

I love reading through these old magazines... I was two years
old when this was published. Still makes me an OF, though!

This was a great issue--announced the very first Worked All
Europe DX Contest. Had a substitute country list for USSR
Call areas. DL7 West Berlin substituted for Estonia, SM1
Gotland substituted for Lithuania, OZ Bornholm Island substituted
for Latvia, etc. Wonderful reading.

--
==========
Bob Schreibmaier K2PH | UUCP: att!oblivion!k2ph or k2ph@oblivion.att.com
AT&T Bell Laboratories | ARPA: k2ph%oblivion@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

4332. direct vs bureau QSLing

Newsgroup: rec.ham-radio
Date: 1990-07-18 05:54:45 UTC
From: oo7@ut-emx.UUCP
Message-ID: <34233@ut-emx.UUCP>
Source record: 10134

Patty Winter N6BIS (winter@apple.com) says:

>>....And I'd like to hear from Derek, Tad, etc. about the
>>relative success of direct vs. buro QSLs. My impression is that
>>the former is more reliable.

I haven't done the statistics properly, but I get at least a 90% return rate sending cards direct (they can still take up to a year), and if I really want a card this is the way I go. I haven't checked my return rate using the bureau, it's much lower (about 30% probably). Basically, I send a card via the bureau if I'd like one in return but won't lose any sleep if I don't get it.

Bureau statistics are hard to calculate, really. If you work a contest and call CQ for a weekend, you will get a lot of cards asking for yours, from stations that you wouldn't have asked for a card - so I'm not sure how you count those in the statistics. I never harbor ill feelings towards anyone who doesn't reply to a bureau card, but I never forgive someone who doesn't reply when I send a card direct with $$ or IRCs :-)

Jim AD1C mentioned keeping a list of known "non-QSLers", I think that is a great idea. None of the DX mags seems to be brave enough to do it (and some cards don't come back for all sorts of reasons, not just the refusal of the DX station to do anything about it). I have exchanged such info with Jims AD1C and K6ZH, Patty and other Fine Usenetters, and would be happy to hear others' experiences.

One thing I do to encourage a reply is to put in a short note thanking the person for the QSO, and telling them why I would like a card ("first Albanian on 2 meters", or "I'm collecting calls that spell rude words", whatever). When I decided to be patriotic and get a W.A.S., I put in a note to each person explaining that this was why I wanted would like a card (of course, I sent an SASE too), and I think I got close to a 90% return rate on those domestic cards too.

While the bureau takes time, it's the only sane way to amass the cards you need for some awards, or just for friendly card exchanges. The cost of ARRL membership is worth it for the bureau facilities alone. Those fine folks who volunteer their time at the incoming bureaus deserve our thanks, too! And as they say, "QSL sure via buro" (right.......).

Derek Wills (AA5BT, G3NMX)
Department of Astronomy, University of Texas,
Austin TX 78712. (512-471-1392)
oo7@astro.as.utexas.edu

oo7@emx.utexas.edu

4333. <None>

Newsgroup: rec.ham-radio
Date: 1990-07-18 06:56:56 UTC
From: Conrad.Bullock@comp.vuw.ac.nz
Message-ID: <1990Jul18.065656.21881@comp.vuw.ac.nz>
Source record: 10149

Can anyone help me out with any mods to the AOR 900 handheld scanner. It came with a little bit of paper saying that some frequencies were restricted for use in the USA, but I'm not operating it in the USA!

Anyway, is there an archive of all these radio mods anywhere?

Thanks,

Conrad Bullock | Domain: conrad@comp.vuw.ac.nz
Victoria University of Wellington, | or: conrad@actrix.co.nz
New Zealand. | Fidonet: 3:771/100
| BBS: The Cave BBS +64 4 643429

4334. Re: alternate phonetic alphabets

Newsgroup: rec.ham-radio
Date: 1990-07-18 11:52:27 UTC
From: wmb@ulysses.att.com
Message-ID: <13428@ulysses.att.com>
Source record: 10139

My favorite list (source long forgotten) includes:

Aye
Cue
Ell
See
You

E.g., "Name here is Casey, cue aye see ell you.."

Bill Brelsford, K2DI
AT&T, Basking Ridge NJ
wmb@joplin.att.com

4335. NP2 calls

Newsgroup: rec.ham-radio
Date: 1990-07-18 13:09:25 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007181309.AA21400@tilde>
Source record: 10142

Has anyone had a qso with an NP2? I worked one recently and can't find the prefix in my callbook.

Thanks and 73,
Dube Todd

4336. Radio on 24hrs a day/Reliability/DTMF Decoder/etc

Newsgroup: rec.ham-radio
Date: 1990-07-18 14:22:29 UTC
From: svec@motcid.UUCP
Message-ID: <4185@feldspar2.UUCP>
Source record: 10136

Myself & Don (WD9DMP) recently finished building a DTMF Decoder
squelch project. The intent is to put it on our 2 Meter Base Station
(Mobile or scanner) 24hrs a day to keep it quiet except when
obviously, the right tone sequence is sent to open the squelch.

Several sky-warn repeaters in the area seem to send out
a single 9-digit (I think it is a nine) at the start of nets
(either during bad weather or weekly nets)
(Is there any universal digit (eg. 9) used for such things as sky-warn?)

We were discussing what the general reliability impacts
are on a radio that is left on in receive all the time over the years?
Perhaps someone using a 2M Mobile as a remote repeater receiver has some
comments... I have a few choices of radio to put it on, the top 2 being
the preferred choices:
A Midland 13-505 2M crystal mobile
A Standard Horizon/2 2M Crystal mobile
A Kenwood 7730 synthesized mobile (low on my list since I would
rather sacrafice one of the two crystal radios)
A Bearcat BC210XL Scanner

Any comments or your experience in what tends to fail (if anything)
would be appreciated.
--
Larry Svec - KD9OF (good in 1987 or newer callbooks)
home: 708-526-1256
work: 708-632-5259 fax: 708-632-2413, -3741
e-mail: uunet!motcid!svecl

4337. Lat & Long Listings

Newsgroup: rec.ham-radio
Date: 1990-07-18 15:32:00 UTC
From: DERRY@ROSEVC.Rose-Hulman.EDU
Message-ID: <625E3F0A241F401390@ROSEVC.Rose-Hulman.Edu>
Source record: 10141

The Rand-McNally road atlas has small, almost invisible, lat and long informatio
n on each state map. I use an old version and have drawn on the 1 x 2 degree
grids. I obtained much lat & long infor for my HP-28S program from this atl
as.
Also the World Almanac has a page of these data for major cities of the world.

73 de K9CUN

4338. Re: direct vs bureau QSLing

Newsgroup: rec.ham-radio
Date: 1990-07-18 15:45:11 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13588@shlump.nac.dec.com>
Source record: 10143

In article <34233@ut-emx.UUCP>, Derek, AA5BT (oo7@ut-emx.UUCP) writes...
>
> One thing I do to encourage a reply is to put in a short note thanking
>the person for the QSO, and telling them why I would like a card ("first
>Albanian on 2 meters", or "I'm collecting calls that spell rude words",
>whatever). When I decided to be patriotic and get a W.A.S., I put in a
>note to each person explaining that this was why I wanted would like a
>card (of course, I sent an SASE too), and I think I got close to a 90%
>return rate on those domestic cards too.

Well, this sounds like a good idea. Maybe if I put notes in with my cards,
I'll be able to improve my return rate from 65% to 90%. Wow, that's
impressive!

I just got a card from VK9TR yesterday (via VK5FG) which had a two sentence
note on the back thanking me for the QSO. It was a nice touch. I was
hoping it was going to be a sked for CW, which I asked Trevor about when I
worked him, but he couldn't oblige. Now with the automation of the weather
station, it looks like it might be a long time before I work Willis on CW
(should have asked VK9ZG when I worked him 10 years ago).

73, jim AD1C

=-=

"The opinions expressed here in no way represent the views of Digital
Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4339. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-18 16:24:38 UTC
From: ee5391aa@hydra.unm.edu
Message-ID: <1990Jul18.162438.28432@ariel.unm.edu>
Source record: 10156

In article <.9G&SP@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>In article <910@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>>[...] when [Wayne Green] was running for Vice President of the United
>>States [...]
>Tad, are you serious? When was this? Who'd run with him?

Why, Jessie Jackson, of course. Jackson would run with ANYONE...well, maybe.

Those two are as close as two peas in a...boxcar.

d

--
"Peace is hell." -- Skyler
Duke McMullan n5gax nss13429r phon505-255-4642 ee5391aa@hydra.unm.edu

4340. FT 470 mods - help please

Newsgroup: rec.ham-radio
Date: 1990-07-18 17:04:01 UTC
From: prs@oasis.icl.stc.co.uk
Message-ID: <538@ozz.oasis.icl.stc.co.uk>
Source record: 10158

Hello readers...

I own a Yaesu FT470 VHF/UHF hand-held. It covers the European frequencies
144-146 & 430-440 MHz. I'd like to extend the coverage so that it can be
used on other frequencies if I go abroad (eg upto 148 MHz).
I know there are a number of mods available.
Has anyone got precise details ??

73 Pete.
--
Pete Swynford is available... tel: +44 (344) 424842 x 2625
or at prs@oasis.icl.stc.co.uk / ..!uunet!mcsun!ukc!iclbra!prs / g6zyt@gb7rdg
Disclaimer: See Paragraph 2.4.a of section 1.a (article 7) (iii) of the
Town and Country Planning Act, 1967.

4341. Re: John Sculley (Was Wayne Green, state of ham radio, etc.)

Newsgroup: rec.ham-radio
Date: 1990-07-18 17:59:04 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul18.175904.10700@bellcore-2.bellcore.com>
Source record: 10157

In article <6597@helios.TAMU.EDU>, billg@cs.tamu.edu (William Gunshannon) writes:
|> Does anyone remember the old Popular Electronics??

Yes! I would read my issues religiously, until the pages began to fall out.

|> Does anyone remember their recepticle for anecdotes called "Just when I
|> forgot my soldering iron!"

I assume you mean their contest for the best reason why the applicant should receive a free soldering iron. To this day I remember two of the winning entries. One wanted to solder a resistor to his kitchen stove. ("I always wanted to have an ohm on the range.") I think the other wanted to do something to his wife. She kept asking "Wire you insulate?" when he'd get home at night...

Phil

4342. Re: ARRL/QSL bureaus

Newsgroup: rec.ham-radio
Date: 1990-07-18 18:07:02 UTC
From: holly@hpcupt1.HP.COM
Message-ID: <7120128@hpcupt1.HP.COM>
Source record: 10144

I have an interest.
Jim,WA6SDM
jholly@hpcupt1.hp.com
WA6SDM@N6LD

4343. Re: ?: RFI from a Hercules Card

Newsgroup: rec.ham-radio
Date: 1990-07-18 18:36:53 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul18.183653.10889@bellcore-2.bellcore.com>
Source record: 10160

In article <350@texsun.Central.Sun.COM>, mwester@sunbird.central.sun.com writes:
>I just replaced my PC in the shack with an old original IBM PC... all is well,
>except the Hercules graphics card generates boatloads of crud on 147.555 Mhz.

Chances are, much of the RFI is coming out of your monitor. It could be that the reason the problem didn't start until you went to the Hercules card is because your earlier card operated on a somewhat different set of scan frequencies. The RFI was still there, but you didn't notice it because it was on another frequency.

The early IBM monochrome monitors (and especially their Korean clones) radiate lots of video all over the HF band. The first thing you should do is to isolate the source of the radiation. In my case, clearing the screen reduced the noise level considerably. This told me that video, not sync pulses or deflection oscillators, was the problem. Turning down the contrast control (essentially a video gain knob) also reduced the RFI considerably, but the brightness control (which controls DC bias on a CRT grid) had no effect. This told me that the radiation was coming from the video output stage, but not from the CRT beam itself. (The video output stage is just after the contrast control).

The +70V power lead that runs from the main PC board up to the video output stage on the base of the CRT turned out to be the big offender. I replaced it with a short section of RG-174 coax, grounded the shield to the main PC board ground and added a bypass cap on the load end. This took care of much of the noise, but some was still left. I then coated the inside of the cabinet with GC Nickel Print paint and added a power line filter. These didn't seem to do much. But then I added a coax braid sheath over the video cable from the PC and grounded it to the cabinets at both end. The remaining RFI virtually disappeared.

The fact that I didn't see any reduction when I added the paint and the AC line filter doesn't mean they didn't do any good; they might have been blocking RFI paths that were being swamped at the time by another, stronger source (e.g., the monitor drive cable.) What I recommend is that you start with the easy steps and work toward the harder ones until the RFI is down to an acceptable level.

The newer monitors, especially the better color monitors (e.g., my NEC Multisync 3D) are MUCH better for RFI. A look inside shows why: metal shields, ferrite beads, the works. The older monitors had essentially no RFI measures at all.

Phil

4344. Oddball repeater frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-18 18:59:46 UTC
From: bote@csense.uucp
Message-ID: <1990Jul18.185946.331@csense.uucp>
Source record: 10145

From article <7500022@hpfcso.HP.COM>, by ron@hpfcso.HP.COM (Ron Miller):
>>
>> Should have said old fart memory on; it is 31/91 :) :)
>
> Geez! I guess memory *IS* the second thing to go! :-)))
>
> Well, how about this- "Oh brrrrr. I remember when 146.94 was a SIMPLEX
> frequency !"
>
> Is that better? :-) (I still have the 94/94 xtals in my TR-22)

Better yet, check in on the 146.76 repeater in Jessup, Maryland
and ask Gary Hendrickson about the history of that repeater.

He'll proceed to tell you "This is one of the oldest repeaters
in the area...it used to be on 34/76 in the early days..."

Bet that caused some interesting problems when 34/94 turned on
in Baltimore, 10 miles up the road. :?

--
John Boteler {uunet | ka3ovk}!media!csense!bote
NCN NudesLine: 703-241-BARE -- VOICE only, Touch-Tone (TM) accessible

4345. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-18 19:09:52 UTC
From: tad@ssc.UUCP
Message-ID: <918@ssc.UUCP>
Source record: 10146

In article <1990Jul16.203833.20955@cbnewsh.att.com>, mrb1@cbnewsh.att.com (maurice.r.baker) writes:
> In article <910@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
> >
> > You ought to read some of the trial transcripts for a good laugh. There
> > was a book published when he was running for Vice President of the United
> > States called "Run Wayne Run" detailing some of his more outrageous exploits.
>
> Could someone post the full details on this book, i.e., author, publisher,
> date of publication, etc? I'd really like to get a copy!

It was published privately by the husband of Wayne's ex-wife, and has
been available from time to time at Dayton and other hamfests. I got
mine mail order through an ad in the back of DX Magazine. I will try
to find my copy and get the address of the publisher.

>
> I've never seen it listed in 73 under the Uncle Wayne's Bookshop (or whatever
> it's called) advertisement :-)

You WON'T find it there!

>

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4346. The Old Popular Electronics (Re: John Sculley, Wayne Green...)

Newsgroup: rec.ham-radio
Date: 1990-07-18 19:15:15 UTC
From: awpaeth@watcgl.waterloo.edu
Message-ID: <1990Jul18.191515.21376@watcgl.waterloo.edu>
Source record: 10163

Phil Karn (karn@thumper.bellcore.com) writes:

[Does anyone remember the old Popular Electronics??]

>Yes! I would read my issues religiously, until the pages began to fall out...
>...I assume you mean their contest for the best reason why the applicant
>should receive a free soldering iron. To this day I remember two of
>the winning entries. One wanted to solder a resistor to his kitchen
>stove. ("I always wanted to have an ohm on the range.") I think the
>other wanted to do something to his wife. She kept asking "Wire you
>insulate?" when he'd get home at night...
>

That was from about the '64 issue, when I started reading. Also:

"Heptode" : n. A cool frog.
"World Series": All the D-cells in the universe wired together.

And not to miss the final pun, it was:

"HENRY! Wire you insulate!"

/Alan Paeth
Computer Graphics Laboratory
University of Waterloo

4347. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-18 19:24:49 UTC
From: tad@ssc.UUCP
Message-ID: <919@ssc.UUCP>
Source record: 10147

In article <43035@apple.Apple.COM>, winter@Apple.COM (Patricia Winter) writes:
> In article <913@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
> >2 pts. same continent, different country.
> >2x pts each CW QSO.
> >Multipliers: US, VE, JA call areas, DXCC countries, WRTC stations.
> >Scoring: QSO points x multipliers = final score.
>
>
> With all the interest being generated within the United States about
> this contest (such as by packet messages like the ones you posted :-)),
> it seems unfortunate that once a Seattle contest station has worked
> each of the 10 U.S. call areas, no further stateside QSOs will count
> for anything.

I see your point. This sounds to me like the rules for the CQWW DX
test, where you can get multipliers by working other USA stations for
zone credits. Once you have them, you don't need other domestic
stations. Of course, the difference here is that the official teams
are worth a lot more to everyone.

OOPS!

I just got off the phone with Homer Spence, K7RA who is on the committee.
He tells me that the teams operate under different rules than the
rest of us, since they are essentially only competing with each other.
I am not sure how many points the teams get for working USA stations,
but USA stations each get a point for working other USA stations.

>
Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad

4348. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-18 19:29:10 UTC
From: tad@ssc.UUCP
Message-ID: <920@ssc.UUCP>
Source record: 10148

Thanks to Patty, I just found a problem with my postings of the
rules for WRTC. You DO get 1 point each for working stations
in your OWN country, unlike other DX contests!

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4349. Re: Leap second

Newsgroup: rec.ham-radio
Date: 1990-07-18 19:41:25 UTC
From: kjh@pollux.usc.edu
Message-ID: <25997@usc.edu>
Source record: 10161

In article <9007171447.AA23953@ucsd.edu> kak@CYGX3.USNO.NAVY.MIL writes:
> 1990 December 31, 23h 59m 59s
> 1990 December 31, 23h 59m 60s
> 1991 January 1, 0h 0m 0s

This means that many more people will know about it, because the news media will be sure to mention it during their new year's eve party programs.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4350. Re: DSP Mania and books

Newsgroup: rec.ham-radio
Date: 1990-07-18 19:57:42 UTC
From: kjh@pollux.usc.edu
Message-ID: <25998@usc.edu>
Source record: 10162

In article <748@idacrd.UUCP> mac@idacrd.UUCP (Robert McGwier) writes:
>Many people send me notes asking what DSP texts should be considered for an
>introduction.

I ignore them when they want a text without any math, because you can't really understand DSP without having a firm background in Fourier Transforms, Z Transforms, etc. I'd like to recommend the classic textbook "Digital Signal Processing" by Oppenheim and Schaffer. We didn't use this in my class, however; we used the book by Stanley, Dougherty, and Dougherty.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4351. How to access the Amateur Radio BBS...

Newsgroup: rec.ham-radio
Date: 1990-07-18 20:23:07 UTC
From: howardl@wb3ffv.ampr.org
Message-ID: <3686@wb3ffv.ampr.org>
Source record: 10150
Cross-posted to: rec.ham-radio,alt.bbs

```
+---------------------------------------------------------------------------+
HOW TO ACCESS THE WB3FFV AMATEUR RADIO TELEPHONE BBS !!!

I have placed a BBS system on-line that is mainly oriented towards the
Amateur Community (but there is other stuff on-line). As of now I have not
attempted to promote this system any place except in the amateur channels
(PACKET, USENET, & word of mouth), and will continue under this policy, as
I hope to keep it oriented toward amateur radio. The various software for
UP/DOWNload is available via telephone dialup and Packet TCP/IP, and through
user support I hope to keep the latest and greatest ham software on-line.
Below is the information that is needed in order to access the BBS via
Telephone -or- TCP/IP, please pass it around to as many ham's as possible.

System Name: WB3FFV
User Login: bbs
Number: (301)-625-0817 -- 1200 & 2400 (Non-MNP)
Number: (301)-625-9482 -- 1200 & 2400 (MNP5), 4800 & 9600 V.32 (V.42/MNP5)
Number: (301)-625-9663 -- 1200 & 2400 (MNP5), 9600 & 19200 (PEP)
Data Settings: 8 Bits, NO Parity, 1 Stop Bit
Times: 24hrs/365days (except for routine maintenance)
Software: XBBS (UNIX/Xenix Multiuser BBS)
IP Address: 44.60.0.1 {wb3ffv.ampr.org} [for FTP access on 145.550 mhz ONLY]
Misc. Info: Machine is an 80386 computer running UNIX V.3.2 and features 700
Meg of on-line storage. Most transfer protocols are available!!

I attempt to keep the latest and greatest HAM software on-line, and encourage
all to upload anything new that they come up with, as it is of benefit to all.
Here is a sample of a couple pieces of software that is available for DOWNLOAD:

KA9Q TCP/IP Software for the PC (Latest OFFICIAL release + TEST Versions)
KA9Q TCP/IP for the Atari-ST, MAC, & Amiga
KA9Q TCP/IP for UNIX based systems
KA9Q TCP/IP (The NOS release)
WA7MBL BBS for the PC (Versions 3.31, 4.31 & 5.12)
W0RLI BBS for the PC (Versions 6.xx, 7.xx, 8.xx, 9.xx, 10.xx)
MSYS BBS for the PC running KISS TNC's (Version 1.07 & 1.08)
Various BBS utilities and enhancements
Several MORSE CODE Tutors
TheNet software by NORD><LINK (Version 1.01)
Modifications for many HAM Rigs and Scanners
Digital Signal Processing software (DSP)
DX and contesting programs
ARRL Newsletters & Gateway
W5YI Electronic Edition
```

There is much more available on the BBS, and I don't want to waste a lot of PACKET BBS space trying to list it all, so if you are interested give it a call and see for yourself !!!

If you are interested in using UUCP to connect to the BBS, this can also be done as I support Anon-uucp. The login to the system is 'uucpanon', and there is NO password. The listing of avalible archives are stored in a file called 'FILES', and it is located in the /usr/spool/uucppublic. To retrieve the files listing just use the following command:

uucp wb3ffv!~/FILES /usr/spool/uucppublic

This will move a copy of my files listing into your uucppublic directory. If you have any questions or problems, feel free to contact me at one of the numbers/adresses below. Good Luck...

4352. Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-18 21:52:48 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul18.215248.11497@bellcore-2.bellcore.com>
Source record: 10164

Be sure to see the cover story "AIRWAVE WARS" on the July 23, 1990 Business week. The article begins by describing the UPS/ARRL battle over 220 MHz.

Among the interesting tidbits is the following quoted from the sidebar on page 51: "In the first nine months of 1988, the California Highway Patrol logged 200,000 calls to its 911 emergency number from drivers using cellular phones." Food for thought to those who tout the emergency/public service aspects of amateur radio.

In fact, this article should scare the hell out of any amateur concerned about the future of the service.

Phil

4353. Re: Intermodulation

Newsgroup: rec.ham-radio
Date: 1990-07-18 22:55:00 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880191@hpfcdc.HP.COM>
Source record: 10151

Re: intermodulation, in this case the Yaesu FT411

I called the 800 number posted recently to get the scoop. After numerous busy signals and no-answers, I learned:

The factory modification corrects an intermodulation problem. It changes the IF from 17.3 MHz to 21.0 MHz. Why? The FT411 does not contain varactor tuning because "it's harder to fix, and apparently was cheaper to build it without that feature". (A quote from the guy I talked with: "They're designed and manufactured in Japan, we just sell them here.") Hence the FT411 has a wide RF front end, about 28 MHz, and a higher than usual IF, 17.3 MHz, to "push" image frequencies out of the front end band.

Unfortunately, the IF is just right for a repeater at 145.250 MHz to swamp 162.550, a common weather channel, through intermods. This was the case in Indianapolis, where a powerful wide-area repeater interfered with receiving weather radio channel 1.

Searching my (Colorad) frequencies database for deltas of 17.3 MHz (plus or minus 5 Khz), I found surprisingly few conflicts. Send me mail if you want details. Based on this list and the fact that the sensitivity is pretty terrible out of band anyway, I don't think I'll give up my radio for a month to have the IF changed...

4354. Re: YAESU FT1000 or KENWOOD TS950S

Newsgroup: rec.ham-radio
Date: 1990-07-19 00:46:12 UTC
From: jay@splut.conmicro.com
Message-ID: <4HJ&FH+@splut.conmicro.com>
Source record: 10166

In article <900717-062708-5294@Xerox> "Paul_Adler.NEROSM"@XEROX.COM writes:
>I am planning to buy a new rig. Does anyone have any comments or
>experience with the YAESU FT1000 (basic model) or KENWOOD TS950S (without
>DPS option)?

One of the nice things about belonging to the Johnson Space Center ARC is getting to play with the radios the manufacturers have loaned the club for the SAREX mission. We have a 950SD, an IC781, and an FT1000. (No, I don't know if the 950 has the DPS [DSP?] options, but it does have the "Digital Frequency Synthesizer" label on the front.)

All three radios do just peachy fuzzy on the air; about the only difference I've noticed in my playing around is that the 950 doesn't do full breakin CW quite as well - the receiver has an annoying thump as you let off the key, and sounds a lot choppier as a result. Neither the 781 nor the FT1000 have this problem. All three have good, sensitive receivers that don't get overloaded easily.

The 950 has more useful metering than the other two; it has two bargraph meters shared between four functions, while the others have a single meter and a switch. The 781's spectrum scope is nice, but it takes a little learning to read.

Operationally, I like the FT1000 over the 950. (Those are tough words for a Kenwood bigot.) The controls are better placed and better laid out, and generally more useful. The second receiver/split VFO on the FT1000 has its own tuning knob, something the 950 lacks. It's also more intuitively obvious how to set up the radio.

On something that expen$ive, I'd strongly recommend spending a couple of hours, minimum, playing with them before you plunk down your money; failing that, at least get a return agreement. They're complex radios, and it takes a while to familiarize yourself with them - and longer yet to where operating them becomes second nature.

This account is somewhat disjointed, admittedly, and it's based on somewhat fuzzy recollections of operating each radio for a few hours. Caveat emptor. Your mileage may vary. Not valid in Ohio or where prohibited. Read the Prospectus before signing anything. Prices slightly higher in Alaska. :-)

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4355. Re: QSL help, please?

Newsgroup: rec.ham-radio
Date: 1990-07-19 01:09:06 UTC
From: winter@Apple.COM
Message-ID: <43135@apple.Apple.COM>
Source record: 10165

In article <10245.26a04458@ecs.umass.edu> lkay@ecs.umass.edu writes:
>I'm trying to QSL an old contact with N7DKX.
>Somewhere in a CB between 84-89 his new address/callsign change must be
>listed. I'm closing up my 5BWAS and WY contacts are so hard to come by. Help!

I thought Devon might have pointed this out by now, but since he hasn't...

He programmed the marvin callsign server to search on the "previous call"
field as well as the current one when you enter a callsign. So if the
call you're seeking has been held at any time within the last few years,
the server will find out.

What I don't know is how long the FCC keeps the previous-call info. Maybe
some of you who've changed callsigns in the past few years can experiment
and figure it out. (And then let us know.)

Patty

--
****
Patty Winter N6BIS INTERNET: winter@apple.com
AMPR.ORG: [44.4.0.44] UUCP: {decwrl,nsc,sun}!apple!winter
****

4356. NP2 Call

Newsgroup: rec.ham-radio
Date: 1990-07-19 01:52:42 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007190152.AA13697@tilde>
Source record: 10168

Thanks to everyone who gave me the information that NP2 is the prefix for the Virgin Islands. I couldn't find it under the "2's" in my US callbook. Someone (Bill Gunshannon, I believe) mentioned using the marvin server; a source I had forgotten about.

Thanks again, all.

73,
Dube Todd N5PDK

4357. VOX Circuit Needed

Newsgroup: rec.ham-radio
Date: 1990-07-19 02:09:34 UTC
From: ka2raf@ka2qhd.UUCP
Message-ID: <323@ka2qhd.UUCP>
Source record: 10152
Cross-posted to: rec.ham-radio,rec.ham-radio.swap

I am in need of a modern, simple VOX circuit. The last circuit I
located was vintage 1980 and I would hope there is something simpler
than 8 transistors! Maybe a couple of IC's ??? If you have any circuits
of recent vintage for VOX circuits, I would like to see it. I need this
circuit for keying a transmitter from an external command receiver
(scanner). Supply voltage of 12VDC and 12VDC relay to key PTT.
If you could send me a photocopy or give me a reference, I
would appreciate it. I can be contacted at KA2RAF@NN2Z.NJ or at the
following postal address:
Chris Crosby KA2RAF
P.O.Box 1286
Lakewood, NJ 08701
Thanks, 73 de Chris

4358. Philippines

Newsgroup: rec.ham-radio
Date: 1990-07-19 02:17:26 UTC
From: rfc@briar.Philips.Com
Message-ID: <103961@philabs.Philips.Com>
Source record: 10153

```
copied from packet:
From: N1API@N1API.CT.USA.NA
To: ALL@ARL

ZCZC AG31
QST DE W1AW
ARRL BULLETIN 23 ARLB023
FROM ARRL HEADQUARTERS
NEWINGTON CT JULY 17 1990
TO ALL RADIO AMATEURS

THE PACIFIC SECTION MANAGER HAS REPORTED THE EXISTENCE OF LOCAL
AND REGIONAL AMATEUR RADIO ACTIVITY IN THE PHILIPPINES AND THAT
14 MHZ NETS HAVE BEEN ACTIVATED IN THE PACIFIC BASIN TO ADDRESS
INTERNATIONAL RELIEF COMMUNICATIONS NEEDS. AMATEURS SHOULD AVOID
TRANSMITTING ON EMERGENCY NET FREQUENCIES EXCEPT AT THE DIRECTION
OF NET CONTROL STATIONS.

ACCORDING TO THE AMERICAN RED CROSS, INTERNATIONAL PUBLIC TELEPHONE
SERVICE IS OPERATIONAL, BUT AT REDUCED CAPABILITY. AT PRESENT, THE
RED CROSS MORATORIUM ON DISASTER WELFARE INQUIRIES CONTINUES IN
EFFECT.
NNNN
```

4359. clover HF data mode schematics

Newsgroup: rec.ham-radio
Date: 1990-07-19 02:28:04 UTC
From: rfc@briar.Philips.Com
Message-ID: <103962@philabs.Philips.Com>
Source record: 10154
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
30599 BF 1453 1 06-Jul 2020 W7GHM 15033_N7IIJ CLOVER@NYNET ()
Sb: +++SCHEMATICS AVAILABLE+++

A set of schematic diagrams which will enable home builders to construct a frequency-stable, ultra-selective receiver and matching exciter which meets the requirements of the CLOVER h.f. data mode, can be obtained for a SASE. The design is for a single frequency on 30 meters, which will be the location of the first Clover network.
See the July issue of QEX magazine for a description of the Clover mode.

Send SASE to:
Ray Petit, W7GHM,
P.O. Box 51,
Oak Harbor, Wa. 98277, USA.

73, Ray W7GHM @ N7IIJ.WA.USA.NA

4360. Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-19 03:47:48 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007190347.AA12165@cmr.ncsl.nist.gov>
Source record: 10167

Phil Karn says:
> Those who support no-code privileges only above 220 MHz sound a lot like
> people who say they're all in favor of equal housing rights, as long
> as nobody moves into THEIR neighborhood...

me: ... or maybe they see Communicators as a way to get occupancy on
the higher bands before we lose them all. We don't need 99% of all VHF
operators concentrated on 2-m FM.
"We gave you the no-code Communicator class because you said it would bring
in people who would populate the microwave bands. Now N years have passed
and all the Communicators are on 2-m FM, and the 220-and-up ham bands are
still as empty as ever."
What would your answer be, Phil?

73, Bob W3OTC

4361. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-19 04:28:04 UTC
From: john@anasaz.UUCP
Message-ID: <2727@anasaz.UUCP>
Source record: 10155

In article <1990Jul18.215248.11497@bellcore-2.bellcore.com> karn@thumper.bellcore.com writes:
]Be sure to see the cover story "AIRWAVE WARS" on the July 23, 1990
]Business week. The article begins by describing the UPS/ARRL battle
]over 220 MHz.
]
]In fact, this article should scare the hell out of any amateur
]concerned about the future of the service.

I didn't think it was that bad. It seemed to assume that amateur radio
frequencies should be protected (using the national park analogy).
This in an article that doesn't even assume protection for VHF TV.
I was disappointed that they didn't mention the emergency use of
ham radio.

On this other hand, if one has not been reading the net or the ham
press, the concept of auctioning spectrum could come as a bit of a shock.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4362. Re: Awesome Code system

Newsgroup: rec.ham-radio
Date: 1990-07-19 04:33:45 UTC
From: vtcqa@shamash.cdc.com
Message-ID: <23573@shamash.cdc.com>
Source record: 10169

In article <635@ghp.UUCP> jim@ghp.UUCP (Jim Stewart) writes:
>In article <23475@shamash.cdc.com> vtcqa@shamash.cdc.com (VTC) writes:
>
>>... The instructor was
>>Bob Schoeing, W0BE, and he had the whole class doing code in 7
>>days ! (!!!!). It worked on phoenetics. I have lost the entire alphabet,
>>and would like to get it, since I have bragged to a few people that I will
>>have them pass the code test in 2 weeks (like Bob had us do). If you know
>>what this is, you might have the whole alphabet - PLEASE send it to me:
>
>
>I had an uncle that taught me bits of the code using:
>
> V - intro to Beethoven's 5th (??)
> Q - intro to he comes the bride
>
>Is this what you meant? Post it if you get the whole set,
>even though I'm not a code person, it sounds interesting--
>based on the way I learned the above two letters.
>--
>Jim Stewart, VE3SRJ
>UUCP: jim%ghp@mnetor.uucp
>BELL: (416)862-0430

Hey - that is a good idea too. One thing though, when you heard di-di-di-dah, you would think 'Beethovens Fifth'. Then you would have to remember that somehow that 'mapped' to the international character V. Using Bob's method, di-di-di-dah would conjure up 'Victory Vee' in your mind, and automatically you would know it was a V.

Jumping ahead - I don't know how fast you can go by translating the phoenetics to the characters. But this I guarentee - by the time you know the whole alpahbet - you no longer hear di-di-di-dah, then think of the phoenetic, then translate that to the character. After about a week, when you hear di-di-di-dah you will automagically write down 'V' with no further processing by your brain. It really does work. I got my novice ticket using this method, and after two years was up to 18 WPM. I then let my liscense expire. That was about 1975. Suddenly in 1985 I decided I wanted to be an amateur again. I remembered the code so well that I walked out of my first test session with credit for the 20 WPM code test and an advanced class ticket. I thought that I would have to start over again learning the code, but to my surprise was doing 20 wpm no problem after a 10 year lapse in use of the international code.

Jeff - NR0D

4363. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-19 05:04:27 UTC
From: <>
Message-ID: <1990Jul19.050427.12730@bellcore-2.bellcore.com>
Source record: 10170

In article <9007190347.AA12165@cmr.ncsl.nist.gov> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
>"We gave you the no-code Communicator class because you said it would bring
>in people who would populate the microwave bands. Now N years have passed
>and all the Communicators are on 2-m FM, and the 220-and-up ham bands are
>still as empty as ever."
>What would your answer be, Phil?

"It's obvious that it's time for all of us (Communicator and otherwise)
to move on up to the higher bands to relieve the congestion on 2m. And
perhaps we might even try some new ways of allocating spectrum on 2m so
we can relieve the congestion there."

As the old saying goes, necessity is the mother of invention. But I'd
rather the necessity come in the form of new amateurs (i.e., Communicators)
than because most of our bands were no longer assigned to the amateur
service. If you think 2m is crowded now, try scanning the land mobile
bands.

Phil

4364. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-19 06:56:11 UTC
From: tad@ssc.UUCP
Message-ID: <922@ssc.UUCP>
Source record: 10176

In article <2494@unccvax.uncc.edu>, cs00jmc@unccvax.uncc.edu (John Covington WN4BBJ) writes:
> In article <43035@apple.Apple.COM> winter@Apple.COM (Patricia Winter) writes:
> >it seems unfortunate that once a Seattle contest station has worked
> >each of the 10 U.S. call areas, no further stateside QSOs will count
> >for anything.
> >
>
> What?? I believe you get QSO points for EVERY QSO (1 for phone, 2 for CW,
> more for DX or WG stations).

You are correct. My original bulletin on this left out the fact that
you still get a point for working your own country.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4365. Old Fart memories

Newsgroup: rec.ham-radio
Date: 1990-07-19 11:15:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9007191123.AA10696@ucsd.edu>
Source record: 10172

A recent posting mentioned an old fart who remembered when 146.94 was a SIMPLEX frequency.

How about the old 34/76 repeaters?
How about when repeater IDers were made from a clock motor turning a gear with the teeth filed off activating a micro switch to a tube oscillator?
Remember when you could drive from coast to coast with a two channel radio (94/94 and 34/94) and work a repeater in almost every town with hams?
How about whistle acess for repeaters?
And my favorite, pre-"new repeater rules" machines called super repeaters by most on mountaintops with multiple receivers, 250 watts out, and hundred+ mile range?

Yes, those were the good old days of 2m FM.

73,
Michael WA7SKG
Old FART (Fathers Against Radical Teenagers)

4366. Reliability of Rigs left on

Newsgroup: rec.ham-radio
Date: 1990-07-19 13:16:14 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12606912053.10.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 10171

Reliability of electronic devices decreases with temperature cycling, vibration, and other environmental stresses. Also, the reliability of the parts used to build your radio play a significant part in the trouble free lifetime of your radio.

Temperature cycling is probably one of the biggest causes of equipment failure.

Either leave the equipment ON or leave it OFF for the maximum life. I own a repeater is left on all the time. Never have any problems with it (other than me mistuning it once in a while, hi).

Watch other factors which may destroy your equipment -- over temperature conditions (sunlight from a window), high humidity (basements), vibration, over voltage power supplies (under too), transients, static discharges (dry weather carpet walkers club), lightning, corrosive environments, and extreme cold.

I don't think you will have a problem leaving your rig on all the time (unless it is a heathkit)....
73 WF2V Len

4367. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-19 13:36:40 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2243@ryn.esg.dec.com>
Source record: 10159

>
> Among the interesting tidbits is the following quoted from the sidebar
> on page 51: "In the first nine months of 1988, the California Highway
> Patrol logged 200,000 calls to its 911 emergency number from drivers
> using cellular phones." Food for thought to those who tout the
> emergency/public service aspects of amateur radio.
>
> In fact, this article should scare the hell out of any amateur
> concerned about the future of the service.

Maybe I don't scare easy, or maybe I believe you use the right tool for the right job. I don't forsee a lot of cellular phones being used to coordinate races, public events, etc. It can be done -- but to get the level of service you need would be expensive. The right tool in this case is something that doesn't get billed by the minute and allows contacting multiple stations at one time. I.E. radio until something better comes along.

Besides, the sidebar apparently doesn't mention that the number of crank calls from cellular phones has the emergency services ripping their hair out, "He cut me off! I had to slam on my breaks! This is his license number, I'm following him right now, and I want a car out here to arrest him pronto!"

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

My employer doesn't care what I think. I, in turn, don't care what you think. You probably don't care what my empolyer thinks. Thus is life a circle.

4368. HP117A Schematic

Newsgroup: rec.ham-radio
Date: 1990-07-19 13:59:57 UTC
From: buaas@SUN.COM
Message-ID: <9007191359.AA14824@Sun.COM>
Source record: 10174

Does anyone out there have in their microfiche archive a tech manual for
the HP117A, a 20+ year old VLF receiver? a paper copy would very much
be appreciated. we have already tried most of the obvious places.
thanks in advance/bob K6KGS

4369. Truncated INFO-HAMS Digests

Newsgroup: rec.ham-radio
Date: 1990-07-19 14:12:58 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007191412.AA13039@cmr.ncsl.nist.gov>
Source record: 10173

Are other people receiving INFO-HAMS digest with many lines missing at the end? Things just stop in mid-message.
Bob W3OTC

4370. Re: QSL help, please?

Newsgroup: rec.ham-radio
Date: 1990-07-19 15:40:00 UTC
From: billg@cs.tamu.edu
Message-ID: <6701@helios.TAMU.EDU>
Source record: 10175

In article <43135@apple.Apple.COM> winter@Apple.COM (Patty Winter) writes:
>
>What I don't know is how long the FCC keeps the previous-call info. Maybe
>some of you who've changed callsigns in the past few years can experiment
>and figure it out. (And then let us know.)
>
Interestingly enough, they have my old call N2APY which I gave up
in 1980!! But they list it as having been ADVANCE CLASS. It was not.
It was GENERAL and I gave it up when I upgraded. I guess it's nice
that they keep the old info around, but it looks like even the FCC
database shouldn't be taken as gospel.

bill gunshannon KB3YV (formerly N2APY, formerly DA1WO)

4371. Re: 2 meters (144Mhz band) and wet trees

Newsgroup: rec.ham-radio
Date: 1990-07-19 15:46:48 UTC
From: kthompso@entec.Wichita.NCR.COM
Message-ID: <600@entec.Wichita.NCR.COM>
Source record: 10095
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.radio.shortwave

It does not rain in summer here.

--
Ken Thompson N0ITL
NCR Corp. 3718 N. Rock Road
Wichita,Ks. 67226 (316)636-8783
Ken.Thompson@wichita.ncr.com

4372. Re: ARRL/QSL bureaus

Newsgroup: rec.ham-radio
Date: 1990-07-19 16:18:15 UTC
From: davidn@tekigm2.MEN.TEK.COM
Message-ID: <9575@tekigm2.MEN.TEK.COM>
Source record: 10081

In article <1990Jul17.182130.26397@ecn.purdue.edu>, wb9omc@ea.ecn.purdue.edu (Duane P Mantick) writes:
> I get the idea,
> from talking to and listening to, hams who do a lott of overseas DX
> that direct mailing results in about a 50% or less response. Going
> out through the bureau results in a much higher percentage if for

You have been misinformed if you think that response is better via bureau than direct. Overseas direct requests, when done properly, result in better than 90% success within one year. Bureau requests would more approximate your 50% figure within five years. Any DXer I know who "needs" a foreign card will send direct to the DX station or his manager.

David, ab9o

4373. Communicators on 6 and 2

Newsgroup: rec.ham-radio
Date: 1990-07-19 16:19:48 UTC
From: rossjr%gtec3.dnet@GTE.COM
Message-ID: <9007191619.AA24889@bunny.gte.com>
Source record: 10077
Body handling: HTML body converted to readable text

Ken Hendrickson, N8DGN/6, writes:

<>

I question the rationale for such an exclusion. I particularly question it from the point-of-view of the FCC, which is supposed to be concerned with serving the public interest. To quote from my comments on the NPRM:

"Communicator licensees should be granted full privileges above 30 MHz, subject to the 200 watt PEP power limitation in the NPRM.... It is important that Communicators have access to the two-meter band, in particular. The majority of VHF packet radio and voice communications--both general-use and public-service--occurs on this band. Morse code operation is practically nonexistent. Excluding Communicators from two meters would severely limit their ability to participate in the mainstream Amateur Radio experience, and thus dead-end many new operators who otherwise would become motivated to upgrade. Indeed, many amateurs find that their two-meter operations bring them in contact with other local hams with common interests. Although two meters is the most-congested VHF band, I believe it can tolerate an additional influx of users. Furthermore, increased traffic on two meters will stimulate increased use of alternative VHF/UHF bands, in itself a desirable objective.

"...The ultimate criterion must be how to best serve the public interest; I fail to see how excluding Communicators would meet this test."

I've tried to abstain from most of the "flaming" on the no-code issue. It's not an easily-resolved problem, and emotions run very deep. However, if you (like me) reach the point where you decide that a no-code license class is a good idea, it's really hard to justify excluding Communicators from 6 and 2.

I agree with Phil Karn:

<>

Charlie Ross, NC1N

rossjr%godot@gte.com
charlie@nc1n.ampr.org
NC1N @ WA1PHY.MA

4374. Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-19 17:40:36 UTC
From: hanko@mentor.com
Message-ID: <1990Jul19.174036.6537@mentor.com>
Source record: 10092

I can second Phil Karn's observation on the article
in the latest issue of Business Week.

If you don't have access to Business Weeke, it is worth a trip
to your local library just to read this article.

... Hank - w0rli

4375. WANTED KENPRO 5400 rotor satellite

Newsgroup: rec.ham-radio
Date: 1990-07-19 18:00:41 UTC
From: joehol@microsoft.UUCP
Message-ID: <55951@microsoft.UUCP>
Source record: 10090
Cross-posted to: rec.ham-radio,rec.ham-radio.swap,misc.forsale,misc.wanted

i want a KENPRO 5400 Rotor for satellite use, in good
condition.

joe holman, ka7ldn

uw-beaver!microsoft!joehol
joehol@microsoft.uucp

206-882-8921

4376. B&W ap-10 apartment antenna

Newsgroup: rec.ham-radio
Date: 1990-07-19 18:29:00 UTC
From: MULTI@TRIUMFER.BITNET
Message-ID: <90Jul19.143319edt.57553@ugw.utcs.utoronto.ca>
Source record: 10079

I have had trouble making my B&W AP-10 apartment antenna work on 40 meters. I can tune the resonantor to 1:1 SWR with my KW SUPERmatch antenna tuner, but the antenna radiates like a dummy load. Eight feet of wire stretched across the room loaded with the antenna tuner works way better. Ideas.

Ya'akov Miles,
<multi@triumfcl.bitnet>

4377. Re: QSL help, please?

Newsgroup: rec.ham-radio
Date: 1990-07-19 18:37:39 UTC
From: bowen@cs.Buffalo.EDU
Message-ID: <31063@eerie.acsu.Buffalo.EDU>
Source record: 10078

In article <43135@apple.Apple.COM>, winter@Apple.COM (Patty Winter) writes:
> I thought Devon might have pointed this out by now, but since he hasn't...

Thanks for the pitch. I've taken to just skimming the posts here and I missed that one. The S/N ratio in this group doesn't justify the time it takes from my other projects.

(heavy sigh)

Devon

4378. Seeking News from Liberia

Newsgroup: rec.ham-radio
Date: 1990-07-19 18:42:30 UTC
From: john@csustan.csustan.edu
Message-ID: <1990Jul19.184230.947@csustan.csustan.edu>
Source record: 10080
Cross-posted to: soc.culture.african,rec.ham-radio

I am posting this article for a friend of mine. He has some close friends in Liberia that he got to know while in the Peace Corps. Because of the rebellion there, he has become concerned about their safety. Unfortunately, communications have become disrupted, and he is unable to get through to anyplace in the country using the telephone system.

He would like to get any news he can of:

1. Cuttington University College in Suacoco, Liberia

2. Moses T. Cooper & Family in Monrovia, Liberia

In addition, if anybody out there can suggest alternative ways of seeking this information, I would greatly appreciate hearing from you. In particular, I would like to get the names or addresses of any Internet sites in or near Monrovia, or find out how to contact any Ham-radio operators that are in communication with Monrovia.

Thanks.

john sarraille (john@ishi.csustan.edu),
computer science dept,
california state university, stanislaus,
turlock, ca 95380
(209) 667-3271 (office), (209) 667-7657 (home)

4379. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-19 18:43:03 UTC
From: ftpam1@acad3.fai.alaska.edu
Message-ID: <1990Jul19.184303.9903@hayes.fai.alaska.edu>
Source record: 10083

In article <7880189@hpfcdc.HP.COM>, ajs@hpfcdc.HP.COM (Alan Silverstein) writes...
>> If hams are so public-service oriented, do all of YOU know CPR? (etc)...

Actually, I learned CPR at a meeting of the local ham club. (It was a special seminar on electrocution, etc.)

Philip Munts N7AHL
NRA Extremist, etc.
University of Alaska, Fairbanks

4380. Re: Communicators on 6 and 2

Newsgroup: rec.ham-radio
Date: 1990-07-19 19:26:53 UTC
From: magid@select.enet.dec.com
Message-ID: <13648@shlump.nac.dec.com>
Source record: 10082

In article <9007191619.AA24889@bunny.gte.com>, rossjr%gtec3.dnet@GTE.COM (Charlie Ross, Jr.) writes...
>
>
> "Communicator licensees should be granted full privileges above
>30 MHz, subject to the 200 watt PEP power limitation in the NPRM.... It is

Why should we limit the power to 200 watts, lets remember that these people under the proposal are only different from the Tech by way of the code requirement. I believe they should have the same uhf/vhf privs as the current Tech class ham.

4381. QSLing ratios

Newsgroup: rec.ham-radio
Date: 1990-07-19 19:53:54 UTC
From: kb2glo@cbnewsj.att.com
Message-ID: <1990Jul19.195354.16935@cbnewsj.att.com>
Source record: 10084

All this talk of QSLing got me interested enough to check my QSLing ratios.
I've been DXing (mostly on 10 meters) since March of 1989 so I'm a relative
new comer. I've always added notes to my cards thanking the other person
for their QSO and card. If I need the card for an award I always state that
as well. To get my DXCC count up quickly I've always included a green stamp
or 2 IRCs and send direct for the first couple of contacts with a new country.
Once confirmed on any band I send my card via the buro and do so about 10 times
a year.

Well when I ran some statistics I was rather surprised at how low the
buro ratio was. I wonder if cards take much more than a year. I've been
getting a few cards a month but my log seems to have many more contacts.
Most of my DX contacts have been with Europe but I do have scattered contacts
on other continents as well. The best bet seems to be the use of managers!
Of course I always included an SASE... I only did stats on QSOs that were
over 6 months ago so as to reduce errors due to them being in the mail.
Well here is what I found.

Direct DX with GS or IRCs: 113 sent, 90 recieved, 80%
Direct USA, SASE if new state otherwise postcard: 457 sent, 349 recv, 76%

Via the BURO: 126 sent, 25 received, 20% (pretty low?)
Via the BURO and over one year: 28 sent, 9 received, 32% (not much better)

Via a QSL manager 31 sent, 29 received, 94% (way to go!)

Well the low BURO count disturbs me because if I have the country confirmed
and it is only a new country on a different band I've been sending them
via the BURO....

I think my USA ratio is pretty good but that is probably because I sent
out maybe something like 75 SASEs (or more?) to complete my WAS...

I'd like to hear other people's experiences, especially in regards to
QSLing via the BURO. 73 DE KB2GLO.

--
Tom Kenny, KB2GLO
uucp: att!lzatt!tek internet: tek%lzlup@att.att.com
packet: kb2glo@nn2z.nj.usa.na ampr: kb2glo@nn2z.ampr.org [44.64.0.10]

4382. Communicator Class Examinations

Newsgroup: rec.ham-radio
Date: 1990-07-19 21:10:50 UTC
From: DEFRANCO@TOPS20.RADC.AF.MIL
Message-ID: <12606998453.14.DEFRANCO@TOPS20.RADC.AF.MIL>
Source record: 10089

As one who finally made the decision to just learn the code rather than wait for some action by the FCC (which BTW I learned in about 14 days to the 5 WPM level), I think Ken Hendrickson is goning a little overboard on new testing requirements. What he describes is an examination for a computer scientist, or EE who specialized in computer systems. Only the last two categories relate directly to communications as such. I favor a written exam that demonstrates that the licensee has a sufficient knowledge and understanding of ham radio and radio operation required to operate within those boundaries.

What appears to be happening is that the no-code proponents, sensing the ultimate futility of total opposition, now wish to place such an extreme testing burden on Communicator class entrants that very few people will take or pass the exam. The end result of this argument is still the same: exclude all but the most technically educated unless you learn the code.

Let's enforce a uniform standard. If you propose a tough new exam with the technical level described, then how about we reexamine ALL current license holders as well - what's good for the goose should be good for the gander. You might find someone who can pass the stiff exam looking down their nose at you as technically ignorant, otherwise.

Look, I learned the code so I could get a license, period. Now I find that supporting a wife, two kids, a dog, and a house means I can't get on the air at my own QTH anywhere in the near future, unless I build my own. You are missing the best filter there is: money. I'm personally convinced that anyone who can hear can learn code, given the attitude that it can be learned. I'm willing to wager (but not much 8-)) that many people waiting for a no-code class still won't get their ticket because studying for the exam will be too much trouble.

So, let's not get carried away with Communicator exam difficulty.

Carl DeFranco
KB2JLY

4383. Re: DSP Mania and books

Newsgroup: rec.ham-radio
Date: 1990-07-19 21:20:06 UTC
From: charlie@oakhill.UUCP
Message-ID: <3554@radio.oakhill.UUCP>
Source record: 10087

In article <748@idacrd.UUCP>, mac@idacrd.UUCP (Robert McGwier) writes:
> RE: DSP Mania and books on the subject
>
> Howdy:
>
> Many people send me notes asking what DSP texts.....
>
> Theory and Practice of Modem Design by John A.C. Bingham, Wiley-Interscience
>
> and
>
> Digital Communication by Edward Lee and ??? Messerschmidt.
>
> (I can never remember Messerschmidt's first name or initial). I've forgotten
> the publisher and I left the book at home.
>
> Motorola has given away source for a V.32 trellis Viterbi decoder
> for the DSP56001. Not included is the rest of the modem which includes the
> difficult equalization, near-far echo cancellation, and data aided carrier
> recovery for the `non-round' constellation. The technical discussion given
> with the V.32 trellis decoder is appallingly bad. Don't hope to understand
> what is being done on the basis of what is in this booklet. Having written
> these decoders for a number of projects (always before in a high level
> language) I became so confused that I decided to start from scratch, but it
> is there for the taking. I am certain that I am being thick and just didn't
> like the exposition. Maybe for you it will all be crystal clear. It can be
> gotten from any Motorola Semiconductor division outlet from their tech manual/
> reference works library.
>
> I hope this helps some.
>
> Bob McGwier
> <N4HY>
> --

Here is a rebuttal from the author of the Viterbi Decoder code for the
Motorola DSP56000:

The Motorola applications booklet on Viterbi Decoding is entitled
"Convolutional Encoding and Viterbi Decoding Using the DSP56001
with a V.32 modem Trellis Example." It is not surprising that the
booklet does not cover Modem design, it doesn't even hint that it
might.
Typically customers want highly efficient code because they are

using the DSP56000 as a complete receiver and transmitter where
the Viterbi decoding is only using a portion of the processor.
Because the DSP56000 is a dual Harvard architecture, the standard
canned approach to the decoding is so inefficient as to make the
DSP56000 impossible of doing the complete receiver/transmitter design.
The applications note is an efficient implementation giving hints and
suggestions for implementing any trellis on the DSP56000. The material
is difficult to present and to read for this reason. Admittedly,
one must be willing to invest some time in reading the
implementation given in the application note to be able to understand
it. Many customers just use the free DSP code provided by Motorola,
because they lack the time or resources to spend the time it takes to
understand what is happening with the code.
The author is available to answer questions on the applications note
or any other Motorola DSP questions Bob or anyone else might have.
I wonder why Bob did not mention that no other DSP manufacturer has
a free Viterbi decoder? And finally, this same implementation has been
presented at the International Mobile Satellite Conference this year,
and was well received.
Last, the Motorola DSP56001 is, to date, the only single chip solution
for V.32 Modems. Papers and information on this are available from
Motorola DSP Operations.

p.s.

BTW it's Edward A. and David G.

----------end of rebuttal----------

posted by
Charlie Thompson WB4HVD
Motorola DSP Operation
Austin, TX

4384. Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-19 21:29:09 UTC
From: faunt@CISCO.COM
Message-ID: <9007192350.AA07535@ucsd.edu>
Source record: 10088

Do cellular nodes have emergency power? If so, for how long?
Obviously some are at CO's and will be up for a long time, but what
about my neighborhood site? Any "standard" answers?
thanx, doug

4385. Re: Communicators on 6 and 2

Newsgroup: rec.ham-radio
Date: 1990-07-19 21:55:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500595@ux1.cso.uiuc.edu>
Source record: 10085

> Why should we limit the power to 200 watts, lets remember that these
> people under the proposal are only different from the Tech by way of the code
> requirement. I believe they should have the same uhf/vhf privs as the current
> Tech class ham.

Actually there is no reason to limit the power if the written portion of
the exam is the same. The CW test and maybe some HF questions would get
HF privileges added.

I personally do believe granting 1500 watts and repeater control op privs
to someone who passes a TRIVIAL written exam, which is my opinion of the
current TECHNICIAN exam, is a BAD IDEA. It has not been so bad presently
because the CW test exists and that tends to filter out a lot of the
non-code operators. Removing the CW test lets more non-code operators
in. It could DOUBLE the ham population. Considering that only a small
portion of all hams now activate even 2 meters, the influx to VHF could
be (and probably SHOULD be) large.

The present TECH written test is the MINIMUM to get access to major VHF
privileges, which should include EVERYTHING above 50 Mhz. In my opinion
the power limit should be 50 watts. AND there should be another class
(no-code TECH?) granting full power and repeater control op privs in
exchange for a more advanced rules and technical written exam (at least
triple the number of questions).

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4386. Re: Leap second

Newsgroup: rec.ham-radio
Date: 1990-07-19 21:59:49 UTC
From: techpubs@PRC.Unisys.COM
Message-ID: <14482@burdvax.PRC.Unisys.COM>
Source record: 10093

>In article <9007171447.AA23953@ucsd.edu> kak@CYGX3.USNO.NAVY.MIL writes:
>> 1990 December 31, 23h 59m 59s
>> 1990 December 31, 23h 59m 60s
>> 1991 January 1, 0h 0m 0s
>
>This means that many more people will know about it, because the news
>media will be sure to mention it during their new year's eve party
>programs.
>
Speaking of which, did anyone notice that for last New Year's broadcast
from Times Square, both the network clock and the famous NYC time ball
(well, apple I guess!) were both wrong trying to allow for the leap
second. If my memory serves me correctly, one of the two delayed for
one second, the other delayed for two seconds, when in actuality, the
1 second leap time had already been added at 1989 Dec 31, 23h 59m 60s UT,
which happened 5 hours earlier! Perhaps someone from both places should
have checked with WWV (which of course showed the correct time, with the
one second added at midnight 5 hours earlier than EST.) and adjusted
accordingly. In any event, both the network clock and the ball showed
New Years occurring at the wrong instant.

Or, to play devils advocate, was I simply seeing propagation delay in network
feed to the Phily station whos broadcast I watched? Doesn't up and down time
to a geosynchronous satellite take about a quarter of a second? Anyone else
out there also interested in such technical trivia?

4387. Re: My Comments (official) Sent to the

Newsgroup: rec.ham-radio
Date: 1990-07-19 22:02:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500596@ux1.cso.uiuc.edu>
Source record: 10086

Communicators DEFINITELY need to be granted access to 6 meters and 2 meters.

To put the communicators ON THEIR OWN to develop bands like 33cm, 23cm and 13cm would be a DISASTER. It is the presently licensed and experienced hams, who have good technical and operating skills who should be the ones to move on up to the higher bands and develop them. So what if 2 meters becomes a zoo. If you don't like it, sell your 2m HT and buy a 23cm one and help do better what some are expecting Communicators to do instead.

However, I have listened to 2 meters in several large cities, and compared to the small community of 100,000 I live in, the PER REPEATER usage density in the big cities is LOWER than here. But we are getting along with what we have, and perhaps even better. The DX-ers and the packeteers and the ATV-ers are all get in the same 2 meter voice repeater and talk with each other and everyone gets along. Don't count the Communicators out.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4388. Alinco 110 mod for Cellular

Newsgroup: rec.ham-radio
Date: 1990-07-19 22:20:52 UTC
From: genem@hpindda.HP.COM
Message-ID: <5120011@hpindda.HP.COM>
Source record: 10100

Modifications to the Alinco DR-110 2m mobile:

After installing the out-of-band receive mod on my Alinco 110, I accidentally pressed a couple of keys and found I could receive from:

130 -> 170 MHz + Xmit of this range
340 -> 380 MHz - no Xmit
870 -> 890 MHz - no Xmit

To modify the Alinco to receive out of band, perform the following steps:

Remove the top cover by removing the obvious screws. Be careful, as the speaker may stick to the cushion on the top cover. If it does, separate the speaker from the top panel and replace it back in its receptacle within the rig.

Positioned at the front of the rig, look near the tuning knob and you will see a little yellow jumper coming from behind the front panel, looping around and returning to the front panel. This jumper looks like it should have a tag on it saying 'cut me for more features'. Go ahead and take the wire cutters to this jumper.

Replace the top cover on the rig, get everything set back up and turn on the rig.

The next step is to reset the radio. If you don't remember its current programming, you may want to write it down at this time.

When ready to reset the rig, hold down the F key and the VFO/M key at the same time, turn the POWER off, back on, and then let go of the keys. The rig is reset and will display 144.00.

You will now be able to tune around, and transmit, from 130.00 -> 169.99 MHz.

To move to the next 'band segment', press F and then the MHZ key. The display will go the 340.00 MHz segment. F+MHZ again will get you cellular, and F+MHZ a third time will return you to the 2 meter segment. Happy monitoring...

Gene - AA6IY @ N6LDL

4389. Standard phonetic alphabet

Newsgroup: rec.ham-radio
Date: 1990-07-20 01:51:01 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007200151.AA02622@tilde>
Source record: 10091

Working CW, you don't have to worry about phonetic alphabets. MOrse is the same the world over!

73,
Dube Todd

4390. Re: So, what's YOUR favorite surplus place?

Newsgroup: rec.ham-radio
Date: 1990-07-20 04:23:24 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490015@hprmokg.HP.COM>
Source record: 10113

mikef@hpsadle.HP.COM (Mike Ferrara) writes:

>Being relatively new to California, I need help finding those gems
>in the rough ... good surplus outfits. I'm particularly interested
>in the San Francisco Bay Area, but get down to LA occasionally, and would

When I used to live in So. Calif., there was a REAL good war surplus
electronics store called J.J. Glass.

I don't know if they're in business anymore and would like to know
if they are since I'll be down there in around a month or so.

4391. Help with mods and code.

Newsgroup: rec.ham-radio
Date: 1990-07-20 05:19:51 UTC
From: grx0644@uoft02.utoledo.edu
Message-ID: <1990Jul20.001951.1172@uoft02.utoledo.edu>
Source record: 10094

I am requesting from anyone who has the mods book for the RS Pro 2005 scanner some information. I have ordered my book from CRB research books, and I am just too impatient to wait for it. Can anyone can tell me which diode to cut to access the full 800MHz band. I own the servic manual for the Pro2005, which includes the schamtics. Also, if anyone has any other 'easy' mods, feel free to send them to me.

Also I am going to take classes from a local ham group so I may earn my novice license. With all the talk about code and ways to learn it, I am a bit confused as to which is the best way. CAn anyone provide an outline for learning the code? I wrote a program for the C128 computers that will translate any text into morse code (which is how I entend to practice until I start this class in the fall.) I am eager in starting my education of code, that I may EARN my first ticket.

Thanks for your help in advanced.
--
+------------------------------+--+
| Tony Schliesser: | This Space for Rent
| GRX0644 @ UOFT02.BITNET |
| GRX0644 @ UOFT02.UTOLEDO.EDU|
| FAC2966 @ UOFT01.BITNET |
| FAC2966 @ UOFT01.UTOLEDO.EDU|
| |
+------------------------------+--+

4392. Re: Communicator Class\4%Dg P5D#

Newsgroup: rec.ham-radio
Date: 1990-07-20 07:09:18 UTC
From: mikey@pnet01.cts.com
Message-ID: <3620@crash.cts.com>
Source record: 10097

```
<7H@p< `F@G
2l|)S8$v!AL2hE 1E^H9P $8&L@rKh K}5|K7SdLHE|I1ASgRx,&~\J<2URJ4LApPP5cp,Bf<(/\L
\
FR[|RQ]HT
2CX
```


```
**************************************************************************
Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
PO Box 460 ARPA: crash!pnet03!mikey@nosc.mil
Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet03!mikey
**************************************************************************
```

4393. Re: Reliability of Rigs left on

Newsgroup: rec.ham-radio
Date: 1990-07-20 07:54:10 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <257@ultrix.uhasun.hartford.edu>
Source record: 10096

In article <12606912053.10.POPYACK@TOPS20.RADC.AF.MIL>, POPYACK@TOPS20.RADC.AF.MIL writes:
>
> I don't think you will have a problem leaving your rig on all the time (unless
> it is a heathkit)....
> 73 WF2V Len
> -------

I dunno... the W1AW packet BBS ran for years using a Heath HW-2036 with
nary a hiccup. The only reason it was retired, I think, is because folks
were tired of listening to the relay clack.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

4394. Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-20 11:31:07 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007201131.AA14956@cmr.ncsl.nist.gov>
Source record: 10099

Phil Karn said:
> Those who support no-code privileges only above 220 MHz sound a lot like
> people who say they're all in favor of equal housing rights, as long
> as nobody moves into THEIR neighborhood...

I replied:
... or maybe they see Communicators as a way to get occupancy on
the higher bands before we lose them all. We don't need 99% of all VHF
operators concentrated on 2-m FM.
"We gave you the no-code Communicator class because you said it would bring
in people who would populate the microwave bands. Now N years have passed
and all the Communicators are on 2-m FM, and the 220-and-up ham bands are
still as empty as ever."
What would your answer be, Phil?

Phil's answer is:
> "It's obvious that it's time for all of us (Communicator and otherwise)
> to move on up to the higher bands to relieve the congestion on 2m. And
> perhaps we might even try some new ways of allocating spectrum on 2m so
> we can relieve the congestion there."

> As the old saying goes, necessity is the mother of invention. But I'd
> rather the necessity come in the form of new amateurs (i.e., Communicators)
> than because most of our bands were no longer assigned to the amateur
> service. If you think 2m is crowded now, try scanning the land mobile
> bands.

I now reply:
I don't think Phil's reply would help us ward off the land mobile people who
would be pointing out 220-and-up ham frequencies remaining unused years AFTER
the existence of a Communicator license. Phil, do you feel that we need
more people on two to save it? I see letting Communicators on two as directly
leading to the LOSS of many of our higher bands.

Also, pious statements like "it's time for all of us ... to move up to the
higher bands ...." haven't proven effective for the last 30 years. I propose
that the best "new way of allocating spectrum on 2m so we can relieve the
congestion" is to limit Communicators to 220-and-up bands (where gear is
presently available and not very expensive). There are enough "real" hams on
440 that the newcomers will not lack for contact with more experienced hams.
Novices have had phone privileges on 220 for some years, with little effect
on its occupancy. Why? Because Novices also have phone privileges on a lower
band (10m). It's been many years since my last regular operation on 2m, so
I'm not trying to keep "them" out of "my" band.
* * * * *
I have this nightmare that if we let Communicators on two, we are sealing

the doom of many of the higher ham bands.

* * * * *

73, Bob W3OTC

4395. Re: Lat and Long listings?

Newsgroup: rec.ham-radio
Date: 1990-07-20 11:45:48 UTC
From: olsen@XN.LL.MIT.EDU
Message-ID: <1949@xn.LL.MIT.EDU>
Source record: 10110

In article <31782@cup.portal.com>, Lee_-_Reynolds@cup.portal.com writes:
> I need something that can provide accurate (but not down to
> seconds) Lat and Long coordinates for a given city or area

If you're lucky enough to have access to the Internet, there is
a geographic information server at martini.eecs.umich.edu, that
will give you lat/lon, population, ZIP code, and lots more.

Geographic name server
command:
telnet martini.eecs.umich.edu 3000
or
telnet 35.3.64.4. 3000

Data came primarily from the US Geodetic Survey and the US Postal
Service. Coverage includes all US cities, counties, and states,
as well as some US mountains, rivers, lakes, national parks, etc.
A few international cities have also been included.
Unfortunately, some minor inaccuracies remain. Merit Inc. is not
responsible for maintaining this data.

Queries should generally look like the last line of a postal
address, as in "Ann Arbor, MI 48103".

All these queries will also work:
1) ed(1)-style regular expression, like "[Bb]os.*n$"
2) A city name alone, like "Ann Arbor"
3) A ZIP or ZIP+4 code alone, like this: "46556", "48103-2112"
NOTE: only the first 5 digits in a ZIP+4 code are used.
4) As in 1) or 2) but with a state name or abbreviation, like
this: "Ann Arbor, MI", "Los Angeles, California"
5) As above but with optional nation name or abbreviation, like
"Toronto, , Canada". NOTE: there are currently very few
foreign cities.

4396. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-20 11:54:37 UTC
From: jay@splut.conmicro.com
Message-ID: <QXK&_7#@splut.conmicro.com>
Source record: 10101

In article <1990Jul19.050427.12730@bellcore-2.bellcore.com> karn@thumper.bellcore.com (Phil R. Karn) writes:
>"It's obvious that it's time for all of us (Communicator and otherwise)
>to move on up to the higher bands to relieve the congestion on 2m.

Yea!
This sentence is absolutely right.
So far, so good, but...

>And perhaps we might even try some new ways of allocating spectrum on 2m so
>we can relieve the congestion there."

Boo!
You still haven't come up with a solution that solves both the technical
and political problems involved. Any new way of allocating spectrum that
won't be accepted by the ham population won't work.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4397. ARRL Letter

Newsgroup: rec.ham-radio
Date: 1990-07-20 12:21:15 UTC
From: magid@select.enet.dec.com
Message-ID: <13667@shlump.nac.dec.com>
Source record: 10103

ARRL LETTER Volume 9, Number 13, June 29, 1990

NEW NOVICE EXAM FOR SOUTH AFRICA TO INCLUDE CODE

South Africa soon will institute a Novice license, following closely on the heels of a similar new license in Great Britain. Details of the new Novice, or Class B, license, were published in the June 22 edition of the Government Gazette.
Applicants must be at least 12 years of age, and will be required to pass a 5 wpm Morse code exam administered by the South African Radio League. After passing the CW test, candidates will take a written exam in operating procedure and "knowledge of the ITU phonetic alphabet."
According to Hans van de Groenendaal, ZS6AKV, president of AMSAT S.A., the SARL has been working behind the scenes for several years and "has based their proposal to the South African authorities on the proposed UK Novice license."
"The introduction of the Novice license," says van de Groenendaal, "will stimulate the growth of Amateur Radio in South Africa and will serve as a model for other countries in Southern Africa. Industry sees the introduction as a move to involve more young people in communications and electronics."
The new Novices, who will receive ZU1 call signs, will be allowed 5 watts DC input (or 20 watts PEP output), and will be able to use phone, CW and data on 160 meters; CW and data on 80 and 15 meters; and CW, data, and phone on 10 meters and 70 cm. SARL is preparing to begin giving code tests, and the first technical examinations will be held in November.

NEW USER FEES TO SUPPORT DXCC

The ARRL DX Century Club will institute a new fee schedule Oct. 1. DXCC, while affecting a relatively small percentage of its members, is a substantial financial burden on the League. User fees, approved by the League's board of directors, will go toward better service (quicker turnaround time).
The fee structure is intended to encourage participants to send less frequent individual submissions to DXCC. Here is the basic outline:
1) After Oct. 1, every first-time applicant for DXCC will be charged $10.00, in addition to the usual charge for return postage. DXCC members as of Oct. 1, 1990 are exempt from this registration fee.
2) ARRL and CRRL members will be allowed free of charge one submission per calendar year; this annual submission may include

any number of QSLs, any number of DXCC awards, and any combination of new and endorsement applications. It does not include a person's all-time first submission.
3) Non-League members outside the US and Canada will be charged $10.00 for their first DXCC submission of any kind each calendar year.
4) US and Canadian DXCC participants who submit more than once in a calendar year will be charged $10.00 for each submission after the first one. Foreign non-members will be charged $20.00 for their additional submissions.

NEW TEST PROCEDURES FOR DISABLED

People suffering certain disabilities will get a break on Morse code requirements, FCC announced June 15 at the sixth annual meeting of Volunteer Examiner Coordinators.
The new procedures will allow volunteer examiners more flexibility in administering exams to handicapped or disabled people.
Given a physician's statement attesting to the handicap or disability, examiners may be able to substitute a Morse sending test for one in receiving, to allow spoken instead of written copy, and to use a Morse code recognition exam. More details on this will be forthcoming.
On other matters, the VEC Question Pool Committee, chaired by Ray Adams, N4BAQ, recommended continuation of all current questions, pending outcome of proposals to change the licensing structure (namely, the FCC's Communicator Class proposal).
FCC personnel listened to comments on the proposed Communicator Class license from the Communicator Recommendations Committee, as well as a summary of the League's "Strawman" position (see July *QST*, p 54).
The CRC also recommended that the 6- and 2-meter bands be included as privileges for the Communicator since "main-streaming" these new amateurs is one of the many goals of the new proposed license class. Also recommended was that all Novice examining be brought under the auspices of the VEC program.
The subject of fraudulent applications was discussed with no consensus reached on the extent of the problem (if indeed a problem exists).
Tom Ingram, K4OOV, of the Central Alabama VEC, was voted Chairman of the Conference for the next year.
The meeting, held in Gettysburg, PA, was attended by 12 of the 18 VECs, seven FCC staff members, Harry Dannals, W2HD (representing QCWA), two ARRL directors (W3ABC and N4MM), Evelyn Garrison, WS7A (of ICOM, representing manufacturers), and observers from the Military Affiliate Radio System (MARS).

PROGRESS FOR INJURED SOVIET HAM

A 25-year-old Soviet amateur is making progress following injuries sustained in an automobile accident, thanks to the assistance of radio amateurs both here and abroad.
As reported last issue, Oleg Porugov, UA4FAY, was in a coma following the May 25 accident, and it has not been possible to move him from a hospital in Ryazan to better facilities. Through the efforts of several American hams, three shipments of supplies have been sent to Ryazan. An additional shipment of intravenous feeding solution has been sent by West German amateurs.
Medical consultation between Dr. Joseph Izzo, of Foster City, CA, Dr. Lawrence M. Probes, ND8S, and Dr. Charles L. Starke, NX2T, and Soviet physicians continues by both Amateur Radio and Telex messages.
A month after the accident, Porugov's condition continues to improve and the doctors are guardedly optimistic. Porugov is able to see and recognize friends, his partial paralysis appears to be abating, and he now is breathing entirely on his own.

RADIOSPORT EVENT RECEIVES GRANT

The World Radiosport Team Championship (see May *QST*, p 48) has received a check for more than seven thousand dollars from the ARRL Mullan Fund, the balance of a grant from the T. Mullan Foundation established to enhance goodwill between the peoples of the US and the Soviet Union.
Final arrangements for operating permission for visiting amateurs from the Soviet Union and several eastern European countries are being hammered out at this time.
Amateur Radio press kits for the WRTC, as announced in May *QST*, are ready for mailing; send an SASE for yours.

TEXAS HAMS WIN TOWER RIGHTS

Amateurs in Bedford, TX won a major tower victory earlier this month. On June 12 the city council of this Dallas-Ft. Worth suburb unanimously approved a 65-foot tower ordinance. A dispute which had begun in October, 1989 over the 60-foot tower of Mike Simpson, WB5SUF, had escalated to include virtually every amateur in the city.
The Simpson case, according to ARRL volunteer counsel Lanny Priddy, K5LP, was not a PRB-1 case, because it concerned plat and deed restrictions, not a local ordinance. Priddy did, however, cite PRB-1 in his arguments.
Ironically, Simpson praised the homeowners who had complained to the city. "They allowed the city to clear up the entire antenna question," Simpson said, because "before the ordinance hams had been given a plethora of conflicting information at city hall."

U MEMBERS TO VOTE ON BURMA

Member societies of the International Amateur Radio Union are being asked to vote on the possible termination of membership

of the Burma Amateur Radio Transmitting Society (BARTS). IARU Calendar 149, sent to all IARU societies June 12, notes that Proposal 195 was directed by the IARU Administrative Council at its April meeting in Spain.
Amateur Radio was officially banned by the Burmese government on January 10, 1964. It now is believed that "there is no one presently alive and living in Burma who has any connection with BARTS." The last communication from BARTS to the IARU occurred in 1976, from Zaw Yee, ex-XZ2SY, indicating that the society was inactive. Zaw Yee died the following year.
Votes are due no later than Nov. 12, 1990.

DISASTER RESPONSE DISCUSSED

A meeting of League and emergency response volunteers met June 12 sought to cement emergency planning through the National Disaster Medical Service. The Service, formed in 1983, would be called into operation in the event of a catastrophe beyond even the ability of an entire state or region to handle, only upon a state's request.
Communications still is a sticking point of the plan. While the National Communications System (NCS) is the major player, holding government communications assets such as leased and government-owned telephone lines, microwave systems, satellites and HF radios, the government agencies using these services necessarily will put their own needs first. It is impossible to determine in advance how much excess capacity will be available for medical evacuation and related purposes.
The lead agency for communications is the Federal Emergency Management Agency. FEMA's main mission is to coordinate federal response to disasters. Its plans for handling NDMS messages are unclear.
While all NDMS members at the meeting agreed that amateurs will be a part of any response to a major disaster, the League has expressed its concern that amateurs will be thrust into a de facto *primary* role. Since amateurs would already have been mobilized at the local level, their numbers and resources would likely be strained by a "national call-up."
Further discussion addressed amateurs' assignments and roles, as well as the establishment of message formats and protocols. A drill planned for October likely will include the ARRL in some yet-to-be-determined capacity.
Ultimately, the ARRL Board of Directors will decide whether to approve a formal Memorandum of Understanding between the NDMS and the ARRL.
Further talks are scheduled for July 12 in Washington.

FIELD DAY

Conditions were--to put it gently--rotten. But they tested our mettle as communicators, and that's what ARRL Field Day is

all about.
Novices in particular, lulled by superb 10 meter conditions the past couple of years, may have been shocked by the white noise on that band over the June 23-24 weekend. They were treated to a taste of what's to come when the sun quiets down in another year or two.
Alternate modes of communication, particularly VHF packet and satellites, were kept especially busy this FD. Messages appeared on various packet clusters from FD stations in the field, and activity on AMSAT as well as Soviet and Japanese satellites was healthier than ever.
W1AW made a couple thousand FD contacts, in the process shaking down both new aerials and equipment at the visitors' operating positions. Six operators used computers for logging at four operating positions, running prototype FD software developed by ARRL contest assistant Mark Burke, KA1MIS.

BRIEFS

* Corrections: Gay Milius, W4UG, who died June 6, was not ARRL Hudson Division Vice Director in 1951 and 1952.
The name of Allen Singer, N2KW, was misspelled in Volume 9, Number 12.

* FCC recently adopted an order implementing the license fees for most radio services other than amateur which had been established by Congress in the Budget Reconciliation Act of 1989. An unclearly drafted item in that order relating to duplicate licenses has been misinterpreted, leading many amateurs to believe that a 35-dollar fee is required for duplicate amateur licenses. This is not true--FCC collects no fees for any amateur license transactions.

* Congratulations to Leon A. Faber, W7EH, of Phoenix, and A.G. Wentzel, W2HX, of Trenton, NJ, both of whom recently marked seventy years as League members.

* The new target launch date for Shuttle STS-35 (and SAREX) is August 12 at 0506 UTC.

* Amateurs needing Kenwood parts now can phone toll free 800-637-0388 to place orders at the Kenwood USA facility in Long Beach, CA.

* On June 11 the Shelby (TN) County Commission unanimously approved an amendment allowing Amateur Radio towers up to a height of 65 ft., according to Atty. Albert C. Burnham, W4RIM. Previously, the Memphis City Council and the Land Use Control Board had approved the amendment. Completion of the process now has raised the allowable height from 35 to 65 feet.

* Nathan Gidron, general manager of Motorola Israel, has announced Motorola's "adoption" of the Israel Amateur Radio Club.

Operating for years without a home, the club began a fund drive a few years ago that fell short. Thus, Motorola will be allocating a room of 40 square meters for use as the offices of IARC, which is Israel's national society. (From *HaGal*, 4X1MK and 4X1AT, editors).

* Satellite enthusiasts and AMSAT members are advised that the former *Amateur Satellite Report*, now called *Oscar Satellite Report*, no longer is included in AMSAT membership. As of April 1, *OSR* is received by subscription from R. Myers Communications, PO Box 175, Litchfield CT 06759 ($26 per year for 24 issues).
AMSAT has, according to Myers (who is W1XT), "provided encouragement and support" during the changeover. Myers has been editor of the publication since its inception in 1981.

* Ham club officers will be interested in the latest (1990-91) edition of the *ARRL Club President's Workbook*.
Complimentary copies already have been sent to ARRL officials and ARRL affiliated club presidents. Additional copies are available from HQ for $7.50, including shipping and handling.

* Is there anyone who doesn't love museums? We can heartily recommend the Antique Wireless Association's museum, located in the Finger Lakes region of western New York, near Canandaigua. The whole family can enjoy this trip back in time, as the AWA Museum features not only Amateur Radio but just about every kind of wireless, as well. Next door is the East Bloomfield Historical Society with exhibits of interest to everyone.
AWA Museum hours are 2-5 pm Sunday, 2-4 pm Saturday, and 7-9 pm Wednesday, through Oct. 31. Group tours are available by appointment. Bruce Kelley, W2ICE, is curator. AWA Museum, Main Street, Holcomb NY 14469. Phone 716-657-6260.

* First call for papers for the AMSAT-NA Space Symposium, to be held Oct. 10-12 in Houston. The symposium will feature talks on the latest technology in both the manned and unmanned aspects of the Amateur Radio space program. Talks on MICROSAT utilization are particularly wanted. Send summaries of proposed papers to AMSAT-NA, 850 Sligo Ave., Suite #600, Silver Spring MD 20910 by July 15. Those selected for presentation will be notified by Aug. 1.

4398. Six Meter Amplifiers

Newsgroup: rec.ham-radio
Date: 1990-07-20 12:41:20 UTC
From: wa2sff@cbnewsh.att.com
Message-ID: <1990Jul20.124120.13464@cbnewsh.att.com>
Source record: 10104

I just purchased a Yaesu FT690 six meter all mode radio.
It has 2.5 watts output and I would like to amplify is to at least 50 W.

Does any one know who makes 6 meter amplifiers and where they can be
purchased.

I also might build one and have found an article in an old issue of
QST. I would like to here from someone who has built a 6 meter
amplifier.

Any hints would be helpful.

Joe Wilkes
att!hound!wa2sff
201-949-1601 work
201-741-2090 home

4399. Re: 2 meters (144Mhz band) and wet trees

Newsgroup: rec.ham-radio
Date: 1990-07-20 12:53:44 UTC
From: gp15@cunixf.cc.columbia.edu
Message-ID: <1990Jul20.125344.15729@cunixf.cc.columbia.edu>
Source record: 10125
Cross-posted to: rec.ham-radio,rec.ham-radio.packet,rec.radio.shortwave

In article <600@entec.Wichita.NCR.COM> kthompso@entec.UUCP (Ken Thompson) writes:
>It does not rain in summer here.

The crown has made it clear?

4400. ATV BALLOON LAUNCH. W H E N ? ? ? ? EVER?

Newsgroup: rec.ham-radio
Date: 1990-07-20 13:01:35 UTC
From: POPYACK@TOPS20.RADC.AF.MIL
Message-ID: <12607171531.11.POPYACK@TOPS20.RADC.AF.MIL>
Source record: 10102

There I was tuned into 7155 Khz and something about a baloon launch (I was late in turning on the rig, 9:05 AM). Something is strange -- a bunch of 4 prefix calls, Hmmmmm. I better get the TV all set up fast! So there I am scrambling to set-up the TV on channel 60, throw up an antenna and catch the NH ATV Baloon launch (which had been delayed every weekend). Then I hear a bunch of Florida stations "Gee Awww WOOOW I got the signal!!!!"
WELL? WHY AM I NOT RECEIVING IT? Then Net control says this is the Florida Balloon launch. WHERE IS NH BALLOON LAUNCH AND WHY ARE YOU FOLKS ON THIS FREQUENCY???? Turns out the New Hampsire Launch is up 25 KHZ and had been cancelled.

HOW ABOUT SOME COORDNATION ON THESE THINGS????

WHEN is the ATV Balloon going to be launched?

Thank You. Ramblings of an ATV BALLOON LISTNER who has NEVER heard one yet.

4401. Re: Help with mods and code.

Newsgroup: rec.ham-radio
Date: 1990-07-20 13:21:44 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2251@ryn.esg.dec.com>
Source record: 10098

> Also I am going to take classes from a local ham group so I may earn
my novice
> license. With all the talk about code and ways to learn it, I am a bit
> confused as to which is the best way. CAn anyone provide an outline for
> learning the code?

The best way is to sit down and do it. Trying to find the "best" method
can easily
take twice the time that it would take to learn using *any* method. You
don't even
have to wait for the Fall -- just go to Radio Shack and get a copy of
the Novice
study program, study the way the tell you to and in three week's time you'll be
ready. No muss, no fuss, two General Class hams can give you the exam and
you're licensed.

That said, there are some things that will seriously impede your
learning: using
any of the methods that try to teach cute phrases that "sound" like the
dits and
dahs. It's been pretty well established that you'll cripple yourself at
higher speeds.
If you use your computer program, don't study using text that you have put into
the computer yourself -- you'll already know what's coming and you'll only
fool yourself into thinking you know the code. A good approach would be to
make a little program that randomly generates call signs, Q-signals,
signal reports
and so on. It's great to be able to copy "Xanadu" in morse code, but
that's not
what's going to be on the exam. Listening to code on the air is good for
practice,
but it's only good if you're listening to machine-generated code. While it's
important to get practice with hand-sent code to be effective in CW operations,
that's not the same as getting the ticket. Licensing is gamesmanship,
operating
comes later.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

My employer doesn't care what I think. I, in turn, don't care what
you think. You probably don't care what my empolyer thinks. Thus is
life a circle.

4402. Re: QSLing ratios

Newsgroup: rec.ham-radio
Date: 1990-07-20 15:30:32 UTC
From: murphy@ufp.dco.dec.com
Message-ID: <3151@decuac.DEC.COM>
Source record: 10107

> Via the BURO: 126 sent, 25 received, 20% (pretty low?)
> Via the BURO and over one year: 28 sent, 9 received, 32% (not much better)

...
> I'd like to hear other people's experiences, especially in regards to
> QSLing via the BURO. 73 DE KB2GLO.

Expect bureau cards to take anywhere from several months to several
YEARS to be returned.
For example, my recent buro shipment contained cards for QSOs I made
while in Guernsey
in December '88. Note: not RESPONSES to my cards; these are from folks
who want one from
me for 'a new one'! A year and a half. You've got to be patient.

Re: direct QSLing. I haven't counted, but my experience is that most
folks are pretty good
about responding. (the St. Peter and Paul Rocks expedition was a glaring
exception - but that
was the Brazilian postal 'authorities'. It took me a registered letter
to get a QSL!)

Enjoy and good luck.
-Rick

Rick Murphy, WA1SPT/4 Digital Customer Center, Landover, MD
Domain: murphy@ufp.dco.dec.com -or- murphy@ufp.enet.dec.com
Bang: decwrl!ufp.dco!murphy -or- decwrl!ufp.enet!murphy
Ding: (301) 306-2985
Disclaimer: This nonsense came from an AI program written in TECO. Ignore it.

4403. Communicators on 6 and 2

Newsgroup: rec.ham-radio
Date: 1990-07-20 15:43:24 UTC
From: rossjr%gtec3.dnet@GTE.COM
Message-ID: <9007201543.AA04561@bunny.gte.com>
Source record: 10105

Since my posting on "Communicators on 6 and 2" a couple of days back, there have been several interesting replies. A couple of points I'd like to address:

--Several people have questioned the 200W PEP power limit. Now that I'm pressed to defend it, I realize that, in all probability, I can't. Chalk it up to an emotional reaction to something I simply didn't examine too closely when I wrote my comments. You could make a case that Communicator is entry-level, like the Novice, so use the power as an incentive to upgrade. But, that's pretty weak. Giving Communicators full power privileges wouldn't cause me any heartburn.

--It seems that the "CW will filter out undesirables" argument is still around after all these years. Permit me to quote my comments again:

"In the 1983 proposed rulemaking on this same subject, I filed comments against the creation a code-free license. My experience in the intervening seven years has indicated that: (a) In spite of the fact that five words-per-minute (WPM) code is easy to learn, many otherwise-interested newcomers refuse to bother. (b) The morse code does not provide a "screening mechanism" to maintain the integrity of the service. Although it does "screen out" certain people, there appears to be no correlation between willingness to learn morse code and the caliber of operator. (This has come as a surprise. The "screening" concept was a key element of my 1983 comments.) (c) The morse code is becoming less important as a communications mode. Although morse activity remains high (and I use it myself), future growth in the Amateur Service will clearly be in computerized, digital modes. Indeed, fully half of my NC1N operation involves TCP/IP-networked packet radio. (d)JJThe overwhelming majority of state-of-the art amateur experimentation centers on two areas: digital networking and amateur satellites. Knowledge of the morse code is essentially irrelevant to such experimentation."

--See the above paragraph regarding the "CW is easy" argument. Of course, CW is easy. All of us who are currently licensed hams know that. But many computer users don't care: they've got better things to do. *Relevance*, not ease, is the criterion. Easy or not, they want to spend their time on something the perceive to be valuable.

--Finally, what will Communicators do for the service? Will many people be interested? Well, here in Boston, we have an Amateur Radio special interest group in the Boston Computer Society (30,000 members). The percentage of BCS members who belong to our SIG is more than triple the percentage of hams in the general population. Many have not yet been licensed. This is a good group of people, by and large, and it includes a lot of software types (which we NEED in ham radio). The fact that we'll have to "sell" them on the code from inside the hobby rather than outside doesn't bother me. Nor do I doubt that, once exposed to mainstream experiences like 2m FM, most would want to upgrade.

Let's drop the idea that people who won't take the code test are riff-raff.
All the flames notwithstanding, it simply isn't true.

Charlie Ross
rossjr%godot@gte.com
charlie@nc1n.ampr.org
NC1N @ WA1PHY.MA

4404. Re: QRP kits?

Newsgroup: rec.ham-radio
Date: 1990-07-20 15:56:34 UTC
From: donm@hpnmdla.HP.COM
Message-ID: <1250202@hpnmdla.HP.COM>
Source record: 10119

Try RADIOKIT. They have a bunch of interesting offerings. Their mail address:
RADIOKIT
PO Box 973
Pelham, NH
03076

Store address:

169 Jeremy Hill Rd
Pelham, NH
03076

Phone:
(603) 635-2235

73, Don K6LTS

4405. Re: QSLing ratios

Newsgroup: rec.ham-radio
Date: 1990-07-20 16:00:36 UTC
From: tomas@Apple.COM
Message-ID: <43185@apple.Apple.COM>
Source record: 10124

Yet another QSL ratio report...

My computer tells me the following: (from about March '88 till yesterday)

Direct QSLs sent: 876 (all but 5 for DX stations)
Direct QSLs received: 719
Average turnaround time: 65 days
Return rate percentage: 82%

Bureau QSLs sent: 578
Bureau QSLs received: 144

The "buro" figures are misleading. I've only received 10 cards from the bureau that have "TNX QSL" instead of "PSE QSL." All of those cards came in a packet yesterday! The bureau turnaround time is at least a year or two. I've only received one unsolicited direct QSL (from an HB9). Through the bureau, I guess I've received about 134 unsolicited QSLs. The best two were from Malta (9H3??) and Morocco (CN8). The all-time best QSL was from JPL for a QSO during the Neptune encounter (I was mobile on 40m in Utah). The QSL came with a stack of color 8x10 shots of Neptune, its rings, and its moons, taken by Voyager.

Tom Taylor
AA6BR

4406. FO-20 satellite usage

Newsgroup: rec.ham-radio
Date: 1990-07-20 16:51:06 UTC
From: joehol@microsoft.UUCP
Message-ID: <55985@microsoft.UUCP>
Source record: 10116

OK, what's the deal!

for the last 4 days (12 passes over Seattle) i've been
on FO-20, *ALONE*, except for last night on one pass
some guy from Rhode Island was on...

signals are great, bird is loud, etc...

but, where is everybody !!! their used to be lots of
people on JA mode...

sigh...

joe holman, ka7ldn

(and yes, i too have been working ao-13 in between passes...)...

4407. Glen Baxter goes off the deep end (Listening Tip)

Newsgroup: rec.ham-radio
Date: 1990-07-20 16:54:25 UTC
From: flash@lopez.UUCP
Message-ID: <1990Jul20.165425.20551@lopez.UUCP>
Source record: 10036
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I admit it, I like listening to the insanity that has permeated the ham 20 meter band lately. I suppose it is the same fascination that makes some people gawk at a barroom brawl.

Well the boys have picked a new hangout, and it is easy to see why. If you are an SWL, and NOT a ham, I suppose I should take a moment to say that this behaviour is terrible, and REAL hams do not act this way, and I am supposed to be disgusted with "Hams acting like CB'ers" (That always starts a fight, as I know some pretty good 11 meter operators). OK. That said we continue:

For over a year now, there has been a "War" on the 20 meter band. The players include members of the MARITIME MOBILE and INTERCONTINENTAL nets, famous meeting places for traffic handling, including many phone patches for boaters. An opposing group, known as BARF (Better Amateur Radio Federation), claim that this phone patching is illegal, and they hold forth with LONG dissertations against patching. These talks turn into heated arguments, where often the issue is lost, and the name calling and caterwalling turns into a full blown knock down drag out.

Have your popcorn ready.

The fights were confined to 14.313, the frequency used by the NETS, and 14.300, where the nets moved to get away from the noise and insanity. All day and night, on one of these two frequencies (SWL's you will need to use UPPER SIDEBAND to listen, using a BFO or USB switch if your radio has one). It is a good lesson in human behaviour studies, and may not be YOUR cup of tea. Still EVERYONE should at least listen to get the picture at least once.

Lately though, at least this past week, the war has moved to new ground. 14.275mhz. The normal home of IARN, the International Amateur Radio Network, has been total chaos. Glen Baxter, K1MAN, who operates the IARN, is a self appointed "bulletin station" He has regularly scheduled "Broadcasts" on the frequency all day long. These 45minute shows (Can you guess he uses C-90 tapes?) are supposed to be news and information for hams, and as such, are supposedly legal under FCC rules, Because the ARRL (Amateur Radio Relay League) operates its own bulletin station (W1AW) which also transmits bulletins of information about ham radio to the ham radio public at large. FCC rules were clearly written to permit this operation (One way transmission for other hams, not for the general public)... BUT it also opens the door for people like Glen Baxter, who is a frustrated radio broadcaster. His bulletin transmissions are as slick as he can make them, with many different voices, and reports taped from other services. Often, very often, these transmissions include

"Editorial Comment". One could argue that such comments are just the other side of the scope of "Information Bulletins". Glen is such an egotist that I am constantly astounded at his audacity.

This past week, Glen brought upon himself and his chosen "Official IARN Frequency", the wrath of the entire bunch of 20 meter rowdies. As I type this article, none other than WA4D (The Dog) is holding forth doing his dog thing. (Some think the dog is THE most obnoxious operator in ham radio, one thing for sure, he is NOT shy).

How did the insanity move to 14.275? Well this past weeks K1MAN "news bulletin program" Transmitted several times each day for the entire past 7 days, was a Tirade against two other operators, namely KV4FZ (Herb) and WB4GDP (Bob). For over 30 minutes, Glen heaped charge upon charge against these operators, which to THIS reporter seem quite libelous. Some of the things Baxter says defame the two operators (They are both KEY BARF members, and both highly controvercial to begin with) Of course, Herb and the boys were not going to let the challenge go untested, so they started holding forth on 14275, and when Glen's regularly scheduled "broadcast" came on the air, They cried that they were being QRMed, and then took the broadcast apart point by point. Following the broadcast, they ripped Glen apart in a manner similar to how he tore into them. Not only giving rebuttals, but pointing out character flaws, and presumed personality defects, with just a touch of verbal assassination.

My personal opinion is that Glen's most recent "broadcasts" (the term he uses, though broadcasting is forbidden by hams) have no place as an information bulletin. It is a way for Glen to express his personal vendetta against other operators in an automated tape playback several times a day. This is not wise spectrum use in the opinion of THIS operator, and further, he complicates things by causing the insanity to crank up on his own 14.275. All week, it has been total bedlam on this frequency from Early morning to Late night. I KNOW these signals propogate to Europe.

You listen and you are either amused or appaled. Those who remember the "golden age" of ham radio, where nothing controvercial was ever discussed, where manners counted, and nobody said "darn".... This type of Ham or SWL will find the current happenings on 14.275 (and 14.313 and 14.000, and others) patently offensive. Those "glory days" are gone. You adapt, or you unplug the antennas.

At times it is total Chaos, Seems as if 20 people are yelling at once. Like I said, it compares to a barroom brawl.

It is real people, BEING real people. It is worth a listen, so you can draw your own conclusions. No one can listen constantly to this stuff, but it is a good study in human relationships.

Disclaimer: If you are a shortwave listener considering ham radio as a hobby, you should listen to many other frequencies. Like USENET, The

ham bands contain a cross section of humanity, and you CAN make
wonderful friendships, and have fascinating discussions in real time
with people all over the world. The 20 meter mess is not the way most
of ham radio conducts itself, any more than the guys throwing punches in
a bar typify all those who frequent said establishments.

That out of the way, tune in and gawk a bit. It's fun. And if you are
a ham and DARE to transmit, be sure and sign you call. It will make you
stand out in the crowd....

--
=Marquette MI: It's Not the END of the world, but you can see it from here=
== Gary Bourgois flash@lopez (rutgers!sharkey!lopez!flash) GWN UPLink ==
== 3.950 Nationwide Amateur Radio Nightly after 0200z=Learning Channel ==
=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

4408. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-20 16:57:36 UTC
From: stevew@wyse.wyse.com
Message-ID: <2800@wyse.wyse.com>
Source record: 10117

In article <186@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
>Why oh why does everyone drone on about how wonderful amateur radio
>is in an emergency? This is the U.S.A., this country has the best
>equipped Emergency services and Armed services in the world. The U.S.
>Armed services even have their own phone network. Do you seriously
>think that amateurs are the lynch-pin of disaster communications?

Nope, we're certainly not the only game in town....but we are one of the
best preparred to help due to some to the goals and purposes you
mention later.

> In my cynicism I suspect the ARRL is behind this stuff.

Oh....could be.....but I'm not wearing my Section Manager's hat
right now. ;-)

>It somehow
>reminds me of NRA stance of "A high powered automatic weapon in every
>home will reduce crime".

>The fact is, the U.S.A. is about the only country where you can play
>ambulance man with your radio. It is pretty much illegal in most of
>the world as it is truly third party. Watch the rec.ham-radio.lawyer
>postings on this one.

>If you read the international docs that mention amateur radio, there
>is no mention of "disaster communications". To illustrate what they do
>mention, permit me to display a paragraph from PR Docket No 90-55

> Quote of the International Rules deleted so I can get this to
> pass the posting filter....

Fine Julian....but the US basis and purpose has one other added
item in its' list. In fact, if memory serves me correctly its
the first in the list. To paraphrase radically(I'm doing
this from a poor memory ;-) the basis purpose also says to
provide a corps of trained operators to aid in emergency communications.

The new rules rewrite goes even further to codify that fact that
its ok to help out in public service events which was always open
to debate before the rewrite.

You're probably right about the US being an exception in this case
but as far as I can see we're providing a useful service by doing
so.

>Interesting that, "self-training, intercommunication and technical
>investigations". When I studied for my exam, that's what I thought

>it was for. But I suppose that makes me an old fart that doesn't
>understand.

That self-training includes more than one aspect for a US
licensee. It includes self-training as both a techician and an operator.

>If my local emergency service needs more coms these days, they don't
>call out the fat guys with the walkie-talkies on their belts and
>obsolete police radios in their cars. They call up a cellular carrier
>and get some cellular phones that give them instant coms and ability
>to communicate anywhere in the world.

Yes they do. Cel Tel doesn't cover the world (yet ;-). Communicating
anywhere in the world ?? I thought that was what HF was for ;-)
Seriously, as I've posted recently, I just have to look to last
weekend to find an existance proof to nullify your statement.
We had a cell tel with us. Odd...they don't provide service 20 miles
into the back country....but amateur repeaters did. Mind you we did
have to set up a cross-band link to get the coverage we needed...
whoops...the technician aspect of the whole thing just snuck in.

(Note for the readers not familiar with California...back country
implies mountainous terrain. No line-of-sight communications was
available with the major populations centers.)

>Why don't we push the aspects of amateur radio that are in our
>international charter?

I don't see why we can't push ALL the aspects of the US basis
and purpose....

73's de Steve KA6S

4409. Re: QSLing ratios

Newsgroup: rec.ham-radio
Date: 1990-07-20 17:09:43 UTC
From: dixon@hpuxa.ircc.ohio-state.edu
Message-ID: <2979@nisca.ircc.ohio-state.edu>
Source record: 10109

There are other ways to send QSLs than have been discussed thus far.
1. Send cards directly to DX bureaus, rather than thru the ARRL outgoing service. Their addresses are in the Callbook. This saves the time for ARRL to send them to the same places.

2. Use a QSL forwarding service, such as N7RO. For a small fee per card, he sends your cards with an SASE to any known qsl manager (he knows who they are), and then sends the replies to you via the ARRL incoming bureau. If there is no known manager, he sends them via the bureau. This saves you from having to know anything about DX addresses or managers, and saves you lots of postage. I have had good results with this method.

Bob

-=-
Bob Dixon email: Bob_Dixon@OSU.edu
Director, Instruction and Research Computer Center voice: 614-292-4843
Ohio State University fax: 614-292-7081
1971 Neil Avenue (room 406) packet: W8ERD@W8CQK

4410. Re: Reliability of Rigs left on

Newsgroup: rec.ham-radio
Date: 1990-07-20 17:10:32 UTC
From: hideg@spsd3260a.erim.org
Message-ID: <1990Jul20.171032.17199@math.lsa.umich.edu>
Source record: 10108

In article <12606912053.10.POPYACK@TOPS20.RADC.AF.MIL>
POPYACK@TOPS20.RADC.AF.MIL writes:
> I don't think you will have a problem leaving your rig on all the time
> (unless it is a heathkit)....

Golly!

I was given an HW-2036. I intend to use it as a remote base on my
RC-85-controlled 440MHz repeater. Is there a reliability issue I
should be concerned about? Fortunately I have GREAT access to the site...

Steve Hideg (N8HSC)

hideg@spsd3260a.erim.org

4411. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-20 17:29:57 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990Jul20.172957.9000@portia.Stanford.EDU>
Source record: 10112

The ARRL was so overconfident over winning the 220 debate, based on public service arguments, that they refused or ignored other arguments and offers of help. If you want the sordid details, email me.

-=Paul Flaherty, N9FZX/VK2WYX | "TEXAS! Has a USENET in it... (Lord have Mercy
->paulf@shasta.Stanford.EDU | on us all!)" -- _The Best Little Net in Texas_

4412. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-20 17:56:03 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880192@hpfcdc.HP.COM>
Source record: 10106

> ...California Highway Patrol logged 200,000 calls to its 911 emergency
> number from drivers using cellular phones."

And how many from hams through phone patches?

Maybe the problem is really just that they don't keep track of that
number... or they lump it in with cellular phones.

4413. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-20 17:58:44 UTC
From: ee5391aa@hydra.unm.edu
Message-ID: <1990Jul20.175844.8030@ariel.unm.edu>
Source record: 10111

I have no answer to Doug's original questions, but it does bring up some ideas to me. You know how a local 2M rptr. can get jammed up when there's something exciting brewing, such as an SAR operation. What happens when a widespread emergency occurs? Consider that hams (on the average) are pretty considerate folks, and (IMHO) are more likely to have some training/experience in handling emergencies and dealing with emergency communications.

Now.

What happens to the local cellular nodes when the fewmets hit the windmill? IMHO again, the service would go "suddenly and dramatically to hell" as dozens/hundreds of nervous folks tried to get on the air at the same time.

So what really happens? Can anyone in the Bay area tell us what happened on the cellular links during the big shakeup a while back? Some of you must KNOW what happens to the cellular services in these situations. Would you be willing to share your tales?

Curiouser and curiouser,
d

--
"Peace is hell." -- Skyler
Duke McMullan n5gax nss13429r phon505-255-4642 ee5391aa@hydra.unm.edu

4414. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-20 18:21:33 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul20.182133.21406@bellcore-2.bellcore.com>
Source record: 10114

In article <QXK&_7#@splut.conmicro.com>, jay@splut.conmicro.com (Jay
"you ignorant splut!" Maynard) writes:
|> Boo!
|> You still haven't come up with a solution that solves both the technical
|> and political problems involved. Any new way of allocating spectrum that
|> won't be accepted by the ham population won't work.

If by "political problems involved" you're referring to your "requirement"
that an existing repeater allocation stay in effect forever no matter what,
then I'm afraid there is no solution.

Phil

4415. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-20 18:36:01 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul20.183601.21501@bellcore-2.bellcore.com>
Source record: 10115

In article <9007201131.AA14956@cmr.ncsl.nist.gov>, rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
> Also, pious statements like "it's time for all of us ... to move up to the
> higher bands ...." haven't proven effective for the last 30 years.

Bingo! The reason they haven't proven effective is because there has never been any *real* incentive to move up. The fact that 220 and 70cm are almost dead outside of major metropolitan areas ("dead", in that they're much less heavily used PER CAPITA) is convincing proof that the most effective way to encourage use of the upper bands is to increase the density of the amateur population.

> There are enough "real" hams on
> 440 that the newcomers will not lack for contact with more experienced hams.

I disagree. Only in major metropolitan areas is 70cm FM activity high enough to make this band a place to assimilate Communicators into the existing amateur population. Remember that there are vast areas of the US with little or no activity on bands other than 2m, and even on 2m in these areas there is plenty of room. One set of comments I saw at the FCC were from an amateur in northern Wisconsin who said that much of 2m is completely idle up there, and any extra activity (even more repeaters) would be most welcome.

Phil

4416. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-20 18:53:31 UTC
From: rawlins@motcid.UUCP
Message-ID: <4277@apricot40.UUCP>
Source record: 10122

From article <9007192350.AA07535@ucsd.edu>, by faunt@CISCO.COM (Doug Faunt N6TQS 415-688-8269):
>
> Do cellular nodes have emergency power? If so, for how long?
> Obviously some are at CO's and will be up for a long time, but what
> about my neighborhood site? Any "standard" answers?
> thanx, doug

Yes doug, most cellular nodes (base sites) do have backup power supplies. I'm not sure how long they are good for (a few hours?).

I say "most" because even though it is supplied with the equipment and its use is strongly recommended by the manufacturer, it is up to the operating company as to whether it is actually used and maintained.

Robert Rawlins
Motorola, CID "Don't ask me! I only work here."
1501 W. Shure Drive
Arlington Heights, Il 60004 All standard disclaimers apply.

4417. Re: DSP Mania and books

Newsgroup: rec.ham-radio
Date: 1990-07-20 19:49:08 UTC
From: mac@idacrd.UUCP
Message-ID: <749@idacrd.UUCP>
Source record: 10120

From article <3554@radio.oakhill.UUCP>, by charlie@oakhill.UUCP (Charlie Thompson):
> In article <748@idacrd.UUCP>, mac@idacrd.UUCP (Robert McGwier) writes:
>>
>> RE: DSP Mania and books on the subject
>>
>> Motorola has given away source for a V.32 trellis Viterbi decoder
>> for the DSP56001. Not included is the rest of the modem which includes the
>>
>> Bob McGwier
>> <N4HY>
>
> Here is a rebuttal from the author of the Viterbi Decoder code for the
> Motorola DSP56000:
>
> The author is available to answer questions on the applications note
> or any other Motorola DSP questions Bob or anyone else might have.
> I wonder why Bob did not mention that no other DSP manufacturer has
> a free Viterbi decoder? And finally, this same implementation has been
> Last, the Motorola DSP56001 is, to date, the only single chip solution
> for V.32 Modems. Papers and information on this are available from
> Motorola DSP Operations.
>

The author of the applications note is Dion Messer and may be contacted
at (512)-891-2694 (Motorola DSp operations). She was extremely polite
and helpful when she called to talk to me about the note. I agree with
every single sentence in the `rebuttal.' I use ONLY Motorola DSP products
in all my DSP work and the architecture and what it affords you in the
way of speed up in a number of applications is the reason. Dion's comments
leaned towards defensive about the fact that it is not an applications
note on modems. I didn't mean to imply that I didn't like the note
because it didn't cover modems. I didn't like the note because it didn't
do what I needed done and that was to explain clearly how do you take
advantage of the architecture of the 56000 series to this trellis decoder
is such a way that you CAN do a single chip modem design for a different
trelllis or different constellation. If I am to be faulted in my statement
it was for calling the `theoretical part' of the note into question when I
should have said discussion part. There is no doubt that this is an
extremely fast Viterbi decoder. It is faster than the one I have written
but the one I wrote I can take and modify it for other applications
with some ease. As soon as I understand Dion's work, I am certain that
I will be a convert. Thanks to Charlie and Dion for the effort.

Bob

--

My opinions are my own no matter | Robert W. McGwier, N4HY
who I work for! ;-) | CCR, AMSAT, etc.

4418. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-20 19:49:58 UTC
From: kjh@pollux.usc.edu
Message-ID: <26065@usc.edu>
Source record: 10118

In article <9007201131.AA14956@cmr.ncsl.nist.gov> rc@CMR.NCSL.NIST.GOV (Robert Carpenter) writes:
% I don't think Phil's reply would help us ward off the land mobile people who
% would be pointing out 220-and-up ham frequencies remaining unused years AFTER
% the existence of a Communicator license.
% I see letting Communicators on two as directly
% leading to the LOSS of many of our higher bands.
% * * * * *
% I have this nightmare that if we let Communicators on two, we are sealing
% the doom of many of the higher ham bands.
% * * * * *
% 73, Bob W3OTC

Very good point, Bob. Thanks. You said it so well, that I can't say
anything more to add to this thought.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4419. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-20 20:20:07 UTC
From: t-petesk@microsoft.UUCP
Message-ID: <55993@microsoft.UUCP>
Source record: 10121

I personally thing that the Communicator Class license is a half-*ssed attempt
to solve the symptom of a problem, and not the problem itself. In fact,
I think that this new class could make things even worse if we limit them to
certain bands, or whatever.

IMO, the main problem with ham-radio which is most directly related to the
Communicator thing, is the fact that the hobby is organizationally very
sluggish. We have a licenseing scheme that hasn't changed since before
my time(yes, i'm a youngun).
This licenseing scheme, along with the lack of strong leadership in the
hobby lately, have brought the many diverse groups in ham-radio(contesters,
techies, sattellite jockies, dxers, just to name a few) at odds with each
other. The packet and microwave guys insist that those technologies are
the future of ham-radio, but also tend to insist that code is dead. The
dxers(and other hf guys) tend to be a little anachronistic, but insist that
hf is where it's at. And both groups want to make the enterence into the
hobby for new people nearly impossible.

The ARRL(and other groups) whom are supposed to be leading us are trying to
please all of the groups, whom are all at odds, and end up pleasing no-one.

And now everyone is becomming paranoid about the band losses that we've been
experiencing. In most cases, people blame the band loss on other groups, who
retaliate by pointing the finger the other way.
As all of this happens, our numbers are decreasing...

Occasionally, someone comes along and proposes a way to increase our numbers
(the Communicator Class). Then some jerk in the back row announces,
"What if CBers or Lazy People use this method to join". Then someone rushes
to ammend the new license class to make it inpossible for anyone but a

Phd in CS to pass the exam. yeah, like that does a lot of good.

I say, so what if CBers join, or Lazy people, or whoever. They have just as
much a right to be a ham as an extra who has been licensed for 40 years.
All they have to do is follow the rules(the FCC rules, not the ham radio
"Jim Crow" laws).

Okay, enough of that. I cannot personally complain about something without
helping to find a solution. Seeing as how many problems are related to
the licensing system, here's a new one. This one, believe it or not, makes
a little more sense than the current one. It is similar to that used in
some european countries, but allows for easier entry into the hobby at a
basic level. It doesn't require you to know CW to press the key on an HT.
It doesn't require you to know CW to run an atv camera. And if you want to do
cw, you do not have to know about microwaves.

I know many wont like this sort of scheme, because it takes away the ability to say "yeah, i'm an extra, so i'm better than you", but I'd rather say,

"yeah, i'm a ham, do you want to be one too".

So take a look over it. I'll compile any comments sent to me and try to update the scheme.
(Don't mind the ctrl=Ms, I don't feel like removeing them right now)

The basic license - The basic ham license would be equivalent to the current NOVICE class license. Its purpose would be to allow new hams to experience different modes and bands. The bands and powers allowed would be similar to the current Novice bands, with the exception of some of the CW bands.
Basic Bandplan - 10m - SSB - allows for HF DXing
10m - CW - code practice band.
220 - fm voice - (HT's)

All modes limited to <100WPEP

Requirements - A test covering material similar to the current NOVICE written test.
ie. Other License Classes, SSB operation, CW operation, FM repeater operation, FCC rules, some info about the new licensing structure.

(THIS IS a NO CODE LICENSE)

CW Endorsements - These are endorsements at 5wpm, 13wpm, and 20wpm that allow new bandspace and power for those who wish to operate in efficient CW traffic nets and other such things.

5wmp - allow full NOVICE power in all the current NOVICE bands.
13wpm - general/advanced bands
20wpm - extra bands.

The idea behind the endorsement idea for CW is to keep certain high speed bands clear for power users, but allow room for new CWers. The current scheme of licensing just tends to stratisfy hams, which we obviously do not need at this point in time. It may cause the demise of HR. These CW endorsements are no longer attached to knowledge of satellite operation, or VHF DXing, They are just CW endorsements.

Other HF endorsements

Digital Modes - this endorsements covers modes such as RTTY or HF Packet. The Written test for this mode would cover these subjects.

Special Modes - this covers new or experimental modes, and modes such as sstv, and allows new modes to be developed by the holder.

The test would cover some of the new modes, and things like bandwith, bands, beacons, or whatever.

HF Voice - This covers voice communication. There could possibly be more than one level of this endorsement, allowing for more bands equivalent to general/advanced and extra.

The test would cover, yep, you guessed it, voice modes on hf.
Modulation Methods, simple receiver/transmitter design, etc.

POWER - Amateurs are limited to low(100WPEP) until they get this
endorsement. Strangely enough, the ability to run power
properly has been proven to be not related to the ability
to transmit 20wpm cw, so why link it to cw speed.

The test would cover things like:
PROPIGATION
POWER AMPLIFIER CIRCUITRY
MORE FCC rules

*** How to operate at the minimum power level needed and not
shove a full 1500WPEP or more through our antenna
to the guy next door.

VHF/UHF/SHF endorsements

VHF/UHF operation - this would allow operation on all of the bands at
limited (100WPEP) power. Simplex and Duplex, and other
types of operation. This would also possibly only allow for
bands up to 1.2 gigs or whatever, at limited power. This is
because microwave frequencies higher than this are potentially
hazardous, and should be covered by a separate endorsement.

The test would cover:
Modulation Methods, Propigation
Repeater/Simplex Operation, and so on.

Special Modes - this would cover FS ATV, FM ATV, and other fancy modes,
possibly with space/satellite operation, but that could
be made to be a separate endorsement.

Digital - packet - self explanatory.

POWER - this allow for full power on the VHF/UHF bands (possibly linked to the
microwave endorsement).
This endorsement makes sure you know what you're doing before you
hook up that 1.5KW linear to your 440 rig, and aim at your neighbors
dog.

Microwave - This would cover that "fry your brains" microwave stuff. It
covers microwave(1.2 and above), with full microwave power.

OTHER -

ARRL Politics - this endorsement says that you understand the politics of
the ARRL, and possibly ham radio as a whole. Probably only one or two of
these will be given out, and only to people who've been silent keys for a
number of years.

All current licenses would be converted into equivalent sets of endorsements.
ie, extra would probably get them all. general woud get most, etc.

This licensing scheme is designed to allow hams to operate in the modes they want without worrying about other modes in which they will probably never dabble. It allows easy entry into the hobby, and hopefully will not stratisfy the hobby like the current scheme has.

t-petesk
Peter Skelly
KB7GUD

_my opinions are my own

P.S. No Spelling or Punctuation Flames, please. I'm no literary smart guy.

4420. Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-20 20:23:46 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <13686@shlump.nac.dec.com>
Source record: 10123

I'm working on a more detailed proposal, but I thought I'd post this early just to get a few brickbats thrown at me.

After the current FCC 90-55 proposal is disposed of, I'd like to propose a more serious restructuring of the Service. This throws away Incentive Licensing for good and replaces it with a more legally and morally sound scheme, where the license is earned by (hey, this is really novel) demonstrating the qualifications needed to use the privs that the license gives! Sort of like cars, airplanes, medicine, etc.

This uses about 3 1/2 classes of license. The general rule is that it gets EASIER to get on the air than before. Existing licensees are largely upgraded as a result. Yo, welcome riff raff! :-) Seriously, the idea is to have MORE than just EE's come into hamdom, by concentrating the exams on what you need to use the privs.

NOVICE will have code and no-code flavors, with 30 MHz and down the difference. HF privs the same as now. VHF privs (for no-code) will be essentially all VHF bands, with gaps for weak-signal, sat control and other critical areas where chatters don't belong. The power limits will follow the current Novice: 250 W HF, lower VHF, down to 5 W on UHF where it's more dangerous. The current NOVICE test difficulty will apply. ("Amateur regulations and basic practices, and sufficient theory to understand them.") This is sort of like the Japanese Telephone class, and may be a good way to get young people, YLs, and more "ordinary" people interested. But it isn't CB, it's HAM.

GENERAL will get all VHF freqs and most, but not all, HF. The good DX sections won't be there, sort of like today, but 3/4 of the subbands (phone and CW portions) will be. The code test is lowered to 5 WPM. The written test is about the present level. The power level will be reduced to 250 W, with a possible grandfather clause after phase-in. (That'll get the OT's upset.) General can own repeaters. (Novices won't.) Current Techs would grandfather here too. The idea, btw, is that high power and serious DXing shouldn't be left to those with minimal technical skill, but they should still be allowed to try everything.

EXTRA will get everything. The code test will be 15 WPM, with roughly the current written test. (If you're going to use CW, you'll learn it, but 20 WPM is suspected of causing permanent brain damage. Look at me.) Current Advanceds might grandfather up here.

The idea is not to try to populate quiet bands with newcomers; that is a recipe for disaster. Its purpose is to allow people to get a good taste of Ham Radio without excessive work, while limiting the

amount of damage they can cause themselves or others. If you want to learn something, you learn it. We get out of the Boy Scout Merit Badge business.

I just thought I'd share that all with you; I may post more details later, or we can just debate it.
<set shields>

Fred R. Goldstein goldstein@carafe.enet.dec.com
k1io or goldstein@delni.enet.dec.com
voice: +1 508 486 73 88

4421. Re: QSLing ratios

Newsgroup: rec.ham-radio
Date: 1990-07-20 21:43:49 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13688@shlump.nac.dec.com>
Source record: 10027

In article <2979@nisca.ircc.ohio-state.edu>, dixon@hpuxa.ircc.ohio-state.edu (Robert S. Dixon) writes...
>
> There are other ways to send QSLs than have been discussed thus far.
>
>1. Send cards directly to DX bureaus, rather than thru the ARRL outgoing
> service. Their addresses are in the Callbook. This saves the time for
> ARRL to send them to the same places.

I was just at the ARRL, and learned that they ship foreign cards out every two weeks. IMHO, sending cards direct to the various bureaus only costs you extra $$ and doesn't save a significant amount of time. The real time lag is in getting the cards out of the local bureaus and into the hands of the deserving foreign DXers. Rumor has it that the Russian "Box 88" bureau is backlogged up to 2 *years*!

>2. Use a QSL forwarding service, such as N7RO. For a small fee per card,
> he sends your cards with an SASE to any known qsl manager (he knows
> who they are),

If you are a "Sunday afternoon" DXer, this is probably a good idea. However, if you work *a lot* of DX, you probably want to subscribe to the W6GO list. For something like $20 dollars/year, you'll get a monthly listing of all current DX stations that have managers or special direct addresses. Alternatively, see if your local DX packet cluster has the database on-line.

73, jim AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4422. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-20 22:23:39 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007202223.AA23127@tecnet1.jcte.jcs.mil>
Source record: 10126

Phil Karn speaks of giving 2 & 6 meter privileges to the Communicator Class and goes into a lot of reasons why. Let me state my observations.

In this area we have ONE 220 repeater. It is up on a 2000 foot tower and has GREAT coverage but NO autopatch. Novices run right out and buy 220 rigs and get on voice VERY quickly. Out of 10 Novices licensed in the last 4 months... EVERY ONE OF THEM BOUGHT 220 RIGS! (Most also bought the Uniden 10 meter rig... voice again)

We also have a few 2 meter repeaters that LINK into the 220 repeater. In talking to these new hams it was found that their number one desire was to upgrade to "Tech" so that they could get on 2 meters directly.

Out of those 10 Novices... all but one has now upgraded to Tech or above, and every one of them now has a 2 meter rig, and ALL of them want to SELL their 220 radios.

In looking over the local clubs roster it is clearly seen that a LOT of the Technicians never upgrade any further. They are happy with what they have, feel no desire to get active on HF, and so... they stay where they are.... usually on 2 meters.

As you can see then, my personal opinion is somewhat biased by the local experience that I have just described. I realize that I can not take this one example and apply it to the whole U.S. of A., but none-the-less, I am left with the definate message that if you allow Communicators on 2 meters right off the gitgo.... then that is where they will stay for a LONG LONG time.

Another person (I think it was Phil Howard.. sorry if I am wrong Phil) made some mention of this being a good thing as it would drive the original developers of 2 meters into moving on to the higher bands. I must question this observation. Hams don't like to be FORCED to do ANYTHING :-) I mean who does? If the congestion on 2 reaches the proportions that are predicted, then the much more likely event to occur (IMHO) is that the new Communicators will be ostracized and treated like unwanted scum by enough hams that these people will be alienated from our hobby in rapid fashion, or will get really mad and will start fighting back in the form of jamming and other nasty tricks. Don't get me wrong... I don't LIKE that prediction (!!!!), it just happens to be the way I see it happening after watching 14.313, portions of 75 meters, and repeater wars on 2 meters a few years ago.

Phil Karn's recommendations are especially apt *IF* we lived in a perfect world. Given the way things are in this part of the country, I can not see these ideas working the way that he predicts. Thus I have to say that it is my personal opinion that the Communicator Class should be limited to 220

and above.

Please feel free to flame... it is just my opinion.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

4423. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-20 23:41:27 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul20.234127.22559@bellcore-2.bellcore.com>
Source record: 10028

I certainly don't have an inside channel to the FCC, but if I am correctly interpreting the many signals they have been sending over the past few years, any proposal to make the amateur license structure more complex than it already is has a snowball's chance in hell of succeeding.

Every indication is that the FCC believes the current license structure to be far more complex than it should be, and the constant stream of upgrade requests they have to process costs them real money they could be spending elsewhere. This is the reason behind their proposal to do away with the Novice and Technician as "official" classes in favor of operating under the authority of a CSCE. Their claimed inability to modify their computer software in any way is probably true, but I think it would be a mistake to believe that that's their only reason. I would wager that the FCC believes that it's time to bury incentive licensing completely; they just haven't had the courage yet to say so publicly.

The US has more classes of license than almost every other country, and by itself the Communicator will only make this worse. Many countries get along just fine with two classes: a 30 MHz and up license (no-code, of course) and another that requires code and gives all amateur privileges. It's as simple as you can get while still following the ITU regulations. I would see nothing wrong with doing the same here.

If hams want proficiency certificates for every specialized area of ham radio, let the ARRL provide them; it could become quite a profitable little industry. But the actual license requirements should be limited to the basic, universal stuff that all amateurs need to know to operate safely, to avoid interfering with others, and to demonstrate that they're at least capable of furthering the Basis and Purpose of the service.

Phil

4424. Reliability of rigs left on

Newsgroup: rec.ham-radio
Date: 1990-07-21 00:45:00 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007210045.AA01728@tilde>
Source record: 10038

Len, WF2V says "I don't think you will have a problem leaving your rig on all the time (unless it is a heathkit)....
Wait a minute. I'm using a SB-102. What will happen if I leave it on all the time? I haven't yet, but have left it on for hours on end (as opposed to "all the time"). What harm am I doing to it? Or specifically, what harm am I doing because it is a Heathkit that I wouldn't be doing if it were, say, a Drake? This is a serious query, not a flame.

73,
Dube Todd

4425. Re: Intermodulation

Newsgroup: rec.ham-radio
Date: 1990-07-21 00:52:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500598@ux1.cso.uiuc.edu>
Source record: 10034

> Tune the receiver to one of the possible intermodulation signals and note the
> signal strength. Insert the attenuator in the antenna lead (usually a six to
> ten decibel attenuator is used) and again note the signal strength. If the
> intermodulation signal is being generated in the receiver, its signal strengt
> will be attenuated by twice the value of the attenuator. Other signals will
^^^^^
> only be attenuated by the value of the attenuator. Since John is so close to
> the stations, it may be necessary to use a second attenuator to reduce the
> overall signal strengths to levels near the mid-point of his S-meter.

Because the products are THIRD ORDER they will be attenuated by THREE times
the attenuator value. These products are THIRD ORDER because the second
harmonic of one of them is involved in a product. The second harmonic (go
try it and see) will be attenuated by twice the attenuator value. One can
also think of these products as being formed by taking the DIFFERENCE between
the two signals (800 khz) and intermodulating one or the other of them with
that difference.

If you see only the attenuator reduction, your receiver is POSSIBLY clean.
If you see a PARTIAL reduction (this is why I felt it necessary to pick nits
here) then you have SOME intermod in the receiver and some OUTSIDE of the
receiver. Also, an OVER attenuation (e.g. more than three times) could also
mean the same thing. The coincident phases of several intermod sources can
always confuse the issues. No matter what the results, try several receiver
locations and verify your results as consistent before basing anything on them.

> If the intermodulation is being generated by the transmitters (or any place
> other than in his receiver) the attenuator will reduce all of the signals by
> the same amount. If the intermodulation is being produced in his receiver,
> its strength will be proportional to the product of the input signals. If bo
> input signals are attenuated by 6 db, for example, the product will be
> attenuated by 12 db.

18 db for THIRD order.

> If it is found that the intermodulation is not being generated in the
> receiver, the cause may not really be with the transmitters. Any nonlinear o
> rectifying junction in the immediate vicinity of the transmitter antennas can
> cause the mixing process that produces intermodulation. Look for rusted or
> corroded joints or connections near the tower. Determine whether the problem
> is worse in dry or wet weather or when the wind blows. This can really take
> some time to do this detective work.

This is the case where things get tough due to multiple reradiation sources
and the resultant pattern.

> Data on the blocking characteristics of receivers or on their third order
^^^^^^^^^^
> intercept point is rarely available except on expensive communications
> receivers and amateur radio receivers. As more and more sources of radio
> frequency energy become situated near the public, we can expect to see more
> problems like intermodulation and radio frequency interference.

Such data would also be less useful for cheaper receivers as the production consistencies are also usually worse.

Notice the term "third order" here. The reason that THIRD, as opposed to SECOND or FOURTH, is useful here is that THIRD order products end up back on the same band as the generating signals. And this is exactly the case we are running into with the 2 FM stations.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4426. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-21 01:17:45 UTC
From: wwm@pmsmam.uucp
Message-ID: <1990Jul21.011745.13626@pmsmam.uucp>
Source record: 10029

In article <2800@wyse.wyse.com> stevew@wyse.UUCP (Steve Wilson x2580 dept303) writes:
>In article <186@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
>>Why oh why does everyone drone on about how wonderful amateur radio
>>is in an emergency? This is the U.S.A., this country has the best
>>equipped Emergency services and Armed services in the world. The U.S.
>>Armed services even have their own phone network. Do you seriously
>>think that amateurs are the lynch-pin of disaster communications?
>

A few years back, an unusually severe snowstorm blew through the Metro Detroit area resulting in blocked roads, cars lost in drifts, etc.

Of course, all resources were put into the efforts to find the lost and clear the roads. In Washtenaw County (Next to Wayne County where Detroit is) the National Guard was called out. The Washtenaw Armory was a _communications_ battalion. Guess who didn't have any mobile radios in their trucks? Guess who rode along with the Guard to supply communications? Yep - hams (me included).

A helicopter from the Detroit police was needed for a search and rescue mission. The radio in the Detroit helicopter did not have the ability to operate on any of the Washtenaw County/Ann Arbor City frequencies. Guess who was picked to ride along to provide that vital radio link? Yep -a ham (me -although the mission was cancelled at the last minute).

In other words, don't be lulled into a false sense of security because the military 'has' a lot of communications gear and the police 'have' a lot of communications gear. If it isn't there or won't work on the right frequencies - it's worthless and an alternative is required. Usually, that alternative is amateur radio.

Most public safety/commercial radio equipment is restricted to at most a few assigned channels. What's more, channels in adjacent areas are deliberately assigned in a manner to PREVENT cross communication (to reduce/eliminate interference). But who has the radio equipment that operates on a _variety_ of bands/frequencies? Us hams, that's who!

No, hams may not be the 'lynch pins' of disaster communications, but they sure have proven (again and again and again) that they are a _highly important_ part of the overall scheme!
--
Bill Meahan WA8TZG uunet!mailrus!umich!pmsmam!wwm
I don't speak for Ford - the PR department does that!

Any attempt at wit is liable to offend _somebody_!

4427. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-21 03:00:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500599@ux1.cso.uiuc.edu>
Source record: 10032

> >"We gave you the no-code Communicator class because you said it would bring
> >in people who would populate the microwave bands. Now N years have passed
> >and all the Communicators are on 2-m FM, and the 220-and-up ham bands are
> >still as empty as ever."
> >What would your answer be, Phil?
>
> "It's obvious that it's time for all of us (Communicator and otherwise)
> to move on up to the higher bands to relieve the congestion on 2m. And
> perhaps we might even try some new ways of allocating spectrum on 2m so
> we can relieve the congestion there."

And of course it would be wrong to make Communicators develop the microwave bands all by themselves. The rest of us are needed to make sure it goes right. Also Communicators need to have some experience with 2 meters as well so they know what NOT to do.

> As the old saying goes, necessity is the mother of invention. But I'd
> rather the necessity come in the form of new amateurs (i.e., Communicators)
> than because most of our bands were no longer assigned to the amateur
> service. If you think 2m is crowded now, try scanning the land mobile
> bands.

Compared to land mobile, 2 meters is deserted. Just try to get ONE frequency in the land mobile service for you fleet of 200 pizza delivery trucks in any major metropolitan area.

If people think 2 meters is crowded now, let then describe it to me in 16 years when 144.0-144.4 is the only ham band left above 28.8 Mhz.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4428. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-21 03:14:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500601@ux1.cso.uiuc.edu>
Source record: 10030

> In article <QXK&_7#@splut.conmicro.com>, jay@splut.conmicro.com (Jay
> "you ignorant splut!" Maynard) writes:
> |> Boo!
> |> You still haven't come up with a solution that solves both the technical
> |> and political problems involved. Any new way of allocating spectrum that
> |> won't be accepted by the ham population won't work.
>
> If by "political problems involved" you're referring to your "requirement"
> that an existing repeater allocation stay in effect forever no matter what,
> then I'm afraid there is no solution.
>
> Phil

MUCH, if not most, of the spectrum waste problems in 2 meters (and other bands) is CAUSED by these little turf holdings by some hams.

What is needed is some spectrum PLANNING. Many of the reasons that a repeater pair on a band is not available is because the happenchance location of repeaters is in many places for many frequencies spaced such that the geographical density is very low, yet they are often just close enough to make it impossible to slip a repeater coverage area in between 2 or 3.

Another problem is caused by the lack of use of CTCSS, anti-CTCSS, and other features to prevent mutual interference. Back when adding just ONE tone frequencey to an HT was expensive and difficult meant that few repeaters would use it. Yet even then it was commonly done on UHF repeaters to make a closed repeater. Today, you can easily and cheaply add a synthesized CTCSS tone generator, and most new HT's already have it builtin.

If you want exclusive telecommunications, get a cellular phone.

Repeater coordination should become repeater planning. This should also be done on 23cm IN ADVANCE. Repeater pairs for voice should be allocated to variously sized regional areas. All but a few allocations should require the use of CTCSS to access and the tone frequency specified as part of the allocation. Then the communities wherein each allocation is set up can determine (vote?) who/how/when/where a repeater is placed.

Closed repeaters have no place in a crowded band. I cannot see where they serve the "Basis and Purpose". If the band cannot take Communicators, remove the closed repeaters first.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4429. Re: Communicator Class Examinations

Newsgroup: rec.ham-radio
Date: 1990-07-21 03:35:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500602@ux1.cso.uiuc.edu>
Source record: 10035

> As one who finally made the decision to just learn the code rather than
> wait for some action by the FCC (which BTW I learned in about 14 days
> to the 5 WPM level), I think Ken Hendrickson is goning a little
> overboard on new testing requirements. What he describes is an
> examination for a computer scientist, or EE who specialized in computer
> systems. Only the last two categories relate directly to
> communications as such. I favor a written exam that demonstrates that
> the licensee has a sufficient knowledge and understanding of ham radio
> and radio operation required to operate within those boundaries.
>
> What appears to be happening is that the no-code proponents, sensing
> the ultimate futility of total opposition, now wish to place such an
> extreme testing burden on Communicator class entrants that very few
> people will take or pass the exam. The end result of this argument is
> still the same: exclude all but the most technically educated unless
> you learn the code.

The only reasonable thing to test for is the basics needed to access and
SHARE the radio spectrum. These areas need to be covered:
1. Rules and regulations
2. Operator procedures
3. Radio theory

Testing on computers, networking, television, astronomy, geodetics,
meterology, morse code, foreign languages, etc., just has no place
in determining whether or not one knows how to properly use radio.

> Let's enforce a uniform standard. If you propose a tough new exam with
> the technical level described, then how about we reexamine ALL current
> license holders as well - what's good for the goose should be good for
> the gander. You might find someone who can pass the stiff exam looking
> down their nose at you as technically ignorant, otherwise.

That might be an idea, but the proposed tests are off base in the first
place so I don't see why we need to bother.

> Look, I learned the code so I could get a license, period. Now I find
> that supporting a wife, two kids, a dog, and a house means I can't get
> on the air at my own QTH anywhere in the near future, unless I build my
> own. You are missing the best filter there is: money. I'm personally
> convinced that anyone who can hear can learn code, given the attitude
> that it can be learned. I'm willing to wager (but not much 8-)) that
> many people waiting for a no-code class still won't get their ticket
> because studying for the exam will be too much trouble.

Money is an indiscriminant filter. Perhaps you would be an excellent ham
and contribute greatly in some way, but money is filtering you. Doesn't
that somehow seem wrong? Some of the LIDs that make life miserable for
people on 20 meters have a couple of 10 KW linears feeding 3 inch hardline
to the top of a 500 foot tower where the stack of 4 6-element yagis is,
from atop their exclusive mountain retreat. Yeah, I'm exagerating just
a bit, but having money does NOT make one a GOOD HAM.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4430. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-21 03:48:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500603@ux1.cso.uiuc.edu>
Source record: 10031

> > There are enough "real" hams on
> > 440 that the newcomers will not lack for contact with more experienced hams
>
> I disagree. Only in major metropolitan areas is 70cm FM activity high
> enough to make this band a place to assimilate Communicators into the
> existing amateur population. Remember that there are vast areas of the
> US with little or no activity on bands other than 2m, and even on 2m
> in these areas there is plenty of room. One set of comments I saw at
> the FCC were from an amateur in northern Wisconsin who said that much
> of 2m is completely idle up there, and any extra activity (even more
> repeaters) would be most welcome.
>
> Phil

Here in Urbana-Champaign we have 4 2 meter repeaters and only 1 of them
gets any significant activity. It does get MORE activity than virtually
all repeaters in the major metropolitan areas. There are NO repeaters
on any other band. Fortunately if Communicators are limited to 220 Mhz
and up we would have a repeater on 70cm (almost have one now). But this
is still a somewhat larger city (100,000 population). There are so many
smaller places left that have between 0 and 1 repeater.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4431. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-21 04:26:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500604@ux1.cso.uiuc.edu>
Source record: 10033

Fred, you left out the TECHNICIAN class license. But that would make things more complex, and as Phil Karn points out, that's the wrong direction to be going.

MAYBE access to the CW only portions of VHF should require a CW test, but NOTHING else has any need for it whatsoever.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4432. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-21 04:34:02 UTC
From: john@anasaz.UUCP
Message-ID: <2740@anasaz.UUCP>
Source record: 10046

In article <186@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
>In article <1990Jul18.215248.11497@bellcore-2.bellcore.com>, karn@envy.bellcore.com (Phil R. Karn) writes:
]> Among the interesting tidbits is the following quoted from the sidebar
]> on page 51: "In the first nine months of 1988, the California Highway
]> Patrol logged 200,000 calls to its 911 emergency number from drivers
]> using cellular phones." Food for thought to those who tout the
]> emergency/public service aspects of amateur radio.
]>
]> In fact, this article should scare the hell out of any amateur
]> concerned about the future of the service.
]>
] Why oh why does everyone drone on about how wonderful amateur radio
]is in an emergency? This is the U.S.A., this country has the best
]equipped Emergency services and Armed services in the world. The U.S.
]Armed services even have their own phone network. Do you seriously

I have relayed air force inter-unit traffic on 14.325 because they
couldn't communicate on their own channels. Also White House
traffic.

]think that amateurs are the lynch-pin of disaster communications?
]
] In my cynicism I suspect the ARRL is behind this stuff. It somehow
]reminds me of NRA stance of "A high powered automatic weapon in every
]home will reduce crime".

[remainder of rather offensive posting deleted]

You understand the emergency aspects of amateur radio about as well
as you understand gun control! As one who has been involved in
a number of natural disasters (floods in Arizona, Mexico City earthquake
operating from Mexico City, Hurricanes Hugo and Gilbert, to name a few),
I can categorically tell you that amateur radio disaster communication is
valuable and, in some cases, irreplacable.

When the National Hurricane Center in Miami
needed the Hugo eye coordinates while it was in Charleston, they
didn't use all that high tech stuff, because IT DIDN'T WORK. Ham
communications, using ad-hoc, strung together at that moment networks, did!

When the earthquake struck Mexico City, ALL of the HIGH TECH
telephone systems went down (for long distance service). Amateur 20 meter
communications did not. Even the US embassy was reduced to communicating
on 20 meters.

When the British Navy needed to land a helicopter on the Cayman Islands following hurricane Gilbert, only ham radio was able to provide the communications between Warship Archer and relief officials on the island.

I wonder how much disaster communications you have worked. If you have, you know that when a disaster strikes, normal government channels become clogged with extremely high priority traffic. That leaves no place for important traffic of lower priority or which doesn't fit normal bureacratic channels. You would also realize that in most major emergencies, agencies that don't normally need to communicate suddenly have major coordination problems. This is why our Hurrican Watch Net has had hams, national guard units, US Air Force units, USGS, NOAO units and the British Navy all on frequency at the same time. We were the only people that could coordinate and talk to all units at once. This is not an uncommon finding - amateur radio provides a very good way to cross organizational boundaries.Finally, you would realize that in a widespread emergency, EVERY communications facility that is mobile or capable of emergency power operation is required.

]call out the fat guys with the walkie-talkies on their belts and
]obsolete police radios in their cars. They call up a cellular carrier

Now, let me mention that I don't believe that emergency communications is the be-all and end-all of amateur radio. Nor do I believe that hams are the primary resource for emergency communications. However, to deny the role that hams have, and to belittle those who do help, simply betrays your lack of understanding, not to mention your poor taste.

Is ham radio emergency communication important? You bet it is. Is it needed by every police department for everything they do? No way. Are all ham emergency communicators competent and helpful? Of course not! Ham radio has an important place in emergency communications, even with today's communications facilities. It also has its limits and its disadvantages.

Furthermore, you may be most interested in training or experimentation or whatever, but when you see or hear good things about ham radio in the mass media, I'll bet it is most often regarding emergency communications. I have had many TV, radio and newspaper interviews (in which I talked up ham radio as a public service) as a result of my hurricane net work [please - no flames - they called me, I didn't call them!]. They've never called about my work in direction finding or repeater controllers!

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4433. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-21 04:45:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500605@ux1.cso.uiuc.edu>
Source record: 10037

From: mgb@TECNET1.JCTE.JCS.MIL
> Phil Karn speaks of giving 2 & 6 meter privileges to the Communicator Class
> and goes into a lot of reasons why. Let me state my observations.
>
> In this area we have ONE 220 repeater. It is up on a 2000 foot tower and
> has GREAT coverage but NO autopatch. Novices run right out and buy 220
> rigs and get on voice VERY quickly. Out of 10 Novices licensed in the last
> 4 months... EVERY ONE OF THEM BOUGHT 220 RIGS! (Most also bought the Uniden
> 10 meter rig... voice again)
>
> We also have a few 2 meter repeaters that LINK into the 220 repeater. In
> talking to these new hams it was found that their number one desire was to
> upgrade to "Tech" so that they could get on 2 meters directly.

Probably to get access to the other repeaters their hear (about) but cannot
use. The 220 Mhz band is just not built up enough yet. That's part of the
reason we lost a big chunk of it.

> Out of those 10 Novices... all but one has now upgraded to Tech or above,
> and every one of them now has a 2 meter rig, and ALL of them want to SELL
> their 220 radios.

I'm looking for an Icom one now.......oops that should be on r.h-r.swap.

> In looking over the local clubs roster it is clearly seen that a LOT of the
> Technicians never upgrade any further. They are happy with what they have,
> feel no desire to get active on HF, and so... they stay where they are....
> usually on 2 meters.
>
> As you can see then, my personal opinion is somewhat biased by the local
> experience that I have just described. I realize that I can not take this
> one example and apply it to the whole U.S. of A., but none-the-less, I am
> left with the definate message that if you allow Communicators on 2 meters
> right off the gitgo.... then that is where they will stay for a LONG LONG
> time.

If the situation is such that 2 meters is all that you need, then there is
nothing wrong with everyone staying on 2 meters. If this were the case in
the whole country, I'd just petition the FCC to hand everything above 220
Mhz over to the land mobile service where it is needed. Where I live the
situation is pretty much the same. 220 Mhz is a wasteland. 440 Mhz is
barely sticking its finger above the water. 902 Mhz and up is virgin.

> Another person (I think it was Phil Howard.. sorry if I am wrong Phil) made
> some mention of this being a good thing as it would drive the original
> developers of 2 meters into moving on to the higher bands. I must question

It was me.

> this observation. Hams don't like to be FORCED to do ANYTHING :-) I mean

They probably NEED it, though. MOST people will do NOTHING if they can get away with it.

> who does? If the congestion on 2 reaches the proportions that are predicted,
> then the much more likely event to occur (IMHO) is that the new Communicators
> will be ostracized and treated like unwanted scum by enough hams that these
> people will be alienated from our hobby in rapid fashion, or will get really
> mad and will start fighting back in the form of jamming and other nasty
> tricks. Don't get me wrong... I don't LIKE that prediction (!!!!), it just
> happens to be the way I see it happening after watching 14.313, portions of
> 75 meters, and repeater wars on 2 meters a few years ago.

The hams who would have that attitude are the real scum, and if they get forced elsewhere or off ham radio entirely, I'd be SOOOO happy.

> Phil Karn's recommendations are especially apt *IF* we lived in a perfect
> world. Given the way things are in this part of the country, I can not see
> these ideas working the way that he predicts. Thus I have to say that it
> is my personal opinion that the Communicator Class should be limited to 220
> and above.

It will fail there.

But let's look at it in different terms. Most people have been addressing the issue in terms of "entry level". What I would like to ask is this: "what justifies having a code test at all for access to 50 Mhz and up?" Why not just have a no code version of Technician by deleting the HF privileges and the code test?

Maybe we need entry level or maybe we don't. But what we do need is a basic way to access the amateur radio privileges without testing for anything that does not directly pertain to the privileges being granted. We've heard "gloom and doom" stories of what will happen to ham radio if we don't adopt a "no-code" license, but let me add one more for you: Imagine a COURT ORDERED set of rule changes that come about as a result of a law suit that is based on the fact that a code test unfairly disciminates. If that happens you won't have even a say in what the structure will be anymore. Let's clean it up and clean it up now before something really awful happens.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4434. Did anybody get an AR1000

Newsgroup: rec.ham-radio
Date: 1990-07-21 07:15:23 UTC
From: mkook@phx.mcd.mot.com
Message-ID: <13252@mcdphx.phx.mcd.mot.com>
Source record: 10039

A while ago, I heard about the AOR AR1000 hand held scanner with
continuous coverage between 8-600 and 805-1300 MHz. Does anyone
have one? How do you like it, etc...

+----------------------------++------------++------------------------+
Mat Cucuzella		-K o o K-		Remember, if you're
					not the lead dog, the
mkook@phx.mcd.mot.com		-		scenery never changes!
+----------------------------++------------++------------------------+

4435. Re: Leap second/WWV

Newsgroup: rec.ham-radio
Date: 1990-07-21 08:41:12 UTC
From: grx0644@uoft02.utoledo.edu
Message-ID: <1990Jul21.034112.1187@uoft02.utoledo.edu>
Source record: 10040

In article <14482@burdvax.PRC.Unisys.COM>, techpubs@PRC.Unisys.COM (Technical Pub. Vince Short) writes:
> Perhaps someone from both places should
> have checked with WWV (which of course showed the correct time, with the
> one second added at midnight 5 hours earlier than EST.)

Speaking of WWV, can anyone list the specific frequency that WWV broadcasts on?
--
+------------------------------+--+
| Tony Schliesser: | This Space for Rent
| GRX0644 @ UOFT02.BITNET |
| GRX0644 @ UOFT02.UTOLEDO.EDU|
| FAC2966 @ UOFT01.BITNET |
| FAC2966 @ UOFT01.UTOLEDO.EDU|
| |
+------------------------------+--+

4436. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-21 13:08:26 UTC
From: jay@splut.conmicro.com
Message-ID: <JVL&0LA@splut.conmicro.com>
Source record: 10041

In article <1990Jul20.182133.21406@bellcore-2.bellcore.com> karn@thumper.bellcore.com writes:
>In article <QXK&_7#@splut.conmicro.com>, jay@splut.conmicro.com (Jay
>"you ignorant splut!" Maynard) writes:
>|> You still haven't come up with a solution that solves both the technical
>|> and political problems involved. Any new way of allocating spectrum that
>|> won't be accepted by the ham population won't work.
>If by "political problems involved" you're referring to your "requirement"
>that an existing repeater allocation stay in effect forever no matter what,
>then I'm afraid there is no solution.

If you can come up with a way to revoke someone's allocation for an operating repeater that he'll accept, then I'm all ears.

Like it or not, that's a problem that _must_ be solved before you can redesign the frequency coordination system. If you don't believe me, I suggest you do frequency coordination your way for a while - and see how many repeaters you list as uncoordinated because they wouldn't change frequency and share one with another repeater, or go off the air, just because you told them to.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4437. Scanner information wanted (again)

Newsgroup: rec.ham-radio
Date: 1990-07-21 16:24:00 UTC
From: werner@vax1.informatik.fh-regensburg.dbp.de
Message-ID: <136
Source record: 10055

Hello scanner enthusiasts,

sri for reposting this question. I accidentially sent this question to the INFO-HAMS redistribution list at TAUNIVM so it might be missed by some of you. Sri again for cluttering the net. But now back to my problem:

I want to buy one of those new "gimmick-loaded" scanners; some years ago I owned a JIL scanner (26 - 520 MHz) and the AIR-8 (...that was a SONY :) but I sold them at a ham meeting (students sometimes need money).

After months of working hard I decided to buy myself one of those "toys" again; but the market is crowded and I wonder, which buy is the best. Well, what will I do with this scanner?

- receive LF-transmissions (weather fax) and RTTY (and maybe commercial services), if possible in all modes (AM, FM, SSB).

- use it as an ordinary radio (what a shame!)

- tune in to all those frequencies which you are not to allowed to receive over here in germany (public services etc.). It's a hard life here!

- monitor the amateur frequencies (6m, 2m, 70cm, 23cm)

- attach a scope to get a spectrum view around the current frequency

For the first purpose I thought about the SONY PRO-80. It has about the size of my good old AIR-8 and covers 150 kHz up to 108 MHz (115-223 MHz w. converter) and has all modes. Can anybody recommend this one? Is it a good buy? Maybe I'll use it as a secondary scanner sometimes...

Then I thought about the ICOM R1/R100. Although they miss SSB they've got an enormous frequency range.

It seems that the only scanner available that matches my needs is the R-9000 (ICOM), but the price is rather hefty!

Has anybody experiences with the AOR AR-3000 ? This machine covers 100 kHz up to 2036 MHz (continuous!) and has SSB, too (no scope, sri). and it is in the R-7000 price range.

What should I do? Can any kind soul help me with my decision?

I know, there's at least two scanner discussions a year in this newsgroup; maybe I'll post to comp.rec.ham.scanners.buyers-advice next time ;-)

Please drop me a few lines, tnx in advance.

ur Ralf

++
+ Ralf Werner - werner%vax1.informatik.fh-regensburg.dbp.de@relay.cs.net +
++

4438. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-21 16:43:02 UTC
From: rick@ameristar
Message-ID: <1990Jul21.164302.19756@ameristar>
Source record: 10043

In article <1990Jul20.175844.8030@ariel.unm.edu> ee5391aa@hydra.unm.edu (Duke McMullan n5gax) writes:
>What happens to the local cellular nodes when the fewmets hit the windmill?
>IMHO again, the service would go "suddenly and dramatically to hell" as
>dozens/hundreds of nervous folks tried to get on the air at the same time.

From the technical standpoint, the cellular equipment could be made sufficiently robust (probably more so than ham equipment since it would be funded from pre-taxed dollars) to ride through many types of problems. And if the upcoming digital/satellite modes free the dependence of cellular from the landline telco networks, then the service will be even more reliable in the face of disaster.

>So what really happens? Can anyone in the Bay area tell us what happened on
>the cellular links during the big shakeup a while back? Some of you must
>KNOW what happens to the cellular services in these situations. Would
>you be willing to share your tales?

The other interesting question is how amateur radio did during the bay area earthquake in terms of equipment availability, message flow, and congestion of channels.

Is preparing for the once in a century event worth the expenditure of billions of dollars worth of spectrum (eg wouldn't reusing parts of the land mobile bands during times of disaster be just as effective)? Equivalently, is all the spectrum allocated to amateur radio needed to fulfill the public service role (or would 3-4 mHz do)? It would seem that the public service role of any radio service is multifaceted, ie cellular radio operators reporting motor vehicle accidents are no less important to the cause as the amateur radio types who help out in natural disasters. IMHO, amateur radio shouldn't rely on any one source of political currency to pay for its spectrum allocation.

> Duke McMullan n5gax nss13429r phon505-255-4642 ee5391aa@hydra.unm.edu

Rick Spanbauer/WB2CFV
Ameristar Technology

4439. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-21 18:06:42 UTC
From: <>
Message-ID: <1990Jul21.180642.27463@bellcore-2.bellcore.com>
Source record: 10044

In article <7880192@hpfcdc.HP.COM> ajs@hpfcdc.HP.COM (Alan Silverstein) writes:
>> ...California Highway Patrol logged 200,000 calls to its 911 emergency
>> number from drivers using cellular phones."
>
>And how many from hams through phone patches?

A much smaller number, I would say. Note that this 200,000 figure was
just for one (albeit big) state, and only for nine months. I regularly
scan a half dozen local repeaters on my daily commute in the NNJ area
and I'd say that I hear maybe one autopatch to the police every week at
the most. I'd be interested in seeing more scientific figures, perhaps
the League people on the net have them.

Bear in mind when comparing these figures that cellular phones currently
use about 40 MHz of spectrum, compared to the 69 MHz of spectrum between
30 and 1000 MHz that is currently allocated to the amateur service.

Phil

4440. rtty

Newsgroup: rec.ham-radio
Date: 1990-07-21 18:23:35 UTC
From: gws@n8emr.UUCP
Message-ID: <1566@n8emr.UUCP>
Source record: 10050

SB RTTYDX @ RTTYDX $RTDX0720
RTTY DX Notes, 1of3, 7/20/90

RTTY DX Notes for Weekending 20th June 1990.
Part 1 of 3.
BID: $RTDX0720

Looking at the logs for the ANARTS Contest, (by the way, have you sent your logs to 55 Prince Charles Road, Frenchs Forrest, Sydney 2086, Australia yet?) there appears to be a terrific amount of similarity or maybe redundancy in the RST reporting. Maybe that part of the message could be replaced by a number 001 etc. Or maybe his age, now thats a possibility. But the RST means nothing. There must be an answer, but what is it? It looks very stereotyped looking at a sheet of 599s. One wonders what other contest managers think about it? Maybe they would like to contact us at the above address to arrive at a better format. Please do.

Our thanks this week go to: I5FLN, I5ICY, I5IGQ, OD5NG, TG9VT, W2JGR and the Tri-State DX Association VHF packet cluster. Thank you all for your help with these notes.

Bandpass

Friday 13

UJ5K 21092 at 0020Z
ZK1WL 21073 at 0246Z ARQ
RB5MT 14086 at 0256Z
EA9MY 14083 at 0259Z
TJ1MW 14090 at 0505Z
EA6MQ 14091 at 0515Z
FK8BK 14074 at 1023Z ARQ
A41KB 21072 at 1111Z ARQ
6Y5EW 14074 at 1418Z ARQ
ZD9BV 21090 at 1650Z

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0721
RTTY DX Notes, 2of3, 7/20/90

RTTY DX Notes for Weekending 20th June 1990.
Part 2 of 3.
BID: $RTDX0721

Saturday 14

UT5RP 14074 at 0014Z ARQ
J39BS 14087 at 0125Z QSL
TA3D 14089 at 0315Z
RF6FC 14088 at 0545Z
TU2BB 21085 at 1345Z
5N0ETP 21085 at 1448Z QSL
GJ4YMX 21090 at 2030Z
9K2EC 18102 at 2245Z ARQ
TZ6VV 14091 at 2250Z

Sunday 15

EA9MY 14083 at 0023Z
J39BS 14087 at 0204Z
TA3D 14089 at 0204Z
OD5NG 14095 at 0411Z
HK0BKX 14087 at 0425Z QSL
RB5TF 14085 at 0431Z
SV0CR 14074 at 0525Z ARQ
FK8BK 14099 at 0733Z ARQ
PJ7YL 14087 at 1141Z
TR8JLD 14082 at 2112Z
P43SF 14089 at 2204Z

Monday 16

RA2FB 14090 at 0020Z
RB5QV 14090 at 0353Z QSL
UZ1ZWO 14085 at 0405Z
UW9AZ 14083 at 0412Z
6Y5PK 14093 at 0515Z

Tuesday 17

A41JW 14086 at 0155Z QSL
LY2WW 14087 at 0311Z
UT5RP 14074 at 0510Z ARQ
FK8BK 14069 at 1050Z ARQ
PJ2MI 14074 at 1114Z ARQ
DU1BJD 14082 at 1415Z
EA9MY 14083 at 2323Z

Wednesday 18

EA8APH 14075 at 0025Z ARQ
FY4FS 14081 at 2348Z

Thursday 19

HP1AAL 14090 at 0007Z
SV1AHV 14089 at 0038Z
UM8NC 14089 at 0224Z
OD5NG 14089 at 0229Z
J28TY 14092 at 0425Z

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0722
RTTY DX Notes, 3of3, 7/20/90

RTTY DX Notes for Weekending 20th June 1990.
Part 3 of 3.
BID: $RTDX0722

QSL Information.

J39BS will QSL via WB2CLH.

5N0ETP QSL manager is his home call of N6QLQ, not N6QCQ as previously reported.

HK0BKX says to QSL via WB9NUL.

RB5QV gives Box 3, Melitovol 332301 USSR as his QSL address.
A41JW is OK in the 1990 Callbook.

Speaking of QSLS, VK9LI had over 400 contacts during his recent trip. (He was a one man operation.) He worked 277 different stations. Someone must have worked him more than once, HI. He worked 130 U.S. stations, and 62 Japanese stations. Cards have been received and sent for 126 stations.

Notes Of Interest.

ZK1WL is from the North Cook Islands.

Unfortunately there will be no RTTY from TI9 Cocos Islands this trip. But word is around that TI3DJT will go there in September and he will definitely have RTTY with him. Hope springs eternal.

Frankenstein. DA1WA will operate from Frankensteins Castle from 0800 on 4th August until 1900 on 5th August. RTTY will be used on all bands. QSL to the Wiesbaden Amateur Radio Club.

Iceland. DF2UU is expected to operate from Iceland TF, during August, with lots of RTTY.

GL DE DX1.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips to VK2SG @ VK2AGE.AUS.AU, or via AMTOR on the VK2AGE APLINK mailbox.
/EX
--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

4441. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-21 18:25:37 UTC
From: brian@ucsd.Edu
Message-ID: <15961@ucsd.Edu>
Source record: 10042

What a load of crap.

There should be only two classes of ham license: one has a minimal code requirement to satisfy international treaty and allows operation below 30 MHz; the other doesn't. Both have questions on regulations, procedures, and technical matters to ensure that the applicant is competant to install, operate, and maintain a ham radio station.

Nothing else is needed!

If you want to hang paper on the wall or prove how good you are at passing exams, the ARRL will no doubt provide voluntary technical and operating exams, just as they currently provide code proficiency certificates. The people who want them will jump through the hoops to get them and the rest of us will do whatever ham radio means to us.

Incentive licensing sucks hard. Let's abolish it.
- Brian

4442. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-21 20:16:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500606@ux1.cso.uiuc.edu>
Source record: 10047

I'm glad to see some support for a very basic system of amateur radio licensing. I had not wanted to post it myself (though I do plan to put it in my comments I am working on) simply because someone would have assumed that it was an attempt on my part to get free HF privileges since I already have a Technician class license.

Really only ONE class of license is needed: Amateur Radio

But I am not proposing to violate or change the international agreements on Morse Code ability to access HF privileges, so we will have to put up with TWO classes: Amateur Radio & VHF Amateur Radio

But I do like the idea of some group like the ARRL sponsoring prestigious certificates on technical ability.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4443. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-21 21:30:45 UTC
From: kjh@pollux.usc.edu
Message-ID: <26081@usc.edu>
Source record: 10045

In article <1990Jul21.180642.27463@bellcore-2.bellcore.com> karn@thumper.bellcore.com (Phil R. Karn) writes:
>Bear in mind when comparing these figures that cellular phones currently
>use about 40 MHz of spectrum, compared to the 69 MHz of spectrum between
>30 and 1000 MHz that is currently allocated to the amateur service.

This is not a fair comparison. There are many other modes of communication employed in the amateur spectrum, than just FM voice repeaters. If we examine the ARRL band plan, we find:

Band	Spectrum for FM voice repeaters (inputs and outputs)
6 m	2 MHz
2 m	2.23 MHz
1.25 m	2.08 MHz
70 cm	6 MHz
33 cm	6 MHz
Total:	18.3 MHz

I do not voice a comment on whether this amount of spectrum for FM voice repeaters is too little, just right, or too much. I'm sure I know what Phil thinks. I do agree that spectrum has to be set aside and allocated for all special interests.

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4444. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-21 23:22:10 UTC
From: jay@splut.conmicro.com
Message-ID: <Z=M&7DB@splut.conmicro.com>
Source record: 10048

In article <1990Jul20.234127.22559@bellcore-2.bellcore.com> karn@thumper.bellcore.com writes:
>But the actual license requirements should
>be limited to the basic, universal stuff that all amateurs need to
>know to operate safely, to avoid interfering with others, and to
>demonstrate that they're at least capable of furthering the Basis and
>Purpose of the service.

...all parts of it, not just your technonerd paradise.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4445. Repeaters, Communcator, et al

Newsgroup: rec.ham-radio
Date: 1990-07-21 23:50:00 UTC
From: JKOSS00@RICEVM1.BITNET
Message-ID: <1721JKOSS00@RICEVM1>
Source record: 10053

RE: Repeaters

On 21 Jul 90, phil@ux1.cso.uiuc.edu [Phil Howard, KA9WGN] writes
-
- Another problem is caused by the lack of use of CTCSS, anti-CTCSS, and
- other features to prevent mutual interference. Back when adding just ONE
- tone frequencey to an HT was expensive and difficult meant that few
- repeaters would use it. Yet even then it was commonly done on UHF
- repeaters to make a closed repeater. Today, you can easily and cheaply
- add a synthesized CTCSS tone generator, and most new HT's already have it
- builtin.
[...]
- Closed repeaters have no place in a crowded band. I cannot see where they
- serve the "Basis and Purpose". If the band cannot take Communicators,
- remove the closed repeaters first.

This is something that has always puzzled me. When I was studying for
the exam, I kept reading about how no one amateur owns any particular freqs
but how repeaters effectively own freqs on a first come - first serve basis.
Maybe what we need is for closed repeaters to have the lowest priority for
frequency planning purposes. In other words, if somebody wants to put up an
open repeater on a pair occupied by a closed repeater, the owners of the
closed repeaters would have the option of opening their repeater for use by
any ham or losing the allocation.
Now, I expect some folk to complain about my views. [Heck, this is a
case where I want feedback.] Some folk will say that requiring certain
tones before the repeater opens frevents unwanted interference. Well, I can
understand this and think that if you use DTMF tones [available on most rigs
or can use a hand-held `pocket dialer' from Radio Shack] and you make it
public knowledge which DTMF keys are used, then your repeater is effectively
open and should be considered so. But when folk start using secret sub-audible
tones for their `private' repeater, then that repeater should be considered
closed and have low priority for the purpose of `owning' frequency pairs.
Some other folk will say that since CLUB X finances the repeater, only
members of CLUB X should be allowed to use the repeater. Fine, that should
be allowed. But if CLUB Y wants to have an open repeater and the Frequency
Coordinator says "sorry, no available frequencies free", then CLUB Y should
be allowed to put their repeater on the freqs that had been used by CLUB X's
repeater, which will come off of the air. Clearly, an open repeater will
serve the community better than a closed one . . .

--**-- --**-- --**--

RE: Communicator Class

Whether one likes it or not, the Communicator class will be created.
I think that the issue is now how to do it right. On one hand, we have
the FCC saying, "Six license classes too much. Kill novice <grunt>" and
the ARRL saying, "Oh No! Please don't kill the baby. <weep>" and not
much interaction between the two to settle it with the least ruffled
feathers. I know I'll get flamed for my comments, but I'm in Houston and
I can take the heat! ;-)

My proposal:

License Class: Novice
Exam elements required: 1a and 2 [5wpm]
Privileges: Current Novice privs

License Class: Communicator
Exam elements required: 2, 3a, 3b [no code]
Privileges: All amateur privs above 30 MHz, no privs below 30MHz

License Class: General
Exam elements required: 1a, 2, 3a, 3b [5wpm !!!]
Privileges: Current General privs

License Class: Amateur Extra
Exam elements required: 1b, 2, 3a, 3b, 4a, 4b [13wpm]
Privileges: All amateur privs

Notes: A 20wpm code test [element 1c] is no longer necessary
for any amateur license class.

Upon expiration of their current license, all Technicians
who have credit for element 3b will become Generals, all
techs w/o such credit will become Novices [indefinately
retaining credit for element 3a, so only 3b will be needed
to upgrade to General] and all Advanced will become
General [retaining credit for elements 1b and 4a, so only
4b will be required for upgrade.] Current General class
licensees retain credit for element 1b.

All exams will fall under the VEC exam structure.

Communicator calls will come from Block D.
Amateur Extra calls from Block A, or Block B
when all Block A calls have been assigned.
Current Technicians and Advanceds who `downgrade' upon
license expiration WILL reatain their calls unless they
desire otherwise.

--- --- ---

OK, I'm ready for flames. But before you Technicians flame me,
remember that I'm a Tecnician Class licensee.

- Jordan, n5qvi

4446. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-22 00:53:36 UTC
From: gary@ke4zv.UUCP
Message-ID: <1077@ke4zv.UUCP>
Source record: 10049

In article <9007202223.AA23127@tecnet1.jcte.jcs.mil> mgb@TECNET1.JCTE.JCS.MIL writes:
>
>In looking over the local clubs roster it is clearly seen that a LOT of the
>Technicians never upgrade any further. They are happy with what they have,
>feel no desire to get active on HF, and so... they stay where they are....
>usually on 2 meters.
>
>As you can see then, my personal opinion is somewhat biased by the local
>experience that I have just described. I realize that I can not take this
>one example and apply it to the whole U.S. of A., but none-the-less, I am
>left with the definate message that if you allow Communicators on 2 meters
>right off the gitgo.... then that is where they will stay for a LONG LONG
>time.
>
>Another person (I think it was Phil Howard.. sorry if I am wrong Phil) made
>some mention of this being a good thing as it would drive the original
>developers of 2 meters into moving on to the higher bands. I must question
>this observation. Hams don't like to be FORCED to do ANYTHING :-) I mean
>who does? If the congestion on 2 reaches the proportions that are predicted,
>then the much more likely event to occur (IMHO) is that the new Communicators
>will be ostracized and treated like unwanted scum by enough hams that these
>people will be alienated from our hobby in rapid fashion, or will get really
>mad and will start fighting back in the form of jamming and other nasty
>tricks. Don't get me wrong... I don't LIKE that prediction (!!!!), it just
>happens to be the way I see it happening after watching 14.313, portions of
>75 meters, and repeater wars on 2 meters a few years ago.
>
>Phil Karn's recommendations are especially apt *IF* we lived in a perfect
>world. Given the way things are in this part of the country, I can not see
>these ideas working the way that he predicts. Thus I have to say that it
>is my personal opinion that the Communicator Class should be limited to 220
>and above.
>
>Please feel free to flame... it is just my opinion.
>
>Mark Bitterlich

I think your conclusions are wrong for several reasons. If we get the
numbers of Communicators necessary to really make two meters congested,
they will OUT NUMBER the OLD FARTS and will be in no danger of being
ostracized and treated like unwanted scum. I doubt that we will really
get hundreds of thousands of new Communicators right away however, and
think that the newcomers need the guidance and socialization provided
by being at the "watering hole" and not in some ghetto where they would

be free to develop bad habits that will surely migrate to the lower bands as their numbers increase.
In the few large metro areas where two meters is filling up, we are already being "forced" to move on up to find room for our experimental work. In general, the most active and most knowledgeable are the ones moving up first. This is as it should be since unexperienced hams would be much less likely to be sucessful in breaking new ground. If all you want is more outdated FM voice repeaters being used by applicance operators then restrict Communicators to 220 and above. If on the other hand you want to see new and innovative development to populate the upper bands, then let the Communicators have the communicators band; Two Meters. Those who are technically inclined and are attracted by the Communicator License (horrible name IMHO) will join the pioneers upstairs.

Gary KE4ZV

4447. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-22 05:33:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500607@ux1.cso.uiuc.edu>
Source record: 10052

```
> Band Spectrum for FM voice repeaters (inputs and outputs)
> ------ ----------------------------------------------------
> 6 m 2 MHz
> 2 m 2.23 MHz
> 1.25 m 2.08 MHz
> 70 cm 6 MHz
> 33 cm 6 MHz
> ------ --------
> Total: 18.3 MHz

23 cm 12 Mhz
------ --------
Total: 30.3 Mhz

In fact the 23cm band is likely to far surpass the 33cm band for this mode
because of the dominance of Japanese imports designed for the ham market.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.
```

4448. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-22 06:05:43 UTC
From: tenney@well.sf.ca.us
Message-ID: <19174@well.sf.ca.us>
Source record: 10051

It seems that many city and county emergency departments (officials, such as police) are getting lots of cellular phones. This is great if they have some way of giving priority to their phones, and if the cells remain up, and if the land line from the cell keeps working.

Last October:

I live in San Mateo, a not so huge city half way between San Francisco and Palo Alto. The city's emergency generator went out after about an hour. This powered their comm facility which included 911, and covered this city and a few surrounding ones. I understand that the cellulars were almost useless since EVERYONE was trying to use them.

At that time I was at home waiting to see what help was needed. Via 2M I reported this loss of power to the power company. I think there was also some other probelm that the phones weren't working at the police either, but I might be wrong.

So, all in all, I feel that the officials are getting into the cellular equipment which is fine. In many emergencies this is great, portable access to the phone system to the rest of the world. However, I expect these same officials might be easily tempted to rely too much on them for upcoming major emergencies.

Glenn AA6ER

4449. Re: Repeaters, Communcator, et al

Newsgroup: rec.ham-radio
Date: 1990-07-22 08:03:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500608@ux1.cso.uiuc.edu>
Source record: 10054

A repeater can be OPEN my making it's CTCSS/PL/"subaudible tone" publicly known just as much as they can by making the DTMF access codes publicly known.

In fact it could be useful for a repeater to have both features, including a publicly known DTMF code to disable the CTCSS feature (until 1 minute of inactivity when it will be restored) for the (now getting rarer) ham who has neither capability.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4450. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-22 14:11:42 UTC
From: jay@splut.conmicro.com
Message-ID: <0RM&TNF@splut.conmicro.com>
Source record: 10058

In article <15961@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>What a load of crap.
[...]
>Incentive licensing sucks hard. Let's abolish it.

I agree, Brian: that's a load of crap.

In the technonerd utopia, every ham would be a technical whiz because
they wanted to.

This isn't the technonerd utopia, but the real world. If you want people
to be more than mike-button jockeys, you gotta give them a reason to.
Incentive licensing works quite well.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4451. Hi again

Newsgroup: rec.ham-radio
Date: 1990-07-22 14:55:35 UTC
From: rusty@zebra.UUCP
Message-ID: <216@zebra.UUCP>
Source record: 10066

Well, as promised, here is a temporary email address for me. I'm still working on figuring out all the nuances of the system, so I apologize if I've accidentally posted a really weird (stupid) article.

All email to me at uunet!cadnetix!rusty should be waiting for me when I get back to work on July 30, so if you've sent email which you feel cannot wait until then, you will have to give me a call, as I'm going to be away from modems for a week... My home # is (303) 673-9041, if you Must Know :-).

Theoretically my current (temporary, I hope!) email address is scicom!zebra!rusty. See .sig for more info...

(Oh, the joys of 'modern' business :-(and takeovers :-(:-(:-( ) <- must have your terminating paren, you know :-)

Rusty...

--
*****temporary .sig follows*****
Rusty Carruth, temporarily at:{ncar,nbires,boulder,isis}!scicom!zebra!rusty
N7IKQ, P.O. Box 461, Lafayette, CO 80026

4452. Re: Did anybody get an AR1000

Newsgroup: rec.ham-radio
Date: 1990-07-22 15:35:15 UTC
From: crisp@mips.COM
Message-ID: <40334@mips.mips.COM>
Source record: 10056

In article <13252@mcdphx.phx.mcd.mot.com> mkook@phx.mcd.mot.com (Mat Cucuzella) writes:
>
>A while ago, I heard about the AOR AR1000 hand held scanner with
>continuous coverage between 8-600 and 805-1300 MHz. Does anyone
>have one? How do you like it, etc...
>

I just got one about 4days ago. I really like it. The 10 banks of 100 channels
(that's right 1000 memories!) are really neat. I put police type stuff in one,
put aero in another, put handheld telephones in another, news stations in yet
another, and I am still trying to figure out what to put in the rest.

As far as reception goes, on its rubber ducky it does a bit worse than my
Pro2005 on its Channelmaster Monintenna. I notice the biggest difference
on weak stations as expected. As it comes, it has cellular coverage, but
of course I would NEVER listen to that service (heard any good stock tips
lately?).

As far as features go, it has the ability to lock out any channel or bank
in scan mode. You can program 10 different search ranges. You can set the
frequency step size to any value between 5khz and 995khz. It also has
a tuning Knob, a feature I really like! It has a built in light for
illuminating the Liquid Crystal Display. It picks up AM, FM and wideband FM
modes and does a pretty good job with standard FM broadcast band (music).

Now on to what I don't like:
The SW reception is not very good on the rubber ducky as expected. It does
an OK job with a real antenna, but you're not going to be able to step
out to the parking lot at lunch to catch Radio Baghdad! If an RF booster
(preamp) was added in the below 30mhz bands, I think the SW reception
could be brought up to par with the portable Sonys (like the SW20).
The speaker is mounted toward the bottom in the front. This makes it
feel a bit strange when holding it up to your ear in a noisy environment.
The Nicad charger that come with it only supplies a puny 200mA which
means you can't listen to it with very weak batteries while charging
(BTW my batteries that came with it were very low out of the box).
I've been using it so much, that I really haven't taken it out of use
long enough to charge the batteries. So I've been running it off of alkaline
batteries which works great.

I was really hoping to get an Icom R1, but got tired of waiting, so I got
the AR1000. After reading the specs of the R1, I'd still like one, but
it really ought to have 1000 memories like the AR1000.

One final note, if AOR included a serial port for loading/dumping the
1000 memories, it would be much easier to program. Also, yes it

does have a lithium backed memory. So when you change batteries, you don't have to re-program.

Having a full featured handheld like the AR1000 has really opened up the world of scanning for me, I find that it goes everywhere with me. As Karl Malden says, "don't leave home without it".

was arranged differently (like higher up) it would feel more natural when holding it up to your ear. An RF booster for improving

--

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Sunnyvale, Ca 94086

4453. Re: Repeaters, Communcator, et al

Newsgroup: rec.ham-radio
Date: 1990-07-22 16:16:35 UTC
From: john@anasaz.UUCP
Message-ID: <2744@anasaz.UUCP>
Source record: 10063

In article <1721JKOSS00@RICEVM1> JKOSS00@RICEVM1.BITNET (Jordan M Kossack) writes:
]RE: Repeaters
]
]On 21 Jul 90, phil@ux1.cso.uiuc.edu [Phil Howard, KA9WGN] writes
]-
]- Another problem is caused by the lack of use of CTCSS, anti-CTCSS, and
]- other features to prevent mutual interference. Back when adding just ONE
]- tone frequencey to an HT was expensive and difficult meant that few
]- repeaters would use it. Yet even then it was commonly done on UHF
]- repeaters to make a closed repeater. Today, you can easily and cheaply
]- add a synthesized CTCSS tone generator, and most new HT's already have it
]- builtin.
] [...]
]- Closed repeaters have no place in a crowded band. I cannot see where they
]- serve the "Basis and Purpose". If the band cannot take Communicators,
]- remove the closed repeaters first.
]
] This is something that has always puzzled me. When I was studying for
]the exam, I kept reading about how no one amateur owns any particular freqs
]but how repeaters effectively own freqs on a first come - first serve basis.
]Maybe what we need is for closed repeaters to have the lowest priority for
]frequency planning purposes. In other words, if somebody wants to put up an
]open repeater on a pair occupied by a closed repeater, the owners of the
]closed repeaters would have the option of opening their repeater for use by
]any ham or losing the allocation.

Last year I tried to get the AZ frequency coordinating committee to refuse
to coordinate closed repeaters. The vote failed (lots of Cactus members
on the committee). This year (next Saturday), I'll try again.

As far as I'm concerned, one can put up a closed repeater UNTIL someone
wants to put an open repeater on the same frequency. Then, the closed
repeater should either become open, or go away.

On another note, I am a member of a club (Arizona Repeater Association)
that has a corporate by-law prohibitting it from owning closed repeaters.
Unfortunately, the tech committee has been unable convince the non-technical
board of directors that putting PL on a repeater, and publishing the PL
frequency, does not make a repeater closed. Sigh. Lots of intermod.
We were at least able to get permission to add PL to a repeater in
such a way that a PL'd signal gets "increased sensitivity." This really
means that we cranked the squelch all the way closed for carrier only
signals, and bypassed it with a PL decoder. This helps a bit.

Finally, let me point out that FCC regulations do not prohibit anyone
from using closed repeaters. In fact, as far as I can tell, the ONLY
way a repeater owner can stop you is to conceal the PL (easy to discover)
or use crypto controls. They MIGHT be able to sue you, but is it worth
it to them? Maybe we should all just go ahead and use closed repeaters.
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4454. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-22 16:26:16 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007221626.AA23185@tecnet1.jcte.jcs.mil>
Source record: 10057

zaphod.mps.ohio-state.edu!samsung!emory!wa4mei!ke4zv!
gary@tut.cis.ohio-state.edu (Gary Coffman) writes:

>I think your conclusions are wrong for several reasons. If we get the
>numbers of Communicators necessary to really make two meters congested,
>they will OUT NUMBER the OLD FARTS and will be in no danger of being
>ostracized and treated like unwanted scum. I doubt that we will really
>get hundreds of thousands of new Communicators right away however, and
>think that the newcomers need the guidance and socialization provided
>by being at the "watering hole" and not in some ghetto where they would
>be free to develop bad habits that will surely migrate to the lower
>bands as their numbers increase.

Well... the term "Old Fart" is really starting to get to me! I think
that it is now being stretched to include anyone that does not agree
with the currently proposed ideas for licensing. So I think that I will
coin a new phrase... "NEW FARTS" ... all the new Communicator Class
operators and no code people are now "NEW FARTS". Now we will have
Old Farts, and New Farts, and just plain smelly Farts and when someone
reaches for the chain on the toilet... we will ALL be in trouble! :-)

Seriously though (all Farts excepted) you make a good point.

>In the few large metro areas where two meters is filling up, we are
>already being "forced" to move on up to find room for our experimental
>work. In general, the most active and most knowledgeable are the ones
>moving up first. This is as it should be since unexperienced hams
>would be much less likely to be sucessful in breaking new ground.

Ummm, I don't know about that. New hams are full of force and vinegar
in a lot of cases, and being exposed to the people that really are the
movers and shakers could be just what is needed. Two meters in many
parts of the country is the band that has the most controversial
behavior. Are these the people that you want teaching these new
hams? There still remains the problem of NO REPEATERS above 2 meters
in many parts of the country, and for that I have no answer...

>If all you want is more outdated FM voice repeaters being used by
>applicance operators then restrict Communicators to 220 and above.
>If on the other hand you want to see new and innovative development
>to populate the upper bands, then let the Communicators have the
>communicators band; Two Meters. Those who are technically inclined
>and are attracted by the Communicator License (horrible name IMHO)
>will join the pioneers upstairs.

It seems we are worried about the same things! I do not want to see the "Communicators" put into a go-no-where position, and I believe that dumping them onto two meters will do exactly that. I fail to see where putting them on 220 and above first, will cause what you predict to happen. If they are technically inclined, then they will get with the movers and shakers and start their own work... if they are not, then they will just use what is already there. If there is nothing there already, then they will just lose interest and go away. If they start inundating two meters, then I suspect that a lot of things will happen, and very few of them good.

I guess it depends on what you are looking for. If all you want is a tremendous influx of new hams, then offer them 2 meters, give them a simple written test (and no code requirement), and then (IMHO) more than likely you will achieve that end. If you are looking to attract people that want to come into the hobby in order to help build it, then consider putting them with the people that are already doing that, and from what you have said it appears that we both agree that such people are to be found ABOVE the 2 meter band.

The real problem is finding a common ground on what we all really want. Is it a lot of new hams? A lot of new YOUNG hams? A lot of new hams (probably not real young) with technical talent? Some kind of blend of all the above? A wide open uncontrolled development? It seems that everyone has their own ideas of what it should be and it sure makes for some interesting reading doesn't it? Just for the record, I am one of the ones that want to see people coming into the hobby that want to learn about the technical aspects and contribute towards its development. I am not gainsaying the other aspects of the hobby... it just seems to me that "technically" we are losing ground more rapidly than any other area.

Thanks for your reply Gary!

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

4455. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-22 18:06:21 UTC
From: tad@ssc.UUCP
Message-ID: <926@ssc.UUCP>
Source record: 10069

In article <.9G&SP@splut.conmicro.com>, jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
> In article <910@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
> >[...] when [Wayne Green] was running for Vice President of the United
> >States [...]
>
> ...and I'd thought I'd heard of everything.
>
> Tad, are you serious? When was this? Who'd run with him?
>

Yes, I'm afraid so! I did NOT make this up. In the last presidential campaign Wayne announced his candidacy for VP of the U.S., and he did NOT have a presidential running mate! If you check out his editorials in 73 at the time, he had all these "great" ideas to "get this country RUNNING again" (maybe like Lyndon LaRouche and his "full mobilization" plans?).

He claimed at news conferences in New Hampshire (remember that there is an important primary in his home state) that he was a succesfull businessman, engineer, etc, and he had some ideas about improving education and global competetiveness. I think part of the reason that his old cohorts published the book was to refute some of his wild claims about himself, which were not being questioned by the media.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4456. Changing Traffic to Emergency Areas

Newsgroup: rec.ham-radio
Date: 1990-07-22 18:41:16 UTC
From: mahler@rouge.usl.edu
Message-ID: <11950@rouge.usl.edu>
Source record: 10059

I have tried to put these thoughts into a standard prose proposal, but find its too long, and boring ... I hope the following lists of points express my proposal.

KF5VH Proposal for Traffic in Emergency Areas

by Steve Mahler, KF5VH

Review of traffic types (order of importance):
Emergency / SOS - loss of human life may occur
Priority / PAN - human injury/suffering or great property loss
Health and Welfare - Inquire or reply of conditions
Routine - any other traffic

Recent Events
Hurricane on east coast and Earthquake on west coast

New Developments
Packet Radio and BBS provide a capability to move between 10 and 100 times the traffic we could on CW and voice message nets.
Broadcast radio and TV now can cover most events "live", this means the generation of traffic into an effected is very time compressed.
To some degree our efforts to promote Ham Radio as emergency communications has been successful, so more non-hams are making requests for H&W traffic.

Result of New Developments
We can now move more Health and Welfare traffic into an area than the local hams can resolve and reply to.
Each H&W message into an area generates:
1) a message in
2) a delivery
3) a possibly message out or an undeliverable message

I recall the message numbers from the earthquake were on the order of 10,000. That means 10,000 in-bound, 10,000 ham deliveries, and at least some of those replies.

Consider
Maybe those directly involved will comment, by my guess is that at least 90% of the reply messages were "ALL OK HERE". It appears that considerable effort is expended for little gain.

Proposal
Add a new class of message:
Request for Aid or Comfort / RAC - request from effected area (or reply)
This message would originate in the emergency area, and be a request for assistance by an person with a need.

The new priority order SOS/PAN/RAC/H&W/Routine

What will this improve?
Messages for aid will move more quickly.
The scare resource of hams will be able to concentrate on
those people who really need help. Hams can collect RAC messages
from on-site locations or emergency shelters (or any other announced
location).
Better control of message tracking and delivery because of fewer
messages.

What will be required to implement ?
Agree that this method may help.
Initially restrict incoming traffic to SOS, PAN and RAC until time
and resources permit H&W and routine traffic.

Your comments and discussion are desired and important.

73's ... Steve, KF5VH

4457. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-22 20:08:11 UTC
From: julian@bongo.UUCP
Message-ID: <187@bongo.UUCP>
Source record: 10060

In article <2800@wyse.wyse.com>, stevew@wyse.wyse.com (Steve Wilson x2580 dept303) writes:
> In article <186@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:

Ooodles of stuff deleted to reduce tedium.

> >If my local emergency service needs more coms these days, they don't
> >call out the fat guys with the walkie-talkies on their belts and
> >obsolete police radios in their cars. They call up a cellular carrier
> >and get some cellular phones that give them instant coms and ability
> >to communicate anywhere in the world.
>
> Yes they do. Cel Tel doesn't cover the world (yet ;-). Communicating
> anywhere in the world ?? I thought that was what HF was for ;-)

Let me see now. I have a cellular phone and I want to talk to
the Red Cross HQ in Switzerland. I don't have the phone number at
hand, no problem. I dial the AT&T operator and ask for "Switzerland,
Geneva, International Red Cross." In no time at all I will have the
number. Then I dial 01141-114122 and talk directly to the biggies in
Switzerland.

Communicating anywhere in the world with anyone at anytime?? I
thought that was what telephones were for. AT&T gave up using HF to
communicate around the world some time ago. Since that time
international traffic has exploded. This is the 1990s, lest we
forget. Even Western Union no longer exists.

Want to get DXCC without having to put up with bad manners,
expensive equipment, TVI and and years of waiting for the QSL bureau
to come through? Get the N6ARE DXCC with the AT&T endorsement.
Telephone 100 countries (cost roughly $3.00 per country) and your
itemised phone bill is confirmation. Yes, you can get the mobile
endorsement too by doing it again from your cellular phone. Coming
soon DXCC with a FAX endorsement.

Yours still waiting for the penny to drop.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

4458. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-07-22 20:26:34 UTC
From: tkelso@blackbird.afit.af.mil
Message-ID: <9007222031.AA23972@ucsd.edu>
Source record: 10061

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

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- Current NASA Prediction Bulletins #723 -
Alouette 1
1 00424U 62B-A 1 90192.70736421 .00000170 00000-0 19423-3 0 3322
2 00424 80.4633 261.8991 0022426 207.0003 152.9977 13.67365462386044
ATS 3
1 03029U 67111 A 90194.54223643 -.00000074 00000-0 99999-4 0 3953
2 03029 13.2438 21.0153 0013818 204.7992 155.1757 1.00272749 83052
Cosmos 398
1 04966U 71 16 A 90200.49713217 .00047980 17752-4 27181-3 0 9867
2 04966 51.5262 157.4892 2249896 208.4414 137.3099 11.10705110595285
Starlette
1 07646U 75010 A 90193.88381572 -.00000038 00000-0 17318-4 0 885
2 07646 49.8283 57.0942 0205740 276.0296 81.7188 13.82139829779334
LAGEOS
1 08820U 76039 A 90198.64391560 .00000002 00000-0 00000 0 0 862
2 08820 109.8519 5.5485 0044669 231.5829 128.0938 6.38664301 75885
GPS-0001
1 10684U 78020 A 90198.35161054 .00000007 00000-0 99999-4 0 4551
2 10684 63.7477 88.6178 0127026 197.7482 161.8339 2.00556340 76457
GPS-0002
1 10893U 78 47 A 90199.32711014 -.00000025 00000-0 00000 0 0 2051
2 10893 64.3380 329.4599 0163879 25.5768 335.2191 2.00544199 89291
GOES 3
1 10953U 78062 A 90197.85301236 .00000102 00000-0 99999-4 0 9223
2 10953 7.0135 66.1112 0008247 76.6027 283.4729 1.00256863 4934
SeaSat 1
1 10967U 78064 A 90199.32723424 .00000557 00000-0 23546-3 0 3548
2 10967 108.0235 24.4339 0003035 239.6745 120.4085 14.35755043630923
GPS-0003
1 11054U 78093 A 90196.12030018 -.00000024 00000-0 00000 0 0 2469
2 11054 63.9015 325.8181 0060452 118.6163 242.0004 2.00567489 86241
Nimbus 7
1 11080U 78098 A 90198.18148237 .00000079 00000-0 87759-4 0 6840
2 11080 99.1940 102.4241 0009664 8.4064 351.7251 13.83443934592186
GPS-0004
1 11141U 78112 A 90193.72859136 .00000007 00000-0 00000 0 0 4070
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2 11141 63.7209 88.6380 0059737 316.5037 43.0888 2.00556102 84897
GPS-0005
1 11690U 80 11 A 90190.38003918 .00000008 00000-0 00000 0 0 9962
2 11690 64.1930 90.8570 0115499 203.0641 156.7448 2.00555667 90680
GPS-0006
1 11783U 80 32 A 90198.66481660 -.00000024 00000-0 00000 0 0 1692
2 11783 63.7747 325.2870 0151937 60.8986 300.6238 2.00558799 74936
GOES 5
1 12472U 81049 A 90196.63891216 -.00000153 00000-0 99999-4 0 9448
2 12472 3.5400 75.6182 0002065 5.2410 354.5898 1.00212477 32511
DE 1
1 12624U 81 70 A 90199.10693940 .00020086 00000-0 10093 0 0 4747
2 12624 88.9592 147.6002 6207077 272.0249 22.0550 3.51059101263294
SME
1 12887U 81100 A 90200.63195314 .00027789 00000-0 44556-3 0 7447
2 12887 97.6327 250.1023 0001384 221.5460 138.5561 15.53053622486303
Salyut 7
1 13138U 82 33 A 90200.87058537 .00026873 00000-0 25820-3 0 3918
2 13138 51.5999 138.4163 0001940 73.9391 286.2370 15.66384630469973
Cosmos 1383
1 13301U 82 66 A 90200.21584078 .00000076 00000-0 83268-4 0 5851
2 13301 82.9302 277.2996 0029333 72.4228 288.0116 13.67836170402050
LandSat 4
1 13367U 82 72 A 90201.02113511 .00000000 00000-0 49638-5 0 3949
2 13367 98.1637 262.9025 0004462 42.3214 317.8312 14.57138086426082
IRAS
1 13777U 83 4 A 90199.32220075 .00000011 00000-0 19501-4 0 7933
2 13777 99.0252 35.6320 0011364 302.4321 57.5743 13.98795294 51298
Cosmos 1447
1 13916U 83 21 A 90198.05096754 .00000065 00000-0 62693-4 0 7345
2 13916 82.9456 349.9765 0039723 57.5131 302.9860 13.74050121366776
TDRS 1
1 13969U 83 26 B 90197.83888614 .00000134 00000-0 99999-4 0 346
2 13969 4.5303 65.6414 0006336 110.1398 249.5753 1.00321371 274
GOES 6
1 14050U 83 41 A 90197.77208037 .00000117 00000-0 99999-4 0 2122
2 14050 2.3076 77.4606 0003402 84.2710 275.4826 1.00259563 39
OSCAR 10
1 14129U 83 58 B 90198.34078161 -.00000015 00000-0 00000 0 0 5349
2 14129 26.0264 194.2267 5957424 160.0206 240.2817 2.05880277 25359
GPS-0008
1 14189U 83 72 A 90196.67794083 .00000006 00000-0 99999-4 0 7973
2 14189 63.3799 86.9813 0147768 219.1413 139.8355 2.00703456 51334
LandSat 5
1 14780U 84 21 A 90201.18639804 .00000406 00000-0 95211-4 0 2586
2 14780 98.2033 260.7644 0002034 108.0787 252.0617 14.57124490339528
UoSat 2
1 14781U 84 21 B 90199.56350058 .00000983 00000-0 18983-3 0 7604
2 14781 97.9456 251.0904 0013082 143.2336 216.9758 14.65498633340565
GPS-0009
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1 15039U 84 59 A 90196.79840957 .00000005 00000-0 00000 0 0 9824
2 15039 63.1414 86.1453 0021884 234.8159 125.0125 2.00612023 44618
Cosmos 1574
1 15055U 84 62 A 90199.97010338 .00000074 00000-0 73434-4 0 9092
2 15055 82.9557 38.8792 0025872 234.6617 125.2122 13.73364590304434
GPS-0010
1 15271U 84 97 A 90196.71771280 -.00000024 00000-0 00000 0 0 8683
2 15271 63.2003 324.9011 0105878 327.5045 31.8534 2.00557473 41728
Cosmos 1602
1 15331U 84105 A 90199.08030834 .00001609 00000-0 21787-3 0 3263
2 15331 82.5392 332.2758 0021445 228.7030 131.2323 14.78301379312657
NOAA 9
1 15427U 84123 A 90200.20966182 .00000236 00000-0 14897-3 0 6048
2 15427 99.1689 200.7835 0014238 279.8133 80.1429 14.12619408288502
Cosmos 1686
1 16095U 85 86 A 90200.80674000 .00064165 00000-0 60586-3 0 7015
2 16095 51.6048 138.7418 0002681 85.6388 274.2706 15.66405875271065
GPS-0011
1 16129U 85 93 A 90196.91460509 .00000006 00000-0 00000 0 0 5567
2 16129 63.8887 87.1502 0124570 148.8694 211.9278 2.00510353 34931
Mir
1 16609U 86 17 A 90200.83801255 .00013497 00000-0 15061-3 0 8053
2 16609 51.6104 165.8915 0010425 159.1097 201.0379 15.63073510253205
SPOT 1
1 16613U 86 19 A 90201.04869969 .00000382 00000-0 19693-3 0 326
2 16613 98.7337 275.0627 0002084 98.1250 262.0243 14.20024978 68598
Cosmos 1766
1 16881U 86 55 A 90201.11777110 .00003775 00000-0 52156-3 0 844
2 16881 82.5191 29.3963 0020337 246.1108 113.7972 14.77770758214012
EGP
1 16908U 86 61 A 90199.32260593 -.00000162 00000-0 -86812-3 0 2355
2 16908 50.0015 160.2811 0010041 281.5937 78.3761 12.44386101178735
NOAA 10
1 16969U 86 73 A 90201.30819320 .00000379 00000-0 18225-3 0 4527
2 16969 98.5980 228.5095 0013391 169.3397 190.8067 14.23667029199323
MOS-1
1 17527U 87 18 A 90201.06709090 .00000426 00000-0 34234-3 0 6133
2 17527 99.1099 273.1973 0001205 90.4289 269.6996 13.94874143173847
GOES 7
1 17561U 87 22 A 90194.46937082 -.00000098 00000-0 99999-4 0 5703
2 17561 0.1418 141.0899 0013582 279.3259 300.0132 1.00285859 5703
Kvant-1
1 17845U 87 30 A 90200.96566881 .00163407 00000-0 17231-2 0 1970
2 17845 51.6129 165.2506 0007944 152.9926 205.9401 15.63152159189270
DMSP B5D2-3
1 18123U 87 53 A 90201.16862991 .00000000 00000-0 99999-5 0 6461
2 18123 98.8181 31.3273 0013664 291.0192 68.9519 14.14080168159067
RS-10/11
1 18129U 87 54 A 90201.05512400 .00000332 00000-0 35392-3 0 2596
2 18129 82.9286 304.2434 0012568 34.4528 325.7590 13.72099475153957
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Meteor 2-16
1 18312U 87 68 A 90200.14465350 .00000219 00000-0 18868-3 0 4624
2 18312 82.5529 264.9584 0011797 156.6269 203.5426 13.83663333147403
Meteor 2-17
1 18820U 88 5 A 90200.07066851 .00000135 00000-0 11097-3 0 3246
2 18820 82.5460 325.1119 0015607 231.9621 128.0131 13.84353611124593
DMSP B5D2-4
1 18822U 88 6 A 90201.21432010 .00000003 00000-0 99999-5 0 5694
2 18822 98.6419 79.5615 0006699 163.9603 196.1734 14.21489635127511
AO-13
1 19216U 88 51 B 90197.82067606 -.00000082 00000-0 99999-4 0 1398
2 19216 57.0355 145.3614 6989638 231.4991 42.6273 2.09702725 16025
OKEAN 1
1 19274U 88 56 A 90201.12143365 .00001318 00000-0 18279-3 0 8810
2 19274 82.5178 128.0602 0022930 20.0448 340.1684 14.77123605109786
Meteor 3-2
1 19336U 88 64 A 90200.63218010 .00000391 00000-0 99999-3 0 5324
2 19336 82.5401 254.4694 0016028 228.7713 131.1999 13.16900088 95222
NOAA 11
1 19531U 88 89 A 90201.26758657 .00001048 00000-0 59644-3 0 3178
2 19531 98.9819 149.6135 0011731 186.4218 173.6798 14.11653837 93638
TDRS 2
1 19548U 88 91 B 90198.00000000 .00000115 00000-0 99999-4 0 1448
2 19548 0.1968 80.1980 0003402 63.6704 336.3506 1.00276868 558
Cosmos 2001
1 19796U 89 11 A 90200.09327106 -.00001041 00000-0 99999-4 0 5554
2 19796 63.3083 88.8692 7075422 319.8954 5.2987 2.00582926 10448
GPS BII-01
1 19802U 89 13 A 90199.85056414 .00000016 00000-0 99999-4 0 1440
2 19802 55.0584 196.1606 0053899 166.2239 193.9399 2.00644183 10384
Akebono
1 19822U 89 16 A 90199.87754367 .00014522 00000-0 91087-3 0 6888
2 19822 75.0919 223.3228 4172866 201.5803 133.9854 7.12428330 2094
Meteor 2-18
1 19851U 89 18 A 90200.05066567 .00000132 00000-0 10863-3 0 2671
2 19851 82.5187 203.0673 0012560 275.9997 83.9731 13.83988517 69975
TDRS 3
1 19883U 89 21 B 90198.00000000 -.00000235 00000-0 99999-4 0 1471
2 19883 0.2224 79.0797 0002513 127.9758 46.8829 1.00263239 75252
GPS BII-02
1 20061U 89 44 A 90191.11244975 -.00000033 00000-0 00000 0 0 1445
2 20061 54.7754 14.9096 0086773 173.6971 186.4465 2.00485267 7956
Nadezhda 1
1 20103U 89 50 A 90199.85855819 .00000063 00000-0 60415-4 0 1660
2 20103 82.9592 261.6499 0036490 312.1474 47.6581 13.73599876 52066
GPS BII-03
1 20185U 89 64 A 90197.51159318 .00000016 00000-0 99999-4 0 1350
2 20185 54.9222 197.1168 0023734 160.1574 199.9551 2.00623597 6658
Activnyi
1 20261U 89 80 A 90200.52778631 -.00026575 00000-0 -84814-2 0 6188
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2 20261 82.5943 208.0269 1257006 265.2995 80.4015 12.43803454 36618
Activnyi RB
1 20262U 89 80 C 90199.54301590 .00000516 00000-0 16005-3 0 2576
2 20262 82.5982 208.7220 1259161 267.7772 77.8998 12.43229183 36497
Magion 2
1 20281U 89 80 B 90200.49004333 .00016289 00000-0 51470-2 0 6111
2 20281 82.5939 207.9660 1256103 265.2268 80.4732 12.44080799 36614
GPS BII-04
1 20302U 89 85 A 90186.37739525 -.00000028 00000-0 99999-4 0 1365
2 20302 54.6179 316.3206 0029365 324.1311 35.6734 2.00373177 5230
Meteor 3-3
1 20305U 89 86 A 90200.00125626 .00000124 00000-0 30767-3 0 1731
2 20305 82.5544 195.5555 0014594 247.6260 112.3317 13.15859838 35136
COBE
1 20322U 89 89 A 90198.51779839 .00002387 00000-0 15710-2 0 1481
2 20322 99.0214 208.4274 0007966 282.6665 77.3604 14.02587354 33749
Kvant-2
1 20335U 89 93 A 90200.96587198 .00020649 00000-0 22709-3 0 3095
2 20335 51.6107 165.2471 0010777 162.8666 197.2392 15.63072806 36884
GPS BII-05
1 20361U 89 97 A 90191.06758882 .00000015 00000-0 99999-4 0 883
2 20361 54.9603 139.4444 0064503 48.5942 311.9250 2.00581338 4184
SPOT 2
1 20436U 90 5 A 90201.08410830 .00000136 00000-0 72619-4 0 2852
2 20436 98.7344 275.1561 0000824 88.7745 271.3507 14.20025919 25412
UO-14
1 20437U 90 5 B 90198.85198439 -.00000182 00000-0 -64555-4 0 1820
2 20437 98.6963 274.8706 0012382 67.3557 292.8911 14.28657276 25245
UO-15
1 20438U 90 5 C 90197.83066852 .00000302 00000-0 13680-3 0 1050
2 20438 98.7005 273.8340 0011315 69.2087 291.0304 14.28394851 25098
PACSAT
1 20439U 90 5 D 90199.04964010 .00000233 00000-0 10857-3 0 953
2 20439 98.7016 275.1854 0012488 66.2032 294.0457 14.28763656 25270
DO-17
1 20440U 90 5 E 90199.18477369 .00000256 00000-0 11723-3 0 987
2 20440 98.7008 275.3312 0012650 65.8478 294.4027 14.28810988 25294
WO-18
1 20441U 90 5 F 90197.63130125 .00000304 00000-0 13638-3 0 983
2 20441 98.7035 273.8046 0013278 69.0881 291.1718 14.28905580 25073
LO-19
1 20442U 90 5 G 90198.18306521 .00000245 00000-0 11304-3 0 982
2 20442 98.7034 274.3752 0013526 68.7277 291.5348 14.28974883 25158
GPS BII-06
1 20452U 90 8 A 90191.64282447 .00000001 00000-0 99999-4 0 808
2 20452 54.5508 255.0660 0027829 44.9864 315.3289 2.00872988 3311
MOS-1B
1 20478U 90 13 A 90201.09500377 -.00000168 00000-0 -11180-3 0 3521
2 20478 99.1895 271.1758 0000677 52.7519 307.3758 13.94830548 22725
DEBUT
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1 20479U 90 13 B 90199.58691214 .00000106 00000-0 28803-3 0 946
2 20479 99.0360 240.1658 0540852 337.5079 20.3134 12.83157648 20779
FO-20
1 20480U 90 13 C 90197.64088855 -.00000102 00000-0 -20112-3 0 936
2 20480 99.0360 238.5823 0541013 341.9748 16.2777 12.83138774 20527
MOS-1B R/B
1 20491U 90 13 D 90199.61947455 -.00000755 00000-0 -13996-2 0 1012
2 20491 99.0397 244.7496 0470819 317.6475 38.9168 13.02741589 20493
Soyuz TM-9
1 20494U 90 14 A 90200.83800671 .00021023 00000-0 23115-3 0 2061
2 20494 51.6139 165.8940 0009822 157.8254 202.2903 15.63081675 24772
LACE
1 20496U 90 15 A 90199.27586794 .00003235 00000-0 20348-3 0 1953
2 20496 43.0912 151.9051 0016100 190.2309 169.8244 15.10921313 23225
RME
1 20497U 90 15 B 90199.89596893 .00005785 00000-0 16476-3 0 2010
2 20497 43.1047 116.2238 0017298 194.2193 165.8162 15.36761014 23718
Nadezhda 2
1 20508U 90 17 A 90199.56012948 .00000058 00000-0 55657-4 0 1307
2 20508 82.9508 36.7707 0042982 259.1566 100.4748 13.73219333 19311
OKEAN 2
1 20510U 90 18 A 90201.06932824 .00000819 00000-0 12335-3 0 2215
2 20510 82.5249 67.4445 0019837 162.8697 197.3257 14.73271918 20916
INTELSAT-6
1 20523U 90 21 A 90200.97206925 .00001458 00000-0 99999-4 0 2254
2 20523 28.3454 48.7235 0018530 173.4221 186.3658 15.02628321 19384
GPS BII-07
1 20533U 90 25 A 90196.82871687 -.00000032 00000-0 00000 0 0 537
2 20533 55.1008 14.7818 0036435 102.9248 257.5125 2.00550609 2174
PegSat
1 20546U 90 28 A 90200.56991148 .00001589 00000-0 99999-4 0 1567
2 20546 94.1159 232.3001 0147619 214.2179 144.9457 15.00702903 15695
HST
1 20580U 90 37 B 90200.97574432 .00001565 00000-0 16472-3 0 1404
2 20580 28.4707 40.9726 0005541 110.5801 249.5483 14.84610407 12850
Cosmos 2079
1 20619U 90 45 A 90183.18162415 -.00000015 00000-0 99999-4 0 666
2 20619 64.8990 38.4694 0021232 211.7782 148.1393 2.13102858 940
Cosmos 2081
1 20621U 90 45 C 90175.84977191 -.00000015 00000-0 99999-4 0 488
2 20621 64.8983 38.7309 0011927 198.4009 161.6165 2.13101327 794
Cosmos 2082
1 20624U 90178.33809439 .00000248 00000-0 15642-3 0 499
2 20624 71.0027 289.2272 0005895 345.8847 14.2115 14.12184586 5101
1990 046B
1 20625U 90 46 B 90176.75202607 -.00000199 00000-0 -94929-4 0 175
2 20625 71.0012 292.4176 0016855 297.5224 62.4185 14.13303811 4886
Kristall
1 20635U 90 48 A 90200.96585317 .00028629 00000-0 31225-3 0 873
2 20635 51.6101 165.2488 0009615 162.2043 197.7915 15.63086674 7760
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ROSAT
1 20638U 90 49 A 90187.00592365 .00002308 00000-0 21651-3 0 291
2 20638 52.9885 326.8089 0015955 44.1557 316.0698 14.97741876 5108
1990 049B
1 20639U 90 49 B 90186.77313651 .00012056 00000-0 52549-3 0 363
2 20639 52.5158 315.1529 0074503 358.3877 1.6875 15.20114840 5158
INSAT 1-D
1 20643U 90189.97330122 -.00000137 10000-3 0 164
2 20643 0.1487 277.8879 0004816 163.5074 278.7114 1.00269441 243
1990 051C
1 20645U 90 51 C 90190.98470716 .00146799 24824-4 66570-3 0 250
2 20645 27.1777 158.6411 7466348 194.5605 117.5635 2.10584253 563
Molniya3-38
1 20646U 90 52 A 90200.10814418 .00000037 00000-0 -73888-3 0 474
2 20646 62.8398 222.1210 7408122 280.1598 10.9867 2.00631672 753
1990 052D
1 20649U 90 52 D 90193.14108054 .00000552 00000-0 64582-3 0 218
2 20649 62.8452 223.2199 7449528 280.1064 10.7836 1.96250117 588
Gorizont 20
1 20659U 90 54 A 90200.67565930 -.00000191 00000-0 99999-4 0 309
2 20659 1.4506 269.2197 0018148 241.1368 119.4968 1.00255697 73
1990 054D
1 20662U 90 54 D 90194.63272051 -.00000331 00000-0 99999-4 0 126
2 20662 1.4948 269.1293 0015655 296.6548 63.6942 1.00512434 255
Cosmos 2084
1 20663U 90 55 A 90200.59639727 .00007190 00000-0 11641-2 0 538
2 20663 62.8053 82.4265 0125965 8.1706 352.1652 14.66814477 4062
1990 055B
1 20664U 90 55 B 90200.96612867 .04985845 41693-4 97332-3 0 520
2 20664 62.8125 63.7169 0060269 125.2998 236.0237 16.25735070 4446
1990 055C
1 20665U 90 55 C 90200.97146044 .08321023 42303-4 57315-3 0 534
2 20665 62.8489 64.3459 0052559 124.3855 237.2677 16.33134993 4441
1990 055D
1 20666U 90 55 D 90197.68699122 .00001667 00000-0 27488-3 0 193
2 20666 62.7952 91.3973 0121322 14.4345 346.0168 14.69533585 3647
INTELSAT-F6
1 20667U 90 56 A 90195.29538657 -.00000227 00000-0 99999-4 0 127
2 20667 0.3486 256.0076 0023271 331.1985 132.5929 1.00263432 232
1990 056C
1 20669U 90 56 C 90196.34309319 .00005471 00000-0 21619-2 0 146
2 20669 24.2393 256.6104 7415498 14.0926 358.6920 2.10899019 464
Meteor 2-19
1 20670U 90 57 A 90200.03770228 .00000056 00000-0 45222-4 0 201
2 20670 82.5450 263.3880 0015670 192.8312 167.2453 13.83839829 2921
1990 057B
1 20671U 90 57 B 90197.64736188 .00000032 00000-0 23425-4 0 71
2 20671 82.5467 265.2787 0014604 202.3839 157.6683 13.84158599 2594
GAMMA
1 20683U 90 58 A 90200.56189697 .00026442 00000-0 51274-3 0 231
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2 20683 51.6176 48.0652 0013536 245.4144 114.6005 15.47394290 1286
1990 059A
1 20685U 90 59 A 90198.08455059 .00197292 -62599-5 48209-3 0 70
2 20685 28.4931 297.7287 0562305 138.0890 226.3844 14.90429605 168
1990 059B
1 20686U 90 59 B 90201.29212070 .00385762 -66430-5 91727-3 0 110
2 20686 28.4910 276.9253 0547664 171.9747 189.0105 14.94099183 642
1990 060A
1 20687U 90 60 A 90200.62252310 .00119033 53767-5 18873-3 0 81
2 20687 82.3198 101.2494 0006012 314.3672 45.6716 16.03702390 361
1990 060B
1 20688U 90 60 B 90200.71831359 .19354792 -64736-5 12487-3 0 119
2 20688 82.3090 101.0887 0017629 82.4049 280.5070 16.53216264 384
--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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4459. (none)

Newsgroup: rec.ham-radio
Date: 1990-07-22 20:43:38 UTC
From: pat@KD9UU.AMPR.ORG
Message-ID: <9007222043.AA24283@ucsd.edu>
Source record: 10062

```
Censored for Amateur Radio by FIXMAIL.
Received: from kd9uu.ampr.org by pgd.adp.wisc.edu with SMTP
id AA15931 ; Sun, 22 Jul 90 15:32:31 CST
Date: Sun, 22 Jul 90 15:13:50 CST
Message-Id: <10381@kd9uu.ampr.org>
From: pat@kd9uu.ampr.org (Pat Davis, Wisc./Mich.(U P) AMPR IP Address Coord.)
Reply-To: pat%kd9uu.ampr.org@pgd.adp.wisc.edu
To: info-hams%ucsd.edu@pgd.adp.wisc.edu
Subject: "Mods database"=129.100.22.100=hamster.business.uwo.ca --FYI, Pat

I hope I'm not being redundant ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
That's also the home of VIEW, a good mailer to run with KA9Q's NOS, since it
uses LIST as it's viewer.. Log on anonymous and 'cd view' ..
```

4460. scanners

Newsgroup: rec.ham-radio
Date: 1990-07-22 22:21:16 UTC
From: sami@quiche.cs.mcgill.ca
Message-ID: <3772@calvin.cs.mcgill.ca>
Source record: 10064
Cross-posted to: rec.radio.shortwave,rec.ham-radio

What's the opinion on the AOR AR3000? Should I wait for an ICOM
IC-R1 or IC-R100, instead? (are these two ever going to be sold in North
America?)

Thanks, in advance.

--
Sami Boulos | McGill University
sami@quiche.cs.mcgill.ca | School of Computer Science
Tel:(514) 398-7084 (ext. 5928) | 3480 University
| Montreal, Quebec H3A 2A7

4461. UNIX Software for learning Morse Code

Newsgroup: rec.ham-radio
Date: 1990-07-23 02:11:50 UTC
From: mmt@moosh.mlb.semi.harris.com
Message-ID: <1990Jul23.021150.25401@mlb.semi.harris.com>
Source record: 10067

I'm intersted in obtaining any software that can be used for learning
Morse code on a UNIX machine. If you know of such software, please
contact me via email or post.

Thanks in avdance,
--
_____ _____ ... Mojgan
_ o(_||___)________/___ ... mmt@mlb.semi.harris.com
O(_)(o _____/ \ Discover the best two thirds
*_____/------o-' \ of the world...

4462. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-23 02:30:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500609@ux1.cso.uiuc.edu>
Source record: 10065

> In the technonerd utopia, every ham would be a technical whiz because
> they wanted to.
>
> This isn't the technonerd utopia, but the real world. If you want people
> to be more than mike-button jockeys, you gotta give them a reason to.
> Incentive licensing works quite well.

Incentive licensing made a few hams study (memorize) and go pass some test without understanding what they were even doing. No, incentive licensing did NOT (for most hams) achieve anything. Maybe, just maybe, better tests along with I.L. could have done it, but I'm not going to waste the NEXT 20 years trying to find out.

The button-pushing mike jockeys are just going to be button-pushing mike jockeys and that's that and we will just have to live with it.

Ham radio tests do NOT need to be deeply technical to be applicable. Sure, basic radio theory is needed to operate a rig RIGHT (such as understand that sidebands really do take up spectrum). The test does NOT need to determine if you can BUILD a rig; it should just make sure you know enough to not mess up other users of the sprectrum when you push the button.

But the tests themselves need to be well designed to make sure that no one slips through the cracks AND at the same time be fair so that it lets through anyone who can be a good ham in any interest area.

Only the BASICS need to be tested, but they need to be tested WELL. No special interests need to be tested on at all. Not packet, not ATV, not Morse Code. If you pass a well designed BASIC test, you will have the knowledge you need to deal with the special cases.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4463. How Many More Hams Needed?

Newsgroup: rec.ham-radio
Date: 1990-07-23 02:48:29 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007230248.AA01930@cmr.ncsl.nist.gov>
Source record: 10068

To Mark Bitterlich WA3JPY, with copy to all...:
I've noted your generally intelligent comments on INFO-HAMS. You recently proposed three reasons for wanting lots of new hams. One of them is that numbers are the most important thing (to paraphrase).
The conventional wisdom is that the most important factor in keeping the bands is that the NUMBER of hams must be greatly increased. That is said to be the reasoning behind the ARRL and FCC proposals. In today's world, they say, numbers are all - people vote, we need more hams.

I can't agree that it will work. More may be useful, but more hams on two won't do much to show need for the other VHF/UHF bands. The concept that crowding on two will cause a shift to other bands seems as likely as saying that crowding on 20 will cause a mass shift to other bands.

I've done some VERY rough estimates of the number of new hams needed to make ALL the bands from 50 to 1300 MHz busy at the PEAK HOUR of the PEAK DAY of the week. If ALL new hams operated on these bands, the number of hams in New Jersey would have to triple, and the number in Indiana would have to increase 13 times.

I don't expect ALL new hams to operate on these 6 VHF/UHF bands, and I don't expect the number of hams in Indiana to increase 13 times - or to triple in New Jersey - without a basic change in the concept of amateur radio.

Any commments or suggestions?

Bob W3OTC

4464. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-23 14:44:23 UTC
From: gary@ke4zv.UUCP
Message-ID: <1079@ke4zv.UUCP>
Source record: 10076

In article <9007221626.AA23185@tecnet1.jcte.jcs.mil> mgb@TECNET1.JCTE.JCS.MIL writes:
>
>.....Two meters in many
>parts of the country is the band that has the most controversial
>behavior. Are these the people that you want teaching these new
>hams? There still remains the problem of NO REPEATERS above 2 meters
>in many parts of the country, and for that I have no answer...
>It seems we are worried about the same things! I do not want to see
>the "Communicators" put into a go-no-where position, and I believe that
>dumping them onto two meters will do exactly that. I fail to see where
>putting them on 220 and above first, will cause what you predict to happen.
>If they are technically inclined, then they will get with the movers and
>shakers and start their own work... if they are not, then they will just
>use what is already there. If there is nothing there already, then they
>will just lose interest and go away. If they start inundating two meters,
>then I suspect that a lot of things will happen, and very few of them good.
>
>I guess it depends on what you are looking for. If all you want is a
>tremendous influx of new hams, then offer them 2 meters, give them a
>simple written test (and no code requirement), and then (IMHO) more than
>likely you will achieve that end. If you are looking to attract people that
>want to come into the hobby in order to help build it, then consider putting
>them with the people that are already doing that, and from what you have
>said it appears that we both agree that such people are to be found ABOVE
>the 2 meter band.
>

Not exactly, in most parts of the country there is currently
very little activity above two meters. By dumping the newcomers into the
wasteland they will either fail or more likely form their own CB-like
clubs to support their new repeaters. By ghettoizing them this way they
will not receive the socialization needed to become mainstream hams.
When I mentioned pioneers moving up frequency in my previous posting,
I carefully noted that this is only happening where two meters is
filling up. In most parts of the country this is not the case yet.

>The real problem is finding a common ground on what we all really want.
>Is it a lot of new hams? A lot of new YOUNG hams? A lot of new hams
>(probably not real young) with technical talent? Some kind of blend of
>all the above? A wide open uncontrolled development? It seems that
>everyone has their own ideas of what it should be and it sure makes for
>some interesting reading doesn't it? Just for the record, I am one of
>the ones that want to see people coming into the hobby that want to learn
>about the technical aspects and contribute towards its development. I am
>not gainsaying the other aspects of the hobby... it just seems to me that

>"technically" we are losing ground more rapidly than any other area.

I personally want several things from this restructuring but, primarily I want fairness. I admit that I am still bitter about 1968. I can never understand why I was required to demonstrate faster CW operation in order to regain some of the voice frequencies I enjoyed prior to 1968. In my opinion incentive licensing has been the biggest disaster for amateur radio. It created a divisive caste system that haunts us to this day. I want to bring hams back together instead of creating a new class of untouchables.

I also want to see a lot of young hams come back into the hobby. As Phil Karn said, ham radio has been the start of a lifelong interest in electronics and high technology in general for many people. I count myself as one of those. I want a new generation of twelve year olds to experience the magic like I did.

As for technical folks, I expect that they will be represented among the newcomers in about the same proportion as they are in the current ham population.

Gary KE4ZV

4465. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-23 14:57:50 UTC
From: gary@ke4zv.UUCP
Message-ID: <1080@ke4zv.UUCP>
Source record: 10075

In article <0RM&TNF@splut.conmicro.com> jay@splut.conmicro.com (Jay "you ignorant splut!" Maynard) writes:
>In article <15961@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>>What a load of crap.
>[...]
>>Incentive licensing sucks hard. Let's abolish it.
>
>I agree, Brian: that's a load of crap.
>
>In the technonerd utopia, every ham would be a technical whiz because
>they wanted to.
>
>This isn't the technonerd utopia, but the real world. If you want people
>to be more than mike-button jockeys, you gotta give them a reason to.
>Incentive licensing works quite well.
>

Now that's a load of crap! Creating a CW speed based caste system has really turned amateur radio into something that is advancing the state of the art hasn't it. Why just look at SSB, uh sorry developed by the mike jockeys prior to 1968. Well how about FM repeaters, nope pre-68 again. Packet, yeah that's the ticket, hmm, it says here that most of the packet guys hold TECHNICIAN tickets. Maybe you are right Jay, it seems that incentive licensing has caused the cw speed freaks to cling to the lower 25khz of 20 meters and GET OUT OF THE WAY OF THOSE ADVANCING THE STATE OF THE ART.

Gary KE4ZV

4466. Re: FO-20 satellite usage

Newsgroup: rec.ham-radio
Date: 1990-07-23 15:15:14 UTC
From: gjernes@liszt.mpr.ca
Message-ID: <2264@kiwi.mpr.ca>
Source record: 10073

In article <55985@microsoft.UUCP> joehol@microsoft.UUCP (Joseph HOLMAN) writes:
> but, where is everybody !!! their used to be lots of
> people on JA mode...

A problem I have is never knowing when to expect mode JA to be on. With
FO-12 we sometimes would get a mode schedule for the satellite.
Is there such a schedule for FO-20? It is very frustrating to play the
chances and find the satellite off, or in digital mode.

gjernes@mprgate.mpr.ca or uunet!ubc-cs!mpre!gjernes
Murray B. Gjernes P.Eng. VE7MBG Tel: (604)293-5340
MPR Ltd, 8999 Nelson Way, Burnaby, B.C. Fax: (604)293-5787
Canada V5A 4B5 Telex: 043 56628

4467. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-23 15:56:49 UTC
From: steveh@athertn.Atherton.COM
Message-ID: <27642@willow.athertn.Atherton.COM>
Source record: 10071

In article <1990Jul21.164302.19756@ameristar> rick@ameristar (Rick Spanbauer) writes:

> The other interesting question is how amateur radio did during the
> bay area earthquake in terms of equipment availability, message flow,
> and congestion of channels.
>
> Rick Spanbauer/WB2CFV
> Ameristar Technology

Here in the Santa Clara (Silicon) Valley, ARES/RACES is quite well organized.
I think it has something to do with the fire dangers we have every summer.
We were only a few miles from the epicenter of the Loma Prieta quake.

Most communication was done via 2-mtrs. Emergency networks were in place
within minutes after the quake. Communications were between county offices,
shelters, ARES groups, and other official and not so official organizations.

The problems were mainly with H&W traffic into the area, but that is a
subject for another discussion (and one of my hot buttons).

Overall, the hams trained for emergency communications did their jobs quickly
and effectively. Would we have been in trouble if there was not a corps of
trained hams? You betcha!

I have a commendation certificate from the ARRL hanging on my wall. It was
given to me in recognition of the work I did during the quake. The time I
spent was no where near the hours and hours given by other volunteers.

It is one of my most prized possessions.

73 de KA6ETB @ N6LDL.CA - NTS NCN packet manager

4468. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-23 16:47:07 UTC
From: whester@nyx.UUCP
Message-ID: <1641@nyx.UUCP>
Source record: 9946

In article <9007192350.AA07535@ucsd.edu> faunt@CISCO.COM (Doug Faunt N6TQ 415-688-8269) writes:
>
>Do cellular nodes have emergency power? If so, for how long?
>Obviously some are at CO's and will be up for a long time, but what
>about my neighborhood site? Any "standard" answers?
>thanx, doug

Doug, I have had the opportunity to see the insides of one cell site... it runs on lead-acid stationary type battery bank. The bank is kept on a maintenance float charge with regular equalization charges. This is the "UPS" system that is typically used. Invertors are used to boost the battery voltage and convert to AC for special loads. The whole place has a full HVAC system for temperature control and intrusion detectors for security...all monitoring is done over the microwave link.

Bill, N0LAJ
P.S. the site engineer told me they could run for 24 hrs. on batteries, if the outage went longer they bring in a portable generator and plug it in to a receptacle on the side of the building.

4469. ANS: How Many More Hams Needed?

Newsgroup: rec.ham-radio
Date: 1990-07-23 17:22:13 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007231722.AA00717@tecnet1.jcte.jcs.mil>
Source record: 10072

rc@cmr.ncsl.nist.gov Bob W3OTC writes:

>I've noted your generally intelligent comments on INFO-HAMS.

Well... there goes MY ego! :-) Thanks.

>You recently proposed three reasons for wanting lots of new hams.
>One of them is that numbers are the most important thing (to paraphrase).
>The conventional wisdom is that the most important factor in keeping the
>bands is that the NUMBER of hams must be greatly increased. That is said
>to be the reasoning behind the ARRL and FCC proposals. In today's world,
>they say, numbers are all - people vote, we need more hams.

Bob, in trying to keep the tension down, I was writing a list of some of the more common reasons that I have read for establishing the Communicator Class and what privileges they should have and why. The list that you are paraphrasing did not necessarily mean that I (personally) supported any one of them over the other. Actually I was just trying to point out the varying thoughts that have been posted by others and that it is hard to say how we should get to a goal when we really haven't totally agreed just what that goal should be! :-) This is not a flame nor even a correction, just a slight clarification.

>I can't agree that it will work. More may be useful, but more hams on two
>won't do much to show need for the other VHF/UHF bands. The concept that
>crowding on two will cause a shift to other bands seems as likely as saying
>that crowding on 20 will cause a mass shift to other bands.

And I PERSONALLY happen to agree with you 100% !!!! More than 100% if that is possible! That is why (IMHO) I do not get a warm fuzzy feeling about giving the Communicator Class Two Meter privileges. I am worried about them "parking the car" on 2 meters from now until the end of time. I am also worried about how they will be treated by others on that band. There are a LOT of nice people there, but I am worried about the 1 jerk that could really affect their perspective of Amateur Radio. Sure.. there are nasty people all over... but there seems to be a concentration of them on a few bands over others... and on VHF/UHF, I believe that happens to be 2 meters. There are a LOT of VERY GOOD logical/moral arguments for allowing them on 2 meters, however regardless of the great points being made I just have a hard time buying off on it. Trying to force hams on 2 meters to develop other (higher) bands because of the possible congestion caused by Communicators is ... well.... in my opinion a VERY BAD idea. Phil Howard originally wrote this, but in private conversation I found out that he really didn't mean it quite as it sounded. (Correct Phil?)

>I've done some VERY rough estimates of the number of new hams needed to
>make ALL the bands from 50 to 1300 MHz busy at the PEAK HOUR of the PEAK
>DAY of the week. If ALL new hams operated on these bands, the number of
>hams in New Jersey would have to triple, and the number in Indiana would
>have to increase 13 times.

Not to mention that all of them would have to have the equipment to operate
on the bands that you included in your estimates. Yes.. I see what you are
saying.

>I don't expect ALL new hams to operate on these 6 VHF/UHF bands, and I don't
>expect the number of hams in Indiana to increase 13 times - or to triple in
>New Jersey - without a basic change in the concept of amateur radio.

>Any comments or suggestions?

Not from me. I believe that you and I are thinking along the same lines. :-)

Thanks for your reply!

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

4470. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-23 17:43:50 UTC
From: stevew@wyse.wyse.com
Message-ID: <2804@wyse.wyse.com>
Source record: 9927

In article <1990Jul20.175844.8030@ariel.unm.edu> ee5391aa@hydra.unm.edu (Duke McMullan n5gax) writes:
>stuff deleted...
>
>So what really happens? Can anyone in the Bay area tell us what happened on
>the cellular links during the big shakeup a while back? Some of you must
>KNOW what happens to the cellular services in these situations. Would
>you be willing to share your tales?

I can give you two observations about CellTel during the earthquake.

The cell which covers Los Gatos was out of action for at least the
first 24 hours after the quake. Land line service was also down
or intermitant during the same period. Los Gatos is fairly close to the
epicenter, and experienced the worst damage within Santa Clara
County.

There was a fairly large collection of CellTels at the Oakland EOC
(Thats Emergency Operations Center) and it was damn near impossible
to get a dial tone for about a week. This wasn't due to cell failure,
but rather overloading the system. There were a greater number of phones
in the area than the cell could handle.

Steve Wilson, KA6S
Ex-EC for the City of Milpitas

4471. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-23 17:52:06 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720075@hplsla.HP.COM>
Source record: 10070

>/ hplsla:rec.ham-radio / k2ph@cbnewsj.att.com (The QRPer) / 5:59 am Jul 17, 1990 /
>From article <43035@apple.Apple.COM>, by winter@Apple.COM (Patricia Winter):
>> In article <913@ssc.UUCP> tad@ssc.UUCP (Tad Cook) writes:
>
>... lots of stuff deleted along the way ...
>
>The rules that I have, courtesy of Chod Harris and the DX Magazine,
>say 1 point for QSOs with the same country. So, stateside QSOs will
>still count. However, they will be able to work a million JAs, etc.
>for three times as many points!
>

Having been involved in a small way with the goings on here in
Seattle, I got to talk to some of the /WG contesters the morning after
the contest. Guess what: they hardly worked any JA's at all.. The
highest qso-total team (over 1300 QSOs) only had a couple of
dozen JA QSO's. One of the other teams (the Brits, I think), didn't
talk to ANY! *Everyone* was asking: "where were the JA's?" Propagation
condx were generally mediocre to poor, with Europe only coming in
during the last 2-3 hours. The handful of JA's I worked during end of the
contest all had very low serial numbers, most below 100. Yup, stateside
contacts were the bread and butter of the contest.

Still, everyone had a blast.. the competition was fierce, yet friendly,
and the opportunity to meet so many famous call signs face-to-face was
humbling, to say the least...

Charlie Panek (UUCP: hplabs!hp-pcd!hplsla!charlier)
KX7L (domain: charlier%hplsla@hplabs.hp.com)

4472. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-23 18:21:01 UTC
From: stevew@wyse.wyse.com
Message-ID: <2805@wyse.wyse.com>
Source record: 9928

In article <1990Jul21.164302.19756@ameristar> rick@ameristar (Rick Spanbauer) writes:
>stuff deleted...
>
>The other interesting question is how amateur radio did during the
>bay area earthquake in terms of equipment availability, message flow,
>and congestion of channels.
>
>Is preparing for the once in a century event worth the expenditure
>of billions of dollars worth of spectrum (eg wouldn't reusing parts
>of the land mobile bands during times of disaster be just as effective)?
>Equivalently, is all the spectrum allocated to amateur radio needed to
>fulfill the public service role (or would 3-4 mHz do)? It would seem
>that the public service role of any radio service is multifaceted, ie
>cellular radio operators reporting motor vehicle accidents are no less
>important to the cause as the amateur radio types who help out in natural
>disasters. IMHO, amateur radio shouldn't rely on any one source of
>political currency to pay for its spectrum allocation.
>
>
> Rick Spanbauer/WB2CFV
> Ameristar Technology

Rick,

In California major earthquakes aren't once in a century. I've
personally experienced the Sylmar quake of 71 and the Loma Preita
quake of 89. That doesn't include the Coalinga quake, and
Whitier quakes. Thats more like once every 5-6 years. (Just
putting this in proper perspective...it really doesn't have
much bearing on Rick's arguement or mine..)

You ask whether billion's worth of radio spectrum should be
tied up for a once-in-awhile event....Hopefully, there are
other reasons that ham radio should be supported by the
US government(see the basis and purpose in part 97 for
their current justification.) What I would say is that
emphasizing this aspect of ham radio to JQ Public is smart
public relations...this is one activity that the general
public can relate too and appreciate.

The contributions of other services shouldn't be ignored
but rather enhanced. Current state of affairs being as they
are though, ham radio is in the best position to help. We
have both local and national organization whoose goal is to
prepare ourselves. We have varied spectrum capability

so we can respond with a variety of capabilities. Need long haul comm...no problem...Need to tie two different organizations together on a common frequency...no problem. Need radio coverage into the back country...no problem. This capability has two different aspects to it...we have more frequency capabilities than any individual agency, thus more bandwidth that can be employed during disasters. On the other hand, some of our capabilities are directly related to the spectrum we have, i.e. long haul communications versus point-to-point employ different chunks of the spectrum nominally. So to provide the service as it currently exists we do need a pretty good choice of available frequencies.

Another major point that people neglect that ties directly into Part 97 requirements for ham radio involves the capability of setting up and operating this hardware under any required condition. This ability requires some technical expertise. I can't think of any other radio service which is prepared in this manner. (Now they may exist...I just honestly don't know of any off the top of my head)

73's de Steve KA6S

4473. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-23 18:26:43 UTC
From: stevew@wyse.wyse.com
Message-ID: <2806@wyse.wyse.com>
Source record: 9929

In article <1990Jul21.180642.27463@bellcore-2.bellcore.com> karn@thumper.bellcore.com (Phil R. Karn) writes:
>A much smaller number, I would say. Note that this 200,000 figure was
>just for one (albeit big) state, and only for nine months.....
>
>stuff deleted so I can get through the filter ;-)

Hi Phil,

I'd guess we handle around 10 calls a day minimum on the 6.115 repeater here in San Jose. (Patty can correct me if I'm off by a large amount ;-) I went through a quick exercise to try and guess what kind of numbers we do generate..... using pretty conservative figures I'd guess between 30,000 and 50,000 calls a year to CHP and other agencies. This isn't 200,000....but it isn't an insignificant number either.

Steve KA6S

4474. Up Converter recommendations for R7000?

Newsgroup: rec.ham-radio
Date: 1990-07-23 18:58:42 UTC
From: rjk@sequent.UUCP
Message-ID: <39226@sequent.UUCP>
Source record: 9932
Cross-posted to: rec.radio.shortwave,rec.ham-radio

I would like to add a frequency converter to my IC-R7000
so I can listen well below 25 MHz (or whatever its lower limit
is, exactly). I've heard of several commercial up-converters,
but I wouldn't be adverse to building something, either.

Recommendations?

Bob Kelley
rjk@sqnt.com

4475. ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-23 19:25:43 UTC
From: magid@select.enet.dec.com
Message-ID: <13749@shlump.nac.dec.com>
Source record: 9930

I understand that for operations below 30 Mhz the ALL amatuers
are required by ITU regulation to pass a code test.

1. Does anyone have the text of that regulation ?

2. Does it state in the regulation what the minimum speed
required is ?

3. If the regulation is so well enforced how does the CB world
exist in the US under that ITU requirement ?

4476. Learning code (was: Help with mods and code)

Newsgroup: rec.ham-radio
Date: 1990-07-23 19:48:22 UTC
From: rbono@necis.UUCP
Message-ID: <1359@necis.UUCP>
Source record: 9939

In article <1990Jul20.001951.1172@uoft02.utoledo.edu>, grx0644@uoft02.utoledo.edu writes:
[mods stuff deleted]
>
>Also I am going to take classes from a local ham group so I may earn my novice
>license. With all the talk about code and ways to learn it, I am a bit
>confused as to which is the best way. CAn anyone provide an outline for
>learning the code? I wrote a program for the C128 computers that will translate
>any text into morse code (which is how I entend to practice until I start this
>class in the fall.) I am eager in starting my education of code, that I may
>EARN my first ticket.
>

Welcome to the world of Amateur Radio (even though you havn't got your license yet!)...

My input to the learning of Morse code is the following:

Practice copying code at least every day. This can be in one or many short sessions (10-15 minutes each), or one long

do-it-for-as-long-as-you-can-make-progress

session. The idea is to get as much practice COPYING code, as you can. Of course, you have to judge for yourself how quickly you want to earn your license. Of course, don't over do it!!! It doesn't do you any good to burn yourself out trying to copy for 1 hour a night, if your head can't stand it!

When I say "copy", I mean writing down each character as you hear it. Listening to a tape (or computer) without writing down each character can help, but SHOULD NOT be a substitute for your written practice. Some will tell you to learn to copy in your head, which is great for normal operating, but this probably will not help you pass the code exam. Remember, the code exam is a written exam! If you can remember 5 (five) minutes of details UNDER THE PRESSURE of an exam, then copying in your head, and jotting down notes will be ok for you (but I doubt that many people can do this).

If you have access to a receiver, then try and copy some code off the air, use the W1AW code practice sessions, or other clean copy that you find. Don't spend too much time doing this (playing with the radio), unless you find code that you can copy at 50% or better.

This information comes from my experience as an instructor of Novice classes, and as a Volunteer Examiner. I have seen many people try to use the various "new methods" to copy the code. They work for some people, or help those who have difficulty with the "standard" methods. But MOST people are distracted by these 'so-called easy methods', looking for an "easy way out". If you put the effort into copying code, instead of these "tricks", you will end up

learning the code, and forming a good base for increasing your codespeed later.

Good luck, and I hope to hear you on the air some time soon!!

Rich (NM1D)

4477. Re: Kenwood RZ-1 Birdies

Newsgroup: rec.ham-radio
Date: 1990-07-23 19:50:31 UTC
From: larson@unix.SRI.COM
Message-ID: <14453@unix.SRI.COM>
Source record: 9937
Cross-posted to: rec.ham-radio,rec.radio.shortwave,rec.radio.noncomm

In article <3516@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:

>guys). The radio has bigtime birdies. Lotsa birdies. I
>traced the source to the control microprocessor. I added
>a supply bypass cap and the noise went down somewhat but it
>still has lotsa birdies! The Kenwood service tech says the
>2 MHz clock on the control board radiates harmonics. OK so
>why do I have birdies at less than 2 MHz intervals?? No answer
>from Kenwood.

The birdies could be picked up at any of several stages in the
radio, where the hetrodyning frequencies are not exact multiples
of 2 MHz. Thus, with images, you could expect the birdies not
to appear nicely at 2 MHz intervals.

Alan

4478. Re: clover HF data mode schematics

Newsgroup: rec.ham-radio
Date: 1990-07-23 19:52:36 UTC
From: rbono@necis.UUCP
Message-ID: <1361@necis.UUCP>
Source record: 9934
Cross-posted to: rec.ham-radio.packet,rec.ham-radio

In article <103962@philabs.Philips.Com>, rfc@briar.Philips.Com (Robert Casey) writes:

> A set of schematic diagrams which will enable home builders to construct a
> frequency-stable, ultra-selective receiver and matching exciter which meets
> the requirements of the CLOVER h.f. data mode, can be obtained for a SASE.
> The design is for a single frequency on 30 meters, which will be the
> location of the first Clover network.
> See the July issue of QEX magazine for a description of the Clover mode.
>

Ok, for those of us who don't get QEX,.......

WHAT IS THE CLOVER MODE????, somehow this sounds interesting!!
please inform the net about this, I am sure that others here are interested

Rich (NM1D)

4479. Re: Repeaters, Communcator, et al

Newsgroup: rec.ham-radio
Date: 1990-07-23 20:21:58 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul23.202158.7375@bellcore-2.bellcore.com>
Source record: 9931

In article <30500608@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
|> A repeater can be OPEN my making it's CTCSS/PL/"subaudible tone" publicly
|> known just as much as they can by making the DTMF access codes publicly
|> known.

Quite true. PL on open repeaters has long been standard practice on 2m in some areas (e.g., Chicago, where summertime tropo openings are extremely common) while other areas (e.g., NYC) resist it.

I once listened to a knock-down drag-out fight between a user of the 146.895 system in Morris County, NJ, and a user of a repeater on the same pair in southern New Jersey who kept bringing up the Morris system in advertently. The southern NJ ham was not so strong that he could not be overidden by any local user of the Morris machine, so the use of PL could have prevented the problem entirely. What a pointless argument.

The proper way to use PL is to assign a common tone frequency to all the systems in a given area, and to assign different tones to each of the other, nearby metropolitan areas where the RF channels are reused. This way, those using the systems in a local area need use only one tone frequency. That makes it easier to use rigs with add-on PL generators that can't store a different PL tone for each channel.

Phil

4480. Re: Lat and Long listings?

Newsgroup: rec.ham-radio
Date: 1990-07-23 21:31:27 UTC
From: bmp@hp-ptp.HP.COM
Message-ID: <2700013@hp-ptp.HP.COM>
Source record: 10074

If accuracy to the nearest minute is sufficient, talk to
your nearest pilot. Sectional charts have that much detail,
are commonly available, and pilots throw old ones away every
six months.

Brian
N6RSW

4481. Re: World game results, anyone?

Newsgroup: rec.ham-radio
Date: 1990-07-23 21:40:36 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13759@shlump.nac.dec.com>
Source record: 9940

```
In article <7120129@hpcupt1.HP.COM>, holly@hpcupt1.HP.COM (Jim Hollenback) writes...
>
>Any one know who got the gold, silver and bronze in the World games?
>Any info on the other teams would be interesting.
```

A packet message this morning (from N4DW as relayed from KR7G) had this info:

K1AR/K1DG team made 1435 QSOs
W9RE/K7JA team made 1385 QSOs
OK team third place, no QSO total given.

I'm sure I got the team info correct, but maybe the numbers are off a little. My packet connection is flakey right now.

I made about 340 QSOs from W1MX (MIT Radio Club Station) in a few hours of operation. I was amazed by the activity. Half of them were on CW, and the keyer was gone, so I battled it out with a straight key.

73, jim AD1C

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4482. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-23 21:51:43 UTC
From: t-petesk@microsoft.UUCP
Message-ID: <56014@microsoft.UUCP>
Source record: 9933

In article <15961@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>What a load of crap.
>
>There should be only two classes of ham license: one has a minimal code
>requirement to satisfy international treaty and allows operation below
>30 MHz; the other doesn't. Both have questions on regulations,
>procedures, and technical matters to ensure that the applicant is
>competant to install, operate, and maintain a ham radio station.
>
>Nothing else is needed!
>
>If you want to hang paper on the wall or prove how good you are at
>passing exams, the ARRL will no doubt provide voluntary technical and
>operating exams, just as they currently provide code proficiency
>certificates. The people who want them will jump through the hoops to
>get them and the rest of us will do whatever ham radio means to us.
>
>Incentive licensing sucks hard. Let's abolish it.
> - Brian

That works for me. At this point, i've come to the conclusion that all
you need to know to be a ham are a few rules, such as bands, bandwidth,
power regulations, etc. These days, the only technical stuff you need
is the ability to find the power switch, and the ability to press a PTT.

Things like the OSI model of network comm, preamp circuits, propigation
methods, etc, have nothing to do with whether you can keep youself
out of trouble. All that counts is that you use the right bandwidth,
stay within your band, and dont do things like swear on the air, etc.

Pete Skelly
microsoft!t-petesk
KB7GUD

my opinions are my own

4483. Re: World game results, anyone?

Newsgroup: rec.ham-radio
Date: 1990-07-23 21:55:13 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13761@shlump.nac.dec.com>
Source record: 9941

Packet back... here 'tis:

Msg #671 From: AB1U Date: 23-Jul 0244Z Subj: more /WG scuttlebutt

Had a qso with N4ZC who says KR7G told him the top 3 in WRTC were:
K1AR/K1DG with 1405 QSO's
w9re/K7JA with 1385 QSO's
The OK team was #3, no Q's given.

73, Rick

=-=

"The opinions expressed here in no way represent the views of Digital
Equipment Corporation."

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4484. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-23 23:42:35 UTC
From: kjh@pollux.usc.edu
Message-ID: <26114@usc.edu>
Source record: 9942

In article <72@thoreau.nsc.com> rtodd@thoreau.nsc.com (Ron Todd) writes:
>I know all the flames that this comment will generate
>but just consider that for all practical purposes, there is NO difference
>between 146, 222 and 440. They are ALL relativly local in coverage
>(on average), they ALL have relativly simple equipment requirements
>and they ALL have resident hams within easy distance over most of the
>country.

This is _NOT_ a flame. It is intended to try to educate ...

I can't speak directly for 220, because I haven't used the band, but 144
and 432 are dramatically different!

+ Sporadic E is almost non-existant on 70cm
(I've never even heard of it on 70cm.)
+ Meteor Scatter is much easier on 2m
(I've worked more than 150 contacts on 2m meteor
scatter, while only 7 on 70cm.)
+ Often, Tropospheric ducting is far superior at 70cm
(I've seen a band opening from 70cm and up where I was
working folks in southern Georgia and Alabama, and in
Florida, from Grand Rapids, MI, for more than 4 hours,
when 2m was stone cold dead!)
+ With similar antenna size, receiver noise figure, transmitter
power, and bandwidth, there is an advantage to going higher in
frequency because antenna system gain goes up as f^4 while path
loss goes up as f^3.
(I was always able to work a guy in south-eastern WVA
from western MI on 70cm, but we never made it on 2m. We
both had ~100W on both bands, 2 stacked 15' boom
antennas on both bands, similar preamps and feedline on
both bands, and worked CW. When I say always, I mean
that it was an everyday occurance that I could [and
often did] work him on 70cm.)
+ Moonbounce may be easier on 70cm because of the ease in building
antennas of high-enough gain. I'm just guessing, talk to an
experienced EMEer to find out for sure.

Conclusion: If you only consider NBFM, then 2m and 70cm may be so
much alike that you can't tell them apart. However, if you
consider narrowband modes, where you can really tell what kind
of propagation is happening, then 2m and 70cm are so different
that you would never even think of making such a statement [that
they are much alike].

Ken Hendrickson N8DGN/6 kjh@usc.edu ...!uunet!usc!pollux!kjh

4485. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-24 00:05:29 UTC
From: peter@Pacer.UUCP
Message-ID: <326@pacer.UUCP>
Source record: 9943

A few thoughts on the Communicator controversy. My own background: 36 years old, ham for 21 years. That makes me *both* a fairly young ham and an old-timer, demographically speaking. :-) I passed my Novice and Advanced in 1968-69 when there were only two questions on *transistors* on the exams. Got my Extra in 1984. I don't consider myself a techno-whiz, but I am reasonably technically literate.

Many countries have a no-code license, and it hasn't destroyed their amateur services. International regulations say that one must know CW to transmit below 30 mHz. I think that's wise, for reasons I will state in a moment. But for above 30 mHz, no such restriction applies.

Since one can currently have all VHF+ priviledges by passing the Technician exam, it's only fair to allow a Communicator access to all VHF+ bands as well. After all, he or she will pass the same (or harder) test. The Communicator is a Technician-without-code, just as the Technician is essentially a General-without-13-wpm.

If the Communicator wants HF priviledges, all he/she should have to do is pass 5 WPM to become a Technician, or 13 WPM to become a General. Bottom line: If you want HF, learn code. But beyond that, I don't believe we should segregate the new Communicators from the mainstream on VHF.

If we start requiring different combinations of exam elements for this or that mode or this or that VHF sub-band, or establish multi-pronged upgrade paths for different license classes, we will get into a regulatory quagmire that will make the "incentive licensing" problems of the '60's pale by comparison. Plus which, budget realities being what they are, the FCC could not enforce such stratification anyway.

Communicators may very well make great contributions to the brave new digital world of amateur radio. Maybe they can solve the congestion on 145.01, or even cure the common cold! Or maybe they will just be enjoyable folks to talk to. I'm sure a few bad apples will get in, but I don't see how code tests would prevent this. I've heard plenty of rude, liddish and downright illegal behavior on the Extra bands.

Some people have posted that the current exams are intellectual jokes, and that the tests ought to be made harder. That may be, but ham radio is a *hobby*, not a profession. Requiring every ham to have professional-level Engineering and Computer Science skills would quickly kill the hobby, because nobody would bother to apply.

The ham exams were never intended to prove *professional* competence in state-of-the-art radio and computer design. They were designed to ensure that the applicant had gone to the trouble of finding out some reasonable level of knowledge in radio and related matters, so there was a reasonable chance that he would have the basis to become competent in the aspect of hamming he/she chose to become involved in. I believe that passing the current General/Technician level test is ample evidence of having taken such trouble, even if it doesn't qualify one for a job as a circuit designer.

I do *not* want to see the regulatory classification of hams into pseudo-ethnic groups based on mode or operations preference--another reason why I oppose banishing the Communicators from below 220 mHz. Heaven knows, we do enough of that ourselves without help from the FCC. It's like the old Tom Lehrer song: the DXers hate the contesters, the experimenters hate the FM repeater folks, the old lids hate the young kids, and everybody hates the ragchewers!

I personally believe that the diversity of ham radio is its strength. If you want to handle traffic, there's a place for you. If you want to interface radios and computers, ditto. If you want to tweak antennas, ditto. If you want to make friends in foreign countries, ditto. If you just want to grunt "59, please QSL," ditto. If you want to design the next generation of transmission modes and networking protocols that will solve all the world's communication and spectrum space problems forever, ditto. Or if you just want to chat for hours about something that you and a fellow ham find interesting, or even about nothing at all, ditto.

But now, back to code, and the notion of obsolesence in general. I said before that CW should be kept as a requirement for all licenses that have HF priviledges. First off, international regulations require it. But there's more to it than that. CW may be irrelevant to the kind of radio that many computer people are interested in, but it is not obsolete. CW is an international language with its own kind of music, grammar, and even humor. Tune the "utility" bands. You'll still hear a lot of CW there.

Watt for watt, CW will get you farther than any other mode on HF. For those of us who rent apartments and are lucky to have 100 watts to a dipole, CW is a wonderful thing. Without a beam and/or high power, CW may make the difference between being able to make an HF contact or not making it. Add a moderate level of QRM, QRN, or QSB, and a good CW operator will read CW far more accurately than a PK-232 reads CW or Baudot. Under difficult conditions, HF packet is useless, and even moderate CW speed may get the message through faster than AMTOR.

There are many hams in the world who are a lot less affluent than Americans. Some of them can only afford a hand-me-down tube rig, maybe even only a CW transmitter built by hand from the innards of a broken TV set. Personally, I like to work such people. They have managed to add their voices to the ether despite limitations that would make most hams in industrialized nations give up. Should we deem all of them

irrelevant just because they don't use computers, packet, or satellite uplinks?

When I was a kid, I took pride in the fact that I could get on the air on a kid's budget using "obsolete" gear. I kept it going with little more than a VOM and a 100 kHz crystal calibrator, and talked to the world.

I had a schedule with a guy in England, and we discussed current events every week. Twenty years before glasnost, I was working Eastern Europeans (mostly on CW), exchanging greetings, learning bits and snatches of their languages, learning geography, marveling over picture-postcard QSLs of exotic locales. I got a thrill from it then, and I still get a thrill from it now. Is all that somehow shameful, because I'm not advancing the art or using the latest technology?

Should I be run off the bands now because I prefer plain old HF SSB and CW to VHF packet? Or because I am currently setting myself up for HF Baudot and AMTOR using a (shudder) Commodore 64? And should I be doubly tarred and feathered for having these preferences, since I am a computer professional and "ought to know better?"

Some of you ultra-techies need to learn (forgive me) a little respect and compassion for others. There's a lot of different kinds of ham radio out there, and it has just as much right to exist as yours does. Without real people to transmit real human communication via your innovations, all your technical knowledge is useless. And remember, when you're dealing with real people, the *usability* of a device or protocol--and how much change it imposes, and to what end--is as important as its technical elegance.

Some of you non-technical types need to develop an open mind toward new technologies, and in some cases, towards new hams, period. What is difficult and arcane today will be routine tomorrow. The bugs will be worked out, or something better will take its place. That breathless kid will learn operating procedure, even if it isn't quite the same one you learned when *you* were a kid. You have a perfect right to prefer older technology or protocol, but don't put down something solely because you don't understand it.

Everybody who develops a "my radio-religion is holier than thine" attitude would do well to look at a few relevant passages from the international radio treaties, the Communications Act of 1934, and Part 97. You'll discover that advancing the radio art is one reason for amateur radio's existence. There's also public service. There's also international friendship. There's also the national benefit having a pool of trained operators and technicians. None of these reasons are given any greater importance than any other.

Frankly, I worry more about ham radio dying from factionalism and internecine warfare than from commercial frequency grabs or a new group of hams who don't know code. But there's hope. The countries of

Western Europe, who warred for centuries, are actually getting it together into some kind of economic union. If they can stop squabbling, maybe so can we.

And in Eastern Europe, even more fundamental things are happening. Where did all those Czechs and Romanians and Soviets learn that there were other ways, greater prosperity, a better life? Why, from (obsolete) Amplitude Modulated broadcasts on the (obsolete) HF broadcast bands, often listened to on (obsolete) tube-type radios.

. . . and now Gorby is importing PC clones.

---Peter Klein, KD7MW, Seattle, WA
--
Peter A. Klein Pacer Corporation
peter@pacer.uucp ...!pilchuck!pacer!peter

4486. Soldering to Aluminum, how to do it.

Newsgroup: rec.ham-radio
Date: 1990-07-24 01:26:33 UTC
From: rfc@briar.Philips.Com
Message-ID: <104327@philabs.Philips.Com>
Source record: 9935
Cross-posted to: rec.ham-radio,sci.electronics,rec.radio.shortwave

It is possible to solder to aluminum, using regular rosin-core
solder. It just takes a special trick.
Reason that you can't usually get solder to stick is that there
is a layer of oxide on the surface. Scraping the aluminum in the air
doesn't work, as new oxide forms within microseconds. What you need
to do is puddle some hot solder on the spot you want to solder to.
While you are doing that, and the aluminum is also hot, scrape the
aluminum under the puddle with the soldering gun or iron. You can
also use an old screwdriver to scrape under the puddle. Object is
to let the hot solder touch un-oxidized alumunum, before the
air can touch it. The more scrapes you can make, the more area there
is to get a good solder joint. Once you've done this, you'll have
a spot tinned with solder, that you can solder a wire to. A good test
is to tug on the wire to see if it pulls off or not. You'll need a
large wattage soldering iron or gun on a large piece of aluminum.
If you can, solder to a corner, or create a finger partially cut
away from the large sheet of aluminum to solder to. Or drill 4
holes around the spot you want to solder to, then do it. Object here
is to avoid losing too much heat due to heat sink action.

One word of warning: DON'T use a fancy plated soldering iron tip! I
did once, and the plating came off, ruining it. Use an all-copper
iron or soldering gun tip.

>> Practice on some scrap pieces before you do this on something important!

73 de WA2ISE

4487. CW procedure summary (long)

Newsgroup: rec.ham-radio
Date: 1990-07-24 01:31:16 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <22480008@hpcuha.HP.COM>
Source record: 9947

Hi,
I got more than a thousand lines of replies to my question about CW procedures, so the following is a more of a commentary than a full summary. Many referred me to the ARRL Operators Manual. However, my original set of questions came after I couldn't find an explanation of some heard-on-the-air procedures in the book. And even after all the replies I still have questions.

What CW procedures one uses depends a lot on things, including the experience of the operators, the signal conditions, and special circumstances like formal message traffic, contests or working a busy DX station. For casual contacts, CW procedures tend to be very informal.

My comments are aimed mostly at casual QSO's for novice operators (or other new operators; there are a few people here who got Advanced or Extra Class licenses before ever getting on the air.)

- ? or QRL? or QRL? DE KK6MP
Always, always, check to see if the frequency is in use before calling CQ. Sending the callsign is legally correct, but is longer and more likely to tromp on a QSO in progress.

Question: what should I do when I need to tune up on the air before transmitting the QRL? (e.g. setting up an antenna tuner or testing a new antenna)?

- CQ CQ CQ DE KK6MP KK6MP KK6MP K
Never end a CQ call with a KN - it's an self contradictory.

- KK6MP KK6MP DE N6YWU N6YWU AR or
KK6MP DE N6YWU K
AR is a more formally correct, but K is widely used.
Novices appreciate a second chance to copy the callsigns.
In busy situations, you can just send your callsign.

- N6YWU DE KK6MP (R or R R R or FB) ...
One R after the callsign seems most formally correct.
Only send an R if you copied everything solidly and don't need a repeat of any information.
SOLID CPY means the same.
R R R is redundant, but useful in poor signal conditions.
R R R before the callsigns is heard often in Novice bands.
R FB is redundant, but also heard frequently.
FB indicates approval of something the other guy said.
OK indicates that you at least copied the general meaning.

But what do you send if you didn't copy everything?
a) if you don't plan on asking for a repeat?
b) if you missed something specific, like a name?
c) if you want some unknown information repeated?

- UR RST IS (579 or 579 579 or 579 57N)
N is a "cut number" abbreviation for 9
Whether to send the signal report twice depends on signal conditions
and the experience of the operators. In novice bands I
usually hear it sent twice, the second time using a cut
number for 9. Experienced operators seem to send the RST
only once.

- periods vs. BT as punctuation
BT is used as an informal pause or break in thought.
BT BT means you need time to think.
Periods are preferred when transcribing from printed text.
Commas and periods are often used when sending your QTH
... UR RST 599 BT QTH IS CUPERTINO, CA. NAME IS ...

- what to send?
In a typical novice QSO, first send the signal report, QTH and
name. Often I hear everything repeated twice, either because of
signal conditions or to give the novice on the other end a
second chance to copy.
Many QSOs begin with TNX FR UR CALL BT ...

- how to turn over the QSO to the other guy.
... BT HW CPY? N6YWU DE KK6MP (K or KN)
... AR N6YWU DE KK6MP (K or KN)
... DE KK6MP K
... KN
... BK

K tells the other guy to go ahead
KN means you don't want anyone else to break into your QSO, but
just K seems to be used more often.
Asking HOW COPY? seems to be a common practice on the novice bands.
AR is a more formal way to separate the body of the QSO from the
callsigns.
If the exchanges are taking close to 10 minutes you need to send
your callsign every time to be on the safe side. Both callsigns
used to be required, but now you only have to send your own.
(unless handling 3rd party traffic.)
When going back and forth quickly you can use BK which means
break, back, or back to you. One respondent said that BK TU is
redundant. Another respondant says that BK by itself isn't that
good of an indicator that you're turning it over. Comments?

- concluding a QSO
... 73 SK N6YWU DE KK6MP is formally correct, but
... 73 N6YWU DE KK6MP SK seems more often used.
... 73 AR N6YWU DE KK6MP SK is also used.

... 73 DE KK6MP SK is short.

After both stations sign clear with SK other stations are free
to call.

... SK {callsigns} CL means you going off the air even if there
are other stations calling.

- ending with dit dit
a quasi-legal way to say you were still around to hear the
other persons final call.
on novice bands you hear
==> dit dit-dit-dit dit
<== dit dit (shave & a haircut, 2 bits)

- abbreviations
Experienced hams use *lots* of abbreviations.
Don't use a lot of abbreviations with new Novices.
My list of abbreviations most often heard :

AGN -again. BK -break, back.
C -yes, correct. CL -closing station.
CUL -see you later. ES -and.
FB -fine business. HI -telegraphers laugh.
HR -here. PSE -please.
RPT -repeat. SRI -sorry.
TNX -thanks. TU -thank you.
WX -weather. 73 -best regards

QRL? - Is this frequency in use?
QRZ? - Is someone calling me? or I didn't get your callsign.
QSO - what you're doing when your contacting someone on the air.
QTH - my location ...
QRT - going off the air.
QSL - has 2 meanings
1) I will send a QSL card.
WILL QSL VIA BURO
2) I received that piece of information correctly.
(field day contest exchange)
==> KK6MP TU 1A WV BK
<== DE KK6MP QSL 1A WV TU 1D SCV BK
==> QSL 1D SCV TNX QRZ DE W#XXX K
QRS - Send more slowly, I can't copy that fast.
QRM, QRN, QSB
- various problems receiving your signal.
QRP - I'm only running a couple watts.

====
Some contributed examples follow (edited for consistancy in format) :

1)
==== from: jimm%gvgadg.gvg.tek.com@RELAY.CS.NET

-> CQ CQ CQ DE N6YWU N6YWU N6YWU CQ CQ CQ DE N6YWU N6YWU N6YWU
CQ CQ CQ DE N6YWU N6YWU N6YWU K

<- N6YWU DE K9JM K9JM K

-> K9JM DE N6YWU R FB OM TNX FOR CALL UR RST IS 599 599 HR IN
CUPERTINO CA CUPERTINO CA NAME IS RON RON HW CPY? K9JM DE N6YWU K

<- N6YWU DE K9JM R FB RON UR RST IS 599 599 IN GRASS VALLEY CA
GRASS VALLEY CA NAME IS JIM JIM BT RIG HR KENWOOD TS940S ANT
DIPOLE UP 40M HW CPY? N6YWU DE K9JM K

-> K9JM DE N6YWU R FB JIM WELL GOTTA HIT THE RACK NICE SIG FROM GRASS
VALLEY 73 ES CUL K9JM DE N6YWU SK

<- N6YWU DE K9JM R WILL LET U SLEEP 73 ES CUL N6YWU DE K9JM GN

-> DIT DIT

2)
==== from: rlwest@flopn2.csc.ti.com
REMEMBERING that the PROSIGNS, BT AR SK AS KN, are run together as
one character, =***= not =*** =, etc.

-> CQ CQ CQ DE WA8YCD WA8YCD WA8YCD K

<- WA8YCD DE KY2D K

-> KY2D DE WA8YCD R TNX FER CALL BT
UR RST 589 BT
QTH MORGANTOWN, WV BT
NAME BOB BT
RIG HR IS DRAKE TR4C ES ANT DIPOLE UP 34 FEET BT
WX HR IS SUNNY AND WARM, TEMP ABT 80 DEGREES BT
JUST THOT I WUD SEE WATS ON THE BAND THIS MORNING HI HI
SO WAT SA? N2EFG DE KA1BCD K

etc....

3)
==== from: depolo@eniac.seas.upenn.edu
Short DX QSO:

-> CQ CQ CQ DX CQ CQ CQ DX DE N3KZ N3KZ N3KZ AR K

<- N3KZ N3KZ DE VK3AO VK3AO VK3AO AR

-> VK3AO DE N3KZ - GM - NAME HR IS JEFF ES QTH IS PHILADELPHIA -
UR RST IS 5NN. HW CPY? VK3AO DE N3KZ K

<- N3KZ DE VK3AO R R R FB JEFF -
NAME HR IS LEO ES QTH IS TOWN OF JONESVILLE -
3 KM INLAND - UR RST IS 5NN ALSO. WX HAS BIN HOT HR LATELY,
NO RAIN IN SIGHT.
RIG IS KENWOOD TS440 ES ANT IS 3 EL TRIBANDER AT 10 M.
BK TO U.

N3KZ DE VK3AO K

-> VK3AO DE N3KZ FB LEO. RUNNING KENWOOD 440 ALSO ES DIPOLE AT 15 M.
ENJOYED THE QSO AND HOPE TO CHAT AGAIN. 73 VK3AO DE N3KZ K

<- N3KZ DE VK3AO FB ENJOYED IT LIKEWISE. ALL THE BEST TO YOU AND YOURS.
73 DE VK3AO dit-dit-dit-dit-dit

-> dit-dit
<- dit-dit (optional)

4)
==== from: sawyer@twg.com

VERY VERY RARE (e.g. 3Y) a LITTLE RARE (e.g. JT) Not RARE
------------------------ ---------------------- --------
-> QRZ? de 3Y5X -> QRZ? de JT1AB -> QRZ? de JA1NUT
<- AA6KX <- AA6KX <- JA1NUT de AA6KX K
-> AA6KX 5NN -> AA6KX 5NN -> {start of ragchew}
<- T U 5NN <- BK de AA6KX ... <- {continue ragchew}
-> QRZ? de 3Y5X ur sig rst ___
op Bruce
QTH nr SFO
BK

5)
==== from: chowe@BBN.COM
a quick contest style QSO:

-> CQ CQ CQ DE KC1UF KC1UF K
<- KC1UF DE WG1V AR
-> WG1V DE KC1UF UR 5NN IN STOW MA. OP IS CARL. KN
<- R UR 5NN IN BOSTON. NAME DOUG. 73 DE WG1V SK
-> 73 DE KC1UF SK

6)
==== from: depolo@eniac.seas.upenn.edu
Contest contact (we'll use field day):

-> CQ FD CQ FD CQ FD DE N3KZ N3KZ N3KZ AR K
<- N3KZ DE N1AOP K
-> DE N3KZ 2A EPA 2A EPA 2A EPA K
<- DE N1AOP 1D CT 1D CT 1D CT K
-> QSL TNX QRZ FD DE N3KZ AR K

7)
==== from: rlwest@flopn2.csc.ti.com
BTW, "CQ TEST" has come to mean "CQ CONTEST", not TEST as in experiment.

-> CQ FD CQ FD DE WA8YCD WA8YCD K
<- WA8YCD DE KY2D K
-> KY2D DE WA8YCD TU 1A WV BK
<- DE KY2D QSL 1A WV TU 2A NNJ BK
-> DE WA8YCD TU GL TEST SK

====
Thanks to:
WG1V, N3HBZ/AA, WV0F, K9JM, NK2D, WA8YCD, W1XE, KF0CA,
N8HSC, AA6KX, KB6CSP, N6BIS, AD1C, N6YMK @ K6VE, NB4M,
taber@ultnix.enet.dec.com (Patrick Taber), gtb@druco.ATT.COM (BiekshaGT),
and john@frog.UUCP, perry@hpfcdc.HP.COM
for their contributions and replies.

====
KK6MP/N6YWU
Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>

4488. Icom IC901 mod file

Newsgroup: rec.ham-radio
Date: 1990-07-24 01:32:21 UTC
From: rfc@briar.Philips.Com
Message-ID: <104329@philabs.Philips.Com>
Source record: 9936

copied from packet:
From: KA2YKC@KA2YKC.NJ.USA.NA

Here is the mod for adding TX on the entire VHF side and extended
RX/TX on the UHF side. Remove the rear cover on the control unit by
removing the 2 screws on the back and carefully snap the cover off.
Locate the diodes on the side of the circuit board. Locate the space
labeled "D-18" and install a diode. This adds TX on the full portion of
the VHF side. Locate and remove "D-25" and unit will now receive
full coverage on UHF side. Install this or other diode in the space
labeled "D-23" . This adds TX coverage over the entire UHF side.
Replace the cover as this completes the mod.

D-18 -> adds tx to 2meter band (136-174 Mhz)
D-25 -> adds rx to 440mhz band (400-480 Mhz) remove diode
D-23 -> adds tx to 440mhz band (400-480 Mhz)

There are spaces for other diodes but I only had access to the main
and vhf/uhf units so I could not test other possibilities. Any success
would be appreciated for my records. All diodes are 1N914/1N4148 or
equivalent.

Disclaimer: You and I both know the deal: I hold no responsibility as
these mods are for educational and/or test purposes only and it is
illegal to transmit on anything other than the Ham bands with this
rig.
==========
Note: I haven't tried this, proceed at your own risk. WA2ISE

4489. battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-24 01:33:06 UTC
From: nicholso@hpcuha.HP.COM
Message-ID: <22480009@hpcuha.HP.COM>
Source record: 9948

Hi,

More questions...

I've got an Icom 24AT. It comes with a NiCad battery pack. How do I tell when I need to charge the batteries? How long do I need to charge the batteries for? (The manual says 15 hours regardless of battery pack size.) How do I know how much battery life I have left when in the field? Does the unit just die when the batteries run out or what? How long can I store a charged up spare battery pack?

Thanks,
====
KK6MP/N6YWU
Ronald H. Nicholson, Jr. Hewlett Packard
uucp: nicholso@hpda.HP.COM Cupertino, CA
(408) 447-6603 #include <canonical disclaimer>

4490. G5RV antenna

Newsgroup: rec.ham-radio
Date: 1990-07-24 01:56:02 UTC
From: rfc@briar.Philips.Com
Message-ID: <104332@philabs.Philips.Com>
Source record: 9938

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
30840 BF 4924 4 13-Jul 2049 KC6CFF 5766_WB6LYE ALL@ALLUSA ()
Sb: Homebrew G5RV All Bander

The G5RV is an easy-to-build 80-10 dipole requiring no traps. All bands are covered, including 30, 17, and 12. The G5RV has high SWR, by design, on most bands and a tuner is required. Unlike most dipoles, the "basic" design is not a 1/2 wave, but instead a 3/2 wave dipole on 20 meters. A half size unit can be built, halving top and feeder, for 40 and up. For more info and detailed theory about this versatile antenna see G5RV article in the ARRL Antenna Compendium. The article is by G5RV himself, the only HAM we know honored by being named after an antenna, according to Jim of RADIO WORKS.

< 102 ft. >

---

34 ft matching section *

* Adjusted for velocity factor of feeder, if necessary.

* HINTS, ETC. *

This is my first antenna project. I built mine with insulated 12 ga. wire I had laying around. Initially I had "homemade" open wire feeder for the matching section. The antenna worked fine on 20 and up, but turned my tuner into a "self lighting" meter unit on 40 and 80 (smelled kinda funny too). Originally I blamed my budget tuner, but after replacing the open wire (because of storm damage), it now works fine on 80, 40, 20, 15, and 10. I don't have WARC capabilities and can't report performance on those bands.

The replacement matching section is 300 ohm twin lead with the length adjusted for it's velocity factor (34 ft * .82). The top is kinda touchy when it comes to trimming. My antenna is hard to get at so i shortened up 1 ft first try and moved the resonant section from well below the band (SWR was 1.6 at lower band edge on 20m) to above 14.2 (SWR 1.3). Light trimming is suggested. Due to the normal high SWR, others have suggested not using a coax feeder with wimpy dielectric, particularly if running substantial power.

So how's it work? I LIKE it. One antenna that works well on all bands. I've received good reports, voice and cw, on all bands running a barefoot Yaesu FT 101B. Surprising number of contacts from QTHs that would seem to be unfavorable because of my antenna orientation. My next G5RV is going to be a half size unit wit a different orientation and

extending the 300 ohm line all the way back to the tuner. (G5RV recommends the open type feeder, by the way). If you build (or have built) a G5RV and have anything to add about this versatile antenna, please send me feedback at the address below. I'll put out and updated version of this file.

Happy HAMing ... Jim KC6CFF @ WB6LYE.#KLMTH.OR.USA.NA

Note: I haven't tried this, proceed at your own risk. WA2ISE

4491. Problem DX QSLs

Newsgroup: rec.ham-radio
Date: 1990-07-24 02:25:46 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13766@shlump.nac.dec.com>
Source record: 9945

Hi,

Here is a list of DX stations I have sent return envelope/IRC's (sometimes dollars or more, but not often) to between January 27 and May 10, 1990, and have still not received cards in return. Managers are listed where applicable, otherwise direct. Comments are listed at the end. Anyone who has any insight as to how to obtain QSLs from these stations is welcome to send me mail with the pertinent info.

73, jim AD1C

1 7P8FC - DF3EC
2 5N0LRC
3 3W3RR
4 3D2XR, KH8/SM7PKK - SM7PKK
5 1A0KM - I0IJ
6 ZY0SS - NATAL (twice)
7 ZW0F - PY7ZZ
8 ZS8MI - ZS5E
9 ZS3UN/OH8DG - OH7XE
10 ZP0Y - LU8DPM
11 YI0BIF
12 XF4T - XE2TCQ
13 VK2SC
14 S01EA - EA2JG
15 PZ1DV
16 PY0FC - PY7XC
17 PY2TG/PY0 - PY2TG
18 LU1ZA - LU2CN
19 JT1KAI
20 EL7X
21 CO2JA
22 CE0OGZ
23 CE3/OH6VR, CE3/OH6NTO - OH6VR
24 AH3C/KH5J - OH2BN
25 A51JS - VK9NS
26 A41JR
27 A15AA - DJ6SI

Notes:

4. (SM7PKK) I expect Mat is still on or recovering from his trip.

6. (ZY0SS) I have sent IRCs and green stamps. One guy here reported receiving his card, and cards for other folks in the same envelope, and forwared them on. Maybe the guy who received my cards wasn't so nice.

8. (ZS8MI) Some folks have received cards, some haven't.

12. (XF4T) Derek, AA5BT, is still waiting. Anyone else?

14. (S01EA) Some folks have received cards from EA2JG for previous expeditions, some haven't. Wonder which bunch I'm in...

18. (LU1ZA) Other folks have received cards, and even I received a card for a QSO a few years ago. Just not this time.

19. (JT1KAI) I have never received a direct QSO from Mongolia. I heard neither IRCs or $$ work over there. Fortunately, I have my JT0DX cards now.

22. (CE0OGZ) My father has never received cards, yet Jim, K6ZH, has.

23. (CE3/OH6) They were supposed to be in Chile for a year or so.

25. (A51JS) Guess the cards are trickling in slowly.

27. (A15AA) Baldur is funny about cards. He sorts them approx. by how much money you send in. Since I only sent IRC's, I think I'm last in line (not counting the cards he receives via the buro, which he throws away).

=-=

"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4492. ANS: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-24 02:36:44 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007240236.AA13188@tecnet1.jcte.jcs.mil>
Source record: 9944

>> (Talking about Communicators on two meters)

swrinde!emory!wa4mei!ke4zv!gary@ucsd.edu (Gary Coffman) replies:

>Not exactly, in most parts of the country there is currently
>very little activity above two meters. By dumping the newcomers into the
>wasteland they will either fail or more likely form their own CB-like
>clubs to support their new repeaters.

I agree that in many parts of the country there are very few repeaters above two meters, and I don't have a snappy answer for that problem. You make a good point in that regard.. but let me says this. *IF* the new hams did have the guts and glory to put up a new machine I very much doubt that it would turn into a "CB like club". If they put it up, the local (old timer) hams would flock to it like bees to honey, and the Communicators that put it up would gain instant recognition and a fair degree of respect.

>By ghettoizing them this way they
>will not receive the socialization needed to become mainstream hams.

May I politely object to your use of the term "ghettoizing"? The very word brings up very terrible images and I do not believe that it is fair to liken 220 or 440 Mhz to a ghetto. A virgin forest that is untouched by human hands that is full of promise and beauty is my view of it... not a GHETTO.

On the matter of socialization... I think you make a good point, but my only question is.... why hasn't anyone thought of doing the same thing for the Novices? Don't they need the same type of guidance, and in fact more so.. since they have always REALLY been the entry level hams? This point is so obvious, I can't help but imagine that someone else has thought of it before... yet it was never mentioned before this Communicator thing came up, and that makes me rather... well.... it makes me wonder.

>When I mentioned pioneers moving up frequency in my previous posting,
>I carefully noted that this is only happening where two meters is
>filling up. In most parts of the country this is not the case yet.

I understand, but in all honesty there are other reasons for "moving up" than simple overcrowding and disgust with current conditions. Some hams do it simply because "it's there". There are a LOT of people that think that way in my opinion.

>> Discussion of what we all really want for the Communicator Class deleted.

>I personally want several things from this restructuring but, primarily
>I want fairness. I admit that I am still bitter about 1968. I can never
>understand why I was required to demonstrate faster CW operation in order
>to regain some of the voice frequencies I enjoyed prior to 1968. In my
>opinion incentive licensing has been the biggest disaster for amateur
>radio. It created a divisive caste system that haunts us to this day.
>I want to bring hams back together instead of creating a new class of
>untouchables.

And a lot of people agree with you. I just don't happen to think that this
new Communicator Class is the proper vehicle for your goals. If that is
your desire, why not attack the problem at it's roots instead of at it's
branches? I do see where you are coming from though, and can understand
your feelings on the matter.

>I also want to see a lot of young hams come back into the hobby. As
>Phil Karn said, ham radio has been the start of a lifelong interest
>in electronics and high technology in general for many people. I count
>myself as one of those. I want a new generation of twelve year olds to
>experience the magic like I did.

Will the Communicator or Novice Class be more likely to do this? I know
that the Com. Class will have no code.. but it will also have a pretty hard
test (or
at least it is supposed to). I still see the Novice as the basic
entry level class... that is unless they do away with it.

>As for technical folks, I expect that they will be represented among
>the newcomers in about the same proportion as they are in the current
>ham population.

A truer statement was never made... at least in my opinion! Thanks for
the nice answer Gary.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

4493. 1 Watt License Free (was Re: Communicator License Frequencies)

Newsgroup: rec.ham-radio
Date: 1990-07-24 04:21:03 UTC
From: markz@ssc.UUCP
Message-ID: <930@ssc.UUCP>
Source record: 9961

In article <1990Jul22.052747.29459@bellcore-2.bellcore.com>, karn@thumper..bellcore.com (Phil R. Karn) writes:
>
> It'll be most interesting to see how the Part 15 stuff at 900 MHz works
> out.

15.247 includes 2400-2483.5 and 5725-5850 Mhz in addition to 902-928 Mhz.
[Gee, isn't this N8DGN's exclusive territory ?] :-)

Summary:
Spread Spectrum
Either frequency hopping (minimum 75 frequencies, >= 25 Khz seperation,
bandwidth < 25 Khz, time of occupancy on any freq. < .4 seconds
in any 30 second interval)
Or Direct sequence with minimum 6 dB bandwidth of 500 Khz.

1 watt (with a warning that this may be lowered if the current power
level causes problems)

markz@ssc.uucp

4494. Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-24 07:46:19 UTC
From: hugh_davies.WGC1RX@XEROX.COM
Message-ID: <900724-020224-19182@Xerox>
Source record: 9957

<...This is the U.S.A., this country has the best
]equipped Emergency services and Armed services in the world...>

Ha, ha, ha, ha, ha.

"Most" equipped, certainly; but best? Never.

Hugh Davies, G0CNR.

4495. Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-24 07:57:26 UTC
From: hugh_davies.WGC1RX@XEROX.COM
Message-ID: <900724-020327-19183@Xerox>
Source record: 9956

Brian Kantor says;

<...There should be only two classes of ham license: one has a minimal code requirement to satisfy international treaty and allows operation below 30 MHz; the other doesn't. Both have questions on regulations, procedures, and technical matters to ensure that the applicant is competant to install, operate, and maintain a ham radio station...>

Hear, hear!! Just like the U.K.

Hugh Davies, G0CNR.

4496. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-24 12:30:32 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <73@thoreau.nsc.com>
Source record: 9951

In article <926@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
> He claimed ... a succesfull businessman, engineer, etc,

And do I need to remind all of you what happened the last
time we had a "successful buisnessman, engineer" at the
helm of this country??

Ron

4497. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-24 12:37:13 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <74@thoreau.nsc.com>
Source record: 9952

Isn't 20 meters spread spectrum!!?

Ron

4498. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-24 12:46:04 UTC
From: wwm@pmsmam.uucp
Message-ID: <1990Jul24.124604.368@pmsmam.uucp>
Source record: 9955

All I can add is a hearty AMEN!!!!!
--
Bill Meahan WA8TZG uunet!mailrus!umich!pmsmam!wwm
I don't speak for Ford - the PR department does that!

Any attempt at wit is liable to offend _somebody_!

4499. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-24 12:54:01 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <75@thoreau.nsc.com>
Source record: 9958

Consider what modes and practices the communicator class will be using.

Ron

4500. Re: Repeaters, Communcator, et al

Newsgroup: rec.ham-radio
Date: 1990-07-24 13:18:23 UTC
From: cep@cci632.UUCP
Message-ID: <38842@cci632.UUCP>
Source record: 9959

In article <1990Jul23.202158.7375@bellcore-2.bellcore.com> KA9Q writes:
>The proper way to use PL is to assign a common tone frequency to all
>the systems in a given area, and to assign different tones to each of
>the other, nearby metropolitan areas where the RF channels are reused.
..
>Phil

On Long Island (where I lived before college), this approach is taken:
if a repeater has PL, it's probably using the "Long Island" tone. This
is necessary beacuse of the radio proximity to Connecticuit. I offer
that it is a good idea to do this, because the repeaters are still seen
as "open" and everybody knows about it. (The only guys who are mad are
the ones with IC-2AT's and other non-PL radios).

Tropo is pretty hairy down there during the summer, too :-) I once
had a conversation on 146.52 FM between Long Island and North Carolina,
using 30 watts. Last summer, most nights after sunset I could bring
up at least 2 (and often 3) repeaters on 147.180 -- Naugatuck, Conn.,
one in central New Jersey, and occasionally one with a 1-call that I was
told is somewhere near the MASS-NH-VT lines. I wonder if the L.I. sound
has much to do with this?

Chris/WZ2B

Christopher E. Piggott, WZ2B (ex-N2JGW)
Computer Consoles, Inc. (an STC company) Rochester, NY
cs.rochester.edu!cci632!ccird7!cep or uunet!ccicpg!cci632!ccird7!cep

4501. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-24 13:57:39 UTC
From: cep@cci632.UUCP
Message-ID: <38843@cci632.UUCP>
Source record: 9880

>Everybody who develops a "my radio-religion is holier than thine"
>attitude would do well to look at a few relevant passages from the
>international radio treaties, the Communications Act of 1934, and Part
>97.

This attitude works both ways ... I passed my extra a few months ago,
I am 21 years old, and I worked [CENSORED] hard for it !!! And I am
getting fed up with people trying to make me feel GUILTY about earning
my extra (for WHATEVER reason).

Code doesn't really matter all that much on VHF/UHF unless it's something
you WANT. (Satelite, EME, etc.) It *IS* important on HF. Furthermore,
I value the protection of the extra 25KC on CW, where it's a little
quieter. I see the extra HF voice space as something I have earned and
will enjoy, and I invite everyone to come join me.

BUT the solution to **ALL** of this clamoring is **NOT** to lower
the standards of the licensing structure -- this is the kind of live-
for-today mentality that has brought many of this country's problems
upon itself...and if you're one of these people with the mouths,
maybe you should think about what you want out of ham radio within
the constraints of the current system, and leave the changes to the
less emotionally driven.

WZ2B

4502. Venturer Multiband Receiver

Newsgroup: rec.ham-radio
Date: 1990-07-24 14:06:43 UTC
From: ramanath@unix.cis.pitt.edu
Message-ID: <26179@unix.cis.pitt.edu>
Source record: 9954
Cross-posted to: rec.radio.shortwave,rec.ham-radio

Does anyone out in net-land know anything about the Venturer Multiband Receiver from Haverhills? I saw their ad in the Atlantic magazine recently, and it looked attractive. Here are the details of the receiver:

Venturer Multiband Receiver - $99.95 (Three for $199.90!)
AM/FM, shortwave & ham radio bands (4 to 12 mHz), TV-radio channels 2 to 13, U.S. Weather Bureau reports, police, fire, ships and civil defense news, aircraft band, and all 40 channels of CB band. 110-volt supply or 12-volt D.C. source/battery.

I'm looking for a shortwave radio, and would like to hear your comments about this Venturer set.

-jay

Jayaram Ramanathan
ramanath@unix.cis.pitt.edu
Graduate School of Business / University of Pittsburgh / Pittsburgh / U.S.A.
--
Jayaram Ramanathan
ramanath@unix.cis.pitt.edu
Graduate School of Business / University of Pittsburgh / Pittsburgh / U.S.A.

4503. Re: Problem DX QSLs

Newsgroup: rec.ham-radio
Date: 1990-07-24 14:36:56 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <13801@shlump.nac.dec.com>
Source record: 9960

In article <13766@shlump.nac.dec.com>, I wrote...
>
>12. (XF4T) Derek, AA5BT, is still waiting. Anyone else?

Oops, I meant Jim, KR1S is still waiting. Sorry, Derek.

jim, AD1C

=-=

"The opinions expressed here in no way represent the views of Digital
Equipment Corporation."

James J. Reisert Internet: reisert@ricks.enet.dec.com
Digital Equipment Corp. UUCP: ...decwrl!ricks.enet!reisert
77 Reed Road
Hudson, MA 01749-2895

4504. Re: Problem DX QSLs

Newsgroup: rec.ham-radio
Date: 1990-07-24 15:11:33 UTC
From: murphy@ufp.dco.dec.com
Message-ID: <3166@decuac.DEC.COM>
Source record: 9962

```
|> 4 3D2XR, KH8/SM7PKK - SM7PKK
KH8/SM7PKK was received last week. Patience (your later note mentions that you
know that Mats needs time to recover.)
|> 6 ZY0SS - NATAL (twice)
I had to send a REGISTERED LETTER. Responded in 3 weeks. (with an apology that
they hadn't gotten the earlier cards.)
|> 8 ZS8MI - ZS5E
Still waiting.
|> 16 PY0FC - PY7XC
Responded quickly for me. You might want to try again.
|> 18 LU1ZA - LU2CN
Took a while, but I did get the card.
|> 22 CE0OGZ
Still waiting.
|> 27 A15AA - DJ6SI
Received yesterday. Sent with a green stamp.

My most interesting one was 3X0A/A. Finally got a card from his manager last
week - 18 months!
Send me mail if you want details of when sent and postage type for the ones
I managed to get back.
-Rick

Rick Murphy, WA1SPT/4 Digital Customer Center, Landover, MD
Domain: murphy@ufp.dco.dec.com -or- murphy@ufp.enet.dec.com
Bang: decwrl!ufp.dco!murphy -or- decwrl!ufp.enet!murphy
Ding: (301) 306-2985
Disclaimer: This nonsense came from an AI program written in TECO. Ignore it.
```

4505. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-24 15:17:36 UTC
From: cep@cci632.UUCP
Message-ID: <38845@cci632.UUCP>
Source record: 9881

In article <900724-020327-19183@Xerox> "hugh_davies.WGC1RX"@XEROX.COM writes:
>>Brian Kantor says;
>>
>>...There should be only two classes of ham license
>...
>>Both have questions on regulations,
>>procedures, and technical matters to ensure that the applicant is
>>competant to install, operate, and maintain a ham radio station...

>Hear, hear!! Just like the U.K.

Shouldn't we strive for a little more than "competence" ?

4506. Communicators and 2m, status of the hobby

Newsgroup: rec.ham-radio
Date: 1990-07-24 15:28:59 UTC
From: d.reeves@oxy.edu
Message-ID: <104166@tiger.oxy.edu>
Source record: 9964

About the Communicator Class liscense comments which have been flying about the net:

1. Living in the LA valley will put a diferent perspective on what you think 2m crowding is. There are lots of repeaters out here, And several of them serve good purposes (CHP traffic, Seismology nets, "dedicated" rag-chew machines). But the amazing thing is that so many of them are always dead, or have VERY unfriendly opperators on them. However, very few of them use PLs (aka CTCSS). And further, there haven't been any coordinated frequencies avaiable here for sale in a while. Thus, we have lots of unused repeaters and wasted bandwidth.

2. 440 is an option. Yes, outside of major metro areas, there are few 440 machines, and they are expensive to get going (we just got the W6UE, Caltech ARC machine up and running, yea!). When 2m runs out of space (as it has here in LA), people WILL move up in frequency (is this the same as moving up in the world? :-). However, in some major Metro areas, even 440 is full - we were lucky to get a coordinated freq.!

3. Incentive licensing for the sake of incentive licensing must go.

4. The Ham population must become younger if the service is to survive, or it must change its attitude about persons under 35 getting involved in our hobby. I got my ticket when I was 19, and the attitudes of many hams has been most frusturating, as I am both a college student AND under 25 - there seems to be an attitude that I couldn't possibly be a good ham, or technically compitent when dealing with RF, DC, mechanicals, etc.

So what do we need to do? Allow communicators 2m? Probabally.
Change the way frequencies are coordinated? Absolutely.
Not make an Extra-class ticket a prize? Probabally.
Expand radio in colleges/universities (even high schools)? Yep.

I've thought long and hard about what I've said, and I say it because I am concerned for the future of the hobby. Feel free to respond and/or flame me, as my opinion is by far the only one.

73s, de N6XHW, BDR

B. Douglas Reeves (N6XHW) D. Reeves@oxy.edu (Internet, of course!)
(213)-259-2880 (ma Bell) 1600 Campus Rd., La, Ca, 90041 (USnail)
"Cogito, ergo es." Occidental College Computer Center/Networking

4507. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-24 15:41:40 UTC
From: harding%b56vxg.dnet@kodak.com
Message-ID: <1279@eastman.UUCP>
Source record: 9965

In article <22480009@hpcuha.HP.COM>, nicholso@hpcuha.HP.COM (Ron Nicholson) writes...
>Hi,
>
>More questions...
>
>I've got an Icom 24AT. It comes with a NiCad battery pack. How do I
>
Me too! Great radio! The display flashes when you're about exhausted.
I bought extra batteries to use when this happens. My experience (20yrs)
with NiCds is that they should be used until exhausted (_not_ flat) and then
slow charged at about 10% of Ah rating for 10 to 15 hrs (depending on who
you listen to - NiCd maintenance has a religious aura around it) for
maximum life. Fast charging is OK but IHMO the cells die sooner when fast
charged a lot. ICOM suggests replacing batteries after 300 recharges. Other
vendors say that NiCds can be recharged 1000 times. Leaving a battery on a
charger longer than it take to recharge creates nothing but extra heat and
a shorter life for the battery.

Jon Harding N2KZJ "I don't represent KODAK in word or deed."

4508. Do we need *more* hams, or less?

Newsgroup: rec.ham-radio
Date: 1990-07-24 16:22:52 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <24.Jul.90.18
Source record: 9971

I have watched the 'discussion' re. incentive licensing with a mixture of amusement, horror, and deja-vu.
My question: *WHY* do we want *MORE* hams? Surely, its a fact that as the numbers go up, the quality comes down.
(If you really want *more* hams, why not just sell licenses by mail-order and then you could have charging based on number of band segments or privileges).
No seriously, I think we should be encouraging RAISING of standards, not lowering them. Make the test harder and introduce a code-free license.
(I am against the UK 'Novice licence'; IMHO it can do nothing but harm...)

73 de Pete G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

4509. What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-24 16:23:03 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880194@hpfcdc.HP.COM>
Source record: 9890

Hi gang. If call sign games annoy you, skip out now. :-)

I just got my new-and-probably-long-term call sign. Out with KB0GPX/KT, in with... N0MFW. (Please, no laughing.) The question is, what to do with this unhappy collection of letters. Should I... sell my radio? Upgrade and pray? Grimace and get used to it?

I live in Colorado and do a lot of mountaineering. An acquaintance just snagged N0MCR -- "Mountain Climbing Radio" -- it would be perfect for me, and it doesn't fit him. Sigh.

OK, I solicit your suggestions. Here are the best mnemonics I've thought up so far (that are publishable :-).

November zero Mike Foxtrot Whiskey (boorrring)
N0 Mountain Friendly Wireless (a mouthfull)
N0 Mighty Fine Wireless
No More Free Women (sexist)
N0 Muffie Woo (my lady friend's idea :-)

4510. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-24 16:46:48 UTC
From: hideg@spsd3260a.erim.org
Message-ID: <1990Jul24.164648.27807@math.lsa.umich.edu>
Source record: 9963

In article <1990Jul20.183601.21501@bellcore-2.bellcore.com>
karn@envy.bellcore.com (Phil R. Karn) writes:
> The fact that 220 and 70cm
> are almost dead outside of major metropolitan areas ("dead", in that
> they're much less heavily used PER CAPITA) is convincing proof that
> the most effective way to encourage use of the upper bands is to
> increase the density of the amateur population.

Ah, but wouldn't the vast majority of Communicators live in major
metropolitan areas?

Gee, maybe we can issue 2m privileges to Communicators who don't
live near civilization. Geographic privileges! ;-)

Not a flame...just an observation. I am undecided about this
issue myself.

--Steve

Steve Hideg (N8HSC)

hideg@spsd3260a.erim.org

4511. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-24 17:21:04 UTC
From: engle@wdl1.wdl.fac.com
Message-ID: <3300001@wdl1.wdl.fac.com>
Source record: 9949

Well, I am glad to see this discussion has not disintegrated into
the usual code/no-code arguments. There had been some progress,
at least all the arguments now assume some form of no code license.

In the latest (August) CQ magazine Fred Maya (W5YI) talks about other
countries experiences with various classes of licenses. He makes
several good points about most issues that heve been discussed
here. I recommend the article to all the combatants. Two interesting
points he makes are: 1) the US has more classes of licenses
than any other country, and 2) we US hams should do something to
help relieve the work load of the FCC in supporting our needs
(licensing and administration).

Fred makes a valid argument that the US ham population could be
served by 4 classes of licenses.
1) All HF bands, all VHF/UHF bands, all test elements, 15 wpm code,
2) Some HF bands, all VHF/UHF bands, all test elements, 5 wpm code,
3) All VHF/UHF bands, all test elements, no code,
4) Some VHF/UHF bands, some test elements, no code.
While some arguments can be made over the testing requirements, on
the whole this seems a pretty good plan.

Now for my opinions. One of the problems with the current scheme is
the call sign recognition of achievement avaliable ("badges" so to speak).
So, if necessary to keep the current Extra (and maybe advanced) classes
happy allow another testing element (code or theory, your choice) and
the only "privilege" you get is a call sign assignment from a select
group. Say normally assign 2x3 calls to the all classes and allow the
"chosen" to get a call (FCC assigned, not you pick 'em) from the 1x2,
2x1, 2x2, 1x3 call sign groups.

In fact, maybe the FCC could be talked into allowing you pick 'em call
assignments if the amateur community could reduce the paper work load
by recucing the number of classes of licenses. Now that would be an
interesting conflict for the OFs. We get to pick our calls but open
the licensing and priveleges. Hmmmm, how about:
1) All bands, pick ur own call, all test elements, 15 wpm code and
either a 20 wpm code test or another theory test.
2) All bands, assigned call, all test elements, 15 wpm code.
3) No HF, all VHF/UHF, assigned call, all test elements, no code.
4) Minimal HF, minimal VHF/UHF, assigned call, some test elements, no code.
an individual could hold 3 and 4 at the same time and maybe even have two
calls as a result (the idea is to reduce the FCC work load here).

Give the new classes new names too, dont try to sort the old names. Just
use class A, B ,C,and D. Makes it easy to figure out precedence.

Well that should cover it for now.

Regards, Dave KE6ZE (an extra class licensee)

David Engle, KE6ZE - engle@wdl1.wdl.fac.com - 408/473-4419 @ Ford Aerospace
Facts, what facts. I don't got to show you no stinking facts. These are opinions expressed here. "Any clod can have the facts, its an art to have an opinion" Herb Caen, SF Chronicle.

4512. Re: World game results, anyone?

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:02:09 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720076@hplsla.HP.COM>
Source record: 9950

Well, I don't know why you got that info, but I was at the awards ceremony last night on Blake Island, and watched the gold, silver and bronze medals get handed out.

Gold: K1AR and K1DG
Silver:K7JA and W9RE
Bronze:KQ2M and KR0Y

I guess I'm not surprised that preliminary info about the 3rd place team may have been incorrect, because as of last night, the judges were still going through the logs to determine everyone else's standings.

Many there were a bit surprised at the clean sweep of the medals by the US teams, although it was apparent right after the contest that AR and DG where way out in front. One interesting note: the top two teams, AR/DG and JA/RE were only 8 blocks apart during the contest. Probably the closest spaced of all the contestants. K1AR mentioned that they never had any problem knowing how Mike and Chip were doing. In fact John said that at one point he told DG that they were behind, and Doug just picked up the pace a bit, and pulled ahead.

When I hear the final scores for all the contestants, I'll post them.

P.S.: Re the scoring for the WG stations: It's based on a 'curve' i.e. the team with the greatest CW QSO total gets 100 points, the team with the greatest Phone QSOs gets 100 points, and those with the greatest number of multipliers or 'counters' gets 100 points. The others scores in each of these categories is ratioed to that 100 points. The winners, above, had the greatest total score, i.e. CW plus phone plus counters, with the greatest possible score being 300.

There was a special award for the highest CW score, won by the German team, DL5XX and DJ6QT.

Charlie Panek (UUCP: hplabs!hp-pcd!hplsla!charlier)
KX7L (domain: charlier%hplsla@hplabs.hp.com)

4513. Re: Venturer Multiband Receiver

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:10:11 UTC
From: ramanath@unix.cis.pitt.edu
Message-ID: <26194@unix.cis.pitt.edu>
Source record: 9967
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In my previous post I had inquired about the Venturer receiver. Since
my posting, I got an e-mail response that essentially said that it was
a piece of junk, a total rip-off.

I'm posting this so that further responses on this subject can be avoided.
If you need to respond, please use e-mail.

Thanks,

-jay
--
Jayaram Ramanathan
ramanath@unix.cis.pitt.edu
Graduate School of Business / University of Pittsburgh / Pittsburgh / U.S.A.

4514. BearCat/ICOM question

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:16:17 UTC
From: mlau@hpspcoi.HP.COM
Message-ID: <860006@hpspcoi.HP.COM>
Source record: 9900

Hi,

Whats the difference between a Bearcat 200XLT and a 205XLT ??
Also, even tho ICOM is not selling the R1 in the US can you buy it
in Cananda ?? How much is the R1 priced at ??

Thanks in advance
mlau@hpspcoi

4515. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:19:47 UTC
From: jpd@pc.usl.edu
Message-ID: <12060@rouge.usl.edu>
Source record: 9966

In article <73@thoreau.nsc.com> rtodd@thoreau.nsc.com (Ron Todd) writes:
>And do I need to remind all of you what happened the last
>time we had a "successful buisnessman, engineer" at the
>helm of this country??

How about the last time we had an octogenarian as president?
Or, the last time we had a dog owner as president?
Kind of silly to generalize in this manner, don't you think?
--
-- James Dugal, N5KNX Internet: jpd@usl.edu
Associate Director Ham packet: n5knx@k5arh
Computing Center US Mail: PO Box 42770 Lafayette, LA 70504
University of Southwestern LA. Tel. 318-231-6417 U.S.A.

4516. Re: Repeaters, Communcator, et al

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:23:31 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <13823@shlump.nac.dec.com>
Source record: 9968

Jordan Kossack's proposal is rather close to mine. However, he merges Advanced into General with current privs. I merge Advanced into Extra, so not too many people lose privs. If Advanced is merged downwards, then certainly the merged General should get something beyond current General privs -- LOTS of the fone bands are reserved for Advanced and Extra.

(Or call it Class A and merge the two of them, making the name Neutral.)

Fred R. Goldstein goldstein@carafe.enet.dec.com
k1io or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

4517. Re: ANS: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:34:29 UTC
From: gary@ke4zv.UUCP
Message-ID: <1081@ke4zv.UUCP>
Source record: 9878

In article <9007240236.AA13188@tecnet1.jcte.jcs.mil> mgb@TECNET1.JCTE.JCS.MIL writes:
>swrinde!emory!wa4mei!ke4zv!gary (Gary Coffman) replies:
>
>>Not exactly, in most parts of the country there is currently
>>very little activity above two meters. By dumping the newcomers into the
>>wasteland they will either fail or more likely form their own CB-like
>>clubs to support their new repeaters.
>
>I agree that in many parts of the country there are very few repeaters
>above two meters, and I don't have a snappy answer for that problem. You
>make a good point in that regard.. but let me says this. *IF* the new
>hams did have the guts and glory to put up a new machine I very much
>doubt that it would turn into a "CB like club". If they put it up, the
>local (old timer) hams would flock to it like bees to honey, and the
>Communicators that put it up would gain instant recognition and a fair
>degree of respect.

Well that sure hasn't happened with the Novice repeaters put up by the
old line clubs. Listen for a while and all you hear are new Novices
stumbling along while telling each other how desperately they want to
upgrade as quickly as possible. The old timers (who funded the thing)
flock to it like bees to vinegar. And five minutes after the Novice
upgrades his 220 HT is forsale. In the old days when Novices had
two meter voice privledges (and a one year nonrenewable timelimit),
the Novice was able to go where the real hams were and join right in.
He got plenty of help and encouragement.

>On the matter of socialization... I think you make a good point, but my
>only question is.... why hasn't anyone thought of doing the same thing for
>the Novices? Don't they need the same type of guidance, and in fact more
>so.. since they have always REALLY been the entry level hams? This point
>is so obvious, I can't help but imagine that someone else has thought of it
>before... yet it was never mentioned before this Communicator thing came up,
>and that makes me rather... well.... it makes me wonder.

Well prior to 1968 Novices DID have voice privledges on TWO METERS.
The real point here though is that the Novice Class has always been
considered a brief stepping stone on the way to becoming a REAL ham.
The Communicator Class is viewed as a permanent alternative to the
traditional license classes. Thus while the Novice will become
socialized after he becomes a REAL ham, the Communicator never will
unless he can freely intermix with the traditional ham.

>>> Discussion of what we all really want for the Communicator Class deleted.
>

>>I also want to see a lot of young hams come back into the hobby. As
>>Phil Karn said, ham radio has been the start of a lifelong interest
>>in electronics and high technology in general for many people. I count
>>myself as one of those. I want a new generation of twelve year olds to
>>experience the magic like I did.
>
>Will the Communicator or Novice Class be more likely to do this? I know
>that the Com. Class will have no code.. but it will also have a pretty hard
>test (or at least it is supposed to). I still see the Novice as the basic
>entry level class... that is unless they do away with it.

No real argument here. I think the Novice license should be continued as
a way for those who want to follow the traditional path into the hobby.
However there are many people who would willingly study theory very hard
in order to get a license because they understand that knowledge of
theory is important to what they want to do with radio. Some of those people
do strongly resist learning Morse Code, not because it is necessarily
hard, but because they don't perceive it to be relevant to what they
hope to do with radio. A revolution began in the 60s that has quietly
taken firm root in the American psyche. That revolution said, in part,
"Why should I be forced to take Latin to get a EE degree?" Ham radio
still requires Latin for it's members and that has seriously hurt our
recruitment.

Gary KE4ZV

4518. Some New Ideas on Licensing

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:44:07 UTC
From: magid@select.enet.dec.com
Message-ID: <13824@shlump.nac.dec.com>
Source record: 9969

The following licensing idea came to mind after reading all of the notes in this file about the "Communicator Class" and "Incentive Licensing"

We could actually use our current system (already in place) and accomplish much of what everyone here has said or commented on.

The goal of this proposal is two fold:

1. Entry Level --- to get more young and non-technical people into this hobby.

2. Have those already in the hobby expand their knowledge of the various aspects of this hobby.

3. Make the administration of the licensing procedure less complicated. (not sure anything the government does is not complex)

Class Elements Options

Novice 2 CW 5 WPM

Technician 2,3a Pick (1) from list below

General 2,3a,3b " " " " "

Advanced 2,3a,3b,4a " " " " "

Extra 2,3a,3b,4a,4b " " " " "

Communicator 2,3a * (required)

Option List: (Aside from the code Exams these tests will be 25-30 multiple choice questions designed in the same manner as we have our tests designed today however the pool of questions should not be made public)

a. Packet
b. RTTY
c. CW 10 WPM
d. CW 15 WPM
e. CW 20 WPM
f. Microwave
g. Emergency Service / Operations
h. Net Operations / Control
i. SSTV
j. Community Service
*k. UHF/VHF Operations
l. Satellite

(The above list is not all inclusive)

All current allocations and privs remain the same.

All current licenses are grandfathered.

If the the current proposed Communicator Class is approved the 5 WPM Code will be required for upgrade to Technician. (this assumes that the VHF/UHF privs are different for Technician and Communicator.

The desired results here are that:

1. Everyone can get into the hobby.
2. Those with higher levels of license have a good background into more of the hobbies aspects.
3. We can maintain the same licenses structure and have it mean more to be a certain class then it does now.

4519. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-24 18:49:21 UTC
From: gary@ke4zv.UUCP
Message-ID: <1082@ke4zv.UUCP>
Source record: 9879

In article <22480009@hpcuha.HP.COM> nicholso@hpcuha.HP.COM (Ron Nicholson) writes:
>Hi,
>
>More questions...
>
>I've got an Icom 24AT. It comes with a NiCad battery pack. How do I
>tell when I need to charge the batteries? How long do I need to charge
>the batteries for? (The manual says 15 hours regardless of battery pack
>size.) How do I know how much battery life I have left when in the
>field? Does the unit just die when the batteries run out or what?
>How long can I store a charged up spare battery pack?
>

You should run your battery down before recharging. When the radio
quits, it's time to charge the battery. Keep a spare pack with you
in the field and rotate your packs every time. Nothing is more
destructive to a NiCad battery than continually doing partial
recharge cycles. Recharge rates are a function of the charger and
the battery. All NiCads can be safely charged at the .1C rate. That
is, if the battery has a capacity of 500ma/hr then you can safely
charge it at 50ma/hr for ten hours. Actually, since battery charging
is never 100% efficient, you need to charge it for more than ten
hours to get it back to full charge. Rapid charge packs have a
thermistor embedded in the pack and a sense circuit in the charger
that allows you to charge at the 1C rate safely. That is, a 500ma/hr
pack can be charged at 500ma/hr for one hour to bring it back to
full charge. The thermistor senses the rapid temperature rise that
a fully charged pack exhibits when continued charging is attempted.
This protects you from destroying the pack by accidentally attempting
to rapid charge a partially discharged pack. Depending on storage
conditions, a charged pack will lose up to one tenth of it's charge
every day so rotate your packs regularly.

Gary KE4ZV

4520. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-24 19:32:08 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul24.193208.12316@bellcore-2.bellcore.com>
Source record: 9972

In article <13749@shlump.nac.dec.com>, magid@select.enet.dec.com (Joel Magid...) writes:
>
> I understand that for operations below 30 Mhz the ALL amatuers
> are required by ITU regulation to pass a code test.
>
> 1. Does anyone have the text of that regulation ?

From the ITU Convention, as printed in Appendix 2 of 47 CFR 97 (the FCC amateur radio rules), Article 32, Section I, paragraph 3(1):

"Any person seeking a license to operate the apparatus of an amateur station shall prove that he is able to send correctly by hand and to receive correctly by ear texts in Morse code signals. The administrations concerned may, however, waive this requirement in the case of stations making use exclusively of frequencies above 30 MHz."

> 2. Does it state in the regulation what the minimum speed
> required is ?

No.

> 3. If the regulation is so well enforced how does the CB world
> exist in the US under that ITU requirement ?

Because CB is not an amateur service, it's a land mobile service. Police officers, ambulance drivers, firemen and cell phone users aren't required to know the code either.

Phil

4521. Re: Venturer Multiband Receiver

Newsgroup: rec.ham-radio
Date: 1990-07-24 19:33:29 UTC
From: chuq@Apple.COM
Message-ID: <43308@apple.Apple.COM>
Source record: 9970
Cross-posted to: rec.radio.shortwave,rec.ham-radio

ramanath@unix.cis.pitt.edu (J Ramanathan) writes:

>Does anyone out in net-land know anything about the Venturer Multiband
>Receiver from Haverhills? I saw their ad in the Atlantic magazine recently,
>and it looked attractive. Here are the details of the receiver:

>Venturer Multiband Receiver - $99.95 (Three for $199.90!)

Every review I've seen of this one has been horrid.

--
Chuq Von Rospach <+> chuq@apple.com <+> [This is myself speaking]

We tend to idealize tolerance, then wonder why we find ourselves infested
with losers and nut cases -- Patrick Nielsen Hayden

4522. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-24 19:38:11 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880195@hpfcdc.HP.COM>
Source record: 9888

Re: Emergency communication for other services

Gee, now I know why everyone mods their 2m HTs to talk on every frequency
from 100-180 MHz. :-)

4523. Re: Glen Baxter goes off the deep end (Listening Tip)

Newsgroup: rec.ham-radio
Date: 1990-07-24 20:18:08 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880197@hpfcdc.HP.COM>
Source record: 9885

Re: the BARF boys' assault on K1MAN

BARF's radio-terrorism is certainly entertaining, at least as much as
K1MAN's propoganda. Why Glen Baxter was motivated to editorialize
against the Dawg and F-Zed is beyond me. After all, he had his own
little corner of the spectrum, and most of us are content to let him
play with himself.

Having seen BARF's demonstrated ability to totally disrupt a frequency,
I think Glen committed a grevious tactical error; "broadcasters" need
clear frequencies to do their thing.

Re: Hams vs CBers

The neat thing about SSB is that all the voices are heard. No
heterodynes as on AM CB. In many respects, it's the largest
public-speaking forum available. It's fun to hear the snide remarks
made during another operator's "editorial". Total Chaos ? Maybe.
I like to think of it as the ultimate in "free speech".

Re: WA4D, KV4FZ

I thought I heard the Dawg rip into F-Zed during the July 4th weekend.
Are they working in concert now ?

I am marginally impressed by these guys - they certainly have brains and
F Zed approaches eloquence on occasion. If they weren't so irritating,
maybe their message would mean more.

>That out of the way, tune in and gawk a bit. It's fun. And if you are
>a ham and DARE to transmit, be sure and sign you call. It will make you
>stand out in the crowd....
>=============== WB8EOH = The Eccentric Old Hippie = WB8EOH ================

I haven't gotten up the nerve to key the mike. I've actually heard
KV4FZ demand callsigns with comments. Gee, I didn't know he was so
thoughtful of the rules :-)

Re: Free Speech

I think the US Amateurs take their US Consititutional rights with them
to the shack, not realizing that SWLs and Hams in other countries may
not understand our society. We in the US have raised free speech to an
Art Form, allowing all sorts of marginal communication techniques to
be used.

I've often wondered if the FCC's agreement with WARC is unconstitutional
wrt 1st amendment. If you can't discuss politics, religion, and other

controversial topics, why bother ? :-)

Perry Scott
KF0CA

4524. Re: 1 Watt License Free (was Re: Communicator License Frequencies)

Newsgroup: rec.ham-radio
Date: 1990-07-24 20:24:51 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul24.202451.12487@bellcore-2.bellcore.com>
Source record: 9882

In article <930@ssc.UUCP>, markz@ssc.UUCP (Mark Zenier) writes:
|> Spread Spectrum
|> Either frequency hopping (minimum 75 frequencies, >= 25 Khz seperation,
|> bandwidth < 25 Khz, time of occupancy on any freq. < .4 seconds
|> in any 30 second interval)
|> Or Direct sequence with minimum 6 dB bandwidth of 500 Khz.
|>
|> 1 watt (with a warning that this may be lowered if the current power
|> level causes problems)

I don't remember if I've mentioned this earlier, but one of the things I saw when I visited the FCC last month was a current press release describing some modifications of these rules. Part 15 spread systems are now required to exhibit at least 10 dB of processing gain (for a direct sequence system) or to have receiver bandwidths comparable to the instantaneous signal bandwidth (for frequency hopping systems).

It seems that some of the vendors were cutting corners by spreading at the transmitter only because they were required to do so -- the receiver made no attempt to obtain any processing gain. For example, in direct sequence, the receiver would simply demodulate each spreading "chip" and then remove the spreading sequence to yield the data; in frequency hopping, the receiver bandwidth was made equal to the total spread bandwidth so it didn't have to follow the signal. Of course, this approach meant that the transmitter had to run much more power than would be necessary if the receiver did an honest job, and there'd be much more RF and QRM on the band than necessary. So I was delighted to see the FCC get wise.

It'll be interesting to see how many companies survive this rule change. Those that have been working on "honest" spread spectrum systems will have no problem, while those who would have foisted inferior shortcuts on a trusting and unsuspecting public got what was coming to them. :-)

Phil

4525. Re: Changing Traffic to Emergency Areas

Newsgroup: rec.ham-radio
Date: 1990-07-24 20:39:39 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880198@hpfcdc.HP.COM>
Source record: 9889

My impression of the Red Cross messaging system is that it implements with people something that should be done via computer. The connection cost of the entire system is tremendous - surely we could approach it like a computer network.

What little experience I had with the California quake was that 20m SSB was extremely inefficient, considering that most of the messages could have been typed into a computer and shipped to a BBS in the Bay Area. The only problem is that there are damn few routes for VHF packet to the West Coast. [it turned out that I passed the most messages by going to my desk and calling another HP ham on the Corporate telephone, having him call the recipients from his office. So much for aura and mystique of Ham public service :-)]

It seems to me that we need to develop an effective HF packet protocol, with cross-band connections on both ends to VHF. Maybe store-and-forward via satelite would work, but portable Earth stations are hard to come by in some areas of the world. Maybe someone can enlighten me on OscarPacket and the feasibility of putting a BBS in space.

IMHO, adding another priority to the networking system is just tinkering. The real problem is in the underlying technology.

Perry Scott

4526. Re: Ham radio's value (Was: Re: Communicator Class) Keywords:

Newsgroup: rec.ham-radio
Date: 1990-07-24 20:41:01 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul24.204101.12581@bellcore-2.bellcore.com>
Source record: 9973

Peter Klein's remarks were very well said. I hope you turn them into formal comments to the Commission -- that would certainly raise the average literacy and thoughtfulness level of the file!

I do have one nit to pick, however.

|> Some of you ultra-techies need to learn (forgive me) a little respect
|> and compassion for others. There's a lot of different kinds of ham
|> radio out there, and it has just as much right to exist as yours does.

I have NEVER felt or said otherwise, nor have any of my ultra-techie colleagues. (Well, I *will* admit to a few tongue-in-cheek comments about how CW ought to be banned because of its abysmal spectral efficiency, but I hope that these were taken in the satirical spirit in which they were intended. Just don't try to argue to me the merits of a mandatory CW requirement on the basis of CW's supposed spectral efficiency!)

My support for no-code has long been based on a desire to pursue technical development by attracting more hams with similar interests. I absolutely have no quarrel with those who wish to pursue more traditional activities - as long as they don't stand in the way of others who have different but equally legitimate interests.

Phil

4527. Re: Running PCs of 12v

Newsgroup: rec.ham-radio
Date: 1990-07-24 20:48:02 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880199@hpfcdc.HP.COM>
Source record: 9886

For what it's worth:

If you can't afford a UPS, slightly cheaper method involves powering the
PC off a smaller battery which is connected via diode to the vehicle
This way current only flows from the vehicle battery to the small one.
I haven't tried this, but a lot of RVs use this method for their 12v
lighting.

Perry Scott
KF0CA

4528. 73 Mag changes flavor

Newsgroup: rec.ham-radio
Date: 1990-07-24 21:10:39 UTC
From: ewb@raybed2.msd.ray.com
Message-ID: <1687@raybed2.msd.ray.com>
Source record: 9953

As you may have noticed 73 Magazine has a new editor Bill Brown WB8ELK.
There have been some suttle changes to the magazine in the positive light,
especially in the ATV area. Bill is responsible for these. Thare are more
coming as well. You may say that Wayne Green's column is as bad as ever,
however THE EDITOR HAS NO CONTROL OVER WAYNE'S COLUMN so Bill is not to
blame for that

If you like the changes to the mag, Bill has to know NOW. Rumor is that
Wayne is not real happy with some of the changes. Also if you have any
suggestions on what you would like to see more of/less of let Bill know.
This could be your chance to infulence a major ham publication. We need
all the good pubs we can find now that HR is gone.

73
Gene WA1UXA

73's phone number is 603-525-4201.

U.S. Mail address:
73 Magazine
c/o WGE Publications
Forrest Road
Hancock, New Hampshire 03449

Rumor also has it they are on one of the commercial mail nets !!

4529. Re: Communicator License Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-24 21:22:00 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul24.212200.12756@bellcore-2.bellcore.com>
Source record: 9974

In article <2746@anasaz.UUCP>, john@anasaz.UUCP (John Moore) writes:
> I don't think spread spectrum will work at all for "repeater
> coordination" problems. [discussion of near-far problem in repeaters]

I didn't say "repeater coordination", I said "spectrum management". Repeaters are a large part of the problem; I'm trying to find ways to introduce new services and facilities in the face of existing repeater operators and councils who already feel they own the band and refuse to make any room.

As for the near-far problem in repeaters, that's an issue only if your repeater is true full duplex. But you can effectively simulate full duplex with a half duplex system if it is fast enough. (An example is the experimental Ethernet telephone on my desk. Ethernet is a half duplex network, but I can talk on my phone just like it were the Real Thing.)

The single frequency digipeater/packet switch is the model I have in mind. Although everyone knows how poorly that model has operated in current amateur practice, few understand that these shortcomings stem almost exclusively from our using it with narrowband modulation techniques.

It is not an accident that so many non-amateur packet radio systems use spread spectrum. It's not just the usual special military interest in anti-jam and low probability of intercept. Spread spectrum has many desirable properties in a random, contention-based multiple access environment, including excellent "capture" and multipath suppression abilities. Hidden terminals still exist, but they are MUCH less of a problem.

Spread spectrum will probably never be able to match conventional frequency- or time-division multiple access techniques on the basis of signal orthogonality (the limits to receiver selectivity). For example, with modern crystal filters it is relatively easy to get adjacent-channel rejection ratios in frequency-division systems on the order of 60 dB or more, but attaining similar processing gains (the analogous figures in spread spectrum systems) would require bandwidth expansion ratios of a million or more. These seem impractical for all but the slowest data streams.

This reduction in spectrum efficiency is the price you pay in exchange for eliminating the need for everyone to agree in advance on frequency channel allocations. But if hams are unable to get their cooperative spectrum management act together, then spread spectrum presents a viable alternative to either bedlam (no coordination at all) or

stagnation (keeping it all allocated to existing repeaters).

Phil

4530. Crystal Filters

Newsgroup: rec.ham-radio
Date: 1990-07-24 21:26:58 UTC
From: t-petesk@microsoft.UUCP
Message-ID: <56047@microsoft.UUCP>
Source record: 9975

I'm trying to either find, or build a 9Mhz Crystal I.F. Filter.

The bandwidth should be wide enough for NBFM (15-20khz), and the Q
should be pretty high.

Any help would be appreciated, especially stuff like
Sources for the filters(if I decide not to build them myself)

Impedance characteristics, and other such stuff.

Pete Skelly
microsoft!t-petesk
KB7GUD

my opinions are my own

4531. New Ham needs help on 2m/TNC equipment buy recommendations / TM-731A

Newsgroup: rec.ham-radio
Date: 1990-07-24 21:58:35 UTC
From: gary@ellis.uchicago.edu
Message-ID: <1990Jul24.215835.21179@midway.uchicago.edu>
Source record: 9877
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

Thought I'd drop off a note to the experts on the net before breaking my
piggy bank to buy a radio. I'm new to this whole thing so...

I just passed by Novice,Tech written and 5 WPM code test. I'll be working
on General, Advanced and 13WPM code test for a test next month (Why stop
at tech ... ?)

In any case, I want to get a 2m/440 or 2m/220 radio. The first problem is
220 vs 440 ? It seems that you can't have everything. Any advice on that ?

With my "zip" experience in owning any 2m equipment I've done a little research
and have come up with, what I think is a good radio...

Its a Kenwood TM-731A 2m/440 dual band, 30 memory channels, extended freq
coverage, programmable scanning, 50 Watts on 2m, 35 Watts on 440, CTCSS,
etc etc. The price on this is (whew) $649.

==> Does anyone have experience with this radio... Or can someone suggest a
==> better rig than this ???

I'm very much intersted in using this for packet. I will shortly be going
through similar buying trauma for a TNC.

==> Any TNC recommendations ? And software that can be used with a Mac ?

I'd like to get good eqipment, with basically everything from the start ..
.. rather than picking up odds and ends along the way. The latter being,
I think, more expensive than the former.

Any and all suggestions welcome.

Thanks much
Gary Buchholz

4532. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-24 23:22:39 UTC
From: stevenp@decwrl.pa.dec.com
Message-ID: <1990Jul24.232239.3098@wrl.dec.com>
Source record: 9976

In article <186@bongo.UUCP>, julian@bongo.UUCP (Julian Macassey) writes;

> Why oh why does everyone drone on about how wonderful amateur radio
> is in an emergency? This is the U.S.A., this country has the best
> equipped Emergency services and Armed services in the world. The U.S.
> Armed services even have their own phone network. Do you seriously
> think that amateurs are the lynch-pin of disaster communications?

I dunno. Maybe you should ask the Red Cross, or perhaps the local Office of Emergency Services. Maybe they can tell you why they seem to need us so badly and use our capabilities so heavily during actual emergencies. The last earthquake here in the Bay area saw ham radio get a heavy workout. There were lots of tired hams around here providing communications on demand. One might note that the Office of Emergency Services includes ham radio in its response plans. They seem to think that we have some value.

Maybe there's something going on with "health and welfare" services. My family (on the east coast) was very worried about me after the earthquake, and I couldn't get through by telephone (service was out in many areas, and many long-distance lines were saturated). I finally got a message delivered by HF through a ham I talked to via 2-meters. He was operating from DC -- his power was out, too. That convinced me to make getting a DC HF rig a priority. I've got one now, and I'm ready for the next disaster (I hope!).

> In my cynicism I suspect the ARRL is behind this stuff. [...]

You might also ask the military. For some reason our "best equipped" armed services ask for our help on a regular basis. Scores of hams turn out every year to assist the Navy at the Moffet Field Air Show. The Navy doesn't seem to have the personnel and equipment to handle it. Is it possible that they are in on the ham radio propaganda bandwagon too?

> If my local emergency service needs more coms these days, they
> don't call out the fat guys with the walkie-talkies on their belts and
> obsolete police radios in their cars. They call up a cellular carrier
> and get some cellular phones that give them instant coms and ability
> to communicate anywhere in the world.

I suppose they'd exclusively use cellular here too, except that they know that they can't depend on cellular during an emergency. So, they call out lots of us, some fat, some thin (we get plenty of exercise running around during emergency exercises), but most with high-tech radio systems that put police radios to shame. I haven't seen too

much in the way of police TV. The ES office really seems to like
getting direct video of problem areas. Funny about that....

> Yours still learning from amateur radio.

Please consider seeking out the RACES folks in Southern California.
That's an area of high earthquake and fire risk, too. You might learn
that there's more value in amateur emergency service than you think.

Steve
stevenp@decwrl.dec.com

4533. Re: UNIX Software for learning Morse Code

Newsgroup: rec.ham-radio
Date: 1990-07-25 00:24:25 UTC
From: emmonsl@athena.csus.edu
Message-ID: <1990Jul25.002425.13565@csusac.csus.edu>
Source record: 9894

In article <1990Jul23.021150.25401@mlb.semi.harris.com> mmt@moosh.mlb.semi.harris.com (Mojgan M. Thompson) writes:
>I'm intersted in obtaining any software that can be used for learning
>Morse code on a UNIX machine. If you know of such software, please
>contact me via email or post.

It's unlikely that such a product will exist, as there is no way to make the necessary tones at the proper timing on a standard tty. There may be a way to do it with certain terminals, but you will probably have to write it yourself...

L. Scott Emmons
---
emmonsl@csus.edu <or> ...[ucbvax]!ucdavis!csusac!athena!emmonsl
Packet: kc6mhs@kg6xx.#nocal.ca.usa.na

4534. Aussie Salute (ten-ten)

Newsgroup: rec.ham-radio
Date: 1990-07-25 03:14:20 UTC
From: rfc@briar.Philips.Com
Message-ID: <104386@philabs.Philips.Com>
Source record: 9911

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
30935 BF 2123 2 22-Jul 0020 N2JEU TENTEN-06 TENTEN@ALLBBS ()
Sb: The Aussie Salute - 28 Chapter

From the Ten-Ten International News Service - July 21, 1990
Bob Arnold N2JEU @ WA2TVE.WNY.NY.USA
Canastota, New York U.S.A. (315) 697-7478 (voice only)

The Twenty Eight Chapter of Ten-Ten International announces "The Aussie Salute" running from October 10th to October 28th, 1990. Its an EXTENDED QSO PARTY with a special certificate offered to participants.

Ten-Ten International was formed in 1962 and 1990 will be the 28th anniversary. Complete details will appear in the Summer 1990 issue of the Ten-Ten International news due out during July 1990.

Bob N2JEU - editor 10-10 News

4535. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-25 03:18:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500613@ux1.cso.uiuc.edu>
Source record: 9891

> I don't know about the rest of you but I would prefer not messing up
> my back yard! I know all the flames that this comment will generate

OK, let's get down to the nitty gritty here....

I **DO** want them in MY backyard !!

And because of the fact that I live in a rural-like area, my backyard is stuck at being 2 meters. I do understand that there are many many more hams operating on 2 meters and on UHF bands as well in the big cities, but FCC regulations cover the WHOLE country, not just the cities. And I think a rule that allowed Communicators on 2 meters ONLY in the rural areas just would not work.

> but just consider that for all practical purposes, there is NO difference
> between 146, 222 and 440. They are ALL relativly local in coverage
> (on average), they ALL have relativly simple equipment requirements
> and they ALL have resident hams within easy distance over most of the
> country. Where they are different is that more people are needed

About HALF of the country.

> to populate the upper bands, 2 meters is, for all good purposes, FULL
> where most of these new "hams" are going to appear (in the cities).
> So, does it make sense to make a difficult situation worse? Not in
> my book!

New hams will generally appear IN PROPORTION to the old ones. That is to say that if we see a 40% growth in hams, we will see a 40% growth in the urban areas AND a 40% growth in the rural areas.

BUT if Communicators do NOT get on 2 meters, then you will be getting what you say, because the Communicators in the rural areas will be getting NO (usable) privileges. So what you are arguing FOR will actually be the CAUSE of what you basing your argument on; so I suggest doing the OPPOSITE so that we do not see such a thing happen.

> So why are we forcing one group out to make room for another? That

Because these groups need to communicate with each other.

I would accept limiting Communicators to higher bands *IF* no more 2 meter only radios were being sold (except for recycled ones). If *ALL* NEW radios for the VHF/UHF bands had at least one COMMUNICATOR-CAPABLE band in them, such as the dual banders we now see being sold, then there would not be any issue left for putting Communicators on 2 meters. The only reason to put the Communicators on 2 meters is because so many hams presently HAVE ONLY 2 METERS (as there VHF/UHF capability). Correct THAT situation and then

there will be no problem.

> one smacks of slum-lord tactics, later on the slum lord gets the
> good press for "trouncing urban blight" by tearing down the slums
> and erecting "AFFORDABLE" housing (with HUD money). Did any one
> ask the slum lord who would be able to "afford" the housing?

Make a point, please. Affordability is NOT an issue, really. If a new Communicator is on 2 meters, "Elmer" can talk to him, or buy a UHF radio and move up somewhere else. If the new Communicator is only on some UHF band, then the "Elmer" can also buy a new UHF radio to talk to him, or leave him alone.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4536. Ten-ten Australian ham contact on 10m award

Newsgroup: rec.ham-radio
Date: 1990-07-25 03:19:28 UTC
From: rfc@briar.Philips.Com
Message-ID: <104387@philabs.Philips.Com>
Source record: 9907

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
30930 BF 2088 1 22-Jul 0021 N2JEU TENTEN-07 TENTEN@ALLBBS ()
Sb: Royal Flying Doctor Award

From the Ten-Ten International News Service - July 21, 1990
Bob Arnold N2JEU @ WA2TVE.WNY.NY.USA
Canastota, New York U.S.A. (315) 697-7478 (voice only)

The Twenty Eight Chapter of Ten-Ten International announces the "Royal Flying Doctor Service" Award. The award is issued for contacting Australian stations on the 10 meter band. This is a yearly award with a different certificate available each year.

Complete details will appear in the Summer 1990 issue of the Ten-Ten International News appearing in late July 1990.

Bob N2JEU - editor 10-10 News

4537. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-25 03:28:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500614@ux1.cso.uiuc.edu>
Source record: 9892

> Well... the term "Old Fart" is really starting to get to me! I think
> that it is now being stretched to include anyone that does not agree
> with the currently proposed ideas for licensing. So I think that I will
> coin a new phrase... "NEW FARTS" ... all the new Communicator Class
> operators and no code people are now "NEW FARTS". Now we will have
> Old Farts, and New Farts, and just plain smelly Farts and when someone
> reaches for the chain on the toilet... we will ALL be in trouble! :-)

How about we start calling the older and more experienced hams as "Elmer"
instead of "Old Fart". Maybe that will encourage them to do what they
should have been doing all along. What decent "Elmer" would fuss and moan
about a bunch of newcomer Communicators in HIS backyard?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4538. Re: Venturer Multiband Receiver

Newsgroup: rec.ham-radio
Date: 1990-07-25 03:44:39 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <37246@shemp.CS.UCLA.EDU>
Source record: 9887
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <26179@unix.cis.pitt.edu> ramanath@unix.cis.pitt.edu (J Ramanathan) writes:
>Does anyone out in net-land know anything about the Venturer Multiband
>Receiver from Haverhills? I saw their ad in the Atlantic magazine recently,
'
. Stuff deleted
.
.
Some time ago, the Venturer receiver, and others in its price class
(less than $150-200) was discussed at length.

Without even looking at this receiver or the ad, I can tell you
that this radio will have at least two *frustrating* features:

1. An >inaccurate< tuning system, consisting of a large frequency
range (say 3-8 or 10-20 megahertz) all on one band. Now, 20 megahertz
on one band may be just fine for FM (88-108mHz) where the signals
are very wide (about 50-100 kHz). But, it is only an invitation to
discouragement with signals that are about 5 kHz wide. Tune in a
station once; you may not tune it in again because you can't remember
where it was on the @#$#@$ dial!

2. Single conversion circuitry, which allows a whole host of
false signals ("birdies" or "images") to interfere with the
station you want to hear.

I have never seen or heard of a *good* shortwave radio for less
than about $175-200....if anyone on the net knows of any, please
let me know....but most, if not all, of the shortwave receivers
advertised in popular magazines, mass-market catalogs, creditcard
invoices and the like are too cheap to be any real good.

| Charles P. Hobbs | Rail transit has arrived in LA!
| cccph@eel.cs.ucla.edu | Hear the action >right now< on
| N6YMK @ K6VE | >>>> 471.3375 mHz <<<<!

4539. Wide Band Equipment for "High-Speed" Packet

Newsgroup: rec.ham-radio
Date: 1990-07-25 03:49:01 UTC
From: IANR003@UNLVM.BITNET
Message-ID: <9007250334.AA29343@ucsd.edu>
Source record: 9884

Does anyone have any experience with "wide band" radio equipment in a high-speed packet radio environment? We are considering the use of FSK instead of ASFK, 9600 baud to start.

Michael Ruhrdanz N0FER
IANR003@UNLVM.BITNET (or UNLVM.UNL.EDU)

4540. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-25 04:00:00 UTC
From: brian@ucsd.Edu
Message-ID: <16164@ucsd.Edu>
Source record: 9883

In article <38845@cci632.UUCP> cep@ccird7.UUCP (Christopher E. Piggott, WZ2B) writes:
>Shouldn't we strive for a little more than "competence" ?

No, why? Were you an expert when you first got interested? I sure
wasn't.

Ham radio operators do not spring full-grown from Zeus's brow; they
grow in skill and capability as they gain experience.

Or do you want them to become expert professional hams somewhere else
before we let them on our bands? Get real. Everyone has to start at
the bottom sometime.

I think they'll become more than competent with time and experience.
Either that, or they'll get bored and take up another hobby. Few
people keep doing hobbies they're not enjoying because they not good at
them.
- Brian

4541. Re: Communicators and 2m, status of the

Newsgroup: rec.ham-radio
Date: 1990-07-25 04:04:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500615@ux1.cso.uiuc.edu>
Source record: 9893

Some observations about CITY hams vs. COUNTRY hams:

Out here in the rural areas, there are so few hams that it takes ALL of us together to just get a club going. The CW ops and the Phone ops are in the SAME club. The HF-ers and the VHF-ers are in the SAME club. The packeteers and the ATV-ers are in the SAME club. The "Elmers" and the newcomers are in the SAME club. The DX-ers and the ragchewers are in the SAME club. We get together and get to know more about what each other does. Not only are all these guys in the same club, but when they use a VHF FM frequency to chat on, they all use the SAME repeater (146.76) which ranks way up there in how busy it is. I know of only a couple big city repeaters that are busier.

In the big city, there are enough CW ops to form their own club. There are enough Phone ops to form their own club. There are enough HF-ers to form their own club. There are enough VHF-ers to form their own club. There are enough packeteers to form their own club. There are enough ATV-ers to form their own club. There are enough "Elmers" to form their own club. There are enough newcomers to form their own club. There are enough DX-ers to form their own club. There are enough ragchewers to form their own club.

Most of those clubs also have their own repeater and even if it is an open one, tends to be frequented by a particular group. That means that with the exception of community based clubs, most hams have very little opportunity to meet hams different from themselves. Just think of the prospect of joining ALL the clubs in the area. It could also be an effort to limit communication to "one's own kind". When someone "else" comes in on the repeater they are usually less than welcome. Travelers are tolerated but regular use by "outsiders" is discouraged by attitudes. Thus what results is that there is significantly less use of the many repeaters already in existance.

I have traveled on occaision to the following cities since becoming a ham and had radios available to me when I did: Indianapolis, Dayton, Columbus, San Franscisco, Houston, Dallas, and Chicago (suburbs). The level of activity was INVERSLY proportional to the Community size (limiting the times I was in Dayton to NON-hamvention weekends).

If there is congestion in the big cities, it is in terms of the number of repeaters coordinated and online, BUT NOT in terms of the number of actual ham radio operators using them. There even seems to be A LOT of cause for city hams to become INACTIVE (and not all on the radio, such as antenna restrictions in "bedroom" communities).

My point here is that "congestion" is often claimed, but has not been actually observed. If you know of a city, and particularly a repeater frequency in that city, that is congested, please post it. I may even come to visit your city to hear this rarity. Maybe I can earn a "worked all congested repeaters" award :-) (if I can GET IN) :-)

Last night the Champaign Illinois 146.76 repeater had about 2 hours of on-air time somewhat well interspersed between 12 midnight and 6 AM. This level of activity is actually quite commonplace here. How many big city repeaters can do this. When I was in Dallas recently, I tried all the repeaters on 144 Mhz and 440 Mhz in the repeater directory, and found about 20 (13 VHF and 7 UHF) that I could bring up and came in full quieting on my dual-band HT on low power in my hotel room. I left the radio scanning these 20 frequencies all night. Between 10:30 PM and 1 AM there were 2 QSO's, one about 10 minutes long, and the other about 30 minutes. From 1 AM to 5:30 there was NOTHING AT ALL. At 5:30 I was woken up by a guy who called for another station over and over for about 15 minutes before he gave up. By 6 AM there started to appear to be some "drive time" activity, but it was Saturday so I could expect there to be much less than usual.

Is 2 meters congested in the big cities? I think not.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4542. Re: Do we need *more* hams, or less?

Newsgroup: rec.ham-radio
Date: 1990-07-25 04:04:56 UTC
From: gary@ke4zv.UUCP
Message-ID: <1083@ke4zv.UUCP>
Source record: 9901

In article <24.Jul.90.18:03:33.BST.#9528@UK.AC.NWL.IA> PJML@ibma.nerc-wallingford.ac.uk ("Pete Lucas, NCS-TLC, Holbrook House, Swindon") writes:
>I have watched the 'discussion' re. incentive licensing with a mixture of
>amusement, horror, and deja-vu.
>My question: *WHY* do we want *MORE* hams? Surely, its a fact that as the
>numbers go up, the quality comes down.

Two points. First point is that the average age of current amateurs is around fifty. This does not bode well for the future of the service. Therefore we need more, hopefully young, hams to provide for the future of the service. Second point is that "quality" of hams probably follows a bell shaped curve. As we get more hams, we get more good hams as well as more bad hams. The average quality stays the same, but in absolute numbers we wind up with more good hams.

>(If you really want *more* hams, why not just sell licenses by mail-order
>and then you could have charging based on number of band segments
>or privileges).
>No seriously, I think we should be encouraging RAISING of standards, not
>lowering them. Make the test harder and introduce a code-free license.
>(I am against the UK 'Novice licence'; IMHO it can do nothing but harm...)

If you are a HF DXer or contester then more hams is a bad thing. However, if you care about technical innovation, emergency service, introducing young people to technical careers, or the long term future of amateur radio, then more hams is a good thing. It all depends on your point of view.

Gary KE4ZV

4543. August QST

Newsgroup: rec.ham-radio
Date: 1990-07-25 06:05:20 UTC
From: kevinr@moe.Tandem.COM
Message-ID: <1990Jul25.060520.25385@tandem.com>
Source record: 9896

I can't believe we've not seen at least one messgae noting the
lead article in the August QST :-) Are you all out there
building one?

N6RCE

4544. Re: Wide Band Equipment for "High-Speed" Packet

Newsgroup: rec.ham-radio
Date: 1990-07-25 06:09:25 UTC
From: kevinr@moe.Tandem.COM
Message-ID: <1990Jul25.060925.25468@tandem.com>
Source record: 9897

In article <9007250334.AA29343@ucsd.edu>, IANR003@UNLVM.BITNET (Michael Ruhrdanz) writes:
|> Does anyone have any experience with "wide band" radio equipment in a
|> high-speed packet radio environment? We are considering the use of FSK
|> instead of ASFK, 9600 baud to start.

Sure do. We started at 1Mbps on 10GHz. See HR Dec '89

N6RCE

4545. Re: New Ham needs help on 2m/TNC equipment buy recommendations / TM-731A

Newsgroup: rec.ham-radio
Date: 1990-07-25 09:02:54 UTC
From: gary@ke4zv.UUCP
Message-ID: <1087@ke4zv.UUCP>
Source record: 9899
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

In article <1990Jul24.215835.21179@midway.uchicago.edu> gary@ellis.uchicago.edu (gary buchholz) writes:
>Thought I'd drop off a note to the experts on the net before breaking my
>piggy bank to buy a radio. I'm new to this whole thing so...
>
>I just passed by Novice,Tech written and 5 WPM code test. I'll be working
>on General, Advanced and 13WPM code test for a test next month (Why stop
>at tech ... ?)
>
>In any case, I want to get a 2m/440 or 2m/220 radio. The first problem is
>220 vs 440 ? It seems that you can't have everything. Any advice on that ?

Check with the local hams to see where the activity is located. Different areas use their spectrum differently. If really interesting things are happening locally on 220 then go that way. Otherwise go with the 440 equipment.

>
>With my "zip" experience in owning any 2m equipment I've done a little research
>and have come up with, what I think is a good radio...
>
>Its a Kenwood TM-731A 2m/440 dual band, 30 memory channels, extended freq
>coverage, programmable scanning, 50 Watts on 2m, 35 Watts on 440, CTCSS,
>etc etc. The price on this is (whew) $649.
>
>==> Does anyone have experience with this radio... Or can someone suggest a
>==> better rig than this ???

This is a nice feature packed radio. It does tend to run a bit warm and an external fan might help in some installations. I am personally biased toward Icom radios since I have had very good experiences with them, but the 731 is a very good dual band solution. Yeasu and Icom make very good radios as well and I can recommend the FT4700H or the IC2400. Basically they are all good radios, the primary differences are due to the way features are implemented. You may like the Kenwood way, or the Icom way, or the Yeasu way best based on how you like to operate and how you like to think about how controls should work.

>
>I'm very much intersted in using this for packet. I will shortly be going
>through similar buying trauma for a TNC.
>
>==> Any TNC recommendations ? And software that can be used with a Mac ?

I would strongly recomend that you not try to use one radio for both
voice and packet unless economics forces you to. Quite often the ability
to talk over a problem you are having with new packet techniques is
invaluable. In general, a simple cheap used crystal rig will be ideal
for packet. I would recommend the IC22a or the TRC22 or any of a number
of used commercial two-way radios by Motorola or GE. In the new equipment
market, Kantronics makes a nice little crystal rig designed for packet.
As for TNCs, MFJ, Paccomm, Kantronics or AEA, they all work. Get the
cheapest that has a standard TAPR style modem disconnect. Currently I
am using MFJ1270 and Paccomm Tiny 2 units. Red Ryder will get you started
as far as software is concerned. There is also MacPacket and others.
When you are ready for more advanced work, there is the KA9Q TCP/IP package
available with source for the asking.

>I'd like to get good eqipment, with basically everything from the start ..
>.. rather than picking up odds and ends along the way. The latter being,
>I think, more expensive than the former.

This attitude could prove to be disapointing in the long run. Today's
wonder box is tommorrow's worthless clunker. The technology of packet
is changing too rapidly to justify buying one of the current do everything
boxes. They tend to do everything equally poorly. You can add high speed
modems to your plain TNC if that becomes popular in your area. You can
add a really good HF modem to your plain TNC if that becomes your interest.
You can even discard your cheap TNC and get some really good RTTY equipment
if that becomes your interest. The do everything boxes tend to be closed,
and as technology changes, can be very difficult to upgrade. Sort of like
a Mac :-).

At least half the fun of ham radio is the tinkering, modifying, experimenting,
and horse trading involved in getting the "ideal" setup. Don't settle
for applicance operating.

Gary KE4ZV

4546. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-25 09:13:07 UTC
From: gary@ke4zv.UUCP
Message-ID: <1088@ke4zv.UUCP>
Source record: 9902

In article <38845@cci632.UUCP> cep@ccird7.UUCP (Christopher E. Piggott, WZ2B) writes:
>In article <900724-020327-19183@Xerox> "hugh_davies.WGC1RX"@XEROX.COM writes:
>>>Brian Kantor says;
>>>
>>>...There should be only two classes of ham license
>>...
>>>Both have questions on regulations,
>>>procedures, and technical matters to ensure that the applicant is
>>>competant to install, operate, and maintain a ham radio station...
>
>>Hear, hear!! Just like the U.K.
>
>Shouldn't we strive for a little more than "competence" ?

I think "competence" is an adequate licensing requirement. "Excellence"
is what we should all strive for AFTER we become hams. Amateur radio
should be a continuing lifelong quest for knowledge and no amount of
wallpaper can substitute for the inner drive to learn.

Gary KE4ZV

4547. Advice wanted - 2m HT

Newsgroup: rec.ham-radio
Date: 1990-07-25 09:29:20 UTC
From: JKOSS00@RICEVM1.BITNET
Message-ID: <1724JKOSS00@RICEVM1>
Source record: 9906

I'm thinking about buying an HT when school starts this Fall. I'm looking for advice regarding the following:

1) Brand: I've seen several advertisements for Alinco HTs and they're significantly cheaper than their ICOM, Kenwood, and Yaesu counterparts. Are they good rigs? Is the price difference mainly due to the fact that they're not as well known as the big 3, or is there a quality difference as well? Any preferences among the big 3? Do ICOMs really survive a 300m drop? ;-)

2) Band: According to what I've been hearing on the net, 2m is a zoo and 70cm is empty. So, the question is whether I should get a 2m or 440MHz HT. I can not afford a dual band rig unless I go with the Alinco [see above] and I'm of the impression that 220MHz is barren. I guess it is a matter of personal opinion ... so I want to hear yours. Note that I have ONE friend that is a ham and he won't be buying a rig anytime in the near future, so ...
[I know - I'm working on getting another friend into amateur radio, but it aint easy to motivate 'em.]

3) Why: Should I even bother getting an HT? I saved some money from my summer job and I can spare about $400 for goodies, after books for Fall semester, new glasses, etc. I've been thinking that the 400 bucks should go toward an HT, but I'm open to suggestions from more experienced hams. I don't own any rigs but I have access to RUARC's HF reciever and xmitter when I get the urge. Oh, btw, I've a tech license.

Any suggestions on the three topics above would be appreciated. In the interest of saving net bandwith, I encourage e-mail replies unless you think it is of general interest. Right now I'm leaning toward the Alinco 2m/70cm dual bander if I can find it on sale, or one of the 2m Alinco HTs. If you know any reasons why this would be unwise, I would really like to hear your reasons. tnx es 73

- Jordan, n5qvi

Jordan Kossack Rice EE student for hire No job too small
JKOS00@RICEVM1 Part Time - eves & wknds No fee too large
N5QVI ---> Illuminati non Carborundum <---

4548. Re: Wide Band Equipment for "High-Speed" Packet

Newsgroup: rec.ham-radio
Date: 1990-07-25 09:34:04 UTC
From: gary@ke4zv.UUCP
Message-ID: <1089@ke4zv.UUCP>
Source record: 9908

In article <9007250334.AA29343@ucsd.edu> IANR003@UNLVM.BITNET (Michael Ruhrdanz) writes:
>Does anyone have any experience with "wide band" radio equipment in a
>high-speed packet radio environment? We are considering the use of FSK
>instead of ASFK, 9600 baud to start.

Why not do away with the radios entirely and use the WA4DSY Grapes high
speed RF modem. It is a Minimum Shift Keyed Quad Phase Shift Keyed 56
kilobaud modem ouputing 5 milliwatts of RF on 28Mhz suitable to drive
a transverter to the VHF/UHF band of your choice. Thats a MSK QPSK 56K RF
modem available for the past two years as a kit from your friendly
Georgia Radio Amateur Packet Enthusiastists Society. It occupies a
70Khz spectrum (1.2hz per baud) so look for transverters for 220 and above.
It can be slowed to 19.2kbaud by a jumper change if you must use it on 145Mhz.
Send email to ...gatech!kd4nc!dug for an info sheet.

Gary KE4ZV

4549. Help: FT470

Newsgroup: rec.ham-radio
Date: 1990-07-25 11:08:38 UTC
From: prs@oasis.icl.stc.co.uk
Message-ID: <544@ozz.oasis.icl.stc.co.uk>
Source record: 9979

Hello readers...

I own a Yaesu FT470 VHF/UHF hand-held. It covers the European frequencies
144-146 & 430-440 MHz. I'd like to extend the coverage so that it can be
used on other frequencies if I go abroad (eg upto 148 MHz).
I know there are a number of mods available.
Has anyone got precise details ??

73 Pete.
--
Pete Swynford is available... tel: +44 (344) 424842 x 2625
or at prs@oasis.icl.stc.co.uk / ..!uunet!mcsun!ukc!iclbra!prs / g6zyt@gb7rdg
Disclaimer: See Paragraph 2.4.a of section 1.a (article 7) (iii) of the
Town and Country Planning Act, 1967.

4550. PC on 12V

Newsgroup: rec.ham-radio
Date: 1990-07-25 11:56:00 UTC
From: lwrclmr@SACEMNET.AF.MIL
Message-ID: <9007251208.AA24632@ucsd.edu>
Source record: 9903

I have seen several applications of running PCs on 12v and on generators using an UPS as a line conditioner. An outfit in Wisc called BEST as what I feel is the best UPS on the market (personal opinion of which I feel perfcectly entitled, no flames please). They have files of several customers who use a 12v system through an invertor and then through their ferrups unit to give "computer grade" power. Their unit also works extremely well on generators to give a good clean regulated, filtered, output. I have seen the output from these on a scope and I am satisfied. As soon as I can afford my new computer you can bet on of BESTs UPS units will be included.

Michael
WA7SKG

4551. Re: CW procedure summary (long)

Newsgroup: rec.ham-radio
Date: 1990-07-25 12:15:12 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <76@thoreau.nsc.com>
Source record: 9905

A simple note that in regard to those Q-signs, virtually all of these procedural signs come in two varieties. With a question mark (?) they represent a querry while when sent on their own or with information are either a POSITIVE response to the querry or are a mark prefixing the information requested.

QTH? = what is your location
QTH NYC = station location is NYC

Note also that some Q-signs when stated as querries also require an information field. This form is less often used in general contact work (I can't even remember an example myself) and is often not used in net work as the information field is frequently implied by context.

Keep listening to nets and on the air, your QSO style will develope to what suits your preference and will not be too far off "standard".

Ron

4552. (none)

Newsgroup: rec.ham-radio
Date: 1990-07-25 12:22:46 UTC
From: cfishman@PICA.ARMY.MIL
Message-ID: <9007250822.aa03941@FSAC1.PICA.ARMY.MIL>
Source record: 9912

test

4553. HELP

Newsgroup: rec.ham-radio
Date: 1990-07-25 12:28:45 UTC
From: cfishman@PICA.ARMY.MIL
Message-ID: <9007250828.aa04046@FSAC1.PICA.ARMY.MIL>
Source record: 9910

I hust got a Heathkit HW-7 CW Transceiver at a Hamfest.

No documentation was included but the soldering was good.

The rig does not fully work and I am looking for any and all

information on this rig. I will gladly pay for copies or

what ever info provided.

73, Clark Fishman WA2UNN

P. O. Box 150
Andover, NJ 07821

phone: work 201-724-6041/7956

home 201-852-6041

e-mail: cfishman@pica.army.mil

4554. Steerable Wave Antenna

Newsgroup: rec.ham-radio
Date: 1990-07-25 12:32:21 UTC
From: rko@korppi.tut.fi
Message-ID: <1990Jul25.123221.1680@funet.fi>
Source record: 9898
Cross-posted to: rec.ham-radio,rec.radio.shortwave

I have read about "Steerable Wave Antenna" (SWA). It sounds like very
good antenna for our purposes : MW-dxing. It has a very great property :
it has two beams (A and B), depending how wires are connected in the receiving
end. It's also possible to adjust null angle vertically.

SWA has 2 wires, > 1 lambda each (1.5, 2...)

```
<------- A beam B beam ----------->

|-------------------wire 1-------------------------
|-------------------wire 2-------------------------
| |
Rx gnd
```

(Wire 2 is grounded in the end while another one is left in the air.)

I would be interested in to know if anyone have any experience about
SWA.
-How well they work?
-How near wires can be? (We have a lot of old telephone cable with 2
wires, but those are less than 0.5 inch apart)

```
# Risto Kotalampi, rko@tut.fi
# Signal Processing Laboratory
# Tampere University of Technology
```

4555. Re: What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-25 12:52:41 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <77@thoreau.nsc.com>
Source record: 9904

In article <7880194@hpfcdc.HP.COM>, ajs@hpfcdc.HP.COM (Alan Silverstein) writes:

> in with... N0MFW.

Get on CW, that call has more sex in its bounce
than Cher in concert!

4556. PL Repeaters

Newsgroup: rec.ham-radio
Date: 1990-07-25 12:58:15 UTC
From: bote@csense.uucp
Message-ID: <1990Jul25.125815.928@csense.uucp>
Source record: 9895

From article <1990Jul23.202158.7375@bellcore-2.bellcore.com>, by karn@envy.bellcore.com (Phil R. Karn):
>
> In article <30500608@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> |> A repeater can be OPEN my making it's CTCSS/PL/"subaudible tone" publicly
> |> known just as much as they can by making the DTMF access codes publicly
> |> known.
>
> Quite true. PL on open repeaters has long been standard practice on 2m
> in some areas (e.g., Chicago, where summertime tropo openings are extremely
> common) while other areas (e.g., NYC) resist it.

This is why all new repeaters coordinated by T-MARC (Middle Atlantic Repeater Council) will use PL from Day One. For one thing, they will start out on a "Repeater Builder's Channel", 145.17 MC which, since it is shared, requires PL from a practical standpoint. Once a frequency with minimal co-channel interference is found, that freq. is assigned the lucky new operator, and the PL access remains in place.

T-MARC makes it clear that there is no such thing as a "clear channel"; anyone who wants a clear channel is invited to investigate 900 MC and up!

It's about time ham repeater operators crawled out of the 1960s and realized that in order for everyone to have his own repeater fiefdom, technological advances such as PL must be utilized to the fullest.

--
John Boteler {uunet | ka3ovk}!media!csense!bote
NCN NudesLine: 703-241-BARE -- VOICE only, Touch-Tone (TM) accessible

4557. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-25 13:41:55 UTC
From: chowe@bbn.com
Message-ID: <58416@bbn.BBN.COM>
Source record: 9909

Gary KE4ZV writes:

>I think "competence" is an adequate licensing requirement. "Excellence"
>is what we should all strive for AFTER we become hams. Amateur radio
>should be a continuing lifelong quest for knowledge and no amount of
>wallpaper can substitute for the inner drive to learn.

Interestingly enough, in aviation, a common slogan used for people getting their private pilot licenses is that it is a "license to learn". I've always kept that in mind with regard to amateur radio and believe that it is a good model for how licensing should work. A license should ensure that the licensee is safe, legal, and competent. Once the license is granted, then the licensee can get on with the business of becoming expert. Until you grant the license, the licensee can only acquire limited experience, and therefore, will never be truly expert no matter how much testing you do.

Carl
WG1V

4558. Re: Changing Traffic to Emergency Areas

Newsgroup: rec.ham-radio
Date: 1990-07-25 13:53:39 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <262@ultrix.uhasun.hartford.edu>
Source record: 9913

In article <7880198@hpfcdc.HP.COM>, perry@hpfcdc.HP.COM (Perry Scott) writes:
>
> It seems to me that we need to develop an effective HF packet protocol,
> with cross-band connections on both ends to VHF. Maybe
> store-and-forward via satelite would work, but portable Earth stations
> are hard to come by in some areas of the world. Maybe someone can
> enlighten me on OscarPacket and the feasibility of putting a BBS in
> space.

They are already up there. Two UoSats and two Microsats include BBS
capabilities. (Although the software is still under development). And
the Japanese satellite (FO-20) is routinely carrying messages in its
BBS right now. The microsats can be accessed using omnidirectional
antennas, so portable Earth stations should be no problem.

Of course, the satellites may not be overhead when you want them,
so unless we can put up a _lot_ of them and link them together,
they probably will never play a large part in emergency communications.
(I'm speaking of LEO satellites, of course. A Phase-4 satellite
would be a different story.) So, effective HF communications are
necessary. That's one reason why ARRL is funding research in the
area of HF packet development.

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

4559. Re: August QST

Newsgroup: rec.ham-radio
Date: 1990-07-25 13:56:37 UTC
From: jbloom@uhasun.hartford.edu
Message-ID: <263@ultrix.uhasun.hartford.edu>
Source record: 9914

In article <1990Jul25.060520.25385@tandem.com>, kevinr@moe.Tandem.COM (Kevin J. Rowett) writes:
>
> I can't believe we've not seen at least one messgae noting the
> lead article in the August QST :-) Are you all out there
> building one?
>
> N6RCE

I assume you mean the lead _technical_ article.

What do you want to bet there will be more of those built than there will be of the slick little device described in the article that follows it?

--
Jon Bloom, KE3Z | American Radio Relay League
Internet: jbloom@uhasun.hartford.edu |
Snail: 225 Main St., Newington, CT 06111 | "I have no opinions."

4560. Should I become a ham now or wait?

Newsgroup: rec.ham-radio
Date: 1990-07-25 14:06:43 UTC
From: megabyte@chinet.chi.il.us
Message-ID: <1990Jul25.140643.25493@chinet.chi.il.us>
Source record: 10007

As an outgrowth of my 2 years in the SWL hobbie, I've become very interested in talking as well as listening. In addition, the technical aspect of transmitting are as interesting to me as are the ones for listening. Finally, both packet holds interest for me as a crossover for my interest in radio and my interest in computers.

As I've been learning about ham radio it seems the hobbie is in a state of flux now, especially over the proposed "communicator" license. There is much debate about how and even why new hams should be licensed.
Code requirements seem to be a subject of both intellegent discussion and of mindless debate.

All of this is interesting but for myself it all boils down to this: Is getting a novice ticket now a desirable thing? Will the license structure change so radically or so differently that I will have wished I had waited? Will digital modes, commercial interests stealing freqs, no code, and the "decline" of ethics among operators so change the hobbie with in a few years that what I see that I like, the chance to share my love of meeting new people and friends who share a common technical and tinkering interst be gone?

Or is the best yet to come? I feel somewhat strange attending my local ham radi clubs meetings as I'm 27 and everyone is so OLD. On the other hand, I have a friend who is a 12 year old extra... but he didn't join the club becuase "It's judt a bunch of old guys who hate me because I'm so young." Is ham radio an "Old man's hobbie" where young people are looked down upon? It doesn't seem that way from what I hear on the air, but it seems to be at ham fests and other gatherings I go to.

Botton line: I'm learning to love radio and ham seems like the next step for me from SWL, but I have some questions and reservations I'd like to see public comment on.
--
"They Made a Thunderous noise like, like 10,000 airplanes on the roof!"
Mark E. Sunderlin: IRS Technocrat in Stephens City, VA
aka Dr. Megabyte: megabyte@chinet.chi.il.us (703) TOY-DUDE

4561. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-25 14:37:31 UTC
From: cep@cci632.UUCP
Message-ID: <38860@cci632.UUCP>
Source record: 9989

In article <16164@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:

>Or do you want them to become expert professional hams somewhere else
>before we let them on our bands?
...
>Get real.

(Thanks, I needed that. (how do you draw a sarcastic smiley face))

>Everyone has to start at the bottom sometime.

Certainly, you are right ... but the argument was "get rid of license
classes" (at least, make "entry level" and "full privileges" flavors).
I am saying, the overall quality of hams owuld fall, because either:

(1) the exams would become too hard, and people would not
pass
(2) the quality of the exams would drop even more so than
what we have now

People learn in little chunks. Take a look at television, and the fact
that shows (entertainment _and_ news) are given to us in 12-minute chunks.

I think that it's preferable to have five short-term goals, as opposed
to a two-step arrangement, where the quality would fall further.

So, the answer is no, they don't have to be experts right off the
bat. And yes, I _do_ expect them to be more than competent once they
hit "full amateur privileges".

(As an aside, I work the novice bands on CW considerably more often than
I work the extra portions. Anybody who has the "snob" attitude of not
wanting to work novices is an idiot and not worth consideration).

WZ2B

4562. Slinky antenna

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:09:00 UTC
From: DERRY@ROSEVC.Rose-Hulman.EDU
Message-ID: <5CD8E9F100FF201530@ROSEVC.Rose-Hulman.Edu>
Source record: 9917

This is another request for information.

Who has ever had any experience with a "Slinky" antenna? These were advertised in QST in the "old days", but no more.

I would appreciate hearing from anyone who has had any experience with either the commercial model or a homebrew version.

TNX ES 73 DE K9CUN
derry@rosevc.rose-hulman.edu

4563. RZ-1 Birdies

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:14:29 UTC
From: charlie@oakhill.UUCP
Message-ID: <3583@rambo.oakhill.UUCP>
Source record: 9920
Cross-posted to: rec.ham-radio,rec.radio.shortwave

The Kenwood RZ-1 is a .5MHz to 905MHz AM/FM/WBFM receiver.
I thought I'd share my observations on the RZ-1 birdie problems.
If anyone else has experienced this problem speak up!

The spectral composition of the birdies appears to be coming
from the uP control board. This 'trash' is then coupling via
ground loops. I say this because as I removed the i.f. board
from its mount (ungrounding it from the metal chassis) the
birdies when down in amplitude. Also when the unit first
powers up, it delays for 4 seconds before scanning the LCD
and keyboard. During this time the receiver sounds quiet
and free of birds. I therefore concluded that its a EMC
problem with the on-board uP.

If I find the ultimate solution to this problem I'll post it.

-Charlie WB4HVD

4564. Re: Soldering to Aluminum, how to do it.

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:23:56 UTC
From: mjj@stda.jhuapl.edu
Message-ID: <6073@aplcen.apl.jhu.edu>
Source record: 9916
Cross-posted to: rec.ham-radio,sci.electronics

In article <104327@philabs.Philips.Com>
rfc@briar.Philips.Com (Robert Casey) writes:

>It is possible to solder to aluminum, using regular rosin-core
>solder. It just takes a special trick....
>What you need
>to do is puddle some hot solder on the spot you want to solder to.
>While you are doing that, and the aluminum is also hot, scrape the
>aluminum under the puddle with the soldering gun or iron.

Yes, this works fairly well when all you need is a good electrical
connection. However, there also exist solder/flux products specifically
designed for soldering aluminum. Both Weller (separate solder and flux)
and Kester (flux in core of solder) make such products, and are typically
100% tin with a very active chloride (i.e., acid) flux. I prefer the
flux-core type, since it does a somewhat nicer job. The job requires a
propane torch for the high temperatures (~450 F) involved, not to
mention the high thermal conductivity of aluminum.

I made a wonderful and very lightweight 2-meter beam with a shower-curtain
rod, 10-ga. aluminum wire, and the Kester stuff. I found that when the
temperature is just right, the joints sweat-solder as nicely as
Pb/Sn on copper. Voila: no heavy SS bolts, no corrosion problems.

Drawbacks: Only alloys with a high aluminum content (60-61, 20-24) work
well with the tin solder. Also, I found it difficult to make
nicely-flowed corners when I attempted construction of an aluminum
enclosure. Looks like brass, steel, & copper are still the best mat'ls
for homemade boxes.

> One word of warning: DON'T use a fancy plated soldering iron tip!

Ditto with the aluminum solder -- the flux will eat a hole in your soldering
iron tip. Use a torch.

Marshall Jose WA3VPZ
mjj%stda@aplcen.apl.jhu.edu || ...mimsy!aplcen!aplvax!mjj

4565. Re: G5RV antenna

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:36:58 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250204@hpnmdla.HP.COM>
Source record: 9983

>see G5RV article in the ARRL Antenna Compendium. The article is by G5RV
>himself, the only HAM we know honored by being named after an antenna,
>according to Jim of RADIO WORKS.

How about the W8JK antenna namned after John Kraus, author of the college textbook "Antennas"?

Al N1AL

4566. Re: V rate of series C in Transistor amp output

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:42:46 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250205@hpnmdla.HP.COM>
Source record: 9984

> I would like to know the method for determining the output voltage of a
>transistor amplifier. The reason for this is I needed to estimate the voltage
>that will be across the output series capacitor. An example of what I need is
>I am planning on putting together a 50mHz single transistor amplifier that will
>have an output of 100 watts. A couple of questions;

Assuming you are talking about the voltage at the 50-ohm output, just use
the formula E = SQR(P*R) and multiply by 1.414 to convert from RMS to peak.

For 100 watts, E = SQR (100*50) = 70.7 * 1.414 = 100V peak. With a 2:1 SWR,
the voltage can be up to 1.414 higher or 141 Volts.

Al N1AL

4567. QSL paths?

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:47:25 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990Jul25.164725.15555@ecn.purdue.edu>
Source record: 9921

Could someone give me a good idea of a path to QSL for:

LU7QAJ

9Y4JL

I have done about everything I could (without being an ARRL member :-))
and have no response.

Duane
WB9OMC

4568. Hamming in Rockland County (NY)

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:50:02 UTC
From: elkind@crboss.dec.com
Message-ID: <13874@shlump.nac.dec.com>
Source record: 9922

I may be relocating to a job in Westchester, NY; if I do, I will be looking for a QTH (my wife will be looking for a house 8^}) in Rockland County, probably in New City, Congers, or Nanuet.

What's hamming like down there? Are there roadblocks to putting up towers? I've been told that the topography in places is terrible if I want to get a good signal out - what areas should I avoid? Can any netters out there supply names and addresses (or officers' calls) for some ham clubs in the area? Any active QRP groups down there?

tnx de KB1RB

4569. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-25 16:50:13 UTC
From: perley@galaxy
Message-ID: <10288@crdgw1.crd.ge.com>
Source record: 9980

In article <13749@shlump.nac.dec.com>, magid@select (Joel Magid...) writes:

> I understand that for operations below 30 Mhz the ALL amatuers
> are required by ITU regulation to pass a code test.
>
> 3. If the regulation is so well enforced how does the CB world
> exist in the US under that ITU requirement ?

At one point (and probably now) the legality was that CB could not be
used as a hobby. The reality however....

-don perley ke2tp

perley@trub.crd.ge.com

4570. Re: G5RV antenna

Newsgroup: rec.ham-radio
Date: 1990-07-25 17:13:55 UTC
From: krl@jujeh.mlb.semi.harris.com
Message-ID: <1990Jul25.171355.20146@mlb.semi.harris.com>
Source record: 9924

I recently ordered the quarter size version of the G5RV from Antennas West, and what I received was not exactly what I expected. For starters, I ordered the quarter size because I have limited space in which to use it and am content with 20 through 10 meters for now.

When I talked to Antennas West on the phone, I was assured that an antenna tuner was not required when used with a transceiver such as my Heathkit SB102. When the antenna arrived, however, the documentation clearly indicated that the antenna would be reactive at these frequencies, and that the antenna would operate with a high SWR. Since my transceiver is rated for operation at a 2:1 or better SWR, I have not been willing to operate with it without a tuner (unless I see someone else doing so without cooking the final, at least. Never mind someone just telling me so).

The other strange thing is that the person at Antennas West told me was that the antenna kit would be shipped the next day by air, which seemed remarkable enough at the time. When the kit arrived three weeks later, I knew the people at Antennas West were not to be taken at their word.

Despite all this, the antenna appears that it will serve my purpose well enough when I get a tuner, which I intend to do eventually. Also, the kit was nicely packaged and easy to assemble, so that it seems a reasonable value. It is just a shame that the person answering at Antennas West has a poor sense of humor or is a compulsive lier, which strikes me as a poor way to run a business. While I don't rule out ever bying another Antennas West product, I can no longer believe anything they tell me about their prouducts or service, which lowers the probability that they will ever get another order from me (and possibly those who hear of this).

73s
Ken Lyons KC4QEN

4571. quality vs. quantity

Newsgroup: rec.ham-radio
Date: 1990-07-25 17:16:32 UTC
From: wb9omc@ea.ecn.purdue.edu
Message-ID: <1990Jul25.171632.16222@ecn.purdue.edu>
Source record: 9925

>>From: PJML@ibma.nerc-wallingford.ac.uk ("Pete Lucas, NCS-TLC, Holbrook House, Swindon")
>I have watched the 'discussion' re. incentive licensing with a mixture of
>amusement, horror, and deja-vu.
>My question: *WHY* do we want *MORE* hams? Surely, its a fact that as the
>numbers go up, the quality comes down.
Well, there may be some truth to that, regardless of where you
live. Noting your call and email address as a UK person, you
perhaps do not feel the concern here in the states over loss
of spectrun to commercial interests (on the other hand, you may
have a similar problem).

In the US, government tends to work like:

Group A feels threatened over the possibility of losing
some privelege. Realizing that they are a minority of the
total US population, they bring in more citizens into their
"sphere of influence". This increased number of Group A
now has a larger influence with the elected representatives
and thus swings a bit more weight in the decision making
process.

It is a rule by majority. I cannot claim any knowledge of
how this kind of thing goes on your side of the pond. :-)

>(If you really want *more* hams, why not just sell licenses by mail-order
>and then you could have charging based on number of band segments
>or privileges).
>No seriously, I think we should be encouraging RAISING of standards, not
>lowering them. Make the test harder and introduce a code-free license.
>(I am against the UK 'Novice licence'; IMHO it can do nothing but harm...)
I have nothing against maintaining a reasonable standard.
However, we already have a large number of jerks as hams in the
U.S. prior to the "Proposed Communicator" (and in fact, there
are some outside the US as well - it would be snobby of me to
suggest that the US has cornered the market on jerks :-)).
When dealing with individuals who join a hobby out of a large
group of citizenry, there will inevitably be bad apples. No
test is going to weed them out if they are justt nasty persons.
If he is so inclined, he can mark the right answers on the test
and when he gets his ticket he'll just go back out and do what
he wants. In order to do anything about these kinds of problems
you are going to need enforcement, which in the US means either
directly from the FCC OR something like the ARRL "OO" type
of program (yes folks, you heard me say something positive
about one part of the ARRL.....)

Duane
WB9OMC

4572. Re: August QST

Newsgroup: rec.ham-radio
Date: 1990-07-25 17:24:03 UTC
From: kevinr@moe.Tandem.COM
Message-ID: <1990Jul25.172403.695@tandem.com>
Source record: 9923

In article <263@ultrix.uhasun.hartford.edu>, jbloom@uhasun.hartford.edu (Jon Bloom) writes:
|> In article <1990Jul25.060520.25385@tandem.com>, kevinr@moe.Tandem.COM (Kevin J. Rowett) writes:
|> I assume you mean the lead _technical_ article.
|>
|> What do you want to bet there will be more of those built than
|> there will be of the slick little device described in the article
|> that follows it?

If ever there was a sucker bet.....

N6RCE

4573. Looking for Derek Koopman G1TLH

Newsgroup: rec.ham-radio
Date: 1990-07-25 18:28:00 UTC
From: EVERETT@HIARAS.NRC.CA
Message-ID: <5CC57F3F71FF000375@NRCNET.NRC.CA>
Source record: 9926

In July's QEX -The ARRL's Experimenters Exchange- GATEWAY Column
there is an article on "Connectionless Mail Protocol and More" by
Derek Koopman, G1TLH. The last line of the article says it is from
Connect International via Herb Greeb, N8XX.
I would very much like to contact Mr. Koopman to discuss his article.
If anyone would have any information on how to reach him by Email,
Postal service, or phone I would appreciate them passing it along.
The article has spawned a possible undergraduate thesis idea on the
subject of Connectionless Protocols.
Any information or general comments on the subject would be valued.

73,
...Jerry Everett VE1DE/VE3
EVERETT@HIARAS.NRC.CA
Herzberg Institute of Astrophysics
National Research Council, Ottawa, Ont., Canada

4574. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-25 18:54:18 UTC
From: jeff@xanadu.com
Message-ID: <1990Jul25.185418.5889@xanadu.com>
Source record: 9915

In article <1990Jul24.193208.12316@bellcore-2.bellcore.com> karn@thumper.bellcore.com writes:
>In article <13749@shlump.nac.dec.com>, magid@select.enet.dec.com (Joel
>Magid...) writes:
>>
>> I understand that for operations below 30 Mhz the ALL amatuers
>> are required by ITU regulation to pass a code test.
>>
>><Stuff Deleted>
>>
>> 3. If the regulation is so well enforced how does the CB world
>> exist in the US under that ITU requirement ?
>
>Because CB is not an amateur service, it's a land mobile service. Police
>officers, ambulance drivers, firemen and cell phone users aren't required
>to know the code either.
>
>Phil

Except for CB, aren't all the other services you list above 30mhz?
I'm no expert on the ITU regulations, but my understanding is that the US
regulated CB (e.g. low power, antenna limitations, etc.) to keep
it a "local" service (i.e. range is typically limitted to 5 miles).

The RC (radio-control) frequencies are also in the 11-meter band which
requires no license.

Also, police officers, ambulance drivers, cell phone users aren't "amateurs".
They are public services or business related concern, while CB is not at
all public service or business related. I beleive it falls under the
category of point-to-point personal radio, like the devices for use
on 49 Mhz.

Seriously, I too am curious why the Citizens Band exists and why it doesn't
violate ITU regulation. I know of other countries where CB radios are very
much ILLEGAL (without the appropriate lisence). (In the Philippines the
local village police used them for communication.)

Jeff
--

Jeff Crilly (N6ZFX)
AMIX Corporation
2345 Yale St.

4575. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-25 19:08:28 UTC
From: brian@ucsd.Edu
Message-ID: <16203@ucsd.Edu>
Source record: 9977

In article <13749@shlump.nac.dec.com>, magid@select (Joel Magid...) writes:

> I understand that for operations below 30 Mhz the ALL amatuers
> are required by ITU regulation to pass a code test.
>
> 3. If the regulation is so well enforced how does the CB world
> exist in the US under that ITU requirement ?

Well, the regulation isn't closely enforced; for example, the US ham code test doesn't require the applicant to prove he can send code with a key, even though the international regs would seem to require that. (Hey, since the US is already flouting international law, why not just abandon the code test entirely! Yeah!)

But as far as CB goes, one key remaining difference is that hams are permitted to build their own equipment. No other service is. The fact that few hams DO build their own equipment isn't material; we're allowed to.
- Brian

4576. Re: What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-25 19:12:39 UTC
From: gin@stcvax.STORTEK.COM
Message-ID: <366@stcvax.STORTEK.COM>
Source record: 10011

In article <7880194@hpfcdc.HP.COM>, ajs@hpfcdc.HP.COM (Alan Silverstein) writes:
> Hi gang. If call sign games annoy you, skip out now. :-)
>
> ... N0MFW. (Please, no laughing.) The question is, what to do
> with this unhappy collection of letters.
>

I understand your concern, my old call was WA1DYU, Dumb Yellow and Uncordinated.

It could be worse, tho, one of my friends has the call: N0CH
You can imagine the phonetics I've been able to generate for his call.

Get your extra and hope for a 2X2.... (one advantage of having
an extra class license for those of you out there bickering about
communicator license vs incentive licensing.... ho ho).

73's es Good Luck!

George Noyes, W1XE

(ps you all can look me up es see I'm an extra class.....)

4577. Re:What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-25 19:31:08 UTC
From: hbg6@citek.mcdphx.mot.com
Message-ID: <13274@mcdphx.phx.mcd.mot.com>
Source record: 9981

In article <7880194@hpfcdc.HP.COM> ajs@hpfcdc.HP.COM (Alan Silverstein) writes:
>I just got my new-and-probably-long-term call sign. Out with KB0GPX/KT,
>in with... N0MFW. (Please, no laughing.) The question is, what to do
>with this unhappy collection of letters. Should I... sell my radio?
>Upgrade and pray? Grimace and get used to it?
>
More Fine Whisky
More Fine Women
Max Forward Wattage
Magic Frisky Weasel
Marines For Women (whisky)
Married For Wiggles
Meteor Flies West
My Fish Wife
Mine Finally Works

John Schuch
.....
. All opinions expressed are mine and not Motorolas, their loss. .
.....[

4578. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-25 19:31:09 UTC
From: tad@ssc.UUCP
Message-ID: <939@ssc.UUCP>
Source record: 9918

In article <13749@shlump.nac.dec.com>, magid@select.enet.dec.com (Joel Magid...) writes:
>
>
> I understand that for operations below 30 Mhz the ALL amatuers
> are required by ITU regulation to pass a code test.
>
> 3. If the regulation is so well enforced how does the CB world
> exist in the US under that ITU requirement ?

The CB radio service is not part of the Amateur Radio service. If this
were a requirement for ALL services below 30 MHz, folks who work at
AM broadcast stations would have to know the code.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4579. Re: Learning code (was: Help with mods and code)

Newsgroup: rec.ham-radio
Date: 1990-07-25 19:47:35 UTC
From: rbono@necis.UUCP
Message-ID: <1363@necis.UUCP>
Source record: 9919

Sorry to post this to the net, but the header of this got trashed, so I couldn't email the reply.... also I think this will continue the previous thread and be of interest to other beginers on the net...

> Rich,
> I'm also trying to learn Morse code, to get my license. One thing, that you
> maybe able to help me with is that I'm trying to locate a logical order
> to Morse code. I know, that it's based on the frequency of the letters
> (i.e. E and T are the most used letters, so they are the shortest).
>
I have been told that the Morse code is based on this, that the most frequently used letters (in the english language) are the shortest, but I don't have any reference material that desribes this.

> Do you happen to have a diagram that shows this relationship?
> Basically, I'd appricate any other hints or clues for learning this code.
> I usually can learn things much easier, once I figure the logic behind it.
>
You could just lay out the code in asending order of length. Remember that a "dash" is three times the length of a dot:

So the shortest letters would be:
E .
I ..
S ...
T -
H ....

Then maybe:
A .-
N _.

etc....

Personally, I don't see how this logic would help you learn the code. It may be interesting, or maybe studying this will help you to remember (the same way that memorizing does, by association)..... But to build your speed, after you have memorized the letters, practice, practice, practice. Idealy, you DON'T want to memorize the code, you want to LEARN it.

You want copying code to become an "automatic" reaction (of course this is the ideal situation). So when you hear a letter, your fingers automatically write down the letter, without your brain "thinking" about it. You don't want to think in dots-and-dashes..... but hear characters directly. Later, when (and if) you practice enough, you will begin to "hear" words directly.

I almost attained this level, I can hear certain frequently uses words like:
NAME, RST, QTH, AND, THE.... but not enough to copy in my head!!

Of course, some say don't write anything down, start by copying in your head!!
Well, I have yet to see anyone PASS THE TELEGRAPHY EXAM by copying in their
head, and just jotting down a few notes.... some may have done this, but with
a few years of being a V.E. (Volunteer Examiner), I have NEVER witnessed
anyone passing an exam this way.

Others will tell you not to bother to learn the code, just memorize it enough
to pass the exam. This is up to you, if you want to become proficient with
Morse code (and have an easier time learning it), then (in my opinion) don't
memorize it, learn it!!

Good luck, I hope this helps. Morse code can be FUN if you give it a chance!

Rich (NM1D)

--
/**\
* Rich Bono (NM1D) If I could only 'C' forever!! rbono@necis.nec.com *
* (508) 635-6300 NEC Technologies Inc. NM1D@WB1DSW *
**/

4580. Re: Re: Ham radio's value (Was: Re: Communicator Class) Keywords:

Newsgroup: rec.ham-radio
Date: 1990-07-25 19:56:29 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880202@hpfcdc.HP.COM>
Source record: 10002

> A few thoughts on the Communicator controversy.

A little long, but well written. I agree heartily. How about
correcting the spelling of "privilege" and sending a copy to the FCC? :-)

Let's keep it simple, fun, and exciting. I just got my Tech and it
wouldn't bother me a bit to have non-code Communicators sharing VHF.

4581. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-25 20:20:32 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880204@hpfcdc.HP.COM>
Source record: 10000

Re: NiCad charging (passing on info I just gained myself)

> How do I tell when I need to charge the batteries?

When they are discharged to the point where the radio won't run. If you need to do a full charge and they're not discharged and you don't want to risk overheating them by overcharging them, first discharge them. Put a 12V, relatively low current light bulb across the contacts till it goes dead. Then do a normal charge.

> How long do I need to charge the batteries for? (The manual says 15
> hours regardless of battery pack size.)

Then believe it. They're probably charging at 1/10 C (capacity), which is relatively inefficient, so it takes roughly 15 hours. Also, 1/10 C is low enough that the exact charging time is not critical. Not much heat is dissipated if you overcharge.

> How do I know how much battery life I have left when in the field?

You can't tell. One of the features of NiCads is a rather flat discharge curve -- the voltage doesn't drop more than about 10% until about 90% of the energy is exhausted. In theory you can measure the voltage AND TEMPERATURE and get some rough idea of the charge remaining IN A GIVEN BATTERY PACK that you calibrated earlier. Unfortunately the voltage is sensitive to both charge and temperature.

> Does the unit just die when the batteries run out or what?

Probably, I don't know, read the manual. My Yaesu turns on a little blinking indicator -- for about 30 seconds -- that I've never noticed unless looking for it. Always goes out during transmit, too. Moral: Spare pack stays charged and with the radio.

> How long can I store a charged up spare battery pack?

NiCads self-discharge on the order of months. So, rotate the packs. For short term storage (less than six months?), start with a charged pack. For longer term, start with a DISCHARGED pack. They can be stored for years without problems, though a couple of cycles might be needed to reinvigorate them.

I'm told the NiCad memory effect is largely due to cell differences in a battery pack. You can counteract this problem two ways. One, fully discharge the pack occasionally. The less-charged cells will go into reverse, but there's a "buffer zone" in how they are constructed before real harm is done. Meanwhile the more-charged cells are brought down in sync. Two, overcharge the pack with low current (1/20 C to 1/10 C) now

and then. This won't hurt the fully charged cells (long as they don't get too hot, you see), and it brings up the less-charged cells.

One more tidbit. For reasons that are unclear to me, trickle charging NiCads (usually at 1/20 C), while it keeps them "ready to go" at all times with all cells fully charged, is the only typical practice that reliably destroys batteries within 3-5 years. Probably because there is energy constantly available to degrade the electrodes.

4582. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-25 20:34:02 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880205@hpfcdc.HP.COM>
Source record: 10001

While not yet having attained Extra, I also think incentive licensing isn't doing what was envisioned. On the other hand, I don't begrudge the Extras their occasional 25KHz playpens. It IS a little annoying when I accidentally key up in Extra-Land /.\ It seems that there are better things to remember than all the frequency boundaries.

Here also is another EE-type that took the Advanced written 3 times :-o

If the ARRL wanted to abolish incentive licensing, I would consider joining.

Perry Scott
KF0CA

4583. Re: KF5VH Proposal for Traffic in Emergency Areas

Newsgroup: rec.ham-radio
Date: 1990-07-25 20:41:18 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880206@hpfcdc.HP.COM>
Source record: 10003

>Also, IMHO, the media are really harmful in this regard. When I got
>to Mexico City after the quake, I saw NO damage for 4 days! Everywhere
>I went in those 4 days was just fine. From the media, one got the impression
>that the whole place had fallen down. In fact, only about 1% of the
>population was killed.

This was also the case in the SF quake. It wasn't a matter of the
phones being out - just a matter of everyone in the US trying to
call SF at once.

Perry/KF0CA

4584. Re: CW procedure summary (long)

Newsgroup: rec.ham-radio
Date: 1990-07-25 21:02:57 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880208@hpfcdc.HP.COM>
Source record: 10004

> Question: what should I do when I need to tune up on the air
> before transmitting the QRL? (e.g. setting up an antenna tuner
> or testing a new antenna)?

All the transmitter Plate/Load stuff can be done into a dummy load.
Another trick to minimize QRM is to initially tune the antenna tuner for
maximum noise on the receiver. I tune the tuner with low (<10 watts)
power, get it into the ballpark, then use full power for the "?" -
listen - "QRL?" schtick. Hearing nothing, I then touch up at full
power.

> But what do you send if you didn't copy everything?
> a) if you don't plan on asking for a repeat?
"R" :-)
> b) if you missed something specific, like a name?
"name?" or "QTH?" or "my RST ?" right up front, followed by "bk"
> c) if you want some unknown information repeated?
"rpt after XXXXX" or "no copy - pse qrs bk" if you're really lost.

> Asking HOW COPY? seems to be a common practice on the novice bands.

If the other guy has a poor fist, it's usually a good idea to send this
at the speed he sends, right up front. It's a real drag pounding out
your name, QTH, and his RST, then getting back "no copy".

Perry

4585. Re: Wayne and Byte...

Newsgroup: rec.ham-radio
Date: 1990-07-25 22:03:56 UTC
From: tad@ssc.UUCP
Message-ID: <941@ssc.UUCP>
Source record: 9978

In article <73@thoreau.nsc.com>, rtodd@thoreau.nsc.com (Ron Todd) writes:
> In article <926@ssc.UUCP>, tad@ssc.UUCP (Tad Cook) writes:
> > He claimed ... a succesfull businessman, engineer, etc,
>
> And do I need to remind all of you what happened the last
> time we had a "successful buisnessman, engineer" at the
> helm of this country??
>

Boy, yeah! He sure was a lot better than that actor character
who followed him.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4586. Re: Venturer Multiband Receiver

Newsgroup: rec.ham-radio
Date: 1990-07-25 22:09:12 UTC
From: perley@galaxy
Message-ID: <10309@crdgw1.crd.ge.com>
Source record: 9982
Cross-posted to: rec.radio.shortwave,rec.ham-radio

In article <37246@shemp.CS.UCLA.EDU>, cccph@eel (Charles Hobbs) writes:

>I have never seen or heard of a *good* shortwave radio for less
>than about $175-200....if anyone on the net knows of any, please
>let me know....but most, if not all, of the shortwave receivers
>advertised in popular magazines, mass-market catalogs, creditcard
>invoices and the like are too cheap to be any real good.

I think the key is that if there is a good (but not great) SW under
$200 it doesn't get full page color ads because there isn't enough fat
in the price to cover them. It would get 1 or 2 square inches in a
discount dealer's add in the Sunday New York Times and the assumption
is that you are already familiar with the model numbers.

-don perley
perley@trub.crd.ge.com

4587. subscribe

Newsgroup: rec.ham-radio
Date: 1990-07-25 22:15:19 UTC
From: dube@cpdvax.csc.ti.com
Message-ID: <9007252215.AA16750@tilde>
Source record: 10006

```
subscribe

Thanks
```

4588. How to get started.

Newsgroup: rec.ham-radio
Date: 1990-07-25 22:36:44 UTC
From: ssave@ole.UUCP
Message-ID: <1618@ole.UUCP>
Source record: 9987

I want to be a amateur-radio operator. What is the best way to
get started? Where can I get good books to get started on it,
is it possible to learn everything that is required for the test
through self-study, or is it necessary to take an official course
and pass it? I should think that receiving and monitoring airwaves
is perfectly alright on any radio band?
I would appreciate any help that you can give me and any suggestions
that you may have as to good equipment that will get me started.

Thanks,
Shailendra
ssave@caen.engin.umich.edu
....!uw-beaver!ole.uucp!ssave

4589. ICOM IC-R1 Review

Newsgroup: rec.ham-radio
Date: 1990-07-26 00:10:37 UTC
From: paulf@jessica.Stanford.EDU
Message-ID: <1990Jul26.001037.21586@portia.Stanford.EDU>
Source record: 9990
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Review: ICOM IC-R1 Portable Scanner
Paul Flaherty, N9FZX

By now, just about everyone has seen the ads for ICOM's new wideband receivers. And, by now, just about everyone also knows that the R1, and the R100 are not available in the US, and will not be for some time, due to production problems as well as legal difficulties. However, for a few hams who are lucky enough to be able to travel to Japan on a regular, it is possible to buy an R1. The list price is Y54,000; actual prices vary in the Y43,000 to Y48,000 range. This translates to around $300US, certainly not bad for a miniature wideband receiver.

I bought my R1 in Akihabara, where I lucked into finding a store that didn't have a waiting list. Since the manual was in Japanese, it took me a while to investigate all of the features (Watashi no Nihongo wa totemo heta desu). I've had about three weeks to play with my R1, so I thought I'd share some of my experiences.

As per the ads, the R1 synthesizer does lock up from 100 KHz to 1.3 GHz. However, an amount of S1 hash limits the useful starting frequency to 200 KHz. Birdies are quite frequent below 10 MHz, generally four per megahertz, each 20 KHz wide. Above 10 Mhz, the design is a bit cleaner, averaging one birdie per 10 MHz. Above 100 MHz, things improve further still, with one birdie every 50 MHz, with the exeception of the range 275-300 MHz, where birdies are quite frequent. With the exception of one birdie in the 6m region, all of the ham bands were quiet. 400-500 Mhz was also very quiet, as were most of the SWBC bands. Some of the birdies are obviously LO mixings, while a few of the wider signals are microprocessor hash.

The R1 comes with a wideband VHF-UHF scanner antenna, which is adequate for most purposes. For shortwave reception, the antenna does suprisingly well during the evening hours. I've tried attaching an external antenna to the R1; unfortunately, this only exacerbates the adjacent channel interference problem that I'll discuss later. But, even without an external antenna, WWV reception is solid, and I've had lots of fun listening to Radio Australia, Radio Japan, Radio Moscow, Havana, the BBC -- in short, the rig is indeed useful as a shortwave receiver. The best reception seems to be in the 9.5MHz and 13.5 MHz bands, although I've listened to stations in the 15 MHz and 6 MHz bands as well.

VHF and UHF coverage is also very good. I've programmed a number of local public service frequencies and ham repeaters, from 52MHz to 1.3GHz. The sensitivity lags somewhat above 900 MHz, but everything below that is solid. The state park service has a repeater in the 800 MHz region quite a ways from here, and it's fun to listen in, especially during the weekends.

Since the ICOM ads don't mention the sensitivity figures, I'd figured that this was where the compromise would be. That's not the case, as one can see from the figures I've posted earlier.

Instead, the compromise was in selectivity. The R1s will lock up on very strong signals that are as much as 40 KHz away from the desired signal, depending on the frequency involved. In the case of AM broadcasting, KFS shows up in lots of places, and is omnipresent if I connect an external antenna. This isn't so much of a problem for SWLs as for scanner folks, since the scanner will stop on a channel that's open, but has a carrier less than 40 KHz away. I've been able to mitigate this problem substantially by keeping a tight squelch, but it still does pop up from time to time.

The R1 has all of the usual wiz - bang scanner features that one would expect, including selective memory and range scans. Scan rate is variable from 10 - 20 channels per second. There is a configuration mode, where the scan rate, division of memory, power consumption, scan stop / start policy, display contrast et al can be changed as desired.

As is the case with the IC-SAT line, the R1 has a built-in NiCad, and the radio itself will operate off of any source between 6-16VDC. When the source is above 12V, the power circuitry automatically charges the NiCads. The documentation doesn't specify the capacity of the on - board Nicads; I've heard both 300mah and 180mah. The radio draws 15ma in squelch, and as much as 300 ma with the volume pot cranked all the way up. I bought a BP-90 AA battery shell to tide me over while the NiCads charge.

My overall impression is quite positive. The R1 packs a considerable degree of capability into a very small package, that's very inexpensive. It does have its flaws; however, the birdies are generally out of interesting places, and the selectivity problems are annoying but not intolerable. I've really enjoyed being able to listen to shortwave via a radio I can clip to my belt (without feeling too geeky).

-=Paul Flaherty, N9FZX/VK2WYX | "TEXAS! Has a USENET in it... (Lord have Mercy
->paulf@shasta.Stanford.EDU | on us all!)" -- _The Best Little Net in Texas_

4590. Re: G5RV antenna

Newsgroup: rec.ham-radio
Date: 1990-07-26 00:17:50 UTC
From: darrel@bigburd.PRC.Unisys.COM
Message-ID: <14563@burdvax.PRC.Unisys.COM>
Source record: 9997

The beverage antenna was named after Mr. Beverage (though I don't know if he was a ham).

Darrel J. Van Buer, PhD; c/o Unisys; 5731 Slauson Ave, Culver City, CA 90230
(213)338-3760 KI6VY darrelj@CULV.UNISYS.COM

4591. VOX IC

Newsgroup: rec.ham-radio
Date: 1990-07-26 01:00:03 UTC
From: 870383@JPNTSUK2.BITNET
Message-ID: <9007260109.AA05939@ucsd.edu>
Source record: 9988

Dear Hand-maders ,
I know an 1chip VOX IC from Japan . That is 'NJM2072' from 'Shin-Nihon-Musen' (JRC Devices) .
When VOX make , you will prepare this IC , three condensers (one is for recovery time setting) , and one or two Registers(shunt) . Open collector output and VDD between 0.9V-7.0V . That is useful for HT (also fixed).
HW ?
Youres , KOMATSU .

/ KOMATSU Toshiki
Dept.of CHEMISTRY,Univ.of Tsukuba. E-mail:870383@JPNTSUK2.bitnet
phone :+81-(0)298-514590 mail :P.O.Box 53,Tsukuba-Gakuen,
HAMnet:JF7WED@JI1ZMW.#12.JNET1.JPN Ibaraki 305 JAPAN

4592. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-26 01:30:14 UTC
From: randall@infmx.UUCP
Message-ID: <4883@infmx.UUCP>
Source record: 9985

>Why does everyone keep talking about ham radio in an emergency .... maybe
>the ARRL is behind it ...

In the hours following the Oct. 17th earthquake here in the Bay Area, all communication systems were down. Telephones (including cellulars) did not work until about 9pm. (The quake happened at 5:04) All sorts of incorrect information was being reported over the commercial TV and radio stations. ("The Valley Fair Mall had collapsed - several collapsed bridges over highway 101 - UC Berkeley library on fire - complete collapse of the Bay Bridge", etc.) The much balleyhooed "Emergency Broadcast System" failed completely. The only way to get accurate information was via ham radio. The only way to get messages in or out was via ham radio.

By the way, this was a relatively minor disaster. There was almost no damage in my area. In a really catastrophic quake, ham radio would be the only communications available for days.

No, this is not an ARRL plot ... hams ARE essential when disaster strikes!

-Randall, KK6MY

4593. Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 01:55:02 UTC
From: GMoretti@massey.ac.nz
Message-ID: <872@massey.ac.nz>
Source record: 9986
Cross-posted to: sci.electronics,rec.ham-radio

Peridically I get the feeling that radio ... is getting far too hard
to do - you need 99%+ pure Ge/Si ... and huge factories and $00000000.

One the other hand:
You can make resistors out of pencil leads, capacitors and
inductors are easy, headphones are possible (not easy) and you can
use Galena (lead sulphide I think for a diode), but what about things
with GAIN.

I've had this dream of making a triode in a peanut butter jar (a
small strong one :=) ...

Has anyone out there ever tried to make something like this or any
homemade semiconductors ....

And how about batteries with household chemicals (ie not sulphuric)

I can't be the only one who has these thoughts ...

Cheers
Giovanni

--

GIOVANNI MORETTI, Consultant	EMail: G.Moretti@massey.ac.nz
Computer Centre, Massey University	Ph 64 63 69099 x8398, FAX 64 63 505607
Palmerston North, New Zealand	QUITTERS NEVER WIN, WINNERS NEVER QUIT

4594. Re: Glen Baxter goes off the deep end (Listening Tip)

Newsgroup: rec.ham-radio
Date: 1990-07-26 02:38:44 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <37287@shemp.CS.UCLA.EDU>
Source record: 9999

In article <7880197@hpfcdc.HP.COM> perry@hpfcdc.HP.COM (Perry Scott) writes:
>Re: the BARF boys' assault on K1MAN
>
>BARF's radio-terrorism is certainly entertaining, at least as much as
>K1MAN's propoganda. Why Glen Baxter was motivated to editorialize
>against the Dawg and F-Zed is beyond me. After all, he had his own
>
"The Dawg"? "F-Zed"? Sounds more like freeband than ham radio to me!

>
>
+
+ stuff deleted
+
+
>
>Re: Free Speech
>
>I think the US Amateurs take their US Consititutional rights with them
>to the shack, not realizing that SWLs and Hams in other countries may
>not understand our society. We in the US have raised free speech to an
>Art Form, allowing all sorts of marginal communication techniques to
>be used.
"Marginal communication techniques"? I hope you don't mean
deliberate interference with other stations, which I sincerely doubt
is covered by the Constitution.

>
>I've often wondered if the FCC's agreement with WARC is unconstitutional
>wrt 1st amendment. If you can't discuss politics, religion, and other
>controversial topics, why bother ? :-)
I don't think that there is any real rule against discussing these
things, just a "gentlemens agreement" in order to prevent blowups
like the 20-meter business (BARF or whoever) that is mentioned so
often in this newsgroup.

Apart from swearing, business, false emergency calls, etc., most
of the rules limiting what can be transmitted deal with third
party communications and international communications; the main point
being the protection of government/commercial common carrier services.

| Charles P. Hobbs | Rail transit has arrived in LA!
| cccph@eel.cs.ucla.edu | Hear the action >right now< on
| N6YMK @ K6VE | >>>> 471.3375 mHz <<<<!

4595. Re: G5RV antenna

Newsgroup: rec.ham-radio
Date: 1990-07-26 03:00:22 UTC
From: k2ph@cbnewsj.att.com
Message-ID: <1990Jul26.030022.19124@cbnewsj.att.com>
Source record: 10014

From article <1250204@hpnmdla.HP.COM>, by alanb@hpnmdla.HP.COM (Alan Bloom):
>
> >see G5RV article in the ARRL Antenna Compendium. The article is by G5RV
> >himself, the only HAM we know honored by being named after an antenna,
> >according to Jim of RADIO WORKS.
> How about the W8JK antenna namned after John Kraus, author of the college
> textbook "Antennas"?

Although it doesn't seem to be the case anymore, all trap dipoles
used to be called W3DZZ antennas. Still get QSLs from overseas
saying they use a W3DZZ.

****
* These lines added so our news posting program *
* doesn't barf. Sorry for the waste of bandwidth. *
****

--
Bob Schreibmaier K2PH | UUCP: att!oblivion!k2ph or k2ph@oblivion.att.com
AT&T Bell Laboratories | ARPA: k2ph%oblivion@att.arpa
Lincroft, N.J. 07738 | ICBM: 40o21'N, 74o8'W

4596. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-26 03:54:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500616@ux1.cso.uiuc.edu>
Source record: 9992

> Certainly, you are right ... but the argument was "get rid of license
> classes" (at least, make "entry level" and "full privileges" flavors).
> I am saying, the overall quality of hams owuld fall, because either:
>
> (1) the exams would become too hard, and people would not
> pass
> (2) the quality of the exams would drop even more so than
> what we have now

You missed the third possibility: The exams will cover a simple basic
subject matter and be thorough in evaluating a person's understanding
of only the necessary subject matter.

> People learn in little chunks. Take a look at television, and the fact
> that shows (entertainment _and_ news) are given to us in 12-minute chunks.

And you want to PROMOTE THIS?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4597. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-26 04:13:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500618@ux1.cso.uiuc.edu>
Source record: 9994

> On another subject being discussed on this net: Communicators License
> I have sat on the fence and read all the comments/discussion/FLAMES
> regarding it but as usual, the ARRL is doing us a GREAT wrong.
> Giving away the farm is not the answer. What the ARRL should have done is
> 2-fold to answer the need for code-free licenses.
> 1) 902-928 MHz / all modes / 100 watt power level

And what will you do in California, Colorado, Wyoming, Western Texas, and
Eastern New Mexico?

> 2) Non-standard callsign format (i.e. KX2RAF or a double digit numeral)

WHY? So you can label them and be able to refuse to talk to them or worse?

And why do you think it is "giving away"? Nothing is being given away to
Communicators.

> will be some cheating as far as privilages for operating. It should not
> be hard to distinguish codeless hams. I am not "labeling" them, I am
> merely creating another class of callsigns UNIQUE to all others. I used
> the example of "kX" to denote eXperimental. This also serve to all the
> paranoid that if an operator got on 2m, it would stick out somewhat.

But what if a Tech gets on 20 meters? Why not give Tech's unique callsigns?

What if the KX op upgrades? Can he keep the call he is used to now? Won't
that diffuse your ability to "pick them out in a crowd"?

There is no need for distinguishing call signs beyond the incentive nature
we have now, and even that isn't essential to ham radio survival. What
you obviously want to (be able to) do is to discriminate against them just
because they didn't want to learn code.

> This 2-point proposal for the communicator serves the purpose to give
> a band to codeless hams and foster the desire to move up to another class
> for more privilages. Opposed to the same old idea in the ARRL, lower
> the standards for higher numbers.

And what codeless class do you propose they upgrade to? Oh, I get it, you
want them to feel that ham radio is so useless without having to go ahead
and learn code anyway, that they will upgrade. Sorry, but that just won't
work. A few might be fooled by your trick and start out, but they will
become inactive because they still don't want to bother learning code.

> If the ARRL wanted to improve the image of ham radio, they would push
> standards higher than those of other services. These would be more technical
> and operational. Instead, contests are a big deal. They have even turned
> Field Day into a pre-planned contest for points first, emergency preparedness

> later. They continue to push standards downward while hindering technology.
> Instead of accepting packet, the National Traffic System continues to
> hinder the switch by promoting useless voice nets that pass make-believe
> messages that could quickly handled on ax.25 and MORE EFFICIENTLY!

Generally right, except there are better protocols than AX.25.

> Why is it illegal to call for a pizza on the autopatch of a local repeater
> but it is not illegal to pass messages circumventing the US Postal Service?

It is illegal.

> Yeah, Sure, Good Luck in the Contest, QSL ?

C

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4598. Re: Advice wanted - 2m HT

Newsgroup: rec.ham-radio
Date: 1990-07-26 04:21:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500619@ux1.cso.uiuc.edu>
Source record: 9995

> 2) Band: According to what I've been hearing on the net, 2m is a zoo
> and 70cm is empty. So, the question is whether I should get

2 meters is not the zoo some make it out to be except during drive time.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4599. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:07:27 UTC
From: cccph@eel.cs.ucla.edu
Message-ID: <37291@shemp.CS.UCLA.EDU>
Source record: 10005
Cross-posted to: sci.electronics,rec.ham-radio

In article <872@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti) writes:
+
+ (stuff deleted)
+
> You can make resistors out of pencil leads, capacitors and
>inductors are easy, headphones are possible (not easy) and you can
>use Galena (lead sulphide I think for a diode), but what about things
>with GAIN.
Homemade semiconductors, other than diodes, may be a problem;
see below.

>I've had this dream of making a triode in a peanut butter jar (a
>small strong one :=) ...
You could do this successfully if you had some way of getting a
good vacuum. (Commercial valves have chemical compounds known as
"getters" which aid in removing oxygen from the valve)

>Has anyone out there ever tried to make something like this or any
>homemade semiconductors ....
Transistors, etc. would most likely be too difficult to make at home
because of the necessity for "clean rooms" (rooms with no appreciable
level of dust floating around. Dust will short-out a transistor,
integrated circuit, etc.)

>And how about batteries with household chemicals (ie not sulphuric)
Try lemon juice....

| Charles P. Hobbs | Rail transit has arrived in LA!
| cccph@eel.cs.ucla.edu | Hear the action >right now< on
| N6YMK @ K6VE | >>>> 471.3375 mHz <<<<!

4600. Re: Soldering to Aluminum, how to do it.

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:23:08 UTC
From: julian@bongo.UUCP
Message-ID: <192@bongo.UUCP>
Source record: 9991

There is a reasonable aluminium solder made by the British company Ersin Multicore. I am not sure how well this will work on aluminum over in the U.S. (-:

If you don't have the correct solder, here is a couple of tricks to amaze the hoi-polloi.

Pour some light machine oil (3 in 1) over the aluminium. Using a sharp blade (Swiss army knife, X-axto etc) scrape the surface to be soldered. Tin the scraped surface while the oil still coats it. Smelly job and liable to get you cited by the smog police. It works by keeping oxygen away from the shiny aluminum long enough to get the solder to flow.

The next method requires a grinding wheel (pretty coarse). Grind the aluminium surface and then apply solder to the wheel to coat it in solder. Now apply aluminum part to the wheel so it gets good and hot, the solder on the wheel will abrade the aluminum surface and heat the solder so it flows on the hot clean surface. Doing this is tricky. It can also be used to deposit solder on ceramic surfaces. For ceramic surfaces use a solder with 5% silver.

If you have ever wondered why they use aluminium for heat sinks, trying to solder it will answer all your questions.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

4601. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:30:17 UTC
From: julian@bongo.UUCP
Message-ID: <193@bongo.UUCP>
Source record: 9993

In article <13749@shlump.nac.dec.com>, magid@select.enet.dec.com (Joel Magid...) writes:
>
>
> I understand that for operations below 30 Mhz the ALL amatuers
> are required by ITU regulation to pass a code test.
>
The other 2 questions have been well answered by others.
>
> 3. If the regulation is so well enforced how does the CB world
> exist in the US under that ITU requirement ?

The CB world gets away with it because it is not an international
service. Remember the old NO DX rules? One of the strange things about
RF enforcement is that if it is for "National" use then the
international rules don't apply. How RF stops at borders I will never
understand, but most European MF (AM) broadcasters think it does.
Also Japan has no-code hams on some HF bands using low power. They of
course are only talking to other Japanese hams so do not need to meet
international regs.

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
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4602. Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:46:18 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007260546.AA16473@tecnet1.jcte.jcs.mil>
Source record: 10009

In article <38845@cci632.UUCP> cep@ccird7.UUCP (Christopher E. Piggott, WZ2B) writes:
>>Shouldn't we strive for a little more than "competence" ?

brian@ucsd.edu (Brian Kantor) replies:

>No, why? Were you an expert when you first got interested? I sure
>wasn't.

I think by "competence" Mr. Piggott meant being able to do more than turn the "o-f-f switch to the o-n position" and push the talk button. Numerous comments about Extra's that need to go to a hamfest to buy a 75 meter dipole deleted. The question is: How do you define the word "competent"?

>Ham radio operators do not spring full-grown from Zeus's brow; they
>grow in skill and capability as they gain experience.

True.

>Or do you want them to become expert professional hams somewhere else
>before we let them on our bands? Get real. Everyone has to start at
>the bottom sometime.

The bottom of what? There is a minimum entry knowledge level. It is NOT the bottom. When one can pass the test and understand nothing of the material that he was tested on.. there is a problem.

>I think they'll become more than competent with time and experience.

Sometimes yes and sometimes no.

>Either that, or they'll get bored and take up another hobby. Few
>people keep doing hobbies they're not enjoying because they not good at
>them.

Do you have to be GOOD at something to enjoy doing it? I do NOT think so Brian. I am not GOOD at woodworking, but I enjoy stumbling around at it. I am NOT good at fishing, but I enjoy it.

Then there is the matter of sex..... of COURSE I am good at that! :-)

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

4603. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:48:39 UTC
From: julian@bongo.UUCP
Message-ID: <194@bongo.UUCP>
Source record: 9996

As I see these religious wars about technology and spectrum use I am reminded of an article I read many years ago. It appeared either in "Short Wave Magazine" or "Rad' Com'". It was a story about a British amateur who by that time was an old fart, or to use the current vernacular, an old geezer.

He was discussing his early days as a radio amateur. He mentioned how he came back from WWI in France where he had been living in a hole in the ground covered in mud and lice. He and his peers wanted to get home and do some radio. To his horror, he found that the Radio Society of Great Britain was "Just a group of old men who wanted to sit around and talk about wireless when we wanted to get on the air." He had pushed the Old Farts of his day to get licencing going again so the young turks could do some radio. I wish I had filed that article.

We don't use spark anymore, and CW may be less relevant, but it looks like we still have a geezer problem seventy years later. As I approach geezerdom I wonder when I will be considered an impediment. Some of you may consider that time has come (-:

--
Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

4604. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:48:55 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007260548.AA16565@tecnet1.jcte.jcs.mil>
Source record: 10010

>> I don't know about the rest of you but I would prefer not messing up
>> my back yard! I know all the flames that this comment will generate

>OK, let's get down to the nitty gritty here....
>
> I **DO** want them in MY backyard !!
>
>And because of the fact that I live in a rural-like area, my backyard is
>stuck at being 2 meters. I do understand that there are many many more
>hams operating on 2 meters and on UHF bands as well in the big cities, but
>FCC regulations cover the WHOLE country, not just the cities. And I think
>a rule that allowed Communicators on 2 meters ONLY in the rural areas just
>would not work.

Ok Phil.. let's for a moment suppose that the Novice License is saved. Where
THEN is the central meeting ground for ALL of HAM RADIO? Hint... Novices
already have 220 privileges. We need to populate 220.... and it has
propagation that (IMHO) rivals or exceeds that on 2 meters. Yes.. I like
the 220 band and admit I am opinionated about it.

Let's say that the current proposal goes through and Communicators get
"stuck" on 220. Are you going to push to get a repeater going on that
band? We did here for Novices, and we also put links on it to 2 meters
so that we had the OPTION to hook into it and talk to them, just like we
all have the OPTION to operate Novices on the HF allocated areas. I
believe that helping new hams should be an effort or project by local
groups and should NOT be the result of some regulation that says "here
they are folks, love em or leave em".

>> but just consider that for all practical purposes, there is NO difference
>> between 146, 222 and 440. They are ALL relativly local in coverage
>> (on average), they ALL have relativly simple equipment requirements
>> and they ALL have resident hams within easy distance over most of the
>> country. Where they are different is that more people are needed

>About HALF of the country.

And whose fault is that?

>New hams will generally appear IN PROPORTION to the old ones. That is to
>say that if we see a 40% growth in hams, we will see a 40% growth in the
>urban areas AND a 40% growth in the rural areas.

Urban areas don't count... they already have 220 repeaters.

>BUT if Communicators do NOT get on 2 meters, then you will be getting what
>you say, because the Communicators in the rural areas will be getting NO

>(usable) privileges. So what you are arguing FOR will actually be the CAUSE
>of what you basing your argument on; so I suggest doing the OPPOSITE so that
>we do not see such a thing happen.

Possibly true if we don't get off our rear ends and DO something about it
instead of trying to "make elmers out of everyone on 2 meters or else".

>> So why are we forcing one group out to make room for another? That

>Because these groups need to communicate with each other.

Novices? Novices? Novices? Novices? What about the Novices?
This assumes that what you are saying has basis in fact. As another
poster pointed out, in urban areas 2 meter repeaters are highly segregated
into interest groups. If you ain't in dem der group... you ain't welcome.

>I would accept limiting Communicators to higher bands *IF* no more 2 meter
>only radios were being sold (except for recycled ones). If *ALL* NEW radios
>for the VHF/UHF bands had at least one COMMUNICATOR-CAPABLE band in them,
>such as the dual banders we now see being sold, then there would not be any
>issue left for putting Communicators on 2 meters. The only reason to put
>the Communicators on 2 meters is because so many hams presently HAVE ONLY
>2 METERS (as there VHF/UHF capability). Correct THAT situation and then
>there will be no problem.

We have.

>> one smacks of slum-lord tactics, later on the slum lord gets the
>> good press for "trouncing urban blight" by tearing down the slums
>> and erecting "AFFORDABLE" housing (with HUD money). Did any one
>> ask the slum lord who would be able to "afford" the housing?

>Make a point, please. Affordability is NOT an issue, really. If a new
>Communicator is on 2 meters, "Elmer" can talk to him, or buy a UHF radio
>and move up somewhere else. If the new Communicator is only on some UHF
>band, then the "Elmer" can also buy a new UHF radio to talk to him, or
>leave him alone.

EXACTLY! I like the last option. If elmer wants to help him he can buy
a 220 Mhz radio and do so, or your repeater group can FUND a 220 repeater
and help NOVICES too. Also don't forget that it is not too big a deal to
add a 220 remote base to existing 2 meter repeaters. Is the issue one where
you want to help the elmers by not making them buy rigs for those bands where
we need the most development.. and driving the non-elmers off of 2 meters?

This is getting interesting huh Phil? :-)

Best Regards...

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

4605. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:50:27 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007260550.AA16647@tecnet1.jcte.jcs.mil>
Source record: 10008

<phil@ux1.cso.uiuc.edu> Phil Howard replies:

>> Well... the term "Old Fart" is really starting to get to me! I think
>> that it is now being stretched to include anyone that does not agree
>> with the currently proposed ideas for licensing. So I think that I will
>> coin a new phrase... "NEW FARTS" ... all the new Communicator Class
>> operators and no code people are now "NEW FARTS". Now we will have
>> Old Farts, and New Farts, and just plain smelly Farts and when someone
>> reaches for the chain on the toilet... we will ALL be in trouble! :-)

>How about we start calling the older and more experienced hams as "Elmer"
>instead of "Old Fart". Maybe that will encourage them to do what they
>should have been doing all along. What decent "Elmer" would fuss and moan
>about a bunch of newcomer Communicators in HIS backyard?

I agree Phil. My favorite repeater is on 220 Mhz. I welcome Communicators
to my favorite frequency AND my backyard. They can meet me on 224.84 :-)

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

p.s. And how do you like THAT fancy footwork!

4606. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-26 05:52:59 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007260552.AA16664@tecnet1.jcte.jcs.mil>
Source record: 10012

zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!emory!wa4mei!ke4zv!gary
@tut.cis.ohio-state.edu (Gary Coffman) replies:

>>*IF* the new
>>hams did have the guts and glory to put up a new machine I very much
>>doubt that it would turn into a "CB like club". If they put it up, the
>local (old timer) hams would flock to it like bees to honey, and the
>>Communicators that put it up would gain instant recognition and a fair
>>degree of respect.

>Well that sure hasn't happened with the Novice repeaters put up by the
>old line clubs. Listen for a while and all you hear are new Novices
>stumbling along while telling each other how desperately they want to
>upgrade as quickly as possible. The old timers (who funded the thing)
>flock to it like bees to vinegar. And five minutes after the Novice
>upgrades his 220 HT is forsale. In the old days when Novices had
>two meter voice privledges (and a one year nonrenewable timelimit),
>the Novice was able to go where the real hams were and join right in.
>He got plenty of help and encouragement.

So you are saying that the hams already on 220 Mhz, AVOID the Novices?
This is exactly what I have been talking about Gary when I predicted that
hams on 2 would AVOID the new Communicators. As far as the Novice selling
his 220 rig after he upgrades... Yes, I said EXACTLY the same thing in
another posting when I mentioned that a lot of Techs upgraded and bought
a 2 meter rig, and then stayed there forever. (That is not a dig on
"techs", it is just an observation of what I have seen in a lot of cases.
There **ARE** exceptions!)

Now wait a minute. Stop, cease and desist. Let's talk about "the old
days when Novices had voice on 2 meters". I was one of them Gary, I was
there.. I HAD that "privilege" (along with a simultaneous tech license.
Yes.. I was WA3JPY *AND* WN3JPY at the same time). What I remember about
2 meters was a Benton Harbor Lunch Box (AM) crystal control.. no repeaters
AT ALL, and about a typical 2-5 miles range (depending on how big of a
mountain you lived on). So you say the Novices were able to go where the
REAL hams were and join right in? What REAL hams? 2 meters then was like
almost 10 Ghz is today, hence my desire to have Communicators on 220 and
ABOVE. In addition the only thing you "joined right into" was a bunch of
static. Help? Encouragement? Only after the neighbors ripped my lips off
for tearing their TV reception to hell and gone! :-) Maybe if you lived
in the middle of a major city what you say might have been true... but not
anywhere else my friend.. and I was only 20 miles out of Philadelphia in
a place called Valley Forge. George Washington had better luck on 2 meters!

>Well prior to 1968 Novices DID have voice privledges on TWO METERS.
>The real point here though is that the Novice Class has always been
>considered a brief stepping stone on the way to becoming a REAL ham.
>The Communicator Class is viewed as a permanent alternative to the
>traditional license classes. Thus while the Novice will become
>socialized after he becomes a REAL ham, the Communicator never will
>unless he can freely intermix with the traditional ham.

What you say was true when the Novice License expired after one year.
Now it's good "forever". Novices ARE real hams. I like Novices more
than just about any other class. They are USUALLY the most eager to
learn and do not make any pretensions about knowing everything there is
to know about ham radio.

>>I still see the Novice as the basic entry level class... that is unless
>>they do away with it.

>No real argument here. I think the Novice license should be continued as
>a way for those who want to follow the traditional path into the hobby.
>However there are many people who would willingly study theory very hard
>in order to get a license because they understand that knowledge of
>theory is important to what they want to do with radio. Some of those people
>do strongly resist learning Morse Code, not because it is necessarily
>hard, but because they don't perceive it to be relevant to what they
>hope to do with radio. A revolution began in the 60s that has quietly
>taken firm root in the American psyche. That revolution said, in part,
>"Why should I be forced to take Latin to get a EE degree?" Ham radio
>still requires Latin for it's members and that has seriously hurt our
>recruitment.

If the test for Communicator Class requires one to study theory real hard
and has an exam that looks for knowledge, instead of an ability to memorize
answers then I say CW should be dropped like a hot rock.

Thanks for your reply Gary.

Mark Bitterlich
wa3jpy@wb4uou
mgb@tecnet1.jcte.jcs.mil

4607. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 06:14:38 UTC
From: brian@ucsd.Edu
Message-ID: <16238@ucsd.Edu>
Source record: 9998
Cross-posted to: sci.electronics,rec.ham-radio

Well, actually, I've never made any vacuum tubes, but I have made some semiconductor material - there used to be these nifty science experiment kits that Bell Labs put out, and in one of them you made a photocell from a wafer of silicon, rat poison, and some other wonderous stuff. I like to think it helped me pass the semiconductor physics course I took much later in college.

My Grandfather, on the other hand, used to make triode vacuum tubes all the time. Of course, he was working for Lee De Forest at the time. (BTW, gramps was a ham too - his call was 2RH, and somewhere around here I have one of his licenses, signed by Herbert Hoover. He didn't keep any of the tubes, though.) He got bored with vacuum tubes and went to work as a test pilot for Igor Sikorsky. At the age of 85, legally blind, he used to race his motorcycle around the trailer camp where he lived down in Florida, terrorizing women and children alike.

And you guys think I terrorize the net? Just wait until I get to be as wild as grandpa was....
- Brian

4608. Re: Should I become a ham now or wait?

Newsgroup: rec.ham-radio
Date: 1990-07-26 06:19:57 UTC
From: brian@ucsd.Edu
Message-ID: <16239@ucsd.Edu>
Source record: 10013

Well, depending on who you believe....

If you don't know the code,
but you believe that ham radio will go to hell in a handbasket
as soon as the unwashed (er, unMorsed) barbarians are let in,
or you don't believe the no-code license proposal will pass the
FCC in any sort of usable shape,
learn the code and go for it
else
wait
else
go for it.

4609. Re: G5RV antenna

Newsgroup: rec.ham-radio
Date: 1990-07-26 11:49:41 UTC
From: gary@ke4zv.UUCP
Message-ID: <1093@ke4zv.UUCP>
Source record: 10015

In article <1990Jul25.171355.20146@mlb.semi.harris.com> krl@jujeh.mlb.semi.harris.com (Ken Lyons) writes:
>
>When I talked to Antennas West on the phone, I was assured that an antenna
>tuner was not required when used with a transceiver such as my Heathkit
>SB102. When the antenna arrived, however, the documentation clearly
>indicated that the antenna would be reactive at these frequencies, and
>that the antenna would operate with a high SWR. Since my transceiver is
>rated for operation at a 2:1 or better SWR, I have not been willing to
>operate with it without a tuner (unless I see someone else doing so without
>cooking the final, at least. Never mind someone just telling me so).

I routinely use the G5RV without a tuner when operating portable with my IC735. The SWR ranges between 2:1 and 3:1 on most bands. The Icom doesn't seem to mind this, but then Icom finals are noted for being tough. One time I mistakenly transmitted into an open coax. The radio dropped to about 80 watts but I had several nice QSOs before I noticed I didn't have an antenna connected! This is definitely not a recommended practice, but some of today's radios are more forgiving than others. I do use a tuner at home, a Dentron MT3000A which is four times the size of the IC735. I may be looking into a physically small tuner to take portable, but I'm not too worried.

Gary KE4ZV

4610. IC-2SAT or IC-24AT?

Newsgroup: rec.ham-radio
Date: 1990-07-26 13:31:58 UTC
From: sami@quiche.cs.mcgill.ca
Message-ID: <3784@quiche.cs.mcgill.ca>
Source record: 10016

I am considering buying an HT, but can't decide between
the 2SAT or 24AT. Is a dual-bander worth it, or shall I stick
to 2m ?

--
Sami Boulos | McGill University
sami@quiche.cs.mcgill.ca | School of Computer Science
Tel:(514) 398-7084 (ext. 5928) | 3480 University
| Montreal, Quebec H3A 2A7

4611. Re: Should I become a ham now or wait?

Newsgroup: rec.ham-radio
Date: 1990-07-26 13:43:00 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2305@ryn.esg.dec.com>
Source record: 10017

In article <1990Jul25.140643.25493@chinet.chi.il.us>, megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
|> As an outgrowth of my 2 years in the SWL hobbie, I've become very
|> interested in talking as well as listening.
[...]
|>
|> All of this is interesting but for myself it all boils down to this: Is
|> getting a novice ticket now a desirable thing?

The question works out to this: would you rather commit yourself to three weeks of study and be licensed NOW, or wait 18 months to 2 years for it to be "easier" to get the license? Communicator license aside, it seems to me that it's better to get the license now and be operating while all the hoopla is going on. I doubt that there'll be a point where you end up kicking yourself for getting the experience.

The theory exams for Novice and Tech are no big deal. If you sit and study the code twice a day every day for 21 dyas you'll be able to get past a 5wpm exam. At that point, you'll have everything the Communicator will have (no matter how 6 and 2 meters falls out) PLUS some HF privs *plus* all the time between three weeks from now and whenever the first Communicator license is received. Wadda they hafta do -- throw in the Ginzu knives? How can you possibly go wrong?

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

My employer doesn't care what I think. I, in turn, don't care what you think. You probably don't care what my empolyer thinks. Thus is life a circle.

4612. Re: Possible sources for crystal earphone....PLEASE

Newsgroup: rec.ham-radio
Date: 1990-07-26 13:50:42 UTC
From: jimallen@hpcuha.HP.COM
Message-ID: <22480010@hpcuha.HP.COM>
Source record: 10018

A good source for any "old" radio
stuff is Antique Electronic Supply
in Tempe Arizona. They have a nice
catalog and take phone orders with
a credit card.

Their number is 602-894-9503.

Radio Daze,

Jim Allen

4613. Need 88-108MHz trap for R7000

Newsgroup: rec.ham-radio
Date: 1990-07-26 14:09:55 UTC
From: elmquist@nachos.SSESCO.com
Message-ID: <212@nachos.SSESCO.com>
Source record: 10019

Last time I posted something it was about the numbness of my R7000. Now it has been tuned up and works pretty well...except, I get many (too many!) images of the FM broadcast band throughout the passband of the receiver. I'm pretty certain this is due to the fact that I am line-of-sight to the tower facilities of all the FM broadcasters in the Minneapolis/St. Paul area.

I'm looking for a design or suggestions for a trap that will attenuate or remove the 88 to 108 MHz portion of the receivers passband. Has anyone else had this problem? Radio Shack sells an FM trap for TV/VCR usage (ie, it's 75 ohm) but I think I'd get alot more loss on other frequencies with that than I want to.

Any ideas? Thanks in advance... I'm tired of listening to Minnesota Public Radio on 146.34 MHz....

Chris N0JCF

4614. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 14:17:53 UTC
From: ardai@teda.UUCP
Message-ID: <11837@teda.UUCP>
Source record: 10020
Cross-posted to: sci.electronics,rec.ham-radio

In article <872@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti) writes:
>And how about batteries with household chemicals (ie not sulphuric)

How about using a lemon with a nail and a penny stuck in it? Or a voltaic
pile made out of stacks of pennies and silver dimes with salt-soaked
blotter between them?
/mike

--
\|/ Michael L. Ardai Teradyne EDA East
--- --
/|\ ...!sun!teda!ardai (preferred) or ardai@bu-pub.bu.edu

4615. Re: ICOM IC-R1 Review

Newsgroup: rec.ham-radio
Date: 1990-07-26 14:24:09 UTC
From: masters@freezer.it.udel.edu
Message-ID: <25709@nigel.udel.EDU>
Source record: 10021

In article <1990Jul26.001037.21586@portia.Stanford.EDU> paulf@jessica.Stanford.EDU (Paul Flaherty) writes:
>
> Review: ICOM IC-R1 Portable Scanner
> Paul Flaherty, N9FZX
>
>
>
>1.3 GHz. However, an amount of S1 hash limits the useful starting frequency
>to 200 KHz. Birdies are quite frequent below 10 MHz, generally four per

What's a birdie?
--
I will not waste chalk..I will not skateboard down the halls..I will not
burp in class..I will not instigate revolution..I will not draw naked ladies
in class..I did not see Elvis..I will not call my teacher "Hot Cakes"..
Garlic gum is not funny..They are Laughing at me, not with me.....

4616. More ICOM IC-R1 Review

Newsgroup: rec.ham-radio
Date: 1990-07-26 14:36:58 UTC
From: lewine@dg.dg.com
Message-ID: <668@dg.dg.com>
Source record: 10022
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jul26.001037.21586@portia.Stanford.EDU> paulf@jessica.Stanford.EDU (Paul Flaherty) writes:
>
> Review: ICOM IC-R1 Portable Scanner
> Paul Flaherty, N9FZX
Additions by Don Lewine WB2UMF

>The list price is Y54,000; actual prices vary in
>the Y43,000 to Y48,000 range. This translates to around $300US, certainly
>not bad for a miniature wideband receiver.
I got mine at Rocket Honten (main shop) in May and the price as translated by American Express was $298. I consider this excellent for such wide coverage and small size.

> I bought my R1 in Akihabara, where I lucked into finding a store
>that didn't have a waiting list. Since the manual was in Japanese, it took
>me a while to investigate all of the features.
>heta desu).
When I purchased my radio the R1's were in vast supply. I went to about 12 stores and they all had multiple units. As always Rocket had the best price as well as a sales person who spoke English and could demo the radio.
I have translated much of the manual and added many marginal notes. At some point I will key in the operating instructions. There are lots of features which are not obvious from looking at the radio.

>without an external antenna, WWV reception is solid, and I've had lots of
>fun listening to Radio Australia, Radio Japan, Radio Moscow, Havana, the
>BBC -- in short, the rig is indeed useful as a shortwave receiver.
I would say "useable" as a shortwave receiver. I found it to be fairly deaf. Yes, I can hear things that are 20db over S9 on my TS940, however, anything weaker is hopeless. Given the lack of sensitivity, the lack of USB/LSB is not a problem.

>
> VHF and UHF coverage is also very good.
In fact the coverage and sensitivity is so good that I would rate the radio as an excellent buy even if it did not cover DC-30MHz.

There is a built in speaker which does a good job given that the radio is so tiny. The R1 makes an excellent FM receiver. The Wide-Band FM mode has good audio quality.

>
> The R1 has all of the usual wiz - bang scanner features that one
>would expect, including selective memory and range scans. Scan rate is

>variable from 10 - 20 channels per second. There is a configuration mode,
>where the scan rate, division of memory, power consumption, scan stop / start
>policy, display contrast et al can be changed as desired.
You can scan all 100 channels (no banks) or and range of channels. You can also scan any one of 10 frequency ranges. One nice feature is the ability to dump scanned frequencies into memory.

I have not been able to get the display contrast setting to do anything. The contrast is good, however, the control has no obvious effect. There is a light for the LCD for night operation. You can also
turn off the "RCV" led to save power.

> My overall impression is quite positive. The R1 packs a considerable
>degree of capability into a very small package, that's very inexpensive.

I have enjoyed the R1 a great deal. It fits inside my shirt pocket. I have used it to follow air traffic control when I fly in planes and I take it with me when I travel.

I have used it to monitor cellular telephone and it does a good job of doing that. I was in Los Angeles this week and they seem to be using most of the available cellular bandwidth.

Friends of mine who have used the radio liked it so much they all want to buy one. Looks like I will have to bring back a case of them on my next trip.

-- Don Lewine WB2UMF

4617. Re: How to get started.

Newsgroup: rec.ham-radio
Date: 1990-07-26 14:58:57 UTC
From: gary@ke4zv.UUCP
Message-ID: <1095@ke4zv.UUCP>
Source record: 10023

In article <1618@ole.UUCP> ssave@ole.UUCP (Shailendra Save) writes:
>
> I want to be a amateur-radio operator. What is the best way to
> get started? Where can I get good books to get started on it,
> is it possible to learn everything that is required for the test
> through self-study, or is it necessary to take an official course
> and pass it? I should think that receiving and monitoring airwaves
> is perfectly alright on any radio band?
> I would appreciate any help that you can give me and any suggestions
> that you may have as to good equipment that will get me started.

You can certainly prepare for the license exam through self study.
Many people have. A structured course helps some people, but it
certainly is not mandatory. Get a copy of the ARRL Handbook for
the theory section, a copy of Part 97 for the regulations, and
a license manual and code tape and you should be all set.

Good luck!
Gary KE4ZV

4618. Home-made semiconductors etc..

Newsgroup: rec.ham-radio
Date: 1990-07-26 15:02:27 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <26.Jul.90.16
Source record: 10024

Giovanni asks about homemade devices; well just as a demonstration I ran a
digital watch module off two series-connected lemons......
Use a copper and a galvanised nail into each lemon, series-connect, and
you get somewhere about 1.2 volts at a few hundred microamps. Enough to
run a LCD clock chip for some weeks (until the lemons run out of juice..!)
Spanish lemons seemed to last the longest. Tangerines were no good at
all. I tried a Jaffa Orange and got only 0.3 volts. Grapefruit give 0.2 volts.
Who will be the first to get the 'Fruit-powered' endorsement on their DXCC?
I have seen old diagrams for making thermionic diodes out of automobile
lamp bulbs by melting a wire through the glass envelope; how you do
this without destroying the vacuum is anyones guess. You could use one
hell of a lot of lamp bulbs this way. But back in the 1920's a single
diode tube cost a weeks wages so it was worth trying.
I remember my father telling me about electrolytic rectifiers; basically
a fruit-canning jar containing an electrolyte (Sodium sulphate?) and a pair
of electrodes (one lead flashing foil, the other a carbon rod) and
with four of these connected in a bridge formation, you could charge a
lead-acid accumulator by connecting the whole thing instead of the main
power fuse on your domestic AC supply.... Apparently when the current got
too high, the electrolyte used to boil over.... and smelt indescribably bad!
The lead-acid accumulator was all some people had to heat their tube
filaments in the thirties.... Anyone remember tubes with 2V filaments?
Just think, we dont have this hassle with 1N5401 diodes, do we?

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

4619. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-26 15:19:07 UTC
From: gary@ke4zv.UUCP
Message-ID: <1096@ke4zv.UUCP>
Source record: 10025

In article <38860@cci632.UUCP> cep@ccird7.UUCP (Christopher E. Piggott, WZ2B) writes:
>In article <16164@ucsd.Edu> brian@ucsd.Edu (Brian Kantor) writes:
>
>>Or do you want them to become expert professional hams somewhere else
>>before we let them on our bands?
>...
>>Get real.
>
>(Thanks, I needed that. (how do you draw a sarcastic smiley face))
>
>>Everyone has to start at the bottom sometime.
>
>Certainly, you are right ... but the argument was "get rid of license
>classes" (at least, make "entry level" and "full privileges" flavors).
>I am saying, the overall quality of hams owuld fall, because either:
>
> (1) the exams would become too hard, and people would not
> pass
> (2) the quality of the exams would drop even more so than
> what we have now

The question is do we want hams with expertise in radio or do we want hams with expertise in passing tests. One has little to do with the other. Amateur radio is among other things a place where we are supposed to improve our skills in the radio art through self study and experimentation. By requiring extreme test taking skill in order to allow the experimentation necessary to gain skill in the radio arts you create a self defeating circle. This emphasis on test taking skills demonstrates a mindset that says that I can't know anything because I don't have any wallpaper. I find this disturbing.

>People learn in little chunks. Take a look at television, and the fact
>that shows (entertainment _and_ news) are given to us in 12-minute chunks.

Speaking as one who makes his living in commercial broadcasting, I can tell you that the reason we give you programming in 12 minute chunks is so we can bombard you with the 2 minute chunks of commercials that pay our bills. I'm sorry if you have a short attention span, but don't use commercial television as a yardstick.

>I think that it's preferable to have five short-term goals, as opposed
>to a two-step arrangement, where the quality would fall further.

If your goal is to have that Extra Class wallpaper instead of the personal satisfaction of mastering a complex electronic circuit, then I feel sorry for you. You are free to set any goals for yourself that you like, but

that doesn't give you the right to mandate those same goals for everyone else.

Gary KE4ZV

4620. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-26 15:32:55 UTC
From: john@anasaz.UUCP
Message-ID: <2768@anasaz.UUCP>
Source record: 10026

In article <188@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
]In article <2740@anasaz.UUCP>, john@anasaz.UUCP (John Moore) writes:
]> When the earthquake struck Mexico City, ALL of the HIGH TECH
]> telephone systems went down (for long distance service). Amateur 20 meter
]> communications did not. Even the US embassy was reduced to communicating
]> on 20 meters.
]
] Ok, high tech telco stuff in mexico city? But yes, there was a
]Strowger CO in a basement that survived. The building fell on top of
]it, but it just kept clacking away. To provide international telco
]connections, British Telecom had a satellite dish and T1 feeds flown
]in and operating within 24 hours of the earthquake. This was not
]mentioned in QST, so it is going to be disputed on this forum.
]
]Yours still waiting for the penny to drop.

Julian, I didn't get my info from QST, I got it by:
(1) going to Mexico City to operate 20 meters shortly after the quake
(2) observing that 2 WEEKS after the earthquake, the US embassy had
exactly TWO telephone lines working (via satellite). I used one
of these lines to call home, and it was not a normal line - you
picked it up and a special operator in the US answered. The calls
were free.
(3) traveling to the Mexican SCT (their equivalent of FCC + telephone
company + etc) and discussing the situation with them. They
had thousands of satellite circuits available immediately after
the quake, but THEY WEREN'T CONNECTED to anything useful, because
the 10 story building housing ALL of the long distance switching
equipment had fallen down. Yes, I saw the BT switch (there was
another flown in from Sweden), but believe me, it didn't come
close to solving the problem. I've got a 35 mm slide of what used to
be the downdown switching center. My host (an engineer for
Motorola) lost a bunch of friends who worked in that building.
(4) handling traffic for the Red Cross, Salvation Army and the
Centers for Disease Control 2 WEEKS after the quake. If the
high tech phone service was so good, why didn't they use the
phone?
(5) Frequently attempting long distance calls from Mexico City for
two weeks.

Nice try, Julian, but you got your facts wrong!

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu

Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4621. Re: Should I become a ham now or wait?

Newsgroup: rec.ham-radio
Date: 1990-07-26 15:34:47 UTC
From: gary@ke4zv.UUCP
Message-ID: <1097@ke4zv.UUCP>
Source record: 9777

In article <1990Jul25.140643.25493@chinet.chi.il.us> megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
>All of this is interesting but for myself it all boils down to this: Is
>getting a novice ticket now a desirable thing? Will the license structure
>change so radically or so differently that I will have wished I had waited?
>Will digital modes, commercial interests stealing freqs, no code, and the
>"decline" of ethics among operators so change the hobbie with in a few
>years that what I see that I like, the chance to share my love of meeting
>new people and friends who share a common technical and tinkering interst
>be gone?

Go for it! It may get better, it may get worse, but it's fun now.

>
>Or is the best yet to come? I feel somewhat strange attending my local ham
>radi clubs meetings as I'm 27 and everyone is so OLD. On the other hand, I
>have a friend who is a 12 year old extra... but he didn't join the club
>becuase "It's judt a bunch of old guys who hate me because I'm so young."
>Is ham radio an "Old man's hobbie" where young people are looked down upon?
>It doesn't seem that way from what I hear on the air, but it seems to be at
>ham fests and other gatherings I go to.

Unfortunately ham radio is an old man's hobby these days, but hopefully
with an influx of young eager people that can change.

Gary KE4ZV

4622. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 15:43:18 UTC
From: grege@gold.GVG.TEK.COM
Message-ID: <1205@gold.GVG.TEK.COM>
Source record: 9778
Cross-posted to: sci.electronics,rec.ham-radio

In article <872@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti) writes:
>
>And how about batteries with household chemicals (ie not sulphuric)
>

I managed to get a voltage reading from a lemon - I used a penny (copper) for
one electrode, and the meter probe for the other. It was under a volt.

I prefer to power-up lemons and potatoes with 220 volts.....

4623. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 15:45:37 UTC
From: sreekanth@rgb.dec.com
Message-ID: <13916@shlump.nac.dec.com>
Source record: 9779
Cross-posted to: sci.electronics,rec.ham-radio

In article <872@massey.ac.nz>, GMoretti@massey.ac.nz (Giovanni Moretti) writes...
>Peridically I get the feeling that radio ... is getting far too hard
>to do - you need 99%+ pure Ge/Si ... and huge factories and $00000000.
>

>Has anyone out there ever tried to make something like this or any
>homemade semiconductors ....
>
>| GIOVANNI MORETTI, Consultant | EMail: G.Moretti@massey.ac.nz |
>|Computer Centre, Massey University | Ph 64 63 69099 x8398, FAX 64 63 505607 |
>| Palmerston North, New Zealand | QUITTERS NEVER WIN, WINNERS NEVER QUIT |
>--

Yes, anything at all to do with semiconductors is expensive, because
you need ultra clean rooms, fine geometries, and dangerous chemicals.
(And I mean _real_ semiconductors, not cats whiskers :-)
But ... there`s a way.

MOSIS (1-213-822-1511) is the best bet for the small experimenter. $500 gets
you 4 packaged parts in cmos 2 micron technology,
132 pin pga max. They have a modem number; you give them yoiur design data
base in electronic form, and at their next scheduled run (they have
runs every 1-2 weeks.), they run your design through with many others,
and mail you the parts. Good for prototyping an idea

/ Jon Sreekanth

US Mail : J Sreekanth, 79 Apsley Street, Apt #7, Hudson, MA 01749
Digital Equipment Corp., 77 Reed Road, HLO2-1/J12, Hudson, MA 01749
email : sreekanth@rgb.dec.com
Voice : 508-562-3358 eves, 508-568-7195 work

4624. Re: Battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-26 15:54:49 UTC
From: Hugh_E._Wells.ElSegundo@XEROX.COM
Message-ID: <900726-085500-4858@Xerox>
Source record: 9780

NICAD CELL CHARACTERISTICS

by

Hugh W6WTU

The operating characteristics of a Nicad cell are very basic in nature. During charge, only current and cell temperature are critical. Discharge may occur at any current rate until the cell terminal voltage falls below 1.1 volts, but the cell temperature rise must not cause the cell electrolyte to boil (gas). When connected in a pack, the pack must be unloaded when the individual cell voltage falls to 1.1 volts to prevent reverse charging of the lowest voltage cell in the pack.

Few applications discharge cells at an excessive high rate where gassing becomes a problem, with the exception of toy electric cars (These are toys for men). Cells designed for this application usually have larger than average plate area and large connecting tabs to support the higher peak current. Cell temperature is kept below the critical value by selecting the cell capacity such that the cell will dissipate its charge before gassing occurs. In essence, the toy car runs continuously with a nearly zero series load resistance allowing the cell temperature to rise near critical just as cell discharge is reached.

The following brief notes will further amplify an understanding of Nicad cell characteristics.

1. Nicads are very easily damaged due to gas pressure caused by over-charging at high charge rates. Unfortunately, Nicads do not have a positive indicator for indicating the state of charge. It is up to the user to estimate the relative charge state. Typically, the charge rate is calculated at C/10 where C equals cell capacity and the 10 represents hours for charging. At C/10, a nominal or normal charge would occur. A fast charge can be accomplished, cell design permitting, by changing the ratio, i.e., 5C/2.

2. Cell temperature does rise at the completion of the charge cycle, particularily at high charge current values, and can be used as a charge completion indicator. At the moment of temperature rise, the charge current must be reduced immediately to prevent excessive gas pressure build-up. Some chargers monitor the cell temperature and reduce the charge current to a small sustaining value. For 500ma cells, the sustaining value is typically between 10-25ma, or just enough current to compensate for the chemical change (internal current leakage).

3. Pulse charging of Nicads is most preferred as it is more efficient than a steady-state current value. Steady state current creates gas bubble formation on the plates of the cell, while pulse current tends to create fewer gas bubbles allowing the charge to be more uniform across the plate area. The charge uniformity is enabled by gas bubbles being moved around due to current pulsations. Bubble movement allows more plate area to be exposed during charge. Pulse charging also creates less of a temperature rise. The charge rate still has to be calculated as a function of C/10 during each charge pulse to determine total charge time (The accumulated charge is equal to the sum of the charge area under the pulse curve).

4. Older Nicad cells would not accept high charge rates above C/10 and would develop electrolyte seal leakage at attempted higher charge rates. A leaky seal, in any case, means the eventual loss of the cell. Newer cells, as used in most handheld radio applications seem to tolerate high charge rates without developing cell leakage as long as the temperature is controlled (kept low).

5. In the event corrosion around the seal of a cell develops, the corrosion can be removed. Wipe the corroded area with a vinegar soaked cotton swab. Use an ample amount of liquid and dry the cell with a tissue. Keeping the cell clean allows it to be used until it fails completely. Take note that weeping cells can cause corrosion problems if they are not inspected and cleaned regularly.

6. Discharge of a Nicad is critical only if the cell is under a load. When loaded, the cell voltage should not be allowed to drop below 1.1 volts which is just over the edge of the discharge end of the curve. Allowing the cell to drop to 1.0 volt or less while under load may cause permanent plate/electrolyte damage. The result would be a loss of cell capacity. Of course, a loss also takes place naturally with age which limits the number of charge-discharge cycles the cell is capable of supporting before it is exhausted.

7. Unloaded cells may be stored almost indefinately and allowed to discharge to whatever cell terminal voltage the cell can maintain on its own. When putting a previously stored cell into use, charge the cell, at least the first cycle, at C/10 for 12-14 hours. Shelf life of a cell is usually a function of how fast nickel whiskers develop internally that can short the cell. Two methods have been proposed as a way of extending cell life when whisker formation is of concern. a) Cycle the use of the cell/pack periodically. It is believed that the rate of whisker formation is reduced when cells are charged and discharged periodically. b) Allow the cell to sit on the shelf as long as needed and if a whisker short should occur, blast it away with a high current pulse from a capacitor or other source. It has been observed that once whisker growth/shorting begins, it can not be permanently stopped.

8. It has been observed that the terminal voltage across a charged Nicad cell will increase as the cell ages. Using this observation, the life expectancy of a cell can be evaluated and monitored. As an example, a new/fresh cell will exhibit a terminal voltage of 1.25 volts while an old cell will exhibit, say, 1.5 volts. It is believed that the cell dehydrates

with age and the rising voltage is a function of the increase in cell impedance.

9. Over the years, there has been many a discussion about Nicad cell memory. Yes, Nicads do have a memory function which can be aggravating if not understood. Simply stated, if the cell is used only over a small portion of its total capacity for at least 60% of the cycle time, the cell capacity will assume the more limited capacity value. To avoid the tendency of a memory condition inhibiting use, allow the cell/pack to be fully charged and discharged at least 60% of the total charge-discharge cycles. If in doubt about what is a full charge or what the discharge condition happens to be, then allow the cell/pack to fully discharge, unloaded when below 1.1 volts/cell, about one out of ten cycles. The charge rate from full discharge should be C/10 for 12-14 hours to cause as much chemical conversion to occur as possible. Charging at twice that value is not a problem as long as the cell doesn't start out-gassing (Monitor the temperature and taper off the end charge rate).

Many hints and kinks have been published regarding the nature and care of Nicads and all point to the fact that Nicads require user TLC to obtain long cell life. The bottom line is that the user must pay attention to how the cell is being treated.

4625. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-26 16:04:45 UTC
From: gary@ke4zv.UUCP
Message-ID: <1098@ke4zv.UUCP>
Source record: 9781

In article <9007260552.AA16664@tecnet1.jcte.jcs.mil> mgb@TECNET1.JCTE.JCS.MIL writes:
>zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!emory!wa4mei!ke4zv!gary
>@tut.cis.ohio-state.edu (Gary Coffman) replies:
>
>So you are saying that the hams already on 220 Mhz, AVOID the Novices?
>This is exactly what I have been talking about Gary when I predicted that
>hams on 2 would AVOID the new Communicators. As far as the Novice selling
>his 220 rig after he upgrades... Yes, I said EXACTLY the same thing in
>another posting when I mentioned that a lot of Techs upgraded and bought
>a 2 meter rig, and then stayed there forever. (That is not a dig on
>"techs", it is just an observation of what I have seen in a lot of cases.
>There **ARE** exceptions!)

Whoa there! You have misunderstood me. In our area there are darn few
hams on 220 who are not Novices. It has never been a popular band here
due to a Ch 11 tv station in town that is a simple image away from the
band. I know commercial equipment isn't bothered by this, but have you
seen a used Motorola or GE unit for this band at a hamfest? With the
current vogue for "wideband receive" in current amateur equipment this
is a disaster.

>Now wait a minute. Stop, cease and desist. Let's talk about "the old
>days when Novices had voice on 2 meters". I was one of them Gary, I was
>there.. I HAD that "privilege" (along with a simultaneous tech license.
>Yes.. I was WA3JPY *AND* WN3JPY at the same time). What I remember about
>2 meters was a Benton Harbor Lunch Box (AM) crystal control.. no repeaters
>AT ALL, and about a typical 2-5 miles range (depending on how big of a
>mountain you lived on). So you say the Novices were able to go where the
>REAL hams were and join right in? What REAL hams? 2 meters then was like
>almost 10 Ghz is today, hence my desire to have Communicators on 220 and
>ABOVE. In addition the only thing you "joined right into" was a bunch of
>static. Help? Encouragement? Only after the neighbors ripped my lips off
>for tearing their TV reception to hell and gone! :-) Maybe if you lived
>in the middle of a major city what you say might have been true... but not
>anywhere else my friend.. and I was only 20 miles out of Philadelphia in
>a place called Valley Forge. George Washington had better luck on 2 meters!

Well in rural Kentucky where I grew up, we had one of the first .34-.94
FM repeaters(1964). We used Motorola 5Vs and 40Ds for mobiles. My very first
ham radio project was converting a Motorola 5V from 6 volts to 12 volts
and downbanding it into two meters. Our repeater was on a 1000' TV tower
and had phenominal coverage. EVERY ham in our radio club bought one of
the Motos in a group buy. The repeater was busier than anything I've
heard around here in years.
>

>What you say was true when the Novice License expired after one year.
>Now it's good "forever". Novices ARE real hams. I like Novices more
>than just about any other class. They are USUALLY the most eager to
>learn and do not make any pretensions about knowing everything there is
>to know about ham radio.

Most are so eager that they upgrade in a few months and are gone forever
from the novice band. The others are the wives of hams who were pressured
into getting their licenses so they can talk to hubby. They are rarely
willing to talk to anyone else.

>If the test for Communicator Class requires one to study theory real hard
>and has an exam that looks for knowledge, instead of an ability to memorize
>answers then I say CW should be dropped like a hot rock.

I have always contended that it is easier to understand something than to
memorize it. At least this is true for me. And I don't understand the
need to test for a mode that is not commonly used on the frequencies
granted by the license.

Gary KE4ZV

4626. ICR1 and ICR100 available ex-stock.....

Newsgroup: rec.ham-radio
Date: 1990-07-26 16:05:43 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <26.Jul.90.17
Source record: 9782

Now before you all ask 'WHERE CAN I BUY?'... READ that mail header!

The Icom ICR1 is available in the UK for 399 pounds sterling; the
ICR100 is available for 499 pounds sterling. ICR100 is also available
modified to receive SSB (i always puzzled why Icom would wish to sell a
HF-bands receiver WITHOUT this as standard...)
Dont know what the current exchange rate is, i guess its about 1.85 dollars
per pound. Remember to subtract 15% from UK Sterling price to take into
account British Value Added Tax.

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

4627. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 17:04:20 UTC
From: perley@galaxy
Message-ID: <10368@crdgw1.crd.ge.com>
Source record: 9783
Cross-posted to: sci.electronics,rec.ham-radio

In article <37291@shemp.CS.UCLA.EDU>, cccph@eel (Charles Hobbs) writes:
>In article <872@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti) writes:

>You could do this successfully if you had some way of getting a
>good vacuum. (Commercial valves have chemical compounds known as
>"getters" which aid in removing oxygen from the valve)

One thing that would help is to light up the tube for a bit with the
vacuum pump still running so any initial outgassing can get sucked
out.

I'm not sure what is in the getters.. maybe those could be homebrewed
as well?

-don perley
perley@trub.crd.ge.com

4628. Re: A dumb question?

Newsgroup: rec.ham-radio
Date: 1990-07-26 17:09:30 UTC
From: perley@galaxy
Message-ID: <10370@crdgw1.crd.ge.com>
Source record: 9784
Cross-posted to: rec.ham-radio.swap,rec.ham-radio

In article <6885@helios.TAMU.EDU>, msw1633@venus (WHITSITT, MARK STEVEN) writes:
>When someone is talking about, for instance, a 2m HT, what does the "HT"
>stand for?

Handie talky (might be "handy"). Way back when... motorola was the main
supplier of hand helds and that was their product name.

Models were of the form HT-100, etc.

-don perley - ke2tp

perley@trub.crd.ge.com

4629. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-26 17:13:40 UTC
From: stevew@wyse.wyse.com
Message-ID: <2816@wyse.wyse.com>
Source record: 9785

In article <187@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
>In article <2800@wyse.wyse.com>, stevew@wyse.wyse.com (Steve Wilson x2580 dept303) writes:
>> Yes they do. Cel Tel doesn't cover the world (yet ;-). Communicating
>> anywhere in the world ?? I thought that was what HF was for ;-)
>
> Let me see now. I have a cellular phone and I want to talk to
>the Red Cross HQ in Switzerland. I don't have the phone number at
>hand, no problem. I dial the AT&T operator and ask for "Switzerland,
>Geneva, International Red Cross." In no time at all I will have the
>number. Then I dial 01141-114122 and talk directly to the biggies in
>Switzerland.

Fine...but you couldn't have placed that call from where I was located last week. Thats what I was talking about. In simple terms....Cell Tel can't be used from every single location on earth.

The real point is that as of today Cell Tel has some functionality but it isn't the only answer, nor is it a complete answer to the problems faced during disaster situations. The same can be said of ham radio during these situations. All of the above systems are complementary to each other. You use what works.

Steve KA6S

4630. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 17:24:36 UTC
From: elkind@nodename.dec.com
Message-ID: <13932@shlump.nac.dec.com>
Source record: 9786
Cross-posted to: sci.electronics,rec.ham-radio

In article <872@massey.ac.nz>, GMoretti@massey.ac.nz (Giovanni Moretti) writes...
>Peridically I get the feeling that radio ... is getting far too hard
>to do - you need 99%+ pure Ge/Si ... and huge factories and $00000000.
>

What about alloy junction germanium transistors - they should be doable in non-cleanroom circumstances, shouldn't they? I'd imagine the materials wouldn't be too hard to obtain, and the geometries are large enough that real clean room conditions wouldn't be all that necessary. The yield might be somewhat low, and the device parameters scattered all over the place with home-lab conditions, but I'd think you could get some usable devices with a modest amount of effort.

4631. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-26 17:26:03 UTC
From: stevew@wyse.wyse.com
Message-ID: <2817@wyse.wyse.com>
Source record: 9787

In article <188@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
>Ok, high tech telco stuff in mexico city? But yes, there was a
>Strowger CO in a basement that survived. The building fell on top of
>it, but it just kept clacking away. To provide international telco
>connections, British Telecom had a satellite dish and T1 feeds flown
>in and operating within 24 hours of the earthquake. This was not
>mentioned in QST, so it is going to be disputed on this forum.
>
>Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian

Gee...who kept going for the first 24 hours? For that matter the
Red Cross brought in a satellite dish for INMARSAT(sp?) within
first couple days and had a similar system going... of course it
was brought in by N6IIU ;-) and there is also an interesting little
story about the Federales asking him at gun point what he was
doing. ;-) This same hardware was used during Hugo down in the
Carribean. These systems were COMPLEMENTARY to other systems
already in place. There were lots of independent efforts that
helped. Ham radio was one of them.

Just like in networking....it doesn't matter how the message
gets there as long as it gets there.

Steve KA6S

4632. Should I become a ham now or wait?

Newsgroup: rec.ham-radio
Date: 1990-07-26 18:11:36 UTC
From: faunt@CISCO.COM
Message-ID: <9007261811.AA21774@ucsd.edu>
Source record: 9788

I'd say do it. 5 WPM is pretty easy, and there's LOTS of fun stuff to do.

4633. Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-26 18:17:09 UTC
From: john@anasaz.UUCP
Message-ID: <2770@anasaz.UUCP>
Source record: 9789

We just had a thread here on spectrum efficiency where spread spectrum
came up as a solution. I would like to look into the technical aspects
of this a bit. I'm familiar with the theory of direct sequence
and frequency hop spread spectrum, but have never worked with it. I'm
also real hazy about practical synchronization techniques.
Finally, how does one build spread spectrum "repeaters" (ie, something that
provides roughly the functionality of current FM repeaters)? Phil Karn,
are you still listening? [I got your other answer, but wanted to get
more technical and ask more questions].

Problems (or, shall we say, opportunities?):
(1) Nearby in-band spread spectrum transmitters cause serious interference
to spread spectrum receivers by increasing the effective noise floor. Can
this be helped by doing some magic with frequency hop spread spectrum?
How does this work? Can it be done with DS spread spectrum by using
synchronized (ie, anti-correlated codes)?

(2) Spread spectrum systems will have to coexist (in many cases) with
other systems, either in amateur or other land mobile services.
How do you keep products from getting out of band. For example, let's
say I build a DS spread spectrum transmitter that operates on a center
frequency of 445.0 MHz, with a 9 Mbps DS rate. This should give sideband
nulls at 440.5 and 449.5 MHz. How do I keep the energy below 440.0
and above 450.0 from being a problem? Is this a reasonable example?

(3) Phil mentioned fast-switch half duplex "repeaters". How does one
limit the bandwidth on this (those fast on-offs will tend to give
a wide bandwidth). How about synchronization. Do you have any
specific ideas?

I realize that lots of these problems can be solved. One challenge is
solving them in a way that doesn't require the construction of a lot
of high-tech RF gear (digital stuff is okay - anyone can do that ;-)).
In other words, doing it in the standard ham tradition of hackin
surplus commerical gear. Also, solving them without EXPENSIVE
and complex filters. It's one thing to use a cavity or two and 2 meters,
its another to use 10 of them with very precise tuning required.

Let me also re-iterate Phil's plug for SS.

SS allows one to more effectively utilize crowded spectrum, UNDER
THE RIGHT conditions. It also affords relative privacy (ie, legally
you cannot use it for encryption, but you can sure use different
chip rates, etc). It is very good in any sort of selective fading condition
because it is not coherent, so fades only reduce the SNR a bit, rather
than a whole lot. It will reduce problems such as intermod, because

of its non-coherent/noise-like nature. It also allows the creation of
an almost infinite number of virtual channels (if the FCC will allow
a larger set of spreading codes), which can be really handy.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4634. Re: Need 88-108MHz trap for R7000

Newsgroup: rec.ham-radio
Date: 1990-07-26 18:21:43 UTC
From: john@anasaz.UUCP
Message-ID: <2771@anasaz.UUCP>
Source record: 9790

In article <212@nachos.SSESCO.com> elmquist@nachos.SSESCO.com (Chris Elmquist) writes:
]
]I'm looking for a design or suggestions for a trap that will attenuate or
]remove the 88 to 108 MHz portion of the receivers passband. Has anyone
]else had this problem? Radio Shack sells an FM trap for TV/VCR usage
](ie, it's 75 ohm) but I think I'd get alot more loss on other frequencies
]with that than I want to.
]
I use the RS trap on my RS-2005 scanner, and it works well. I have
measured the sensitivity of the scanner on interesting frequencies
with and without the trap, using a calibrated frequency source
(a new communications monitor) and found very little difference, except
that there was noticable attenuation in the lower aircraft AM band.
It's really not as band as you might think. From sweeping the thing, it
looks like a 3 pole/2 zero filter.

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4635. Re: UNIX Software for learning Morse Code

Newsgroup: rec.ham-radio
Date: 1990-07-26 18:30:00 UTC
From: markz@ssc.UUCP
Message-ID: <942@ssc.UUCP>
Source record: 9791

In article <1990Jul25.002425.13565@csusac.csus.edu>, emmonsl@athena.csus.edu (L. Scott Emmons) writes:
: In article <1990Jul23.021150.25401@mlb.semi.harris.com> mmt@moosh.mlb.semi.harris.com (Mojgan M. Thompson) writes:
: >I'm intersted in obtaining any software that can be used for learning
: >Morse code on a UNIX machine. If you know of such software, please
: >contact me via email or post.
:
: It's unlikely that such a product will exist, as there is no way to make the
: necessary tones at the proper timing on a standard tty. There may be a way
: to do it with certain terminals, but you will probably have to write it
: yourself...

The PK-232 can be configured to look like a ASCII xon-xoff printer that
sends morse code. It's not software, but when you're done, you can
use it for something else. It does farnsworth below 15 Wpm though.
(characters are sent at 15 WPM with slower spacing)

markz@ssc.uucp

4636. Re: Problem DX QSLs

Newsgroup: rec.ham-radio
Date: 1990-07-26 18:36:25 UTC
From: daveh@compnect.UUCP
Message-ID: <731@compnect.UUCP>
Source record: 9792

In article <13766@shlump.nac.dec.com>, reisert@ricks.enet.dec.com (Jim Reisert) writes:
> Here is a list of DX stations I have sent return envelope/IRC's (sometimes
> dollars or more, but not often) to between January 27 and May 10, 1990, and
> have still not received cards in return. Managers are listed where
> applicable, otherwise direct. Comments are listed at the end. Anyone who
> has any insight as to how to obtain QSLs from these stations is welcome to
> send me mail with the pertinent info.
>
> 20 EL7X
>
I sent Will, EL7X a QSL, SAE and IRCs to the address in the 1990 DX callbook. I have my logs at home, so I don't have the actual dates, but my return card didn't take too long considering the mail service between here and Africa. Of course there wasn't any fighting going on last year when I got my QSL. Things are a bit confused in Liberia these days.

--
Dave Hultberg KA3UZR Mail: 1407 Concord Road, Mechanicsburg, PA 17055-1955
daveh@compnect.uucp H: 717-766-0051 CI$: 72437,3215
uunet!wa3wbu!compnect!daveh W: 717-790-4507 Fido: 1:270/101.28
compnect!daveh@uunet.UU.NET FAX: 717-790-3689 Packet: KA3UZR@WB3EAH.PA.USA.NA

4637. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-26 18:41:00 UTC
From: tweed@apollo.HP.COM
Message-ID: <4bd35f61.20b6d@apollo.HP.COM>
Source record: 9793
Cross-posted to: sci.electronics,rec.ham-radio

From: GMoretti@massey.ac.nz (Giovanni Moretti)
> You can make resistors out of pencil leads, capacitors and
> inductors are easy, headphones are possible (not easy) and you can
> use Galena (lead sulphide I think for a diode), but what about things
> with GAIN.
>
> I can't be the only one who has these thoughts ...
You aren't; you're following the footsteps of a long string of hobbyists.

From: cccph@eel.cs.ucla.edu (Charles Hobbs)
> Transistors, etc. would most likely be too difficult to make at home
> because of the necessity for "clean rooms" (rooms with no appreciable
> level of dust floating around. Dust will short-out a transistor,
> integrated circuit, etc.)
Nah, you're thinking of ICs, where the dust messes up the photomasking.
Remember, the first point-contact transistors were made by hand in the
lab.

A long time ago, I read a story about a person who built his own
vacuum tubes at home. The story was old then, and I don't remember
where I read it (probably Popular Electronics, back when it was
still in the smaller format), but I'll try to summarize.

(Disclaimer: I've never done this myself!)

Back when tubes were first being developed, most of the publicized
effort was going into the Edison/DeForest type of "tube" that was
based on the light *bulb* and required glassblowing skills. However,
there was a grassroots effort (primarily by Canadian experimentors,
I believe) that was based on using a metal *tube*. It is this second
type that is much easier to fabricate at home.

Take a piece of tubing (copper, I think) and find some hard-rubber
stoppers that fit it tightly, one with a hole, the other without.
The one with a hole is fitted with a glass tube that gets connected
to your vacuum pump.

The metal tube itself is your anode; you still need a filament and
a grid. Poke some fairly heavy-guage (#18) solid copper wires through
the stoppers (making their own holes): one in one stopper, and two in
the other. The filament (cannibalized from a light bulb?) gets
stretched down the center of the tube, strung between two of these
wires (crimped, not soldered!), and the grid is the third wire,
spiraling around that.

Remember that the filament is going to get pretty hot, so provide
a fairly-long thermal path before you get to the stopper, otherwise
you won't be able to maintain any sort of vaccuum. (The author of
the article said that he'd forgotten this, and when he powered
up his first tube, "... the vaccuum immediately left with a
piercing shriek.")

OK, put everything together and seal all joints with sealing wax.
("What's sealing wax?" :-). I'll try to do an ASCII picture:

The loops in the filament wires help keep them from getting too
hot where they go through the stoppers. Don't worry about all
that stuff having to do with "getters", etc. Most experimentors
just left the vaccuum pump running while they were operating
the tube.

At this point, pump out the air, apply power to the filament
(carefully!) and to the anode (see if you get a current flow).
Then experiment to see what kind of control you get with the grid.
I'm sure it'll take a lot of cut-and-try to get any significant
amount of gain, so have fun!

-- Dave Tweed

4638. PRO-34 Audio Mods?

Newsgroup: rec.ham-radio
Date: 1990-07-26 18:43:19 UTC
From: charlie@oakhill.UUCP
Message-ID: <3597@radio.oakhill.UUCP>
Source record: 9794
Cross-posted to: rec.ham-radio,rec.radio.shortwave

The PRO-34 is not a bad radio now that it's on sale, however, the audio is a little wimpy. Does anyone out there have the service manual showing the audio amp circuits? I would like to beef up the output if I can. I'll publish the 'audio mod' if it works well and is reliable. Perhaps someone has already done this. Yes/No?

-thanks,
Charlie Thompson WB4HVD

4639. Re: V rate of series C in Transistor amp output

Newsgroup: rec.ham-radio
Date: 1990-07-26 19:02:58 UTC
From: myers@hpfcdj.HP.COM
Message-ID: <18230023@hpfcdj.HP.COM>
Source record: 9795

> I would like to know the method for determining the output voltage of a
>transistor amplifier. The reason for this is I needed to estimate the voltage
>that will be across the output series capacitor. An example of what I need is
>I am planning on putting together a 50mHz single transistor amplifier that will
>have an output of 100 watts. A couple of questions;
> What will happen if I have a 2:1 swr? Also I am putting together a
>duplexer for 2M and 70cM with a maxium output power of 100 watts on both bands.
> How does this compare to tube amplifiers?

Ohm's Law still applies; if you're delivering 100W into a 50 ohm load, then:

P = V^2/R ---> PR = V^2 100 x 50 = 5000, sqrt(5000) = 70.7V

Assuming that you've measured the power correctly, this is RMS volts; the
peak voltage would therefore be 100V exactly.

SWR effects are interesting; if your 2:1 VSWR (Voltage Standing Wave Ratio)
is being produced by a mismatch at the load end of a line, that means that
about 11% of the power sent "down the line" is being reflected back to the
source. (To get this, note that SWR = (1 + R)/(1 - R) where "R" is the
reflection coefficient, and R = sqrt (Reflected Power/Forward Power))
If the source is matched to the line, this reflected power is dissipated in
the source impedance (and therefore simply goes into heating up the amplfier).
If the source is itself not matched to the line (and if both source and load
are mismatched, the SWR situation becomes more complex), as with a very low
output impedance source , the power will again be reflected out to the load.

A greater concern might be that "SWR" refers to the ratio of maximum to minimum
peak voltages on the line; it is possible, in extreme cases of high SWR and
marginal lines, to generate high enough voltages so as to cause cable breakdown
or at least "hot spots."

I don't think I understand your last question - how does WHAT compare to tube
amplifiers?

Bob Myers KC0EW HP Graphics Tech. Div.| Opinions expressed here are not
Ft. Collins, Colorado | those of my employer or any other
myers%hpfcla@hplabs.hp.com | sentient life-form on this planet.

4640. DXers! Own a chunk of Palmyra!

Newsgroup: rec.ham-radio
Date: 1990-07-26 20:07:26 UTC
From: 1843eie@HICKAM-EMH.AF.MIL
Message-ID: <9007262006.AA04720@uunet.uu.net>
Source record: 9796

I N T E R O F F I C E M E M O R A N D U M

Date: 26-Jul-1990 09:56am HST
From: 1843EIG/EIE
1843EIE
Dept: 1843EIG/EIE
Tel No: 656-1158

TO: Remote Addressee (_INFO-HAMS%UCSD.EDU@UUNET.UU.NET)

Subject: DXers! Own a chunk of Palmyra!

News Item from the 23 Jul 90 edition of the Honolulu _Star-Bulletin_ :

SAVIO PLANS DEVELOPMENT OF PALMYRA

"Honolulu real estate broker Peter Savio said today that he has taken out a 75 year lease on the remote and uninhabited Pacific island of Palmyra and formed a corporation, Palmyra Development Co., to get residential and tourist development underway.

"Savio said the agreement with the owners, Honolulu's Fullard Leo family, includes an option to buy the island for $36 million. He plans to do the 'get away from it all' residential development himself and recruit other developers for such facilities as a hotel, golf course, country club, and marina.

"Savio, head of Savio Realty Ltd., said his own plans call for the sale of 250 beachfront lots of 20,000 square feet or more, which he estimates will go for $250,000 each. That is about half what some observers have said such properties could be worth, he said. He also envisages 100 'estate-size' lots of 100 acres or so each." ((sic), I think - that's 10,000 acres. How big is Palmyra?)

Article goes on with details about Palmyra's location, climate, etc.

(So what say there, KH6R? Shall we go in 50/50 to buy a place and rent it to DXpeditioners? :-))

E-mail me direct if you'd like a snail mail copy of the article.

73,
Jeff Miller WD6CQV/KH6 AFA8JM
1843eie"at"HICKAM-EMH.AF.MIL

4641. Re: Advice wanted - 2m HT

Newsgroup: rec.ham-radio
Date: 1990-07-26 20:23:12 UTC
From: cep@cci632.UUCP
Message-ID: <38888@cci632.UUCP>
Source record: 9797

In article <30500619@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>> 2) Band: According to what I've been hearing on the net, 2m is a zoo
>> and 70cm is empty. So, the question is whether I should get
>
>2 meters is not the zoo some make it out to be except during drive time.

You're right, Phil. Anybody who questions this statement: try bringing up someone on 146.52, even during drive time. My first radio was a 2m HT, mostly because it seemed like the best "common ground" for a good percentage of the ham community.

4642. Re: Advice wanted - 2m HT

Newsgroup: rec.ham-radio
Date: 1990-07-26 20:55:38 UTC
From: wdh@oversteer.Eng.Sun.COM
Message-ID: <139666@sun.Eng.Sun.COM>
Source record: 9798

In article <30500619@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
>
> > 2) Band: According to what I've been hearing on the net, 2m is a zoo
> > and 70cm is empty. So, the question is whether I should get
>
> 2 meters is not the zoo some make it out to be except during drive time.
>
> --Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
> <phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

I agree. The contention that 2m it too crowded to allow in the new
Communicator class is not valid in my opinion.

Here in the densly populated San Francisco Bay area I find that many 2m
repeaters are lightly or almost never used. Even during commute time
many machines are lightly used. I know of only one machine that gets almost
continous use during commute times. You could call this a zoo but this group
is friendly and welcomes newcomers or casual calls.

In my experience at any given time I find no more than 4 out of the
10 machines I listen to active. Many times the number is 1 or less.

More operators on 2m would improve the band! I don't believe we will be ble
to contend that we need all of our frequency allocations if our most crowded
UHF/VHF band usage pattern continues.

What we need are more hams not more bands.

...Dennis Henderson, N6TTW

4643. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-26 21:36:22 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul26.213622.24448@bellcore-2.bellcore.com>
Source record: 9799

In article <1990Jul25.185418.5889@xanadu.com>, jeff@xanadu.com (Jeff Crilly (N6ZFX)) writes:
|> Except for CB, aren't all the other services you list above 30mhz?

For the most part, yes. At one time, however, police radio was on HF because small, efficient and inexpensive VHF FM equipment didn't yet exist. Many other services (broadcasting, fixed, etc) still exist on HF yet many do not require their operators to know the Code. Nor are they required by ITU regulations.

|> I'm no expert on the ITU regulations, but my understanding is that the US
|> regulated CB (e.g. low power, antenna limitations, etc.) to keep
|> it a "local" service (i.e. range is typically limitted to 5 miles).

Yes. But this was an FCC decision. It had nothing to do with any ITU requirements.

> They [police, fire] are public services or business related concern, while
> CB is not at all public service or business related. I beleive it falls
> under the category of point-to-point personal radio, like the devices for
> use on 49 Mhz.

No, once again CB is in land mobile. The 49MHz stuff is Part 15.

|> Seriously, I too am curious why the Citizens Band exists and why it doesn't
|> violate ITU regulation. I know of other countries where CB radios are very
|> much ILLEGAL (without the appropriate lisence). (In the Philippines the
|> local village police used them for communication.)

Nothing in the ITU regulations prohibits an "administration" (a national government) from creating a CB-style service within its own borders. CB is illegal in certain other countries only because their governments have not created one.

Remember also that the countries making up the ITU are very jealous of their sovereignty, so there are lots of escape clauses that allow countries to do whatever they want inside their own borders.

Phil

4644. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-26 21:36:54 UTC
From: peter@Pacer.UUCP
Message-ID: <330@pacer.UUCP>
Source record: 9800

In article <38843@cci632.UUCP> WZ2B writes, quoting me:

>>Everybody who develops a "my radio-religion is holier than thine"
>>attitude would do well to look at a few relevant passages from the
>>international radio treaties, the Communications Act of 1934, and
>>Part 97.

and then continues:

>This attitude works both ways ... I passed my extra a few months ago,
>I am 21 years old, and I worked [CENSORED] hard for it !!! And I am
>getting fed up with people trying to make me feel GUILTY about earning
>my extra (for WHATEVER reason).

** I'm posting this not to criticize him, but because his comments
** brought to mind some other valid issues in the license class
** debate.

Believe me, so do I. I worked [CENSORED] hard for my Extra, too, and when I got it, I was so deliriously happy I could not speak properly for several hours! When I calmed down, I set my rig to that coveted "lower 25" of 20-meter CW, called CQ DE KD7MW/ST, and promptly got piled on by several hundred JAs who thought I was a DXpedition to Senegal!

But seriously, I think you are overreacting to people who themselves are overreacting--to the pompousness of some Extras who believe no one under Extra has any right to say anything about the future of ham radio. Several of them have posted messages to that effect in the past 2 weeks.

>**BUT** the solution to **ALL** of this clamoring is **NOT** to lower
>the standards of the licensing structure -- this is the kind of live-
>for-today mentality that has brought many of this country's problems
>upon itself

Whether or not there should be an Extra or Advanced license with exclusive HF privileges is not the issue here. Nor is there a question of lowering technical standards. Communicators will have to pass the same (or harder) test that Technicians do, to get the same VHF+ privileges (or less if they're limited to 220 and up).

Also, I think you may be missing a little historical perspective here. The US has one of the most complex license structures in the Western world. It didn't used to be that way, and it happened by taking privileges away from people who had earned them. Pre-1967, there was no Advanced licence, just a "Class A" that had been grandfathered for

years. Technicians had all VHF but no HF. Novices had no 10 meter voice, but did have voice on 2 meters. Extra was an ego-booster with no extra privileges. Generals had all amateur privileges.

Suddenly, the Extra/Advanced bands were carved out and taken away from Generals, with the instigation and full support of the ARRL. Novices lost all voice privileges.

Many of us back then felt rather betrayed. I was a 15 year old prospective Novice in late '68 and an Advanced by spring '69. I remember how I felt: that a bunch of cynical old men in the ARRL (many of whom had been trained to do 20+ wpm code by the military in WWII) had decided "I'm all right, Jack, screw you all" and deliberately upped the requirements for new people like me, keeping the choicest piece of the pie for themselves. Can you imagine how the Generals felt?

There have been some corrections to the "incentives." Somebody finally realized that an all-code license was not a terribly big draw to young people, and the FCC gave Novices 10 meter voice. They gave Techs Novice HF privileges, so the Tech license wouldn't be an automatic dead end. There was a lot of talk about "lowering standards" over those decisions, too.

The long-term effect of incentive licensing was largely negative. Those who had the time and inclination/ability to upgrade did so, and others did not. The number of new hams declined. So did ARRL membership, which may have seriously weakened ham radio's national society, and hence its voice and lobbying power. Also, I believe the perception of injustice caused by incentive licensing was a factor in the decline of respect for FCC rules in general, and amateur radio's traditional politeness in particular. Certainly society's changes during this period were more important, but I think incentive licensing had more to do with it than people realize.

There is no evidence that people who upgraded are any better operators or any more technically adept than those who didn't. I suspect that most memorized the material and promptly forgot it, and most people who got Extras were DXers and contesters. But those who did not upgrade were to some degree branded and disenfranchised, especially when the call sign groups evolved and left lower-class licenses as identifiable as those with non-white skin color in society at large.

You can't be absolutely sure of license class, since some Extras (like me) prefer to keep an Advanced or General call sign. But if W7XX or NZ6Y get into a tiff with KB7ABC, the difference in call sign is fairly likely to be used as a weapon. Can you blame KB7ABC if he gets tired of this treatment and develops a hostile attitude toward Extras?

Most of the Ham theory tests are within reach of non-professionals in radio/computers, and that's as it should be. As I said in my previous post:

PK The ham exams were never intended to prove *professional* competence in
PK> state-of-the-art radio and computer design. They were designed to
PK> ensure that the applicant had gone to the trouble of attaining some
PK> reasonable level of knowledge in radio and related matters, so he/she
PK> would have the basis to become competent in whatever aspect of hamming
PK> he/she chose.

The exams tend to test a lot of surface knowledge, not in-depth stuff
(with the possible exception of Advanced, which I found hard as a kid).
Code is another matter. It may take more spare time than a lot of
people have. Especially these days, and in technical fields. It seems
like nobody will hire you unless you're willing to work 55-60 hour
weeks under normal circumstances, more during crises.

But nobody's going to work much real CW DX unless they can do code
faster than the Extra requirements in most cases. Nobody can do
advanced packet work or TCP/IP networking unless they know the protocol
and the basis for it in much greater detail than anything in the exams.
Why should a computer-oriented VHFer spend time learning Morse that he
could be spending with error-checking algorithms, programming, and
digital signal processing? Wanting and preparing to actually do
something is a far more effective incentive than yet another test.
And I believe, it leads to better learning.

Case in point: I was a theatre/music major in college. I took 2
semesters of theatre history courses which required us to memorize the
important points, plots and characters of most of the great plays of
Western Civilization. I got a perfect score on both final exams. Do I
remember anything about most of those plays? No. The plays I remember
are the ones I worked on, acted in, or wrote music for.

>...and if you're one of these people with the mouths,
>maybe you should think about what you want out of ham radio within
>the constraints of the current system, and leave the changes to the
>less emotionally driven.

Whoa, I think you're being a little emotionally driven here yourself.
Which is perfectly valid. It's just that your emotions are driving you
to guard what you have rightfully earned, under the present system.
And that system was created by taking away what every General
class ham in the country had "rightfully earned" before 1967. People
who see themselves as hampered by the current system are also
complaining emotionally. And we all look for rational justifications
to support our emotionally driven opinions.

Bottom line is that the Communicator license is not going to take any
of your (or my) quieter Extra class HF bands away. It is simply going
to allow a group that has been kept out of ham radio in, and allow them
an appropriate place--VHF and up. Sure, there will be some dead wood
let in, but I don't think it will be in any greater proportion than we
already have. I suspect that we will gain some new blood that has been
sorely lacking because of the code *ENTRANCE* requirement.

Those that want to get on HF will have to upgrade. And learn the
code. Just like the rest of us.

--
Peter A. Klein Pacer Corporation
peter@pacer.uucp ...!uunet!pilchuck!pacer!peter

4645. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-26 22:10:20 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul26.221020.24603@bellcore-2.bellcore.com>
Source record: 9801

In article <2770@anasaz.UUCP>, john@anasaz.UUCP (John Moore) writes:
> (1) Nearby in-band spread spectrum transmitters cause serious interference
> to spread spectrum receivers by increasing the effective noise
floor. Can
> this be helped by doing some magic with frequency hop spread spectrum?
> How does this work? Can it be done with DS spread spectrum by using
> synchronized (ie, anti-correlated codes)?

Yes, frequency hopping has less of a near-far problem than direct sequence. QRM still occurs (when two transmitters happen to land on the same channel momentarily) but the effects can be reduced through the use of forward error correcting codes optimized for correcting burst errors. In direct sequence systems (particularly ones where you don't know the spreading sequences of the interfering stations) the QRM looks just like white noise and you have to treat it in the same way.

Synchronized codes might in theory help reduce QRM, but since the main advantage of the civilian use of spread spectrum is to avoid the need for prior coordination (of frequency channels or anything else), I don't think this is too practical.

> (2) Spread spectrum systems will have to coexist (in many cases) with
> other systems, either in amateur or other land mobile services.
> How do you keep products from getting out of band.

Just use filters. Wideband filters with sharp skirts do exist; TV broadcast exciters are an existence proof. SAW filters in TV receivers are another example.

> (3) Phil mentioned fast-switch half duplex "repeaters". How does one
> limit the bandwidth on this (those fast on-offs will tend to give
> a wide bandwidth). How about synchronization. Do you have any
> specific ideas?

Well, "fast" is relative. The repeater would switch rapidly in terms of a data packet time, but this could still be very slow in terms of a chip interval. So the turn-on transient would be much narrower than the total spreading bandwidth.

WRT synchronization, THIS is by far the hardest part of any practical spread spectrum system. Several standard approaches exist, including the code-tracking loop (the spread spectrum analog to the Costas loop for PSK). Entire books have been written on the subject. Some amateur experiments have used common external references, such as broadcast station carriers.

Phil

4646. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-26 22:39:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500620@ux1.cso.uiuc.edu>
Source record: 9802

> Ok Phil.. let's for a moment suppose that the Novice License is saved. Where
> THEN is the central meeting ground for ALL of HAM RADIO? Hint... Novices
> already have 220 privileges. We need to populate 220.... and it has
> propagation that (IMHO) rivals or exceeds that on 2 meters. Yes.. I like
> the 220 band and admit I am opinionated about it.

Let's put Novices *BACK* on 2 meters.

But really I agree with you that 220 Mhz is a better band. But how do you
get most of the present hams onto 220? Where do I find a TRI-band HT?
I have several radios, including an IC-3AT, but I'd like to find a way
to get on all the bands in one radio, especially with an HT.

Of course we could make 440 the "watering hole", but without novices.
There is 1.2 Ghz.

> Let's say that the current proposal goes through and Communicators get
> "stuck" on 220. Are you going to push to get a repeater going on that
> band? We did here for Novices, and we also put links on it to 2 meters

Probably. We did not do this for Novices in our area because we determined
that the numbers would be too few. But I expect Communicators restricted to
220 Mhz and up would be more populous, but I'd more likely expect to see a
440 Mhz repeater show up just because someone already has one sitting in his
garage.

> so that we had the OPTION to hook into it and talk to them, just like we
> all have the OPTION to operate Novices on the HF allocated areas. I
> believe that helping new hams should be an effort or project by local
> groups and should NOT be the result of some regulation that says "here
> they are folks, love em or leave em".
>
> >New hams will generally appear IN PROPORTION to the old ones. That is to
> >say that if we see a 40% growth in hams, we will see a 40% growth in the
> >urban areas AND a 40% growth in the rural areas.
>
> Urban areas don't count... they already have 220 repeaters.

Right. But rural areas don't have the density demand. If we lost 220 and
902 Mhz, it would no big loss to us; it would be a psychological loss only.
We have PLENTY of room on 2 meters to increase the ham population TEN FOLD
and I suspect big cities can handle QUADRUPLING.

> >BUT if Communicators do NOT get on 2 meters, then you will be getting what
> >you say, because the Communicators in the rural areas will be getting NO
> >(usable) privileges. So what you are arguing FOR will actually be the CAUSE
> >of what you basing your argument on; so I suggest doing the OPPOSITE so that

> >we do not see such a thing happen.
>
> Possibly true if we don't get off our rear ends and DO something about it
> instead of trying to "make elmers out of everyone on 2 meters or else".
>
> >> So why are we forcing one group out to make room for another? That
>
> >Because these groups need to communicate with each other.
>
> Novices? Novices? Novices? Novices? What about the Novices?
> This assumes that what you are saying has basis in fact. As another
> poster pointed out, in urban areas 2 meter repeaters are highly segregated
> into interest groups. If you ain't in dem der group... you ain't welcome.

10 meters.

> *We* have.

Well, I *COULD* put up a crossband repeater here. But if I cannot get a
2 meter frequency to link to, I'll call on you to pay a personal visit to
the coordinator.

> EXACTLY! I like the last option. If elmer wants to help him he can buy
> a 220 Mhz radio and do so, or your repeater group can FUND a 220 repeater
> and help NOVICES too. Also don't forget that it is not too big a deal to
> add a 220 remote base to existing 2 meter repeaters. Is the issue one where
> you want to help the elmers by not making them buy rigs for those bands where
> we need the most development.. and driving the non-elmers off of 2 meters?

Most people won't be Elmers most of the time, and won't be buying another
radio just to help new hams.

> This is getting interesting huh Phil? :-)

I suppose.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4647. Re: IC-2SAT or IC-24AT?

Newsgroup: rec.ham-radio
Date: 1990-07-26 22:58:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500621@ux1.cso.uiuc.edu>
Source record: 9803

> I am considering buying an HT, but can't decide between
> the 2SAT or 24AT. Is a dual-bander worth it, or shall I stick
> to 2m ?

If you were in the USA I would say to get the 24AT by all means.
This is so you can talk to the Communicators.

But there are many good reasons to go with more bands.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4648. Re: Should I become a ham now or wait?

Newsgroup: rec.ham-radio
Date: 1990-07-26 23:01:27 UTC
From: forrest@orion.sybase.com
Message-ID: <10289@sybase.sybase.com>
Source record: 9804

In article <1990Jul25.140643.25493@chinet.chi.il.us> megabyte@chinet.chi.il.us (Dr. Megabyte) writes:
>Or is the best yet to come? I feel somewhat strange attending my local ham
>radi clubs meetings as I'm 27 and everyone is so OLD. On the other hand, I
>have a friend who is a 12 year old extra... but he didn't join the club
>becuase "It's judt a bunch of old guys who hate me because I'm so young."
>Is ham radio an "Old man's hobbie" where young people are looked down upon?
>It doesn't seem that way from what I hear on the air, but it seems to be at
>ham fests and other gatherings I go to.

I've noticed this too. I recently went to a meeting of the local
ham radio club and noticed that there weren't any teenagers there.
When I was first licensed in the late 60's we had a club that was
almost all teenagers. Plus, there were always bunches of teenagers
hanging out on 40 and 80 making a general nuisance of themselves.
I don't hear this anymore.

I'm sure a 12 or 27 year old could have fun in ham radio but
there will be fewer of you than 15 years ago.

Anything you read here is my opinion and in no way represents Sybase, Inc.

Jon Forrest WB6EDM
forrest@sybase.com
{pacbell,sun,{uunet,ucbvax}!mtxinu}!sybase!forrest
415-596-3422

4649. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-26 23:05:46 UTC
From: mo@messy.bellcore.com
Message-ID: <25766@bellcore.bellcore.com>
Source record: 9805

See back issues of QEX (year or so ago)

Andre Kesteloot, president of AMRAD, published
a series of things about how to get on SS with
simple components.

-Mike

4650. Re: 73 Mag changes flavor

Newsgroup: rec.ham-radio
Date: 1990-07-26 23:11:08 UTC
From: forrest@orion.sybase.com
Message-ID: <10290@sybase.sybase.com>
Source record: 9806

In article <1687@raybed2.msd.ray.com> ewb@raybed2.msd.ray.com (EUGENE BALINSKI) writes:
>
> As you may have noticed 73 Magazine has a new editor Bill Brown WB8ELK.
>There have been some suttle changes to the magazine in the positive light,
>especially in the ATV area. Bill is responsible for these. Thare are more
>coming as well. You may say that Wayne Green's column is as bad as ever,
>however THE EDITOR HAS NO CONTROL OVER WAYNE'S COLUMN so Bill is not to
>blame for that
>

This was the first I had heard about this but your positive comments
about Bill make sense. I went to school with him at UC Santa Barbara
where he had come to get a Master's degree in EE. As I recall, he
already had a MS in Chemical Engineering. He was in the UCSB ham
radio club W6RFU and was always one of the most technical people.
He was also very active in the technical projects of the local
ham club. He moved up to Berkeley for a while and lived at the
top of the Berkeley hills in a house with all kinds of ATV stuff.
He used to do all kinds of wierd ATV stuff and always had a very
independent approach to ham radio. I had lost track of him and
was surprised to hear about his editorship. He's certainlly
technically qualified.

Anything you read here is my opinion and in no way represents Sybase, Inc.

Jon Forrest WB6EDM
forrest@sybase.com
{pacbell,sun,{uunet,ucbvax}!mtxinu}!sybase!forrest
415-596-3422

4651. Re: Spread Spectrum Repeaters - Technic

Newsgroup: rec.ham-radio
Date: 1990-07-26 23:31:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500623@ux1.cso.uiuc.edu>
Source record: 9807

> (1) Nearby in-band spread spectrum transmitters cause serious interference
> to spread spectrum receivers by increasing the effective noise floor. Can
> this be helped by doing some magic with frequency hop spread spectrum?
> How does this work? Can it be done with DS spread spectrum by using
> synchronized (ie, anti-correlated codes)?

A spread spectrum repeater will interfere with itself just as much if the
transmit band overlaps the receive band. The adjacent machine would only
increase that by 3db more.

However if the transmit band and receive band are far enough apart in
frequency, and the two repeaters do it the same way, they can simply
filter out the transmit frequency range from the receiver.

> (2) Spread spectrum systems will have to coexist (in many cases) with
> other systems, either in amateur or other land mobile services.
> How do you keep products from getting out of band. For example, let's
> say I build a DS spread spectrum transmitter that operates on a center
> frequency of 445.0 MHz, with a 9 Mbps DS rate. This should give sideband
> nulls at 440.5 and 449.5 MHz. How do I keep the energy below 440.0
> and above 450.0 from being a problem? Is this a reasonable example?

Use bandpass filters in the sinusoidal domain. Perhaps that rate is too
high for that part of the band. I also tend to think that SS should ALSO
be combined with NON-spreading scrambling to even out the spectral density
so there are no major peaks or nulls. Simple DS methods don't achieve the
best form of spreading by themselves.

> (3) Phil mentioned fast-switch half duplex "repeaters". How does one
> limit the bandwidth on this (those fast on-offs will tend to give
> a wide bandwidth). How about synchronization. Do you have any
> specific ideas?

I don't recall what Phil Karn mentioned, but it sounds somewhat like a
packet swicthing system to me. Maybe not.

> Let me also re-iterate Phil's plug for SS.

> SS allows one to more effectively utilize crowded spectrum, UNDER
^^^^^^^
"Share" might be a better word here. SS allows you to NOT tie up a
frequency assignment. Consider the case of a parking lot with 100 spaces.
If you assign a space to everyone, only 100 people can get spaces. But
if you issue 800 "park anywhere in the lot" stickers, then 800 people can
share the lot as long as not more than 100 people try to park at the same
time. But ANY COMBINATION of the first 100 people can concurrently use the
lot. As the lot fills up, one has to hunt for the free space (high SNR).

This is why hotels defer your room assignment until you arrive.

> THE RIGHT conditions. It also affords relative privacy (ie, legally
> you cannot use it for encryption, but you can sure use different
> chip rates, etc). It is very good in any sort of selective fading condition
> because it is not coherent, so fades only reduce the SNR a bit, rather
> than a whole lot. It will reduce problems such as intermod, because
> of its non-coherent/noise-like nature. It also allows the creation of
> an almost infinite number of virtual channels (if the FCC will allow
> a larger set of spreading codes), which can be really handy.

We can experiment with the single codes we are allowed to use now, and
get some number of virtual channels. But ultimately it would be nice to
be able to choose any code.

While problems like intermod will be reduced in there effect, this also
does have the drawback that the problems can get severe, and begin to
impact things with a very high noise floor. Other than those that stay
minor, problem do still need to eventually be tracked down and corrected.
SS could make that much hard to do. DF-ing a signal you cannot receive is
very hard to do. Calculating intermod products is meaningless if everyone
is using the same, or very broad, frequency spreads.

SS has it advantages and its disadvantages. I personally believe the
advantages outweigh the disadvantages in MOST cases (once the technology
is in place). But one needs to learn to deal with SS as well. The problem
with 2 adjacent repeaters might be curable much easier than two adjacent
neighbors trying to work SS DX.

"Hey OM, can you QSSY to 071343520544062135565 14?"

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4652. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-26 23:52:18 UTC
From: kevinr@moe.Tandem.COM
Message-ID: <1990Jul26.235218.1527@tandem.com>
Source record: 9808

In article <4883@infmx.UUCP>, randall@infmx.UUCP (Randall Rhea) writes:
|> In the hours following the Oct. 17th earthquake here in the Bay Area, all
|> communication systems were down. Telephones (including cellulars) did not
|> work until about 9pm. (The quake happened at 5:04)

This isn't quite true. I live a few miles (<10) from the epicenter,
and my phone NEVER failed. Dial tone was a little slow to get, but
I wasn't going anywhere for a while.

In fact, after I found the cat and flashlights, I picked up the phone
at 5:37 and telephoned my Dad in Santa Barbara. He was watching the
broadcast on TV about the Oakland Bay bridge. It was from him that
I got the first accurate report of the extensiveness of the bridge
collapse. He could see it on TV!

|> Bridge", etc.) The much balleyhooed "Emergency Broadcast System" failed
|> completely.

Yes and No. KGO et al refused to yield the channel to the SF mayor
because KGO wanted to report the news.

N6RCE

4653. Re: Communicator Frequencies

Newsgroup: rec.ham-radio
Date: 1990-07-27 00:10:21 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880209@hpfcdc.HP.COM>
Source record: 9809

> Consider what modes and practices the communicator class will be using.

Uh... by the way, what are they? The current proposal issued by the
FCC -- what modes and frequencies would it allot Communicators?

4654. Re: What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-27 00:13:47 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880210@hpfcdc.HP.COM>
Source record: 9810

> Get on CW, that call has more sex in its bounce than Cher in concert!

Huh... I hadn't even thought of that... it's been MONTHS since I knew
Morse. :-) Lessee...

dahdit dahdahdahdahdah dahdah dididahdit didahdah

I guess I must be missing out on something subtle I haven't
experienced yet... :-)

4655. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-27 00:27:46 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880211@hpfcdc.HP.COM>
Source record: 9811

> Nothing is more destructive to a NiCad battery than continually doing
> partial recharge cycles.

This *appears* to be destructive because it reduces the charge capacity -- temporarily. Also, it means you are more likely to overcharge (generating heat) because you don't know how long to charge (unless you have a smart charger that senses temperature and/or the voltage DROP that occurs after full charge is attained).

Partial charging is not actually destructive so long as you don't overcharge or overdischarge as a result. What happens is the cells in the pack get out of sync. The whole pack appears "discharged" when the first cell (out of 4 or 6 or 8 or more) runs out of stored charge -- and it begins to reverse charge if you continue to drain the other cells. Of course you won't be able to do that easily because the radio will sense the too-low voltage, as soon as one cell is empty, and shut off.

Moral: Partial charge when you must, using your judgement about how long to do it and how much it will extend the useful life of the battery in field conditions. However, as a normal rule, use a pack until exhausted, then fully charge it (by timing if you don't have a smarter charger). Slight overcharging is good, as long as you don't overheat the battery, because it brings all the cells up to full potential. Likewise, occasional discharging "to zero" is good for the same reason.

> The thermistor senses the rapid temperature rise that a fully charged
> pack exhibits when continued charging is attempted.

Watch out for cycling a fully-charged battery in and out of overcharging though, as it cools down and heats up again.

4656. Satellite Interference Location System (Re: "Captain Midnight")

Newsgroup: rec.ham-radio
Date: 1990-07-27 00:31:32 UTC
From: cfogg@milton.u.washington.edu
Message-ID: <5598@milton.u.washington.edu>
Source record: 9812
Cross-posted to: sci.space,rec.ham-radio

Blurb from Seattle Times, 23 Jul 90, F2:

Tracking Midnight

Captain Midnight, look out. Using radio navigation techniques, engineers at Georgia Institute of Technology have developed a system to pinpoint the location of ground stations that interfere with satellite transmissions.
Called the Satellite Interference Location System, the new technique should help satellite operators quickly locate sources of accidental satellite interference -- including Captain Midnight, who four years ago beamed a protest message into an HBO transmission.
The system uses navigational and mathematical techniques to determine the longitude and latitude of the ground station.

4657. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-27 00:32:36 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880213@hpfcdc.HP.COM>
Source record: 9813

Me again. I'm spouting off a lot about NiCads and figured I should name my source. It's N0JCO, a friend who's done a lot of studying on the subject. I've read Sanyo and GE NiCad application guides I borrowed from him -- it's fascinating stuff.

Another NiCad tidbit. Apparently one common failure mode is for metal needles to grow through the electrolyte, shorting the electrodes. If you have a "dead pack", that won't hold any charge, and you're going to trash it anyway, try a last ditch maneuver. Run about 30A through it very briefly (about a second?), taking care lest the seals open on the cells and spout hydrogen, oxygen, boiling electrolyte, etc. :-)

This is reputed to "burn off" the needles and thereby bring old cells back to life in some cases.

Also you can sometimes open a pack, identify one or two bad cells, and just replace those. I haven't had need to do it myself, and it sounds like work.

4658. Re: Do we need *more* hams, or less?

Newsgroup: rec.ham-radio
Date: 1990-07-27 00:40:20 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880214@hpfcdc.HP.COM>
Source record: 9814

> ...*WHY* do we want *MORE* hams?

Another reason: More people to talk with. If I was the only ham in the world it would be no fun. If everyone was a ham it would be very crowded, but other human systems are already crowded and we find ways to cope. There'd be more chance of finding a late night drive-time QSO, of getting emergency help, etc. It would be easier to manage caravans. And the occasional emergency would have fewer communications limiters.

4659. Re: Ham radio's value (Was: Re: Communicator Class)

Newsgroup: rec.ham-radio
Date: 1990-07-27 00:59:30 UTC
From: BPorter@world.std.com
Message-ID: <1990Jul26.142352.16996@world.std.com>
Source record: 9815

Followup-To:BPorter@world.std.com
Organization: The World
References: <55993@microsoft.UUCP> <326@pacer.UUCP> <38843@cci632.UUCP>
Distribution: World
Date: Thu, 26 Jul 90 14:23:52 GMT

<<...and if you're one of these people with the mouths,
maybe you should think about what you want out of ham radio within
the constraints of the current system>>

The problem with the current system is the market...we havn't "sold" our
hobby to our neighbors as something valuable, so the powers that allocate
radio spectrum will start to take it from us if we don't start to get lots
of new hams soon..and you and I will have no "ham Radio" in our "old fart"
years....code is NOT the issue...what we need is a way to give people a
"taste" of our hobby/service, and the communicator proposal will do that.
I don't think that the communicator class will become a technician class
type ticket...there are many good hams who are content to stay as techs and not
upgrade...the communicators ticket is designed to be "upgraded from", and
if marketed properly, will lead to a rejuvinating of our hobby/service...
Basically, we are being given a challenge by the FCC...grow or be
gone......and unless our great hobby pulls together and we ALL do something
about getting new hams (regardless of interest) by the end of the 90's our
hobby will be vastly different, if it exists at all....Barry

4660. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-27 02:21:12 UTC
From: <>
Message-ID: <1990Jul27.022112.25449@bellcore-2.bellcore.com>
Source record: 9816

In article <4883@infmx.UUCP>, randall@infmx.UUCP (Randall Rhea) writes:
> In the hours following the Oct. 17th earthquake here in the Bay Area, all
> communication systems were down. Telephones (including cellulars) did not
> work until about 9pm. (The quake happened at 5:04)

I can offer another counterexample. I was driving home from a computer show in NJ when the Loma Prieta earthquake occurred, and by the time I got home (< 30 minutes later) Patty, N6BIS, had already left a message on my answering machine saying that everything was all right.

No communications system, amateur radio or landline, can possibly satisfy everyone when demand exceeds supply. Some users have to lose. That should be obvious. But the telephone companies spend a lot of effort building in mechanisms to keep their systems from collapsing under overload. By this I mean that even under pathological overdemand, the system will continue to operate at or near full capacity; it will not waste lots of resources in failed call attempts.

Within minutes after the earthquake, the long haul carriers began blocking inbound telephone calls at points well outside the earthquake area. This kept the trunks into the Bay area from being wasted on failed call attempts, allowing the people in the affected area (such as Patty) to make outbound calls with almost no difficulty. Because there was no damage to the system itself, these mechanisms worked flawlessly.

Amateur radio is often a different story. Everyone knows from listening to a DX pileup or an overloaded packet radio channel what happens when everybody transmits at once: NOBODY gets through, and the channel is effectively wasted. Contention is inherently more difficult to deal with efficiently on a multiple access radio channel than on a network of point-to-point links, because you can use queueing on the latter to avoid collisions. Furthermore, current amateur operating practices come nowhere near the theoretical maximum throughputs possible, either because the computer software executing the correct "access algorithms" does not exist (for packet) or because (for manual voice) the human operator lacks training, has poor discipline (e.g., emotional stress) or simply because he's human and not a computer. And it only takes one to screw it up for everybody else on the channel.

Channel access and congestion control algorithms are strong interests of mine, as they have applicability both to amateur radio and my research work for Bellcore. I think there are some real opportunities to try out some of these schemes in the amateur service and perhaps make some significant practical contributions to the field. As I've said before, if we can make it work in amateur radio, it will work ANYWHERE...

Phil

4661. Alkaline battery hazards

Newsgroup: rec.ham-radio
Date: 1990-07-27 02:35:58 UTC
From: rfc@briar.Philips.Com
Message-ID: <104533@philabs.Philips.Com>
Source record: 9817

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
31077 BF 1088 1 26-Jul 2021 N3ET 2665_N3ET ALL@ALLBBS ()
Sb: Alkaline battery hazards

Reportedly some alkaline batteries are now being manufactured with the case connected to the outer shell of the cell. The printed coatings act as an insulator, at least until it wears through due to friction with the battery holder.

Check your alkaline batteries before using them in metal flashlights or metal battery holders.

In HT's, be sure that the negative spring terminal does not extend to the outer case where it will eventually rub through and short out.

Additionally, remember not to mix battery types such as alkaline, carbon-zinc, or NiCads. NiCads in particular can supply high amounts of current through a series discharged cell, causing damage or explosion.

73, Randy N3ET @ N3ET

4662. Re: Spread Spectrum Repeaters - Technic

Newsgroup: rec.ham-radio
Date: 1990-07-27 03:07:03 UTC
From: <>
Message-ID: <1990Jul27.030703.25597@bellcore-2.bellcore.com>
Source record: 9818

>A spread spectrum repeater will interfere with itself just as much if the
>transmit band overlaps the receive band. The adjacent machine would only
>increase that by 3db more.

Remember that the difference in transmit and receive signal levels at a typical VHF/UHF repeater (i.e., the repeater's power gain) can be 150 dB or more. Spread spectrum processing gains, however, are seldom greater than 30 dB (for a 1000:1 spreading ratio) and this is all the selectivity you get between the desired signal and a stronger, interfering signal sharing the same spreading band. In other words, a simultaneous spread spectrum repeater using the same band for input and output is simply not very practical.

If you really want a simultaneous repeater for spread spectrum signals, build a wideband crossband translator. Otherwise, build a single frequency packet switch that need not transmit and receive simultaneously.

>Use bandpass filters in the sinusoidal domain.

What does this mean?

>I also tend to think that SS should ALSO
>be combined with NON-spreading scrambling to even out the spectral density
>so there are no major peaks or nulls. Simple DS methods don't achieve the
>best form of spreading by themselves.

On the contrary. ANY decent spreading method will produce a signal that is statistically indistinguishable from broadband (though still band-limited) noise. Even linear feedback shift registers (PN generators) of the type allowed for amateur operation will suffice, and these happen to be the very same type of circuits used for modem scramblers. (Indeed, a modem scrambler is really just a spread spectrum modulator with a 1:1 spreading ratio.) Therefore no additional steps are needed to eliminate spectral lines (other than picking a long enough shift register).

>I don't recall what Phil Karn mentioned, but it sounds somewhat like a
>packet swicthing system to me. Maybe not.

No, that's exactly what it is. A direct sequence spread spectrum system is inherently digital, so why not use it as a modem on a packet switch. If you want voice, digitize it.

Phil

4663. American woodpecker

Newsgroup: rec.ham-radio
Date: 1990-07-27 03:46:49 UTC
From: rfc@briar.Philips.Com
Message-ID: <104543@philabs.Philips.Com>
Source record: 9819

copied from packet:
Msg# TSF Size #Rd Date Time From MsgID To
31070 BF 4723 1 16-Jul 1851 AA6MZ 3923_WA6PEZ ALL@ALLBBS ()
Sb: ONE-LAND WOODPECKER

ONE-LAND WOODPECKER

Those of us who chase DX as a passion have all shared this experience. We've got our beam pointed just so, and our finals are peaked and tweaked to output as much RF as is legal. We've listened and we've figured out the DX station's operating pattern. We're just about to key our transmitter, victory and conquest certain, when we see our S-Meter start to jump. We reach for the noise blanker, but the pulsing is just too much for our rig. The Russian woodpecker has just snatched away our victory.

The Russian woodpecker is a over-the-horizon (OTH) radar system that operates in the HF bands. It has been recently joined by an American version, also operating in the HF bands.

With transmitting antennae located in Moscow, Maine (it's too ironic not to be true) and receiving antennae located over 100 miles away in Columbia Falls, Maine, this OTH system will guard our east coast. The area of coverage extends from Greenland to Cuba. The operations center is located in Bangor, ME. From here, display signals indicate aircraft targets, automatically correlating them with all known flight plans. Aircraft not correlatingare reported to NORAD (North American Air Defense Command).

Each of the three transmit antenna arrays is 3630 feet long and 35 to 135 feet high. Each transmit array is divided into six sub-arrays to handle frequencies from 5 to 28 MHz. Frequency switching is controlled by 28 individual VAX computers which input atmospheric conditions and determine the optimum operating frequency. The range of this radar system is between 500 to 1800 miles, as compared to 200-300 miles for conventional systems.

The coverage area is divided into three 60 degree segments. Each segment is served by 12 100 kW transmitters (talk about a pile-up buster). The receiving antenna array is 4980 feet lone and consists of 246 monopole elements.

Lest you take comfort in the thought that this system is far away. The Maine system is only the first of 4 similar systems to be built. A west coast system is about 90 percent complete and has already been operationally tested. Transmitters are located near Christmas Valley

in Southern Oregon and the receiving antennas are located near Tulelake, California. This system will provide coverage from Alaska to Baja, CA. The third system, with transmitters looking north from Alaska, is expected to be begun later this year. Finally, a system, covering the central U.S., looking south to cover the Caribbean area, is expected to be awarded in early 1991. This last system is expected to be paid for by funds allocated to the military for the war on drugs and will be used to spot smugglers, as well as possible enemy aircraft.

Japan and Australia have also shown interest in installing OTH systems in their countries. This brings up the possibility of a new award. HAW, Heard all Woodpeckers. If it's been a while since you've heard the Russian Woodpecker, don't fret. His cousins are just around the corner.

73 de Tom,
AA6MZ
@WA6PEZ...sk

4664. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-27 04:08:26 UTC
From: adams@swbatl.sbc.com
Message-ID: <1990Jul27.040826.961@swbatl.sbc.com>
Source record: 9820
Cross-posted to: sci.electronics,rec.ham-radio

In article <37291@shemp.CS.UCLA.EDU> cccph@eel.cs.ucla.edu (Charles Hobbs) writes:
>In article <872@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti) writes:
>+
>+ (stuff deleted)
>>I've had this dream of making a triode in a peanut butter jar (a
>>small strong one :=) ...
>You could do this successfully if you had some way of getting a
>good vacuum. (Commercial valves have chemical compounds known as
"getters" which aid in removing oxygen from the valve)

Before I run off about getters, I'd like to mention that light bulb
filaments have low emmissivity, and probally aren't suitable, and that
a test tube, or olive jar would probally be a lot easier to evacuate.
Also, using direct filament emmision means you'll need DC filament
supplies to avoid hum.

I quote from Physics of Electron Tubes, L. Koller, McGraw-Hill, 1937 (2e)
No matter how well a vacuum tube has been exhausted, there always remains a
small residual pressure of gas. This may perhaps be of the order of
0.0001mm of Mercury in commercial tubes. Even at this low pressure,
the number of molecules of air per cubic centimeter reaches the
astounding figure of 10^12.
...

The getters most commonly used at present are phosphorus, calcium,
magnesium, barium, strontium, aluminum and various mixtures of alloys of
these. Phosphorus is used in the red form.
...
Barium and strontium are very active getters but have the disadvantage of
oxidizing rapidly... For this reason the are often used in the form of
alloys with aluminum, which are quite stable in air and from which the
active metal can be vaporized by heating, after exhausting the tube.

... [Discussion of reduction of gas pressure during getter vaporization
by collision between getter and gas molecles, and later, after getter has
volatized onto surface of tube wall by formation of monatomic layer of
gas molecules, mentioning 10^2 cm layer could reduce pressure 3x10-3 mm Hg
in 100 cc bulb.] I believe getters were vaporized by strong RF field,
which also contributed to the vacuum by accellerating gas ions into the
tube walls.

Glass and electrode metals substantially outgas and must be heated for a
considerable time to reduce this effect.

Getters were actually invented by John T Marshall (1908) to exhaust tungsten filament lamps, and many others patented improved getters in the next few decades.

All in all, soft tubes like Brian's grandaddy used to make would be a whole lot easier. Reasonable detectors, lousy amplifiers. Still could awfully interesting. Others have done tubes at home, and I've thought about it a lot. Anyone seen documents on Sprengel vacuum pumps as used by Edison?

Send mail, join the languishing Antique Radio mailing list.
--
uunet!swbatl!adams or adams@swbatl.sbc.com
Tom Adams: 314-235-7459: Southwestern Bell Telephone Advanced Technology Lab
BOOKS WANTED: pre-1930 radio, electrical & scientific topics

4665. AMSAT News, 7/21/90

Newsgroup: rec.ham-radio
Date: 1990-07-27 06:12:14 UTC
From: tad@ssc.UUCP
Message-ID: <947@ssc.UUCP>
Source record: 9821

SB ALL @ AMSAT $ANS-203.01
DO-17 RETURNS TO SERVICE!

HR AMSAT NEWS SERVICE BULLETIN 203.01 FROM AMSAT HQ
SILVER SPRING, MD JULY 22, 1990
TO ALL RADIO AMATEURS BT

DOVE-OSCAR-17 RETURNS TO SERVICE!

After a four month sojourn in a computer coma, DOVE-OSCAR-17 returned to service on July 22nd at 02:41 UTC when N4HY commanded its 2M transmitter on. As it passed over the horizon at his QTH, he knew immediately that the tedious and time consumming "auditory" software loading process had been successful and that this time the on-board computer (OBC) would not crash. Later, ZS6HKV heard DOVE's 2M beacon on 145.825 MHz at 06:50 and again at 08:26 UTC over South Africa. ZS6AKV and stations in Zimbabwe heard DOVE sending ASCII telemetry for 2.5 minutes and then stop for half a minute, and then repeat this cycle again and again. At the present time DOVE's RF output power is about 250 mW and will stay at that level until the battery bus voltage reaches 11 volts. Once the batteries charge up to 11 volts, the battery charging algorithm in the OBC will take over and increase the RF output to 1.5 watts. N4HY feels this will happen soon now that DOVE battery charging is back under software control. For the first few days it may be difficult for those with a simple station, i.e., non-tracking antennas, to hear DOVE's 250 mW. Stations with tracking antennas and low-noise preamps will not have any trouble receiving the ASCII telemtry. All are urged to monitor the telemetry during this critical period.

After careful analysis, N4HY has concluded that the problem which made the software reload of DOVE so difficult was caused by an anomaly in the AART (Addressabe Aysnchronous Receiver/Transmitter) board. The AART provides a bus which connects all the various modules of a MICROSAT to the On Board Computer (OBC) and allows them to be controlled individually by the OBC. For reasons not yet clear to N4HY, the AART was not responding to the S-band transmitter, telling it that the OBC had correctly received an Acknowledge packet when software was being loaded using the 2 meter uplink command receiver. Therefore, when N4HY was listening for Acks on his S-band down converter while uplinking, software was being loaded properly but the S-band was not sending the Acks as it was suppose too. The OBC was commanding that the Acks be sent, but the S-band transmitter wasn't "hearing" the command coming out of the OBC. N4HY says he now has an understanding of the problem and he and NK6K will be able to tailor their software to work around this problem. Further, "it is not a dangerous problem and the DOVE module is accepting commands" according to N4HY.

AMSAT-NA wishes to acknowledge the heroic efforts of N4HY and NK6K as they worked through the solution of this time consuming problem. Though this would have been a difficult problem to have solved on a test bench in the MICROSAT Lab, it was an even more difficult problem to work with DOVE several hundred miles in space. This shows once again the ingenuity and innovativeness of the AMSAT-NA MICROSAT Team to solve problems.
/EX
SB ALL @ AMSAT $ANS-203.02
PAKISTANI SATELLITE LAUNCH

HR AMSAT NEWS SERVICE BULLETIN 203.02 FROM AMSAT HQ
SILVER SPRING, MD JULY 22, 1990
TO ALL RADIO AMATEURS BT

BADR-1, the first Pakistani 'amateur' satellite was launched successfully yesterday on 16 July 90 according to SUPARCO (Space & Upper Atmosphere Research Commission - Pakistan). BADR-1 is believed to be a small UoSAT-11/FO-12 class satellite. A Chinese Long March booster was used to place the payload into a low inclination, elliptical Earth orbit.

Amateurs around the world have been hearing BADR-1 transmissions on 145.825 MHz FM. They are comparable in strength and polarization to UoSAT-11. Data modulation or modulation tones have been heard on the FM carrier but data has yet to be interpreted by ANS sources.

Keplerian elements for BADR-1 are carried in this week's AMSAT - ORBS release. Refer to bulletin $ORBS-202.M titled "Orbital Elements 202.MISC."
/EX
SB ALL @ AMSAT $ANS-203.03
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 203.03 FROM AMSAT HQ
SILVER SPRING, MD JULY 22, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

27 Jul 90 0030 130 B N5BF Thursday
07 Aug 90 0130 170 J/L N5BF Monday
18 Aug 90 0045 170 J/L N5BF Friday
28 Aug 90 0100 169 J/L N5BF Monday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your nearby AMSAT Regional Coordinator
/EX
SB ALL @ AMSAT $ANS-203.04
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 203.04 FROM AMSAT HQ
SILVER SPRING, MD JULY 22, 1990
TO ALL RADIO AMATEURS BT

A new Transponder Schedule for AO-13 was put into effect on July 3.

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 003 to MA 165
Mode-JL : MA 165 to MA 190
Mode-LS : MA 190 to MA 195 (Mode S Beacon only)
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 240
Off : MA 240 to MA 003
Omni Antennas : MA 240 to MA 060

Cross mode B and S QSOs are possible from MA 200 to 205.

The current attitude estimate:

BLON = 207 and BLAT = +1

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

Much activity has been heard on AO-10 centering around a popular calling frequency of 145.910 MHz.
/EX
SB ALL @ AMSAT $ORBS-202.O
Orbital Elements 202.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JULY 21, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90195.42897539
Element set: 533
Inclination: 26.0275 deg
RA of node: 194.6719 deg
Eccentricity: 0.5956727
Arg of perigee: 159.0775 deg
Mean anomaly: 242.2110 deg
Mean motion: 2.05881166 rev/day
Decay rate: -4.10e-07 rev/day^2
Epoch rev: 5329

Satellite: UO-11
Catalog number: 14781
Epoch time: 90196.62757134

Element set: 759
Inclination: 97.9462 deg
RA of node: 248.2520 deg
Eccentricity: 0.0013012
Arg of perigee: 152.5037 deg
Mean anomaly: 207.6821 deg
Mean motion: 14.65494071 rev/day
Decay rate: 1.107e-05 rev/day^2
Epoch rev: 34013

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90198.06532220
Element set: 256
Inclination: 82.9282 deg
RA of node: 306.4530 deg
Eccentricity: 0.0012828
Arg of perigee: 41.9060 deg
Mean anomaly: 318.3074 deg
Mean motion: 13.72098613 rev/day
Decay rate: 7.30e-07 rev/day^2
Epoch rev: 15354

Satellite: AO-13
Catalog number: 19216
Epoch time: 90196.86706959
Element set: 138
Inclination: 57.0405 deg
RA of node: 145.5100 deg
Eccentricity: 0.6988773
Arg of perigee: 231.4323 deg
Mean anomaly: 42.7199 deg
Mean motion: 2.09704850 rev/day
Decay rate: -1.57e-06 rev/day^2
Epoch rev: 1600

Satellite: FO-20
Catalog number: 20480
Epoch time: 90195.61058361
Element set: 93
Inclination: 99.0367 deg
RA of node: 236.9380 deg
Eccentricity: 0.0540983
Arg of perigee: 346.5085 deg
Mean anomaly: 12.2023 deg
Mean motion: 12.83158694 rev/day
Decay rate: 5.20e-07 rev/day^2
Epoch rev: 2026
/EX
SB ALL @ AMSAT $ORBS-202.D
Orbital Elements 202.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JULY 21, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90197.87148692
Element set: 181
Inclination: 98.6965 deg
RA of node: 273.8932 deg
Eccentricity: 0.0012402
Arg of perigee: 69.5417 deg
Mean anomaly: 290.7095 deg
Mean motion: 14.28658893 rev/day
Decay rate: 2.30e-06 rev/day^2
Epoch rev: 2510

Satellite: AO-16
Catalog number: 20439
Epoch time: 90197.64903266
Element set: 94
Inclination: 98.7017 deg
RA of node: 273.7876 deg
Eccentricity: 0.0012586
Arg of perigee: 69.5283 deg
Mean anomaly: 290.7248 deg
Mean motion: 14.28763438 rev/day
Decay rate: 3.00e-06 rev/day^2
Epoch rev: 2507

Satellite: DO-17
Catalog number: 20440
Epoch time: 90193.23238435
Element set: 97
Inclination: 98.7026 deg
RA of node: 269.3928 deg
Eccentricity: 0.0012811
Arg of perigee: 81.9185 deg
Mean anomaly: 278.3458 deg
Mean motion: 14.28807998 rev/day
Decay rate: 4.20e-06 rev/day^2
Epoch rev: 2444

Satellite: WO-18
Catalog number: 20441
Epoch time: 90197.63130125
Element set: 98
Inclination: 98.7035 deg
RA of node: 273.8046 deg
Eccentricity: 0.0013278
Arg of perigee: 69.0881 deg
Mean anomaly: 291.1718 deg

Mean motion: 14.28905580 rev/day
Decay rate: 3.04e-06 rev/day^2
Epoch rev: 2507

Satellite: LO-19
Catalog number: 20442
Epoch time: 90197.20278480
Element set: 97
Inclination: 98.7041 deg
RA of node: 273.3972 deg
Eccentricity: 0.0013527
Arg of perigee: 71.0318 deg
Mean anomaly: 289.2319 deg
Mean motion: 14.28974650 rev/day
Decay rate: 3.06e-06 rev/day^2
Epoch rev: 2501
/EX
SB ALL @ AMSAT $ORBS-202.M
Orbital Elements 202.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JULY 21, 1990
TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90197.74428110
Element set: 384
Inclination: 51.5998 deg
RA of node: 154.3018 deg
Eccentricity: 0.0001838
Arg of perigee: 63.8750 deg
Mean anomaly: 296.2388 deg
Mean motion: 15.66207462 rev/day
Decay rate: 1.6306e-04 rev/day^2
Epoch rev: 46948

Satellite: MIR
Catalog number: 16609
Epoch time: 90197.76909049
Element set: 794
Inclination: 51.6112 deg
RA of node: 181.4066 deg
Eccentricity: 0.0010200
Arg of perigee: 150.1851 deg
Mean anomaly: 209.9638 deg
Mean motion: 15.62940244 rev/day
Decay rate: -7.186e-05 rev/day^2
Epoch rev: 25272

Satellite: HUBBLE
Catalog number: 20580

Epoch time: 90198.01772867
Element set: 135
Inclination: 28.4715 deg
RA of node: 59.7912 deg
Eccentricity: 0.0005294
Arg of perigee: 82.9895 deg
Mean anomaly: 277.1393 deg
Mean motion: 14.84603906 rev/day
Decay rate: 2.406e-05 rev/day^2
Epoch rev: 1241

Satellite: BADR-1
Catalog number: 20685
Epoch time: 90198.08455059
Element set: 7
Inclination: 28.4931 deg
RA of node: 297.7287 deg
Eccentricity: 0.0562305
Arg of perigee: 138.0890 deg
Mean anomaly: 226.3844 deg
Mean motion: 14.90429605 rev/day
Decay rate: 1.9729e-03 rev/day^2
Epoch rev: 16
/EX
SB ALL @ AMSAT $ORBS-202.W
Orbital Elements 202.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JULY 21, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90198.22643387
Element set: 603
Inclination: 99.1690 deg
RA of node: 198.7542 deg
Eccentricity: 0.0014262
Arg of perigee: 286.2590 deg
Mean anomaly: 73.7008 deg
Mean motion: 14.12618650 rev/day
Decay rate: 2.61e-06 rev/day^2
Epoch rev: 28822

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90193.29612781
Element set: 450
Inclination: 98.5976 deg
RA of node: 220.6777 deg
Eccentricity: 0.0013064

Arg of perigee: 192.8958 deg
Mean anomaly: 167.1887 deg
Mean motion: 14.23661383 rev/day
Decay rate: 4.59e-06 rev/day^2
Epoch rev: 19818

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90198.11989557
Element set: 461
Inclination: 82.5529 deg
RA of node: 266.5629 deg
Eccentricity: 0.0011773
Arg of perigee: 162.0799 deg
Mean anomaly: 198.0776 deg
Mean motion: 13.83662676 rev/day
Decay rate: 2.19e-06 rev/day^2
Epoch rev: 14712

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90198.04692239
Element set: 321
Inclination: 82.5462 deg
RA of node: 326.7218 deg
Eccentricity: 0.0015299
Arg of perigee: 239.4096 deg
Mean anomaly: 120.5554 deg
Mean motion: 13.84353018 rev/day
Decay rate: 1.17e-06 rev/day^2
Epoch rev: 12431

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 90197.59313628
Element set: 531
Inclination: 82.5418 deg
RA of node: 256.6208 deg
Eccentricity: 0.0015918
Arg of perigee: 236.6565 deg
Mean anomaly: 123.3041 deg
Mean motion: 13.16898206 rev/day
Decay rate: 3.91e-06 rev/day^2
Epoch rev: 9482

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90197.51102764
Element set: 313
Inclination: 98.9820 deg
RA of node: 145.8534 deg

Eccentricity: 0.0011656
Arg of perigee: 196.5791 deg
Mean anomaly: 163.4991 deg
Mean motion: 14.11647557 rev/day
Decay rate: 1.70e-06 rev/day^2
Epoch rev: 9310

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90198.09868503
Element set: 265
Inclination: 82.5193 deg
RA of node: 204.6236 deg
Eccentricity: 0.0012533
Arg of perigee: 282.1149 deg
Mean anomaly: 77.8594 deg
Mean motion: 13.83987018 rev/day
Decay rate: -4.10e-07 rev/day^2
Epoch rev: 6970

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90197.94828320
Element set: 172
Inclination: 82.5519 deg
RA of node: 197.0046 deg
Eccentricity: 0.0015380
Arg of perigee: 255.4447 deg
Mean anomaly: 104.4954 deg
Mean motion: 13.15860884 rev/day
Decay rate: 6.90e-07 rev/day^2
Epoch rev: 3486

Satellite: MET-2/19
Catalog number: 20670
Epoch time: 90197.72398912
Element set: 19
Inclination: 82.5442 deg
RA of node: 265.2229 deg
Eccentricity: 0.0015602
Arg of perigee: 199.1053 deg
Mean anomaly: 160.9523 deg
Mean motion: 13.83839608 rev/day
Decay rate: 1.08e-06 rev/day^2
Epoch rev: 260
/EX

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089

MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4666. Re: Soldering to Aluminum, how to do it.

Newsgroup: rec.ham-radio
Date: 1990-07-27 06:23:58 UTC
From: <>
Message-ID: <1990Jul27.062358.26338@bellcore-2.bellcore.com>
Source record: 9822

In article <192@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
>
> If you have ever wondered why they use aluminium for heat sinks,
>trying to solder it will answer all your questions.

Despite its popularity, bare aluminum is actually not a very good heatsink material, especially when polished. Although it is a reasonably good conductor of heat, it does not radiate very efficiently. Painting it with almost anything (even white paint) improves the thermal emissivity substantially. The best you can do is to black-anodize it.

Several materials are better thermal conductors than aluminum, including (in decreasing order) silver, copper, gold and beryllium oxide. In fact, the best thermal conductor listed in my reference text, better even than silver, is a non metal, an electrical insulator, optically transparent and mechanically quite rugged. Unfortunately cost is a problem. It's diamond.

Phil

4667. Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-27 10:46:31 UTC
From: hugh_davies.WGC1RX@XEROX.COM
Message-ID: <900727-040903-3933@Xerox>
Source record: 9823

A guy I shared a house with when I was at college made an X-ray tube in the University glass-blowing shop (Andy Bell, where are you now?). We wouldn't let him run it in the house!!! But it worked fine. A triode shouldn't be much more difficult. Your real problems are (i) glass to metal seals (use "invar" wire) and (ii) evacuating & sealing it.

Have fun,

Hugh Davies, G0CNR

4668. Re: G5RV antenna

Newsgroup: rec.ham-radio
Date: 1990-07-27 12:08:06 UTC
From: rtodd@thoreau.nsc.com
Message-ID: <78@thoreau.nsc.com>
Source record: 9824

How could we have forgotten John Kraus' claim to fame:

The 8JK

4669. Re: Need 88-108MHz trap for R7000

Newsgroup: rec.ham-radio
Date: 1990-07-27 13:22:33 UTC
From: gettys@regent.enet.dec.com
Message-ID: <13963@shlump.nac.dec.com>
Source record: 9825

In article <212@nachos.SSESCO.com>, elmquist@nachos.SSESCO.com (Chris Elmquist) writes...
>
>I'm looking for a design or suggestions for a trap that will attenuate or
>remove the 88 to 108 MHz portion of the receivers passband. Has anyone
>Chris N0JCF

Actually the Radio Shack trap works reasonably well. It may be worth
setting it up so that you can switch it out, though. Remember, that trap is
designed to work with wanted signals from 54 to 800 mhz.

/s/ Bob N1BRM

4670. [elmquest: FM Trap for R7000]

Newsgroup: rec.ham-radio
Date: 1990-07-27 13:58:11 UTC
From: cfishman@PICA.ARMY.MIL
Message-ID: <9007270958.aa25591@FSAC1.PICA.ARMY.MIL>
Source record: 9826

----- Forwarded message # 1:

Date: Fri, 27 Jul 90 8:33:11 EDT
From: Clark Fishman (FSAC-FCD) <cfishman@PICA.ARMY.MIL>
To: uc!nachos.SSESCO.com!elmquest@tut.cis.ohio-state.edu
cc: cfishman@PICA.ARMY.MIL
Subject: FM Trap for R7000
Message-ID: <9007270833.aa14403@FSAC1.PICA.ARMY.MIL>

I read your message on info-hams about your FM problem in Mini.

I designed a suckout trap for you on my computer this morning after
finishing the bagel... I didnot build it because at this present job
I don't have a lab handy, but it should work fairly well, maybe i'll
build it at home (I have lot's of equipment there). I will describe the
filter to you because I am crummy at drawing schematics using keyboard symbols
so here goes.. The filter is a symmetrical tee configuration.

The first series leg is a .080 microhenry coil in parallel with a 32
picofarad cap. The other end connects with a series connected .080
microhenry coil which is in series with a 32 picofarad cap to ground.
the right leg of the tee is the same as the left. That is 32 pf cap and
.080 uh coil in parallel. Connect in series with your antenna.. The
computer program said it should have less than 1 db. loss at 146 MHz
and more than 50 db. loss over the whole FM band. If you have questions
give a call or e-mail or carrier piegon or smoke signals.

Clark Fishman WA2UNN,phone :day 201-724-6041/7956

night 201-852-7416

box 150 Andover NJ 07821 e-mail: cfishman@pica.army.mil

----- End of forwarded messages

4671. Stripline inductors

Newsgroup: rec.ham-radio
Date: 1990-07-27 14:10:38 UTC
From: mleech@bcarh342.bnr.ca
Message-ID: <1990Jul27.141038.26662@bnrgate.bnr.ca>
Source record: 9827

In all the treatments of stripline design that I've read (including the "classic" Stripline Circuit Design, by Harlan Howe)--all the design equations assume a three-layer structure like this: (where ===== represents a stripline inductor).

```
-----------Upper-Ground-Plane----------------
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
\\\\\\\\\\\\\\\\\=====\\\\\\\\\\\\\\\\\\\\\\\\\
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
-----------Lower-Ground-Plane----------------
```

in this scenario, the stripline inductor is surrounded by a dielectric material of constant Er.

In "real life", one is much more likely to see a structure like this:

```
.air.....................................
.............air............air...........
.........................................
.....air.........=====.....air............
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
-----------------Lower-Ground-Plane----------
```

without an upper ground plane (or at least one that is far enough away relative to the lower one to be irrelevant).

Can someone point me to some literature that deals with the "real-life" situation of a mixed environment.

Marcus Leech, 4Y11 Bell-Northern Research |opinions expressed
mleech@bnr.ca P.O. Box 3511, Stn. C |are my own, and not
VE3MDL@VE3JF.ON.CAN.NA Ottawa, ON, CANADA |necessarily BNRs

4672. More hams or Less - a view from across the Pond.

Newsgroup: rec.ham-radio
Date: 1990-07-27 14:13:02 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <27.Jul.90.15
Source record: 9828

More hams or less; Well personally i am opposed to the 'more at almost any costs' approach. Here in the UK there is a forthcoming 'Novice licence' (3 watts on certain VHF bands without code, same power in certain HF bands with a 5WPM code test. No age limitations or anything).
IMHO this is a retrograde step; what can you do with 3 watts on the HF bands when the guy down the road has 1Kw to a TH6DXX?
I must admit total opposition to this idea. IMHO what we need are more innovators from the 'professional' side of electronics. Has anyone thought of a ham-bands version of cellular? Who is using spread spectrum and/or digital speech-compression (like in CT2 phones)? Has anyone applied high-temperature superconducting elements to ham radio?
I do not believe that a 3-watts licence will introduce the sort of talent required to maintain (let alone develop) the true spirit of ham radio over the next ten years. Equally, I have no reason to suppose that the mandatory-code-test, head-in-the-sand ostriches have any real contribution to make. Why should a person have to pretend he is a modem in order to prove he is a 'real' ham??

Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

P.S. I speak solely for myself. If captured, the Government will deny all knowledge of my operations.

4673. Re: ICR1 and ICR100 available ex-stock.....

Newsgroup: rec.ham-radio
Date: 1990-07-27 14:18:06 UTC
From: lewine@dg.dg.com
Message-ID: <672@dg.dg.com>
Source record: 9829

In article <26.Jul.90.17:09:07.BST.#0929@UK.AC.NWL.IA> PJML@ibma.nerc-wallingford.ac.uk ("Pete Lucas, NCS-TLC, Holbrook House, Swindon U.K.") writes:

>
>
>Now before you all ask 'WHERE CAN I BUY?'... READ that mail header!
>
>The Icom ICR1 is available in the UK for 399 pounds sterling; the
<<stuff deleted>>

I believe that the R1 and R100 are available everywhere except places where ICOM America Inc. is the importer. IMHO, ICOM America Inc. decided not to import them because they are great cellular telephone receivers. Look for the IC-R1A with the cellular telephone freqs. deleted.

4674. Re: Help: FT470

Newsgroup: rec.ham-radio
Date: 1990-07-27 14:30:13 UTC
From: youngwa@b8.INGR.COM
Message-ID: <320@b8.INGR.COM>
Source record: 9830

In article <544@ozz.oasis.icl.stc.co.uk>, prs@oasis.icl.stc.co.uk (Pete Swynford) writes:
> I own a Yaesu FT470 VHF/UHF hand-held. It covers the European frequencies
> 144-146 & 430-440 MHz. I'd like to extend the coverage so that it can be
> used on other frequencies if I go abroad (eg upto 148 MHz).
> I know there are a number of mods available.
> Has anyone got precise details ??

Greetings!

I can tell you how to enable the extended rec/xmit on a US version FT470,
but I'm not sure it work on your unit, so give it a try.

To extend the receive coverage on 2 meters to 130-180 MHz, turn off the unit
and hold down the up/down arrow keys on the keypad and turn the unit back on.
You may have to do this several times, but it should work. I performed this
operation on my friends' 470 and it worked the first time. By the way, it
also allows transmission from 140-150 Mhz. (This is for informational pur-
poses only, don't xmit out of band unless you have proper permits and such.)
This also extends the UHF range to 430-450 MHz.

Good luck and hope you get to use your unit abroad.

73's Butch N4WMT

--
William A. Young (Butch) N4WMT
Mail Stop CR086 Building 8 Telephone (205) 730-4410
Intergraph Corporation 7:30am-4:15pm (0730-1615)
Huntsville, AL 35894-0001

4675. Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-27 14:33:18 UTC
From: cep@cci632.UUCP
Message-ID: <38897@cci632.UUCP>
Source record: 9831

In article <1096@ke4zv.UUCP> gary@ke4zv.UUCP (Gary Coffman) writes:
>>I think that it's preferable to have five short-term goals, as opposed
>>to a two-step arrangement, where the quality would fall further.
>
>If your goal is to have that Extra Class wallpaper instead of the personal
>satisfaction of mastering a complex electronic circuit, then I feel sorry
>for you. You are free to set any goals for yourself that you like, but
>that doesn't give you the right to mandate those same goals for everyone
>else.

Test-taking is a learning skill, too, though, isn't it? Do you truly
believe that most of the people who pass the upper-level written exams
do so by blatant memorization, and then forget everything as they accept
their certificate of completion? I certainly hope that this is not true.
Particularly with the Advanced class written, I learned quite a bit,
even about the parts I flat-out memorized.

I would have found it difficult to go through _any_ of the written
elements without getting SOMETHING out of it. Believe me, I'm not
a class-A student, so I find it difficult to believe that I am that much
the exception.

And yes, to a certain degree, I believe that knowing how many lines
there are in an SSTV frame is a good thing to know, even though I will
never use that mode.

Chris/WZ2B

4676. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-27 15:14:56 UTC
From: wa2sff@cbnewsh.att.com
Message-ID: <1990Jul27.151456.6000@cbnewsh.att.com>
Source record: 9832

In article <2770@anasaz.UUCP>, john@anasaz.UUCP (John Moore) writes:
> We just had a thread here on spectrum efficiency where spread spectrum
> came up as a solution. I would like to look into the technical aspects
> of this a bit. I'm familiar with the theory of direct sequence
> and frequency hop spread spectrum, but have never worked with it. I'm
> also real hazy about practical synchronization techniques.
> Finally, how does one build spread spectrum "repeaters" (ie, something that
> provides roughly the functionality of current FM repeaters)? Phil Karn,
> are you still listening? [I got your other answer, but wanted to get
> more technical and ask more questions].

I would like to raise an issue that I haven't seen discussed and I do not
understand.

I did my doctoral thesis on spread spectrum about 20 years ago.
At that time I used a simple pseudo random signal to phase modulate
a signal.

I did experiments in the Lab and also correlated the theory to the
experiments.

One of the conclusions I came to was that the signal-to-noise ratio (SNR)
improvement of the spread spectrum signal is proportional to the bandwidth.
FM and other systems have a SNR improvement
proportional to the bandwith to a power.
(See any book on communications theory for the concept of SNR of
wide bandwidth signals).

Therefore, if I increase the bandwidth of the signal by 1000,
I get a 30 dB improvement in SNR.

This to me seems very inefficient compared to FM and other systems.

So my question is: are there any other more complicated
spread spectrum systems that get SNR proportional to the
bandwidth to a power?
If so what are they?
If not what have I missed about spread spectrum?

I am concerned that the push to an "efficient" spread spectrum system
may cause us to lose more frequencies.
Just like the "efficient" ACSB system needs new frequencies.

Joe Wilkes
att!hound!wa2sff

4677. Digital Voice - who will be first?

Newsgroup: rec.ham-radio
Date: 1990-07-27 15:24:37 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <27.Jul.90.16
Source record: 9833

There are coming onto the market here in Europe, some new phone systems which, i believe, use speech digitising. Essentially they digitise & compress speech into 50ms bursts, and by interleaving, give a functionally full duplex circuit on a single radio frequency. This is intrinsically going to have implications for spectrum efficiency. Now this sounds just the sort of thing ham radio could use to advantage. And suitably engineered, it would exclude a fair bit of interference too.
Phones based on this technology are starting to appear here in Europe at surprisingly low cost; within six months or so I guess the digital speech-processing chips may find their way onto the general market.
Wonder which ham radio manufacturer will produce the first radio that dispenses with all the 'audio' stages & substitutes digital?

Pete Lucas G6WBJ PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613

4678. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-27 15:33:52 UTC
From: john@anasaz.UUCP
Message-ID: <2780@anasaz.UUCP>
Source record: 9834

In article <1990Jul26.221020.24603@bellcore-2.bellcore.com> karn@thumper.bellcore.com writes:
]
]> (2) Spread spectrum systems will have to coexist (in many cases) with
]> other systems, either in amateur or other land mobile services.
]> How do you keep products from getting out of band.
]
]Just use filters. Wideband filters with sharp skirts do exist; TV broadcast
]exciters are an existence proof. SAW filters in TV receivers are another
]example.

Thanks for the reply. One comment - obviously with suitable filters you
can limit the bandwidth any way you want to (within limits of intersymbol
interference). My real question is: how can you do this with readily
affordable filters? On repeaters, we normally use pass cavities on the
transmitter. Obviously if there is any significant bandwidth to the SS
signal, we need filters with more complexity - ie wide pass band with
low ripple, followed by steep skirts. This requires a lot more poles/zeroes,
which would be more expensive. Keep in mind that on a shared site,
transmit power might be 100W (+50dBm) and we may be protecting an
adjacent band receiver to -120 dBm - that's 170 dB of protection.
If we have that 100W spread across 4 mHz (say, on 2 meters), and we
are looking at interference to a 15 kHz wide receiver, we pick up
24 dB, so now we only have to knock down the out of band by 146 dB!
That's still a lot of attenuation. Let's assume antenna separation
gives us another 30 dB. We are now down to 116 dB of attenuation - stil
an awful lot. That's why we use extremely high queue cavities on narrow
band transmitters. This analysis ignores the natural fall-off of
out-of-band sidebands due to the nature of the spreading modulation,
but just outside of the information band, that shouldn't be very much.

Consider base-band filtering. It's sure a lot cheaper to filter
at low power at baseband than at RF at high power. Let's say we
make a PERFECT baseband filter. We STILL need an ULTRA LINEAR
modulator or the interference comes back. This is true of
either fast frequency hop or direct sequence.

Please understand that I'm not trying to challenge the idea of
SS. I'm just thinking out loud about the problems, in the hope of
getting some good feedback from the net.

Comments?
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu

Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4679. New Licenses Ideas ... comments welcome

Newsgroup: rec.ham-radio
Date: 1990-07-27 15:50:37 UTC
From: magid@select.enet.dec.com
Message-ID: <13973@shlump.nac.dec.com>
Source record: 9835

The following licensing idea came to mind after reading all of the notes in this file about the "Communicator Class" and "Incentive Licensing"

We could actually use our current system (already in place) and accomplish much of what everyone here has said or commented on.

The goal of this proposal is two fold:

1. Entry Level --- to get more young and non-technical people into this hobby.

2. Have those already in the hobby expand their knowledge of the various aspects of this hobby.

3. Make the administration of the licensing procedure less complicated. (not sure anything the government does is not complex)

Class Elements Options

Novice 2 CW 5 WPM

Technician 2,3a Pick (1) from list below

General 2,3a,3b " " " " "

Advanced 2,3a,3b,4a " " " " "

Extra 2,3a,3b,4a,4b " " " " "

Communicator 2,3a * (required)

Option List: (Aside from the code Exams these tests will be 25-30 multiple choice questions designed in the same manner as we have our tests designed today however the pool of questions should not be made public)

a. Packet
b. RTTY
c. CW 10 WPM
d. CW 15 WPM
e. CW 20 WPM
f. Microwave
g. Emergency Service / Operations
h. Net Operations / Control
i. SSTV
j. Community Service
*k. UHF/VHF Operations
l. Satellite

(The above list is not all inclusive)

All current allocations and privs remain the same.

All current licenses are grandfathered.

If the the current proposed Communicator Class is approved the 5 WPM Code will be required for upgrade to Technician. (this assumes that the VHF/UHF privs are different for Technician and Communicator.

The desired results here are that:

1. Everyone can get into the hobby.
2. Those with higher levels of license have a good background into more of the hobbies aspects.
3. We can maintain the same licenses structure and have it mean more to be a certain class then it does now.

4680. Re: What to see in COLORADO?

Newsgroup: rec.ham-radio
Date: 1990-07-27 16:00:25 UTC
From: music@hpfcmgw.HP.COM
Message-ID: <1690053@hpfcmgw.HP.COM>
Source record: 9836

DE WA0LHB IN COLORADO

>Are there interesting things for techies to see while vacationing in Colorado?
Yes, the mountains..... How about Caboose Hobbies (a really BIG model train store) in Denver? OK, you might be able to visit NCAR (National Center for Atmospheric Reserch) in Boulder (20 mi N.W. of Denver).

>Are there tours of WWV?
There used to be, I just called the station and they don't give tours any more. There isn't much to see, like any good electronics based lab.... a buncha boxes with weird electronics inside. The multi acre antenna farm with nothing more that a few dipoles strung from the tops of the towers realy isn't impressive.
I've seen funner ham shacks ;-).
WWV is 60 mi north of Denver, between Ft. Collins and Wellington, if you want to drive up just to say that you have been there.

> Cheyenne Mountain?
The kids wanted to take me there for a birthday present, at the time they wanted a security clearance, take about 6 months for that. There is a real good zoo on the mountain.

>Suggestions appreciated!
I'd like to go to Washington and see the Smithsonian!!!!!!!!

73's John Wells WA0LHB in Ft. Fun, Coloradio.

4681. Re: ICR1 and ICR100 available ex-stock.....

Newsgroup: rec.ham-radio
Date: 1990-07-27 16:20:36 UTC
From: henryb@hpspdra.HP.COM
Message-ID: <12280009@hpspdra.HP.COM>
Source record: 9837

In article <26.Jul.90.17:09:07.BST.#0929@UK.AC.NWL.IA>,
PJML@ibma.nerc-wallingford.ac.uk ("Pete Lucas writes:

> The Icom ICR1 is available in the UK for 399 pounds sterling; the
> . . . . . .
> Dont know what the current exchange rate is, i guess its about 1.85 dollars

Whereas In article <1990Jul26.001037.21586@portia.Stanford.EDU>,
paulf@jessica.Stanford.EDU (Paul Flaherty) writes:
> . . . . However, for a few
> hams who are lucky enough to be able to travel to Japan on a regular, it
> is possible to buy an R1. The list price is Y54,000; actual prices vary in
> the Y43,000 to Y48,000 range. This translates to around $300US, certainly

So an R1 is about US$300 in Japan but about US$750 in Britain!
Someone is ripping someone off.

Henry Black (KK6JR, G4NOC) henryb@hpspd.HP.COM +1 415 857 6655
Purely _my_ opinions, unless my employer can make money out of them.

4682. Results of SURPLUS survey

Newsgroup: rec.ham-radio
Date: 1990-07-27 17:21:58 UTC
From: mikef@hpsadle.HP.COM
Message-ID: <1530049@hpsadle.HP.COM>
Source record: 9838

OK Here's what I've got so far ...
On some of these, I've put Thomas Guide map page numbers and coordinates
in square brackets.

Sacramento Area:

Elektronics, on Del Paso Blvd, 1 block south of Arden Way. Mostly
old electronic surplus, with instruments, radios, etc ...

HSC Electronics on Hemlock St north of AUburn Blvd. Mostly
computer stuff, with some generic electronics. This place is run by
Halted with other stores in Santa Clara and Cotati.

Marvac on Del Paso Blvd (a couple of blocks north of Arden way)
Some new stuff, lots of old stuff, mostly non-computer, generic
electronics.

San Francisco Peninsula:

Los Altos, Foothills College Flea Market, 2nd Saturday of every
month thru September. Everybody raves about this as THE source for
surplus goodies.

Mountain View, Haltek, 1062 Linda Vista. Good supply of surplus
discrete components, and scrapped subassemblies. (415) 969-0510.
There is one of these in Santa Rosa, on So. Santa Rosa Ave,

Mountain View, pizza place, on El Camino Real southbound just
south of Shoreline. This is the BEST Italian food I've had west of
Rome, NY. (You work up quite a hunger when surplusing)

Milpitas, Weird Stuff Wherehouse, off Montegue Expy

Milpitas, R&D Electronic Parts, 1432 S. Main St (408) 262-7154
[47-F5]

Redwood City, HDB, 2860 Spring St. Mostly new stuff now. [37-B2]

Redwood CIty, Allen Steel, Whipple Rd. (Edgewood Ave Exit off
101) [36-D3]

San Carlos, J&H, 476 Industrial Way, take Holly exit off of 101,
near corner of Industrial and Holly. Good supply of Aluminum tubing
and rod stock for antennas. Lots of aluminum, steel, and brass bar and
plate stock. Some plastics like delrin, and teflon. Some older

electronic components. reasonable supply of wire. (415) 591-7113 [33-D4]

San Jose, A to Z Surplus, next to Quement Electronics (on So. Basecom). Mostly surplus instruments, spare parts, and junk.

Santa Clara, Halted Specialties Ltd. 3500 Ryder Ave; Corner of Lawrence Expy and Central Expy. Lots of computer, some retail ham, lots of surplus discrete parts, and some instruments. This is the same as HSC. (408) 732-1573 [53-D3]

Santa Clara, Advanced Component Electronics, 911 George, 3479 Kifer, Usually not open on Saturdays, (408) 730-4660

Oakland/Berkeley

Belmont, Jameco, 1355 Shoreway Road, (415) 592-8097.

Berkeley, Electronics Etc, 2738 10th St (415) 845-0169.

Oakland, Alongside 580 Freeway, lots of components and test equipment

Oakland, Mike Quinn Electronics, 1080 Langley (415) 569-1539.

North Bay

Cotati, HSC Electronics (see Halted, above).

Santa Rosa, Haltek, So. Santa Rosa Ave. (see Haltek, above).

Santa Rosa, Bataeff Salvage, 244 Mountain View Ave, Scrap Metal, Rope (including Mountain climbing ropes at great prices). Misc surplus junk.

Greater Los Angeles

Hollywood, Op Amp Books, Best source for technical books I've ever seen ... our corporate library deals almost exclusively with them.

Pasadena, C&H Surplus, Colorado Blvd at Allen

Redondo Beach, Gott Electronics ... The Best for lasers

???, Davilyn and CS Sales, Mixed Goodies, like motors and stuff.

Other

Kitchener-Waterloo, K-W Surplus on Victoria at Hwy 86

Toronto, Active Electronics, Queen W near Spadina

Atlanta, Quality Computer Components

Atlanta, Peachtree quality salvage

Utica, NY, Central Electronics, Lots of components, relays,
motors, test equipment. Good prices.

Have I missed any?

Mike Ferrara M/S 2LRR
HP Signal Analysis Div R&D
1212 Valley House Drive
Rohnert Park, CA 94928
(707) 794-4479
mikef%hpsadle@hp-sde.sde.hp.com
mikef@hpsadle.hp.com

4683. extra exam matter Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-27 17:41:44 UTC
From: perley@galaxy
Message-ID: <10437@crdgw1.crd.ge.com>
Source record: 9839

In article <38897@cci632.UUCP>, cep@cci632 (co-op) writes:

>And yes, to a certain degree, I believe that knowing how many lines
>there are in an SSTV frame is a good thing to know, even though I will
>never use that mode.
>
>Chris/WZ2B

I just started skimming through the ARRL extra study manual. It seems odd to me that they have as much as they do on space operation regulations. Since they only apply to transmissions originating in space (not someone on earth using OSCAR), how many hams could these rules apply to?

If I was going to launch a satelite or operate from a space shuttle, I would certainly check the rules again rather than count on remembering them from the extra exam (and hoping they hadn't changed).

I am not saying the exam should be easier, but having questions about these rules in the pool means they must be displacing ones of more practical import.

As I said, I was just skimming through, so maybe I am missing the big picture.

-don perley ke2tp.
perley@trub.crd.ge.com

4684. Duplexers Wanted

Newsgroup: rec.ham-radio
Date: 1990-07-27 17:56:23 UTC
From: georgez@synopsys.com
Message-ID: <562@synopsys.COM>
Source record: 9840
Cross-posted to: rec.ham-radio.swap,rec.ham-radio

I am looking for UHF mobile and repeater duplexers.

Small, Medium and Large!

I need duplexers that cover both 420-430 MHz AND duplexers
that cover the 440-450 NHz band.

Thanks.

George KJ6VU (408) 927-0357

Internet address: georgez@synopsys.com

4685. testing

Newsgroup: rec.ham-radio
Date: 1990-07-27 19:21:17 UTC
From: david@zaphod.remtech.com
Message-ID: <david.649106477@zaphod>
Source record: 9841

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CQ DX DE AB4VL
```

4686. Re: What to see in COLORADO?

Newsgroup: rec.ham-radio
Date: 1990-07-27 19:32:22 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880216@hpfcdc.HP.COM>
Source record: 9842

> Are there tours of WWV?

No, at least not of the antenna farm NE of Fort Collins.

I know we do site tours here at this HP site, but only for groups and organizations, I believe.

Anheuser-Busch does have public tours of their beer plant (also NE of town).

NOAA allows public visiting (and tours?) of their Table Mesa site (NCAR, National Center for Atmospheric Research) in Boulder -- worth a drive up just for the scenery. But their hours are limited; call them.

4687. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-27 19:40:29 UTC
From: bill@flash.UUCP
Message-ID: <972@flash.UUCP>
Source record: 9843
Cross-posted to: sci.electronics,rec.ham-radio,sci.chem

In article <872@massey.ac.nz> GMoretti@massey.ac.nz (Giovanni Moretti):
>[...] You can make resistors out of pencil leads, capacitors and
>inductors are easy, headphones are possible (not easy) and you can
>use Galena (lead sulphide I think for a diode), but what about things
>with GAIN.
>I've had this dream of making a triode in a peanut butter jar (a
>small strong one :=) ...

I recall one of the hobby electronics magazines (Popular Electronics?
Radio-Electronics?) ran an article on "liquid semiconductors" sometime
between May '68 and June '69 - maybe it was the April 1st issue. :-)
Don't know how they formed the PN junctions. :-)

(I recall looking at the article, and yes, they were building components
in jars - but I didn't have the money then to buy the magazine. Anyone
else remember it? Now I am curious.)

>And how about batteries with household chemicals (ie not sulphuric)

I only tried once, in a few idle moments some time ago, with some
alumin{i}um foil, square of paper, a copper penny, and saltwater. Got
something like .6V open circuit, 1 mA short circuit (for a second or so,
then it started to drop to some lower level). I'm sure it could be greatly
improved. :-)

[I've added sci.chem to this because this is getting into their realm.
Any ideas, anyone? ..Larry? :-)]

4688. Re: How to get started.

Newsgroup: rec.ham-radio
Date: 1990-07-27 19:45:40 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880218@hpfcdc.HP.COM>
Source record: 9844

> What is the best way to get started?

I stopped putting it off when a convenient, free, local course was put on by some hams. You don't need to do that, though. Self-study would suffice.

> Where can I get good books to get started on it...

I recommend "Welcome to the World of Ham Radio", by the ARRL, available for about $20 with Morse code study tapes from many electronics stores. It was fairly complete, well organized, easy to digest, and included the Novice question pool. The tapes are good too.

> ...is it possible to learn everything that is required for the test
> through self-study...

My opinion: Yes, given the above book and tapes.

> ...is it necessary to take an official course and pass it?

No, only to take an official, correctly-administered test and pass it.

> I should think that receiving and monitoring airwaves is perfectly
> alright on any radio band?

All but cellular phone (I think). Listening there is illegal.

> I would appreciate any help that you can give me and any suggestions
> that you may have...

Find someone who's been a ham a while and who's willing to help you. For example, borrow a radio and listen during the weeks before you take the test.

Good luck, and have fun! You might start by writing down your goals and interests in the hobby, so as to help you remember them as you study and learn. It can be overwhelming. I focused on the union of "what I'm interested in" and "what I must know to pass the tests".

Alan, N0MFW

4689. Emergencies...

Newsgroup: rec.ham-radio
Date: 1990-07-27 19:49:00 UTC
From: PLB@PSUARCH.BITNET
Message-ID: <5B1F7975CCDF0000B5@PSUARCH.Bitnet>
Source record: 9845

Bill Meahan (sdd.hp.com!samsung!umich!pmsmam!wwm@ucsd.edu) writes on 21 Jul 90:

(stuff deleted)

>In other words, don't be lulled into a false sense of security because the
>military 'has' a lot of communications gear and the police 'have' a lot
>of communications gear. If it isn't there or won't work on the right
>frequencies - it's worthless and an alternative is required. Usually,
>that alternative is amateur radio.

(stuff deleted)

What a reassuring thought to know that in case of emergency, not only
human lives and private property, but also National Security may be in
the hands of a bunch of... Amateurs! (pun intended)

-P. Bandini
==========

4690. Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-27 20:17:00 UTC
From: PLB@PSUARCH.BITNET
Message-ID: <5B1B9A3C235F0000B5@PSUARCH.Bitnet>
Source record: 9846

Patrick Taber (shlump.nac.dec.com!ryn.esg.dec.com!ultnix!taber@decuac.dec.com)
writes on 19 Jul 90:

(stuff deleted)

>Maybe I don't scare easy, or maybe I believe you use the right tool for the
>right job. I don't forsee a lot of cellular phones being used to coordinate
>races, public events, etc. It can be done -- but to get the level of service
>you need would be expensive. The right tool in this case is something that
>doesn't get billed by the minute and allows contacting multiple stations at
^^^^^^^^^^^^^^^^^^^^
>one time. I.E. radio until something better comes along.

(stuff deleted)

Sorry, but I think I *am* paying... every time I get my cellular phone bill,
I can't help it but to think that my bill could be lower, or the service
better, or both, if frequencies now allocated to your hobby/service were to
be given to the cellular industry.

-P. Bandini
==========

4691. Re: Soldering to Aluminum, how to do it.

Newsgroup: rec.ham-radio
Date: 1990-07-27 20:23:35 UTC
From: tomb@hplsla.HP.COM
Message-ID: <5720077@hplsla.HP.COM>
Source record: 9847

> If you have ever wondered why they use aluminium for heat sinks,
> trying to solder it will answer all your questions.

And if you have ever wondered why "they" use heat pipes for really efficient heat transfer, trying to solder a copper water pipe with water still in it will ...

4692. 73 Mag changes flavor

Newsgroup: rec.ham-radio
Date: 1990-07-27 20:37:35 UTC
From: faunt@CISCO.COM
Message-ID: <9007272037.AA15025@ucsd.edu>
Source record: 9848

Is there an internet path to GENIE?

4693. Re: Soldering to Aluminum, how to do it.

Newsgroup: rec.ham-radio
Date: 1990-07-27 20:44:40 UTC
From: tomb@hplsla.HP.COM
Message-ID: <5720078@hplsla.HP.COM>
Source record: 9849

>Despite its popularity, bare aluminum is actually not a very good
>heatsink material, especially when polished. Although it is a reasonably
>good conductor of heat, it does not radiate very efficiently. Painting
>it with almost anything (even white paint) improves the thermal
>emissivity substantially. The best you can do is to black-anodize it.

But unless what you want to cool is really quite a bit hotter than
its surroundings, or you are operating in a vacuum, you are going to
want good convection; the percentage of cooling that takes place
from radiation for a transistor heat sink is, I believe, quite low.

>Several materials are better thermal conductors than aluminum, including
>(in decreasing order) silver, copper, gold and beryllium oxide. In fact,
>the best thermal conductor listed in my reference text, better even than
>silver, is a non metal, an electrical insulator, optically transparent
>and mechanically quite rugged. Unfortunately cost is a problem. It's
>diamond.

And a heat pipe should be even better if properly designed ;-)

4694. Re: Any info on 'ROSS'?

Newsgroup: rec.ham-radio
Date: 1990-07-27 20:56:20 UTC
From: bobc@hplsla.HP.COM
Message-ID: <5720079@hplsla.HP.COM>
Source record: 9850

I've bought a few things from ROSS -- no problems. I think he charges extra for credit card orders. He'll accept personal checks, but won't ship until the check clears. I've never tried to return anything.

4695. Re: Advice wanted - 2m HT

Newsgroup: rec.ham-radio
Date: 1990-07-27 20:57:57 UTC
From: steveh@athertn.Atherton.COM
Message-ID: <27910@willow.athertn.Atherton.COM>
Source record: 9851

In article <30500619@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu writes:
>
>> 2) Band: According to what I've been hearing on the net, 2m is a zoo
>> and 70cm is empty. So, the question is whether I should get
>
>2 meters is not the zoo some make it out to be except during drive time.
>
I guess it depends on where you live. I've heard some strange animals on ALL
frequencies.

73 de KA6ETB

4696. R7000 Trap for Broadcast FM

Newsgroup: rec.ham-radio
Date: 1990-07-27 21:32:57 UTC
From: charlie@oakhill.UUCP
Message-ID: <3607@radio.oakhill.UUCP>
Source record: 9852
Cross-posted to: rec.ham-radio,rec.radio.shortwave

Ah yes! the FM broadcast problem! A new tower was just
erected in my neighborhood with TWO (count em) FM broadcast
stations on the tower. My R7000 gets de-sensed by
the 50KW signals from these stations. There are some
good programs in BASIC for designing your own notch
filter...the program I'm thinking about is on most
ham bbs's and is called ECD(electronic circuit designer).
I may get around to doing this one of these days. Also I have
used Pspice to simulate the response from filters
designed using ECD. Normally you can expect
about ~6dB of insertion loss; a gasfet preamp after
the filter can make up for this. In summary the R7000
can get overloaded from strong signals like FM stations.

Regards,
Charlie Thompson WB4HVD

4697. Re: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:03:44 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990Jul27.220344.7742@portia.Stanford.EDU>
Source record: 9853

In article <5B1B9A3C235F0000B5@PSUARCH.Bitnet> PLB@PSUARCH.BITNET ("P Bandini, PSU Arch Dept, 814/863-0062") writes:
>I can't help it but to think that my bill could be lower, or the service
>better, or both, if frequencies now allocated to your hobby/service were to
>be given to the cellular industry.
>-P. Bandini

Since you can't help thinking, you'd better explain yourself. Why would cellphones be cheaper if more spectrum were allocated? Certainly, this would not affect the price of the hardware. Also, with the exception of the LA basin, the existing allocation of 20 MHz has yet to to be saturated. Finally, the newer cellphones will be digital, initially more expensive, and will run from 1.3-1.5 GHz.

Frankly, cellphones WILL become VERY expensive if we don't train people to design, build, and repair them. That's at least one of the justifications for amateur spectrum.

-=Paul Flaherty, N9FZX/VK2WYX | "TEXAS! Has a USENET in it... (Lord have Mercy
->paulf@shasta.Stanford.EDU | on us all!)" -- _The Best Little Net in Texas_

4698. Mods for a Radio Shack PRO34 scanner

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:07:44 UTC
From: jre@sactoh0.UUCP
Message-ID: <3604@sactoh0.UUCP>
Source record: 9854

Posting this for a friend. He recently received a Radio Shack PRO34 scanner for his birthday. Are there any mods available for it to increase coverage?

--
--- Jim Earl - KB6KCP ---
...ames!pacbell!sactoh0!jre
...ucbvax!csusac!sactoh0!jre

4699. Re: Has anyone made any homemade valves (tubes), semiconductors ...

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:13:42 UTC
From: steve@nuchat.UUCP
Message-ID: <26763@nuchat.UUCP>
Source record: 9855
Cross-posted to: sci.electronics,rec.ham-radio

Back in high school it occurred to me that it might be possible to build a liquid state "tube". Immerse the electrodes in an electrolyte solution and see what you can make it do... I didn't know enough electronics, physics, or chemistry (though I thought I did) to give it a fair test at the time.

Anybody know whether it is possible to get gain out of such a device? Granted its lifetime is very short, but it compares well with the properties of homemade vacuum tubes (if it works, of course).

--
Steve Nuchia South Coast Computing Services (713) 964-2462
"To learn which questions are unanswerable, and _not_to_answer_them; this skill is most needful in times of stress and darkness."
Ursula LeGuin, _The_Left_Hand_of_Darkness_

4700. Re: Spread Spectrum Repeaters - Technic

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:24:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500624@ux1.cso.uiuc.edu>
Source record: 9856

> I am concerned that the push to an "efficient" spread spectrum system
> may cause us to lose more frequencies.
> Just like the "efficient" ACSB system needs new frequencies.

Unless we are doing it, too.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4701. Re: August QST

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:27:00 UTC
From: john@frog.UUCP
Message-ID: <17168@frog.UUCP>
Source record: 9857

In article <1990Jul25.060520.25385@tandem.com>, kevinr@moe.Tandem.COM (Kevin J. Rowett) writes:
> I can't believe we've not seen at least one messgae noting the
> lead article in the August QST :-) Are you all out there
> building one?

Well, in fact, when I saw the article, my first reaction was "Oh, great, yet another computer weenie using massive overkill to solve a fairly simple problem."

The article states "This project is just one more example of how microcomputers are changing the shape of Amateur Radio," and at $125 for a battery charger, I should certainly say so.
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

4702. Re: Do we need *more* hams, or less?

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:34:00 UTC
From: john@frog.UUCP
Message-ID: <17169@frog.UUCP>
Source record: 9858

In article <1083@ke4zv.UUCP>, gary@ke4zv.UUCP (Gary Coffman) writes:
> Two points. First point is that the average age of current amateurs is
> around fifty. This does not bode well for the future of the service.
> Therefore we need more, hopefully young, hams to provide for the future
> of the service.

Fascinatingly enough, the cover story in this month's QST is a bunch of pictures of young hams. It would have been real nice if there had been an attached article about programs the ARRL has for encouraging young hams, and what YOU, K 0 Random Ham, can do, but no...
--
John Woods, Charles River Data Systems, Framingham MA, (508) 626-1101
...!decvax!frog!john, john@frog.UUCP, ...!mit-eddie!jfw, jfw@eddie.mit.edu

4703. Re: Spread Spectrum Repeaters - Technic

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:34:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500625@ux1.cso.uiuc.edu>
Source record: 9859

> If you really want a simultaneous repeater for spread spectrum signals,
> build a wideband crossband translator. Otherwise, build a single frequency
> packet switch that need not transmit and receive simultaneously.

A linear translator has its own disadvantages. I was thinking in terms of
repeaters of the type that deal with one signal, and bring that signal to
a standard level before retransmiting it. FM and digital voice do this,
and I certainly would want to detect and reconstruct the signal at the
repeater before noise and errors build up beyond detectability. But maybe
there is a way I don't know about to do SS repeating w/o the problems of
a linear translator system.

> >Use bandpass filters in the sinusoidal domain.
>
> What does this mean?

A conventional bandpass filter. By "sinusoidal domain" I meant to rule out
filtering in other domains such as time, code, etc.

> On the contrary. ANY decent spreading method will produce a signal that is
> statistically indistinguishable from broadband (though still band-limited)
> noise. Even linear feedback shift registers (PN generators) of the type
> allowed for amateur operation will suffice, and these happen to be the very
> same type of circuits used for modem scramblers. (Indeed, a modem scrambler
> is really just a spread spectrum modulator with a 1:1 spreading ratio.)
> Therefore no additional steps are needed to eliminate spectral lines (other
> than picking a long enough shift register).

If the the RATE of the stepping of the shift register is 1 Mhz, for instance,
then we will see peaks and valleys at that interval. There will, of course,
be a noise-like signal and so the peaks won't be much. I think maybe the
problem here is that the rate needs to be high enough to properly spread over
the desired bandpass. 1 Mhz, while getting you out beyond 1 Mhz, isn't right
since the information beyond 1 Mhz is redundant. Or maybe for some reason
you want the redundancy.

I guess I need to get out an FFT and play around with the spectrums some.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4704. Re: Alkaline battery hazards

Newsgroup: rec.ham-radio
Date: 1990-07-27 22:42:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500626@ux1.cso.uiuc.edu>
Source record: 9860

Alkaline technology is different than the classical LeClanche cell, and it has a polarity reversal the way they are making them. The POSITIVE side is connected to the cell case, usually in one solid piece. Most flashlights have the NEGATIVE end of the battery on the downside, and thus the case of the flashlight (metal one) is NEGATIVE and can short out with the POSITIVE cell case if the insulation wears through. This is also a nasty problem for those little 9 volt batteries, which have 6 miniature cells inside. I took one of these apart once after it was "dead" and after having done this, at a later time, managed to get a cell shorted. It blew its guts out the bottom. Just makes you wonder the power of a fresh D-cell.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4705. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-27 23:49:36 UTC
From: tonyb@ka.excelan.com
Message-ID: <1613@excelan.COM>
Source record: 9861

In article <187@bongo.UUCP>, julian@bongo.UUCP (Julian Macassey) writes:
> In article <2800@wyse.wyse.com>, stevew@wyse.wyse.com (Steve Wilson x2580 dept303) writes:
> > In article <186@bongo.UUCP> julian@bongo.UUCP (Julian Macassey) writes:
>
> Ooodles of stuff deleted to reduce tedium.
>
> > >If my local emergency service needs more coms these days, they don't
> > >call out the fat guys with the walkie-talkies on their belts and
> > >obsolete police radios in their cars. They call up a cellular carrier
> > >and get some cellular phones that give them instant coms and ability
> > >to communicate anywhere in the world.
> >
> > Yes they do. Cel Tel doesn't cover the world (yet ;-). Communicating
> > anywhere in the world ?? I thought that was what HF was for ;-)
>
> Let me see now. I have a cellular phone and I want to talk to
> the Red Cross HQ in Switzerland. I don't have the phone number at
> hand, no problem. I dial the AT&T operator and ask for "Switzerland,
> Geneva, International Red Cross." In no time at all I will have the
> number. Then I dial 01141-114122 and talk directly to the biggies in
> Switzerland.
>
> --
> Julian Macassey, n6are julian@bongo.info.com ucla-an!denwa!bongo!julian
> N6ARE@K6IYK (Packet Radio) n6are.ampr.org [44.16.0.81] voice (213) 653-4495

Julian, your comments are not without some merit, but I think you may be missing something here... First Amateur Radio and Cellular telephones each have their place in emergency communications.

If the disaster is localized (say an airplane crash or high-rise fire) there is no reason why cellular telephones can't be used. GTE even offers a free package called a "GO-PACK" with five telephones, portable fax, and a technician (for training) to any emergency agency on a per incident basis for just a telephone call. This capability may be all that is required in a small incident.

In a larger incident (like the Loma Prieta earthquake) the cellular telephones just won't work for the initial response! Several people have commented about "How the cell sites stayed up during the earthquake", but I haven't heard anybody comment about who they talked to when PacBell shutdown exchanges! It doesn't do much good to be able to connect with the cellular carrier and not be able to tie into the local telephone company! I live and work in the heart of "Silicon Valley". For two days after the earthquake I was unable to call

my home because PacBell shutdown exchanges. My only contact with my home was via amateur radio (my wife is a ham and my 2 daughters had their last Novice class the day before the earthquake!)...

An observation I have made recently. Even with 800+ cellular channels that are available, I am getting more and more busy signals when I try and use my cellular phone. This is during commute times, but is probably symptomatic of what would happen in a disaster. Every agency from the State "Office of Emergency Services" to "Bill's Towing" is going to try and use their cellular. I just don't know of a way to say "Break - Emergency Traffic" to someone using a cellular channel I need to pass traffic on - DO YOU?

I also offer the following facts based on my discussions with Santa Clara County OES, GTE Mobilnet, and Pacific Bell::

Fact: Cellular telephones don't work SIMPLEX!

If the cell site goes down, or the local carrier goes down - your sunk! In the Santa Clara Valley we run monthly SIMPLEX radio checks from the Emergency Communication Center for each city (all 11 of them) to the County Communications facility. We ARE an active part of each of these cities emergency action plans!

Fact: You must have the telephone number of the person you are calling!

This requires a LOT of preplanning on the part of all the cooperating local emergency organizations. Don't count on directory assistance being available as they might be located in another city (directory assistance for San Jose is located in Salinas - 60 miles away).

Fact: Not all area's provide cellular coverage!

Steve (KA6S) commented last week about trying to use a cellular telephone during the "Long Gulch" fire. This fire was only 30 miles from the heart of Silicon Valley, but had a 4000' mountain between us and the valley. My cellular stopped working as soon as I started down the back side of the Mt. Hamilton!

Now don't think I am completely against cellular, because I'm not! I bought my cellular to supplement my amateur emergency communications capabilities. If I see an accident on the way to/from work, I try my cellular first. If it doesn't work (BUSY!), I switch to any one of a dozen repeaters I use and autopatch! I have even relayed accident reports from amateur radio to 911 via my cellular telephone when it was appropriate to do so.

The whole idea here is that each system has its advantages and disadvantages. The debate here is not which service is better, but how they can work together in a given situation. We started off the Loma Prieta earthquake with amateur radio, and passed it over to cellular 96 hours later. As for me, when the next earthquake or fire comes (and it will) I'll be ready with spare batteries for both my cellular and my HT. My hobby is communications, and that means using whatever equipment is available to get the job done. Egos don't save lives and property, skills do!

Ok... I have my NOMEX suit on... FIRE AWAY!!!

Tony Bamberger, N6TYG
+--------------------+--+
Tony Bamberger	UUCP: {ames,sun,apple,leadsv}!excelan!tonyb
VMS Internals Group	Internet: tonyb@novell.com
Novell Inc.	Packet: N6TYG @ N6LDL
2180 Fortune Drive	TCP/IP: [44.4.2.24] tony@n6tyg.ampr.org
San Jose, CA. 95131	Voice: (408) 473-8469
+--------------------+--+

4706. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-28 00:55:28 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Jul28.005528.4693@NCoast.ORG>
Source record: 9862

As quoted from <9007260548.AA16565@tecnet1.jcte.jcs.mil> by mgb@TECNET1.JCTE.JCS.MIL:

```
+---------------
| >> I don't know about the rest of you but I would prefer not messing up
| >> my back yard! I know all the flames that this comment will generate
|
| > I **DO** want them in MY backyard !!
|
| Ok Phil.. let's for a moment suppose that the Novice License is saved. Where
| THEN is the central meeting ground for ALL of HAM RADIO? Hint... Novices
| already have 220 privileges. We need to populate 220.... and it has
| propagation that (IMHO) rivals or exceeds that on 2 meters. Yes.. I like
| the 220 band and admit I am opinionated about it.
+---------------
```

YESYESYESYESYESYESYES!!!!!!!!

I'm on 220 --- one of those Novices you spoke of --- and I've noticed that 220 seems to be open around here more often than 2m is. over the past few days, the 2m types have been talking about getting in to Pennsylvania (I'm in Ohio) or Ontario with mobile 2m rigs... 220 was so wide open that I got in to a repeater on the far side of the state with 1 watt. (If only there were more 220 repeaters, so I could have had a chance to go even farther!)

```
+---------------
| Let's say that the current proposal goes through and Communicators get
| "stuck" on 220. Are you going to push to get a repeater going on that
| band? We did here for Novices, and we also put links on it to 2 meters
+---------------
```

LCARA did here, and I benefitted. And I'm willing to work to keep it going.

I really don't know where to go with this discussion. There are reasons I can see for both sides; on the one hand, putting Communicators on 220 only leaves 'em without much in the way of support, but permitting them on 2m doesn't help get anyone onto the other bands. In case you haven't noticed, the bottom end of 220 is gone --- how long before the FCC eats the rest of it, because all the Communicators are on 2m OR BECAUSE NOBODY WANTED TO BECOME A COMMUNICATOR ON A BAND THAT HAS NOTHING ON IT? Force Communicators on 220 with its current lack of infrastructure and the few folks who *do* become communicaotrs will upgrade to Technician and move to 2m out of loneliness. Boy, will we have achieved a lot, huh?

I think it would be best to do two things ---

(1) Allow Communicators on all VHF/UHF bands; but BEFORE YOU DO:
(2) GET SOMETHING GOING ON THE OTHER VHF/UHF BANDS!!!!!!!!

220 is virtually dead around here. 440 has a little traffic; not much. And 1240 is COMPLETELY dead. I had the chance to pick up a 1240 HT at Dayton, but picked up a repeater guide first --- and switched my plans from 1200 to 220 because there is no 1200 activity listed for this half of the state. And discussions with local hams have confirmed it: there's a little activity at 10GHz, but the 1270-1295 Novice band is completely empty. Had I picked up the 1200 HT, I'd probably have become disgusted enough to drop ham radio entirely. This is what we risk for Communicators if we don't get something going on the bands above 2m.

And, more importantly: the same considerations keep most current hams from moving off 2m. Let's face it --- very few hams are willing to jump on to an empty band in an effort to lure others up there. If some clubs are willing to sponsor 220, 440, 900, and/or 1200MHz repeaters, they should do so; get the ball rolling and hams will follow it.

It's only my penchant for pushing lost causes that has kept me on 220. I am considering what I can do to entice Novices onto 220 locally; I hopefully won't be stuck with *only* 220 for long, but probably won't give it up entirely. (Yesterday's DX gave my interest in 220 a major boost....) And if I can get some activity going on 220, I can hope that it engenders more activity, and so on. And then someone can see what I did and start a local repeater on the 902-928MHz band, or the 1270-1295MHz Novice band....

Go for it.

++KB8JRR
--
Me: Brandon S. Allbery VHF: KB8JRR on 224.50 (Lake County, OH)
Internet: allbery@NCoast.ORG Delphi: ALLBERY
uunet!usenet.ins.cwru.edu!ncoast!allbery America OnLine: KB8JRR

4707. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-28 01:09:34 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Jul28.010934.5300@NCoast.ORG>
Source record: 9863

As quoted from <30500620@ux1.cso.uiuc.edu> by phil@ux1.cso.uiuc.edu:
+---------------
| But really I agree with you that 220 Mhz is a better band. But how do you
| get most of the present hams onto 220? Where do I find a TRI-band HT?
+---------------

Who needs a tri-band HT? I'd be satisfied with a 2m/220, which of course doesn't exist. (Okay, there's *one*... which I understand is as expensive as just buying separate 2m and 220 HTs.)

+---------------
| Of course we could make 440 the "watering hole", but without novices.
> (and in response to "so where should Novices go?")
| 10 meters.
+---------------

So why don't you just tell the FCC you're in favor of killing the Novice license and be done with it?

++Brandon
--
Me: Brandon S. Allbery VHF: KB8JRR on 224.50 (Lake County, OH)
Internet: allbery@NCoast.ORG Delphi: ALLBERY
uunet!usenet.ins.cwru.edu!ncoast!allbery America OnLine: KB8JRR

4708. Re: Spread Spectrum Repeaters - Technic

Newsgroup: rec.ham-radio
Date: 1990-07-28 01:26:58 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul28.012658.1398@bellcore-2.bellcore.com>
Source record: 9864

In article <30500625@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> If the the RATE of the stepping of the shift register is 1 Mhz, for instance,
> then we will see peaks and valleys at that interval. There will, of course,
> be a noise-like signal and so the peaks won't be much. I think maybe the
> problem here is that the rate needs to be high enough to properly spread over
> the desired bandpass. 1 Mhz, while getting you out beyond 1 Mhz, isn't right
> since the information beyond 1 Mhz is redundant. Or maybe for some reason
> you want the redundancy.

No, you want to filter off everything beyond the first null. It's redundant.

A direct sequence transmitter is nothing more than a BPSK modulator, except
that the modulating stream is a high speed pseudorandom sequence. All of
the principles of BPSK apply, including the need to filter the signal
in order to get rid of the unnecessary sidelobes. What's left in the main
lobe will look like wideband noise, except that the spectral density will
fall off toward the edges.

Phil

4709. Re: Soldering to Aluminum, how to do it.

Newsgroup: rec.ham-radio
Date: 1990-07-28 01:56:19 UTC
From: wb8foz@mthvax.cs.miami.edu
Message-ID: <1990Jul28.015619.1321@mthvax.cs.miami.edu>
Source record: 9865

>Several materials are better thermal conductors than aluminum, including
>(in decreasing order) silver, copper, gold and beryllium oxide. In fact,
>the best thermal conductor listed in my reference text, better even than
>silver, is a non metal, an electrical insulator, optically transparent
>and mechanically quite rugged. Unfortunately cost is a problem. It's
>diamond.

An old boss, Bruce Banks of NASA Lewis, did lots of experimenting with
making "diamond-like" films in hopes of solving that problem. While
I gather (since I don't see his name in People ;-]) he never struck a
gusher, it was an interesting approach.

--
A host is a host from coast to coast.....wb8foz@mthvax.cs.miami.edu
& no one will talk to a host that's close.....(305) 255-RTFM
Unless the host (that isn't close).....pob 570-335
is busy, hung or dead.....33257-0335

4710. Re: American woodpecker

Newsgroup: rec.ham-radio
Date: 1990-07-28 02:32:03 UTC
From: gd@milkfs.itstd.sri.com
Message-ID: <32488@sparkyfs.istc.sri.com>
Source record: 9866

While most of the information in the posting by WA6PEZ is correct, Tom is way off base on one major point. The American OTH Radars ARE NOT woodpeckers. Unlike the Russian OTH Radars, the American OTH Radars use a chirped (frequency-swept) signal that does not sound anything like the woodpecker-like signal of the Russian radar. Furthermore, the US Air Force claims that it chooses the frequency bands in which it operates to minimize interference to other services, and I understand that they completely avoid the amateur and broadcast bands.

As hams, it would certainly be worthwhile to keep our ears open for interference that would indicate a change in operating practice, but the site in Maine has been operating for about five years now and, according to newsletters published by the Air Force, the Air Force has yet to receive any interference complaints.

So, let's not assume that all OTH radars are "woodpeckers"; there are many ways to do OTH radar, and the US Air Force appears to have learned by observing the older Russian radar that the woodpecker method is not desirable.

Greg
AA6BO

4711. * SpaceNews 30-Jul-90 *

Newsgroup: rec.ham-radio
Date: 1990-07-28 02:48:01 UTC
From: kd2bd@ka2qhd.UUCP
Message-ID: <329@ka2qhd.UUCP>
Source record: 9867
Cross-posted to: rec.ham-radio,sci.space

SB SPACE @ ALLBBS $SPC0730
* SpaceNews 30-Jul-90 *

Bulletin ID: $SPC0730

=========
SpaceNews
=========

MONDAY JULY 30, 1990

SpaceNews originates at KD2BD in Wall Township, New Jersey, United States.
It is published every week and is made available for unlimited distribution.

* NEW OSCAR! *
==============
Pakistan's first Amateur Radio satellite became reality when SUPARCO,
the Space and Upper Atmosphere Research Commission of Pakistan, announced
that BADR-1 was successfully placed into Earth orbit on 16-Jul-90.
A Chinese booster was used to place the payload into a 28 degree inclination,
elliptical orbit.

BADR-1 is presently transmitting on 145.825 MHz FM and has been copied on
several occasions here at KD2BD. A steady 2400 Hz audio tone was received
under heavy signal fading, probably due to the high roll rate of the young
spacecraft. Capabilities of the satellite are not yet known.

Here is a Keplerian element set for use in tracking BADR-1:

Name : BADR-1
Object # : 20685
Epoch : 90 198.08455059
El Set # : 7
Incli : 28.4931
RAAN : 297.7287
Eccn : 5.62305E-02
ArgPer : 138.0890
MeanAn : 226.3844
MeanMo : 14.90429605
Drag : 1.9729E-03
Rev : 16

The orbit if BADR-1 yields an apogee distance of 982 km (530 nm) and a
perigee distance of only 198 km (107 nm). At perigee, the spacecraft
travels at 28,805 km/hour (17,899 mi/hr). This very low perigee will
greatly affect the decay of the spacecraft, and it is not expected to

last very long in an orbit such as this.

* HITEN NEWS *
==============
According to Professor Uesugi, ISAS, Japan, the Hiten spacecraft made its second lunar swingby on 10-Jul-90 at 18:58:34 JST (=UTC + 9hrs) at a selenocentric distance of 76,083 km. The third swingby is expected on 04-Aug-90.

[Information via Yoshiro Yamada at the Yokohama Science Center, Japan]

* MAGELLAN NEWS *
=================
One of Magellan's erratic gyroscopes experienced an electrical failure when it was turned "on" on 20-Jul-90. Gyros are used on Magellan to maintain attitude control. Two gyros are needed to maintain control in all three axes of the spacecraft. A remaining spare will be used as a backup.

Magellan will reach the planet Venus on 10-Aug-90 after its 15.5 month voyage to the planet after being deployed from Earth orbit by the Space Shuttle Atlantis on STS-30 on 04-May-90. Magellan's primary mission is to map 70 to 90% of Venus' surface with ten times better resolution than any achieved before.

* DOVE NEWS *
=============
DOVE was turned back on recently. Many people reported copying its VHF beacon, but I have not been able to copy anything from the satellite in the past few days. The reason for the lack of VHF telemetry is unknown.

* FEEDBACK WELCOMED *
====================
Feedback regarding SpaceNews can be directed to the editor (John) via any of the following paths:

UUCP : ...!uunet!masscomp!ocpt!ka2qhd!kd2bd
AMPR : KD2BD @ NN2Z.NJ.USA.NA

MAIL : John A. Magliacane
Department of Electronics Technology
Advanced Technology Center
Brookdale Community College
765 Newman Springs Road
Lincroft, New Jersey 07738
U.S.A.

(If you like what you see, send us your QSL card!)

/EX
--
John A. Magliacane FAX : (201) 747-7107
Electronics Technology Department AMPR : KD2BD @ NN2Z.NJ.USA.NA
Brookdale Community College UUCP : ..!uunet!masscomp!ocpt!ka2qhd!kd2bd

Lincroft, NJ 07738 USA VOICE: (201) 842-1900 ext 426

4712. Re: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-28 02:51:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500627@ux1.cso.uiuc.edu>
Source record: 9868

> Frankly, cellphones WILL become VERY expensive if we don't train people to
> design, build, and repair them. That's at least one of the justifications fo
^^^^^^
> amateur spectrum.

Now days, most equipment, if it is cheap enough, is just NOT repaired.
The cost ratio of actually getting INTO the equipment compared to the
cost of making it, is so high it is not worth it. Of course minor
things like a loose antenna connector MIGHT be fixable if you or the
repairman can get inside without destroying the unit.

BTW, I notice some SIGNIFICANT pricing cutting for cellphones these days
that require you to sign up for new service. I am suspecting that the
cell service providers are pushing for more customer base (even in Chicago
where I see these ads from).

One thing to be aware of about these cell phones, be sure you insure them
for full cost. You might not get the same deal to replace one.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4713. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-28 04:57:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500628@ux1.cso.uiuc.edu>
Source record: 9869

> Another NiCad tidbit. Apparently one common failure mode is for metal
> needles to grow through the electrolyte, shorting the electrodes. If
> you have a "dead pack", that won't hold any charge, and you're going to
> trash it anyway, try a last ditch maneuver. Run about 30A through it
> very briefly (about a second?), taking care lest the seals open on the
> cells and spout hydrogen, oxygen, boiling electrolyte, etc. :-)

In which direction? The CHARGE direction or the DISCHARGE direction?

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4714. Re: August QST

Newsgroup: rec.ham-radio
Date: 1990-07-28 06:52:13 UTC
From: kaufman@Neon.Stanford.EDU
Message-ID: <1990Jul28.065213.12029@Neon.Stanford.EDU>
Source record: 9870

In article <17168@frog.UUCP> john@frog.UUCP (John Woods) writes:
>In article <1990Jul25.060520.25385@tandem.com>, kevinr@moe.Tandem.COM (Kevin J. Rowett) writes:
-> I can't believe we've not seen at least one messgae noting the
-> lead article in the August QST :-) Are you all out there
-> building one?

.Well, in fact, when I saw the article, my first reaction was "Oh, great,
.yet another computer weenie using massive overkill to solve a fairly simple
.problem."

.The article states "This project is just one more example of how
.microcomputers are changing the shape of Amateur Radio," and at $125 for
.a battery charger, I should certainly say so.

Right. If you want to charge batteries, rather than play with computers, get copy of Motorola Engineering Bulletin EB126 "Ultra-Rapid Nickel-Cadmium Battery Charger". I quote from the intro: "We are going to present an ultra-fast nickel-cadmium battery charger capable of completely charging 8 to 12 batteries at 1.2 to 1.8 Ah in 30 to 45 minutes. This is currently possible due to new sintered electrode technology used by battery manufacturers which provide rapid charging plots."

The highest tech part is a UC3843 Switchmode converter to boost the starting voltage so you can run from a 12 volt source. PCB layout and parts list is provided in the Bulletin. Estimated cost $50.

Marc Kaufman, WB6ECE (kaufman@Neon.stanford.edu)

4715. Re: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-28 13:31:16 UTC
From: perley@galaxy
Message-ID: <10470@crdgw1.crd.ge.com>
Source record: 9871

In article <1990Jul27.220344.7742@portia.Stanford.EDU>, paulf@jessica (Paul Flaherty) writes:
>In article <5B1B9A3C235F0000B5@PSUARCH.Bitnet> PLB@PSUARCH.BITNET ("P Bandini, PSU Arch Dept, 814/863-0062") writes:
>>I can't help it but to think that my bill could be lower, or the service
>>better, or both, if frequencies now allocated to your hobby/service were to
>>be given to the cellular industry.
>>-P. Bandini

>Frankly, cellphones WILL become VERY expensive if we don't train people to
>design, build, and repair them. That's at least one of the justifications for
>amateur spectrum.

I CAN say that the group here that is designing a digital cellular system
is heavily loaded with hams that started as kids and ended up going into
electrical, microwave, comm, etc engineering.

-don perley ke2tp

>
>-=Paul Flaherty, N9FZX/VK2WYX | "TEXAS! Has a USENET in it... (Lord have Mercy
>->paulf@shasta.Stanford.EDU | on us all!)" -- _The Best Little Net in Texas_
perley@trub.crd.ge.com

4716. Re: RE: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-28 15:29:00 UTC
From: PLB@PSUARCH.BITNET
Message-ID: <5A7AB6A06D9F000124@PSUARCH.Bitnet>
Source record: 9872

Paul Flaherty on 27 Jul 90:

>Since you can't help thinking, you'd better explain yourself. Why would

Frankly, I don't have hard facts. That would require survey, data analysis, etc, and all it would provide is confirmation of a basic truth that we already know about: there is no free lunch. Anything that is in limited supply does cost (land, water, spectrum...)
Lately we've been hearing a lot about how saturated landline phones AND cell phones become in case of an emergency. A gut reaction is "if they had more channels, the saturation threshold would be higher, right?"
Also, more channels = more customers = lower cost per customer, right? (At least, that's what has happened for just about anything I can think of)
So, since we are not really arguing about this basic truth, the question could be "Am I willing to pay for your 'service' through a higher cell phone bill?"
I might, but then we'd have to enter a less ambiguous contract: how do I access your 'service'? where do I find you when I need you? can you guarantee the accuracy of your 'service'? (sorry, but "your cousin in SF is ok" just won't do... when I *hear* her voice I will *know* she's ok...)
I would like to extend my sympathies to all volunteers of all kind, whether it be driving an ambulance, or preparing hot food in a shelter. I hope these comments will not be interpreted as an attempt to minimize their (in)valuable contributions. However, I'm wondering if in the case of emergency communications, ham radio is the *best* we can have... comments anyone?

-P. Bandini
==========

4717. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-28 16:13:27 UTC
From: gary@ke4zv.UUCP
Message-ID: <1102@ke4zv.UUCP>
Source record: 9873

In article <2780@anasaz.UUCP> john@anasaz.UUCP (John Moore) writes:
>In article <1990Jul26.221020.24603@bellcore-2.bellcore.com> karn@thumper.bellcore.com writes:
>]
>]> (2) Spread spectrum systems will have to coexist (in many cases) with
>]> other systems, either in amateur or other land mobile services.
>]> How do you keep products from getting out of band.
>]
>]Just use filters. Wideband filters with sharp skirts do exist; TV broadcast
>]exciters are an existence proof. SAW filters in TV receivers are another
>]example.
>
>Thanks for the reply. One comment - obviously with suitable filters you
>can limit the bandwidth any way you want to (within limits of intersymbol
>interference). My real question is: how can you do this with readily
>affordable filters? On repeaters, we normally use pass cavities on the
>transmitter. Obviously if there is any significant bandwidth to the SS
>signal, we need filters with more complexity - ie wide pass band with
>low ripple, followed by steep skirts. This requires a lot more poles/zeroes,
>which would be more expensive. Keep in mind that on a shared site,
>transmit power might be 100W (+50dBm) and we may be protecting an
>adjacent band receiver to -120 dBm - that's 170 dB of protection.
>If we have that 100W spread across 4 mHz (say, on 2 meters), and we
>are looking at interference to a 15 kHz wide receiver, we pick up
>24 dB, so now we only have to knock down the out of band by 146 dB!
>That's still a lot of attenuation. Let's assume antenna separation
>gives us another 30 dB. We are now down to 116 dB of attenuation - stil
>an awful lot. That's why we use extremely high queue cavities on narrow
>band transmitters. This analysis ignores the natural fall-off of
>out-of-band sidebands due to the nature of the spreading modulation,
>but just outside of the information band, that shouldn't be very much.
>
>Consider base-band filtering. It's sure a lot cheaper to filter
>at low power at baseband than at RF at high power. Let's say we
>make a PERFECT baseband filter. We STILL need an ULTRA LINEAR
>modulator or the interference comes back. This is true of
>either fast frequency hop or direct sequence.
>

In our 100,000 watt TV transmitter, the sideband filter is a little
SAW filter you can hold in the palm of your hand. In our old 50,000
watt transmitter the filter was a huge water cooled monster on the
output of the transmitter. The SAW filter is installed just after
the modulator at the 100 miliwatt level. Assuming reasonable

linearity (<2%) in the following power amplifiers, this little guy can do the job nicely. Assuming your PA doesn't act as a wideband noise generator on it's own, you don't need huge cavities anymore. Transmitter and filter design have changed dramatically in the last ten years. Nobody does "high level" modulation anymore and achieving linear power is much easier than it used to be. Amateur technology has a long way to come from the old Micor to the modern world.

Gary

4718. Re: PRO-34 Audio Mods?

Newsgroup: rec.ham-radio
Date: 1990-07-28 22:31:42 UTC
From: dan@heimat.UUCP
Message-ID: <164@heimat.UUCP>
Source record: 9874
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <3597@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
>
>The PRO-34 is not a bad radio now that it's on sale, however,
>the audio is a little wimpy. Does anyone out there have the
>service manual showing the audio amp circuits? I would like
>to beef up the output if I can. I'll publish the 'audio mod'
>if it works well and is reliable. Perhaps someone has already
>done this. Yes/No?
>
WOW! How funny you should ask this, I was just sitting here looking at
my service manual for the PRO-34 thinking the same thing....

Anyway the chip is IC-9 and its located on the LOGIC board (the one
you cut the diode on to get full 800Mhz). Its at the top of the board
close to the squelch knob. The manual says:

IC9 Audio Amp. BIPOLAR LM386N-1

Let me know if you find a good replacement and how it works, id like
to at least double mine to 400mW if thats possible without killing the
battery to fast.

--

_____
Dan 'Sneakers' Schein / \ Quote:
Sneakers Computing \/\/ | Those who worked the hardest
2455 McKinley Ave. | (o)(o) are the last to surrender.
West Lawn, PA 19609 C .---_) -= Gary Ward =-
| |.___|
| __/
uunet!cbmvax!heimat!dan /_____\ (or) dan%heimat@commodore.com

4719. Re: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-29 00:13:20 UTC
From: perley@galaxy
Message-ID: <10477@crdgw1.crd.ge.com>
Source record: 9875

In article <5A7AB6A06D9F000124@PSUARCH.Bitnet>, PLB@PSUARCH ("P Bandini, PSU Arch Dept, 814/863-0062") writes:
> A gut reaction is "if they had more
>channels, the saturation threshold would be higher, right?"
>Also, more channels = more customers = lower cost per customer, right?

If you get the same number of customers/channel, it will be just as crowded
no matter how many channels, so where is your lower cost?

So, since we are not really arguing about this basic truth, the question could
>be "Am I willing to pay for your 'service' through a higher cell phone bill?"

But who are you paying, and should we care? Your local carrier
doesn't pay anything to the government (ie the common good) for that
spectrum. Am I willing to pay for your cellular service through
the loss of spectrum?

How about if the government leases 1 mhz of microwave space
for cellular for a few billion and splits the proceeds among the 300,000
or so hams? Believe me, they have pulled wackier deals than that,
especially in agriculture.

> (sorry, but "your cousin in SF is ok" just won't
>do... when I *hear* her voice I will *know* she's ok...)

Whats the matter, would she lie to me?

don perley
perley@trub.crd.ge.com

4720. Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-29 02:22:44 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007290222.AA01282@tecnet1.jcte.jcs.mil>
Source record: 9876

>>So you are saying that the hams already on 220 Mhz, AVOID the Novices?
>>This is exactly what I have been talking about Gary when I predicted that
>>hams on 2 would AVOID the new Communicators. As far as the Novice selling
>>his 220 rig after he upgrades... Yes, I said EXACTLY the same thing in
>>another posting when I mentioned that a lot of Techs upgraded and bought
>>a 2 meter rig, and then stayed there forever. (That is not a dig on
>>"techs", it is just an observation of what I have seen in a lot of cases.
>>There **ARE** exceptions!)

usc!samsung!rex!wuarchive!emory!wa4mei!ke4zv!gary@ucsd.edu
Gary Coffman KE4ZV replies:

>Whoa there! You have misunderstood me. In our area there are darn few
>hams on 220 who are not Novices. It has never been a popular band here
>due to a Ch 11 tv station in town that is a simple image away from the
>band. I know commercial equipment isn't bothered by this, but have you
>seen a used Motorola or GE unit for this band at a hamfest? With the
>current vogue for "wideband receive" in current amateur equipment this
>is a disaster.

True. Commercial equipment that is easy to modify to 220 is not easy to
come by. Spectrum makes a pretty good repeater for the band though.

>>Now wait a minute. Stop, cease and desist. Let's talk about "the old
>>days when Novices had voice on 2 meters". I was one of them Gary, I was
>>there.. I HAD that "privilege" (along with a simultaneous tech license.
>>Yes.. I was WA3JPY *AND* WN3JPY at the same time). What I remember about
>>2 meters was a Benton Harbor Lunch Box (AM) crystal control.. no repeaters
>>AT ALL, and about a typical 2-5 miles range (depending on how big of a
>>mountain you lived on). So you say the Novices were able to go where the
>>REAL hams were and join right in? What REAL hams? 2 meters then was like
>>almost 10 Ghz is today, hence my desire to have Communicators on 220 and
>>ABOVE. In addition the only thing you "joined right into" was a bunch of
>>static. Help? Encouragement? Only after the neighbors ripped my lips off
>>for tearing their TV reception to hell and gone! :-) Maybe if you lived
>>in the middle of a major city what you say might have been true... but not
>>anywhere else my friend.. and I was only 20 miles out of Philadelphia in
>>a place called Valley Forge. George Washington had better luck on 2 meters!

>Well in rural Kentucky where I grew up, we had one of the first .34-.94
>FM repeaters(1964). We used Motorola 5Vs and 40Ds for mobiles. My very first
>ham radio project was converting a Motorola 5V from 6 volts to 12 volts
>and downbanding it into two meters. Our repeater was on a 1000' TV tower
>and had phenominal coverage. EVERY ham in our radio club bought one of
>the Motos in a group buy. The repeater was busier than anything I've
>heard around here in years.

Gary... do you remember what the EXACT Novice frequency allocation was on 2 meters for that period? It wasn't the whole 2 meter band. I am reaching back ... way back ... but I don't think that Novice privileges included 146.34//146.94 I might add that not too many areas had ham repeaters in 1964 ... rural or urban. What I am really saying here is that the Novice voice allocation and the state of the band in 1968 did not lend itself to a general meeting ground and training area for new hams. Your original posting would lead one to believe that. I was only trying to point out that it is not fair to compare "those" days to "these" days to make a point for your discussion. You've got me curious, I am going to go look around for the exact Novice frequency band of 1968.

>>What you say was true when the Novice License expired after one year.
>>Now it's good "forever". Novices ARE real hams. I like Novices more
>>than just about any other class. They are USUALLY the most eager to
>>learn and do not make any pretensions about knowing everything there is
>>to know about ham radio.

>Most are so eager that they upgrade in a few months and are gone forever
>from the novice band. The others are the wives of hams who were pressured
>into getting their licenses so they can talk to hubby. They are rarely
>willing to talk to anyone else.

You left out the third class. Those that are perfectly satisfied with the Novice and see no need to learn any more code or theory in order to upgrade. After all... some Technicians do that and see nothing wrong with it (and I agree with them), so Novices naturally have the same privilege. Many Novices that upgrade immediately head back to the Novice bands to work their old friends and to help others learn the code. I did, and I encourage those that I test and teach to likewise do the same.

>>If the test for Communicator Class requires one to study theory real hard
>>and has an exam that looks for knowledge, instead of an ability to memorize
>>answers then I say CW should be dropped like a hot rock.

>I have always contended that it is easier to understand something than to
>memorize it. At least this is true for me.

First I am not all that sure that what you are saying is true. It may be easier to learn than to memorize a WHOLE SUBJECT from top to bottom, but if the object is to just pass a test ... well there are a lot of people that apparently are not like you in this regard. They memorize. You also have to consider that a lot of people don't WANT to learn the subject, they just want the license. It takes longer to LEARN basic electricity than it takes to memorize ohms law for a test.

>And I don't understand the need to test for a mode that is not commonly
>used on the frequencies granted by the license.

If the licensed person is granted the privilege to operate this mode, then it holds true that some basic understanding of the mode should be tested for. The fact that it is not commonly used RIGHT NOW should not detract from that. The only way to do it otherwise is to test someone only on

what they are interested in. Then what? Do they get access to "those other modes" by default, or are they withheld?

I will admit that testing someone on the rules and regs for what is required to operate (a ham station) FROM a space platform is a little much (!!) but that should not be proof of point for the whole concept.

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

4721. some 90-55 comment tidbits

Newsgroup: rec.ham-radio
Date: 1990-07-29 03:16:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500629@ux1.cso.uiuc.edu>
Source record: 9727

Here are some of my 90-55 comment tidbits:

In FCC Docket Number 90-55: [I use CAPITALIZING to highlight here]

> IV. PROPOSAL
>
> 15. We believe that the petitions have merit. Further, like
> the petitioners, we believe that this is a propitious time to
> propose the establishment of a codeless license, given the
> advances in electronic communications in the past few years. We
> propose, therefore, to establish a codeless class of amateur
> operator license, the Communicator Class. With respect to this
> proposed operator class, we have established three objectives.
>>>>> OUR FIRST OBJECTIVE IS TO OFFER AN ENTRY LEVEL LICENSE
>>>>> OPPORTUNITY TO ALL PERSONS WHO FIND THE TELEGRAPHY REQUIREMENT A
>>>>> BARRIER TO PURSUING THE PURPOSES OF THE AMATEUR SERVICE. Our
> view is best expressed by the statement of the ARRL that "THE
>>>>> GOAL OF THE CODELESS AMATEUR LICENSE IS TO BRING SUCH LICENSEES
>>>>> IN TO THE 'MAINSTREEM' OF THE AMATEUR RADIO SERVICE, AND TO
>>>>> ENCOURAGE THEM TO UPGRADE THEIR LICENSE CLASS."(51) Our second
> objective is to propose a type of license that can be implemented
> quickly if a decision is made to proceed. Our third objective is
> to avoid any negative effect upon current licensees, upon the
> work of the volunteer examiners, or upon the Commission's

The above statement suggests that the Communicator class will be an ENTRY level license class, but the PROPOSAL to remove the Technician class for future licensing is a CONTRADICTION. To where is the Communicator expected to upgrade?

> 17. Operator license structure. In proposed Section 97.9,
> we would incorporate the Communicator Class in a simplified
> license structure containing four ascending steps: Communicator,
> General, Advanced, and Amateur Extra Classes. Current Technician
> and Novice Class operator licenses would be grandfathered
> indefinitely. There would be no new licenses issued for those
> license classes, but existing licenses could be modified or
>>>>> renewed. THIS APPROACH WOULD MEET THE OBJECTIVES WE ESTABLISHED
>>>>> IN PARAGRAPH 15. Dennis and Linda Welch, John McCord and SCATG
> suggested preserving the five-step ladder by eliminating the
> telegraphy examination requrement from the Novice class license.

The FCC has **NOT** establish any connection whatsoever between the objectives in paragraph 15, and the concept of removing the Technician or Novice license classes from future licensees. It has been suggested this move is REALLY to reduce the burden on the FCC in processing upgrades.

I say keep the TECHNICIAN class and remove some other class, or better yet just clean up the whole licensing structure.

> 18. For future licensees, the Communicator Class license
> would be the first step in the license structure instead of the
> Novice Class. Our premise is that most newcomers to the service,
> given the choice, would elect to qualify for the Communicator
> Class license rather than the Novice Class license. There would,
> therefore, no longer be a need for the Novice Class license, We
> particularly invite instructors, volunteer examiners (VEs), and
> VECs to submit comments on the validity of this premise,
> including factual information on the time and effort that would
> be required for persons to prepare tor the proposed 60 question
> Communicator Class written examination as compared to the time
> and effort currently required for the Novice Class 30 question
> written examination and telegraphy examination.

The FCC **FAILS** to address the issue of what the NEXT STEP that new licensees will be expected to follow (if any).

> 19. Because the written examination for the Communicator
> Class license would be more comprehensive than that of the
>>>>> Technician Class license, THE COMMUNICATOR CLASS WOULD ALSO SERVE
>>>>> IN THE STEAD OF THE TECHNICIAN CLASS FOR FUTURE LICENSEES. Each
> step in the proposed four step structure provides recognition
> that the holder has significantly advanced his or her skill in
> both the communication and technical phases of the radio art.(56)
> This structure could be rapidly implemented. The present license
> application processing system and license application form would
> continue to be used.(57)

The HIGHLIGHTED portions of paragraph 19 above and paragraph 20 below are in DIRECT **CONTRADICTION** !! The Communicator class CANNOT "serve in the stead of the Technician class" if it does not have ALL privileges above 30 Mhz as the Technician class now has.

> 20. Operator Privileges. The proposed control operator
>>>>> PRIVILEGES OF THE COMMUNICATOR CLASS WOULD GENERALLY BE THOSE
>>>>> SUGGESTED BY THE ARRL. The privileges would include all
>>>>> authorized emission types. THE PROPOSED TRANSMITTER POWER
>>>>> STANDARD WOULD BE 200 WATTS PEAK ENVELOPE POWER. The licensee's
> station would be eligible for a Group D call sign.(58) Stations
> with Communicator Class control operators would not be permitted
> to transmit on the 2 m and 6 m bands. In view of ARRL's desire
> to bring the codeless class into the mainstream of the amateur
> service,(59) however, we particularly invite comment on the
> effect of excluding Communicator Class licensees from these two
> popular bands.

> 21. The ARRL stated that one premise for its petition was
> that an accommodation should be made for codeless class licensees
> to upgrade their license class. It cited countries that have

> codeless licenses where the written examination tests the
> examinee's technical qualifications. The ARRL stated that
> amateur service societies in countries such as Australia, the
> Federal Republic of Germany, and Belgium report ongoing
> telegraphy activities among the codeless class licensees working
> to upgrade the license class.(60) While the proposed
> Communicator Class privileges include telegraphy on the 1.25
> meter and shorter wavelength bands, we recognize that telegraphy
> operation is more closely assiciated with the HF bands. The
> opportunity for newcomers to the amateur service actually to send
> and receive messages in the Morse code on small segments of the
> HF 80, 40, 15, and 10 meter bands is provided to the Novice and
> Technician Classes so that those operators can gain an
> appreciation of telegraphy tand acquire the proficiency needed to
> pass the telegraphy examination for the General Class operator
>>>>> license. WE SPECIFICALLY REQUEST COMMENTS, THEREFORE, CONCERNING
>>>>> THE DESIRABILITY OF INCLUDING THE OPPORTUNITY FOR COMMUNICATOR
>>>>> CLASS LICENSEES ALSO TO EXPERIENCE ON-THE-AIR TELEGRAPHY
>>>>> OPERATION ON THE HF BANDS. In view of our obligation under the
> provisions of the international Radio Regulations,(61) if it is
> desired, only domestic communications on the HF bands would be
> authorized.

If you add HF privileges to Communicator WITHOUT a code test, then what
is the difference between that and just taking away the code test from
the TECHNICIAN class requirements? NONE!

Not that such as a bad idea, but why both even creating Communicator.
Just remove the code test from Technician and improve the written exam
and stop there. We don't even need Communicator is this case.

> 22. Under proposed Section 97.301(g), a Communicator Class
> licensee who passes, or otherwise receives credit for a
> telegraphy examination, would be authorized the additional
> privileges of the Technician Class.(62) To avoid a license
> processing burden, however, the documentation of the passing of,
> or credit for, a telegraphy examination would be evidenced by the
> Certificate of Successful Completion of Examination (CSCE) issued
> by the administering VEs,(63) rather than by the issuance of a
> Technician Operator license. Theindicator used by the
> Communicator Class for identification purposes would be AC.(64)
> Under propsed Section 97.505(a)(1), VEs would be authorized to
> grant examination credit, evidenced by a CSCE, to a Communicator
> Class examinee for the slow speed telegraphy examination when the
> examinee holds a Novice Operator license.(65) That combination,
> Communicator Class license and CSCE, would permit the
> Communicator Class licensee the same rights and privileges of the
> Technician Class operator. The VECs would provide listings, in
> paper or magnetic for, of the Communicator Class licensees who
> have been issued the CSCE.

This would require the Communicator with code to constantly sign that annoying suffix **FOREVER**!!

In addition, there would be almost NO opportunity for other amateurs to verify the validity of a Communicator licensee using such an indicator on bands earned by passing only a code test.

I even suspect that the FCC doesn't even have the authority in the Communications Act to do this.

> 23. Volunteer examiners. The instant proposal contains
> substantive changes in the amateur operator license examination
> procedure and the issuance of amateur operator licenses and
> CSCEs. All operator license examinations would be administered
> under the VEC system.(66) The additional task of administering
> the Communicator Class would be offset by the elimination of
> other tasks, included the discontinuance of the two-examiner
> system for the Novice Class license.(67) The coorination and
> oversight by the VECs provide more credible results than does the
> two examiner system. In the latter, examination administration
> errors are more common and cheating is a greater problem than in
>>>>> the VEC system. THE TASK OF ADMINISTERING NEW TECHNICIAN
>>>>> OPERATOR CLASS LICENSES WOULD ALSO BE DISCONTINUED.(68) The
> Novice and Technician written examinations would no longer be
> prepared and adminsisted as separate examinations. The VEs and
> VECs, moreover, coulb e reimbursed for out-of-pocket costs
> incurred in connection with all examinations.(69)

>>>>> (68) Some 10,000 to 15,000 persons qualify for the Technician
>>>>> Operator Class license annually.

Apparently the FCC wants to eliminate the workload involved here, but in so doing will be creating a class of outcasts who will perpetually be appearing to be waiting for a license to arrive.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4722. Another 90-55 GOTCHA

Newsgroup: rec.ham-radio
Date: 1990-07-29 05:30:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500630@ux1.cso.uiuc.edu>
Source record: 9728

I have not seen this mentioned yet, but the FCC proposal 90-55, if adopted as is, would eliminate the 220-222 Mhz band IMMEDIATELY, rather than later on when service rules for land mobile services are adopted.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4723. Re: How about a reality check on the "ghetto" concept?

Newsgroup: rec.ham-radio
Date: 1990-07-29 05:59:52 UTC
From: ritchie@hpdmd48.boi.hp.com
Message-ID: <530017@hpdmd48.boi.hp.com>
Source record: 9729

Why would would anyone stay as a novice for long? The Tech theory pool
is not that hard to memorize :^>.

Dave N4DJS

4724. Re: August QST

Newsgroup: rec.ham-radio
Date: 1990-07-29 06:07:43 UTC
From: <>
Message-ID: <1990Jul29.060743.9570@bellcore-2.bellcore.com>
Source record: 9730

I think the aforementioned article would be better titled "A Microcomputer-Controlled NiCad-Battery DIScharger." If you look closely at the schematic, especially the interface between figs 1 and 2, you will note that there is no direct path between the constant current source and the battery, and furthermore the MOSFET pass transistor is bridged across the battery terminals.

I would also recommend heatsinking regulator U11, as its output is shorted directly to ground.

In other words, do not try to build this device from the QST schematic...

Phil

4725. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-29 06:17:28 UTC
From: <>
Message-ID: <1990Jul29.061728.9654@bellcore-2.bellcore.com>
Source record: 9731

John,

You're quite right, protecting a nearby user on a frequency next to a spread spectrum transmitter could be difficult. I can't offer much advice since I don't have any actual experience with spread spectrum, but I can say that most of the systems I've read about seem to operate above 1 GHz and are not operated from fixed locations where EMI would be a problem.

Maybe somebody else out there can relate some practical experiences?

Phil

4726. NASA Prediction Bulletins

Newsgroup: rec.ham-radio
Date: 1990-07-29 06:18:21 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9007302142.AA24295@ucsd.edu>
Source record: 9732

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current of these elements are uploaded weekly to sci.space. This week's elements are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

```
- Current NASA Prediction Bulletins #725 -
Alouette 1
1 00424U 62B-A 1 90206.60997353 .00000117 00000-0 13133-3 0 3334
2 00424 80.4626 248.1917 0023412 170.2951 189.8651 13.67368457387946
ATS 3
1 03029U 67111 A 90205.51194492 -.00000075 00000-0 99999-4 0 3964
2 03029 13.2562 20.9188 0014056 205.3126 154.6640 1.00272697 83166
Cosmos 398
1 04966U 71 16 A 90206.34388824 .00041872 17414-4 23761-3 0 9981
2 04966 51.5319 142.6767 2247502 219.5737 121.7738 11.11255050595931
Starlette
1 07646U 75010 A 90204.87409198 -.00000076 00000-0 -12560-4 0 890
2 07646 49.8305 13.7288 0205676 312.2991 46.0629 13.82139597780859
LAGEOS
1 08820U 76039 A 90198.64391560 .00000002 00000-0 00000 0 0 862
2 08820 109.8519 5.5485 0044669 231.5829 128.0938 6.38664301 75885
GPS-0001
1 10684U 78020 A 90205.33235666 .00000007 00000-0 99999-4 0 4638
2 10684 63.6999 88.4031 0117918 196.9390 162.7410 2.00556486 76595
GPS-0002
1 10893U 78 47 A 90203.81493634 -.00000024 00000-0 00000 0 0 2088
2 10893 64.3504 329.3187 0164521 25.3695 335.4185 2.00543865 89387
GOES 3
1 10953U 78062 A 90203.83726423 .00000102 00000-0 99999-4 0 9273
2 10953 7.0293 66.0391 0008037 74.8604 285.2689 1.00260510 4990
SeaSat 1
1 10967U 78064 A 90205.52815377 .00000402 00000-0 18170-3 0 3565
2 10967 108.0220 37.2326 0002791 237.4163 122.6706 14.35759341631811
GPS-0003
1 11054U 78093 A 90203.59908655 -.00000024 00000-0 00000 0 0 2482
2 11054 63.8958 325.5902 0060429 118.6701 241.9390 2.00567468 86395
Nimbus 7
1 11080U 78098 A 90198.18148237 .00000079 00000-0 87759-4 0 6840
2 11080 99.1940 102.4241 0009664 8.4064 351.7251 13.83443934592186
GPS-0004
1 11141U 78112 A 90204.19952692 .00000007 00000-0 00000 0 0 4110
```

```
2 11141 63.7279 88.3141 0059432 316.0990 43.5124 2.00555619 85106
GPS-0005
1 11690U 80 11 A 90205.33812102 .00000008 00000-0 00000 0 0 9989
2 11690 64.2064 90.3988 0116625 203.0886 156.4555 2.00555417 90982
GPS-0006
1 11783U 80 32 A 90206.14382799 -.00000024 00000-0 00000 0 0 1777
2 11783 63.6887 325.0608 0150717 60.6193 300.7936 2.00558639 75086
GOES 5
1 12472U 81049 A 90205.62000225 -.00000142 00000-0 99999-4 0 9516
2 12472 3.5625 75.4892 0001531 16.4033 343.6175 1.00210028 32605
DE 1
1 12624U 81 70 A 90205.09092028 .00000060 00000-0 29086-4 0 4784
2 12624 88.9682 147.5490 6205945 270.0221 23.8092 3.51015843263503
SME
1 12887U 81100 A 90205.39952374 .00026541 00000-0 42196-3 0 7490
2 12887 97.6316 255.1732 0001521 193.1098 167.0110 15.53295877487046
Salyut 7
1 13138U 82 33 A 90206.42044929 .00029987 00000-0 28363-3 0 4000
2 13138 51.6003 110.2086 0001915 88.9596 271.1709 15.66714211470846
Cosmos 1383
1 13301U 82 66 A 90205.18997288 .00000065 00000-0 69127-4 0 5860
2 13301 82.9304 273.6543 0029342 59.5230 300.8798 13.67836495402733
LandSat 4
1 13367U 82 72 A 90206.72063235 -.00000244 00000-0 -49096-4 0 3981
2 13367 98.1633 268.4883 0004025 31.8127 328.3321 14.57131348426915
IRAS
1 13777U 83 4 A 90202.54101206 .00000086 00000-0 71970-4 0 7947
2 13777 99.0253 38.8008 0011440 293.9448 66.0566 13.98796622 51740
Cosmos 1447
1 13916U 83 21 A 90205.04152463 .00000080 00000-0 78460-4 0 7350
2 13916 82.9461 344.8084 0039515 38.7114 321.6872 13.74051320367731
TDRS 1
1 13969U 83 26 B 90205.81761328 .00000128 00000-0 99999-4 0 406
2 13969 4.5688 65.5549 0002644 86.0031 274.1151 1.00272418 342
GOES 6
1 14050U 83 41 A 90204.75531734 .00000117 00000-0 99999-4 0 2199
2 14050 2.3212 77.9610 0001195 71.4947 288.4324 1.00264453 107
OSCAR 10
1 14129U 83 58 B 90202.22227088 -.00000010 00000-0 00000 0 0 5352
2 14129 26.0271 193.6152 5957350 161.1032 237.0789 2.05879966 25434
GPS-0008
1 14189U 83 72 A 90204.64993894 .00000006 00000-0 99999-4 0 8028
2 14189 63.3718 86.7336 0147493 219.2049 139.7896 2.00703205 51492
LandSat 5
1 14780U 84 21 A 90206.67997186 -.00000644 00000-0 -13788-3 0 2624
2 14780 98.2030 266.1733 0002053 93.8461 266.2982 14.57107211340329
UoSat 2
1 14781U 84 21 B 90205.02567339 .00000791 00000-0 15456-3 0 7626
2 14781 97.9470 256.3744 0013301 126.9258 233.3151 14.65505065341363
GPS-0009
```

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1 15039U 84 59 A 90206.26951390 .00000005 00000-0 00000 0 0 9899
2 15039 63.1871 85.8440 0023147 236.2357 123.7030 2.00612061 44800
Cosmos 1574
1 15055U 84 62 A 90205.94421533 .00000068 00000-0 67106-4 0 9126
2 15055 82.9552 34.4729 0025967 216.9373 142.9997 13.73365207305251
GPS-0010
1 15271U 84 97 A 90203.69826652 -.00000024 00000-0 00000 0 0 8728
2 15271 63.1951 324.6773 0105853 327.4966 31.8648 2.00557455 41866
Cosmos 1602
1 15331U 84105 A 90204.35986658 .00001458 00000-0 19686-3 0 3283
2 15331 82.5390 327.3811 0021622 210.6961 149.2977 14.78315726313432
NOAA 9
1 15427U 84123 A 90205.09689309 .00000276 00000-0 16969-3 0 6061
2 15427 99.1694 205.7859 0014150 265.2013 94.7540 14.12622879289195
Cosmos 1686
1 16095U 85 86 A 90206.99445092 .00097176 00000-0 89651-3 0 7076
2 16095 51.6071 107.2862 0004384 52.6870 307.1265 15.66800300272033
GPS-0011
1 16129U 85 93 A 90203.89683081 .00000006 00000-0 00000 0 0 5587
2 16129 63.8999 86.9345 0124571 148.7456 212.0737 2.00510039 35072
Mir
1 16609U 86 17 A 90206.39972361 .00021369 00000-0 23249-3 0 8174
2 16609 51.6113 137.7709 0010092 180.1747 179.9356 15.63331706254078
SPOT 1
1 16613U 86 19 A 90206.61513524 .00004484 00000-0 21236-2 0 408
2 16613 98.7324 280.5569 0002171 93.2802 266.9161 14.20027157 69388
Cosmos 1766
1 16881U 86 55 A 90206.60240859 .00003775 00000-0 52156-3 0 950
2 16881 82.5142 24.3035 0018413 232.3140 127.6389 14.77784311214823
EGP
1 16908U 86 61 A 90204.22184135 -.00000169 00000-0 -91984-3 0 2362
2 16908 50.0038 145.2178 0010138 293.0997 66.8774 12.44385012179344
NOAA 10
1 16969U 86 73 A 90202.36241059 .00000359 00000-0 17436-3 0 4534
2 16969 98.5980 229.5400 0013460 166.3681 193.7863 14.23667498199476
MOS-1
1 17527U 87 18 A 90205.22743104 .00000038 00000-0 41369-4 0 6181
2 17527 99.1079 277.3022 0000995 77.3283 282.7986 13.94875296174429
GOES 7
1 17561U 87 22 A 90207.07432870 -.00000103 00000-0 99999-4 0 5729
2 17561 0.0242 156.4166 0003530 253.6528 181.5636 1.00278511 5832
Kvant-1
1 17845U 87 30 A 90205.88833998 .00018289 00000-0 19920-3 0 2024
2 17845 51.5875 140.3224 0017272 164.0053 196.2472 15.63305612253993
DMSP B5D2-3
1 18123U 87 53 A 90206.75840843 .00000000 00000-0 99999-5 0 6508
2 18123 98.8169 36.8413 0013673 274.4934 85.4679 14.14082740159854
RS-10/11
1 18129U 87 54 A 90205.86796798 -.00000112 00000-0 -12935-3 0 2656
2 18129 82.9291 300.6886 0012340 21.8430 338.3251 13.72098597154616
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Meteor 2-16
1 18312U 87 68 A 90206.07430102 .00000219 00000-0 18868-3 0 4641
2 18312 82.5532 260.2650 0012152 139.4123 220.7942 13.83664529148227
Meteor 2-17
1 18820U 88 5 A 90206.06963414 .00000053 00000-0 42197-4 0 3269
2 18820 82.5468 320.3439 0015789 214.2284 145.7861 13.84353860125428
DMSP B5D2-4
1 18822U 88 6 A 90206.84541303 .00000003 00000-0 99999-5 0 5762
2 18822 98.6392 85.0730 0007127 150.2491 209.9802 14.21492687128311
AO-13
1 19216U 88 51 B 90197.82067606 -.00000082 00000-0 99999-4 0 1398
2 19216 57.0355 145.3614 6989638 231.4991 42.6273 2.09702725 16025
OKEAN 1
1 19274U 88 56 A 90207.08256833 .00002064 00000-0 28780-3 0 8903
2 19274 82.5188 122.5314 0022259 0.9965 359.1323 14.77141504110668
Meteor 3-2
1 19336U 88 64 A 90205.64662048 .00000391 00000-0 99999-3 0 5379
2 19336 82.5406 250.9239 0016359 215.8167 144.1777 13.16897637 95885
NOAA 11
1 19531U 88 89 A 90206.22907459 -.00000004 00000-0 79470-5 0 3202
2 19531 98.9841 154.5844 0011958 172.3537 187.7816 14.11654798 94336
TDRS 2
1 19548U 88 91 B 90204.00000000 .00000115 00000-0 99999-4 0 1457
2 19548 0.2228 81.8393 0004382 63.7946 340.6711 1.00271163 617
Cosmos 2001
1 19796U 89 11 A 90206.57450952 -.00001057 00000-0 99999-4 0 5657
2 19796 63.3396 88.0570 7072551 319.8876 5.2939 2.00569139 10577
GPS BII-01
1 19802U 89 13 A 90205.83103598 .00000016 00000-0 99999-4 0 1475
2 19802 55.0566 195.9256 0053378 166.2177 193.9178 2.00645993 10504
Akebono
1 19822U 89 16 A 90205.77518294 .00014066 00000-0 86456-3 0 6913
2 19822 75.0947 220.4194 4172922 197.8109 141.6550 7.12593489 2518
Meteor 2-18
1 19851U 89 18 A 90206.05120754 -.00000229 00000-0 -21187-3 0 2700
2 19851 82.5189 198.2854 0012584 256.2335 103.7416 13.83985874 70805
TDRS 3
1 19883U 89 21 B 90204.00000000 -.00000235 00000-0 99999-4 0 1480
2 19883 0.2485 80.7470 0002018 132.5800 46.4494 1.00263623 75316
GPS BII-02
1 20061U 89 44 A 90191.11244975 -.00000033 00000-0 00000 0 0 1445
2 20061 54.7754 14.9096 0086773 173.6971 186.4465 2.00485267 7956
Nadezhda 1
1 20103U 89 50 A 90207.14278152 .00000043 00000-0 39980-4 0 1695
2 20103 82.9586 256.2801 0036165 290.8680 68.8606 13.73600855 53060
GPS BII-03
1 20185U 89 64 A 90206.48324956 .00000016 00000-0 99999-4 0 1360
2 20185 54.9054 196.7576 0023456 161.8622 198.2062 2.00623261 6839
Activnyi
1 20261U 89 80 A 90206.39990890 .00001446 00000-0 45612-3 0 6285
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2 20261 82.5951 204.3000 1256416 252.0140 94.0355 12.43810933 37348
Activnyi RB
1 20262U 89 80 C 90207.10787504 -.00004175 00000-0 -13312-2 0 2597
2 20262 82.5944 203.9259 1259771 250.7143 95.3723 12.43223681 37438
Magion 2
1 20281U 89 80 B 90206.44133198 .00000368 00000-0 11169-3 0 6218
2 20281 82.5926 204.1854 1255939 251.7340 94.3401 12.44076466 37356
GPS BII-04
1 20302U 89 85 A 90186.37739525 -.00000028 00000-0 99999-4 0 1365
2 20302 54.6179 316.3206 0029365 324.1311 35.6734 2.00373177 5230
Meteor 3-3
1 20305U 89 86 A 90206.99655905 .00000039 00000-0 90098-4 0 1765
2 20305 82.5503 190.6244 0014914 228.9452 131.0383 13.15865271 36054
COBE
1 20322U 89 89 A 90203.58261503 .00002205 00000-0 14529-2 0 1496
2 20322 99.0217 213.4434 0007861 268.5021 91.5244 14.02609215 34457
Kvant-2
1 20335U 89 93 A 90206.84718437 .00020679 00000-0 22510-3 0 3150
2 20335 51.6085 135.5050 0010014 185.6657 174.4475 15.63347732254142
GPS BII-05
1 20361U 89 97 A 90191.06758882 .00000015 00000-0 99999-4 0 883
2 20361 54.9603 139.4444 0064503 48.5942 311.9250 2.00581338 4184
SPOT 2
1 20436U 90 5 A 90207.14376235 -.00001313 00000-0 -60860-3 0 2927
2 20436 98.7339 281.1366 0000881 96.2738 263.8544 14.20015354 26279
UO-14
1 20437U 90 5 B 90206.83601518 .00000186 00000-0 82014-4 0 1872
2 20437 98.6956 282.8304 0011814 46.6066 313.6111 14.28662307 26385
UO-15
1 20438U 90 5 C 90207.07705155 .00000042 00000-0 24953-4 0 1073
2 20438 98.6997 283.0484 0011166 43.7101 316.4958 14.28396774 26417
PACSAT
1 20439U 90 5 D 90207.10311923 .00000198 00000-0 86573-4 0 969
2 20439 98.7020 283.2202 0012450 46.3855 313.8335 14.28766803 26423
DO-17
1 20440U 90 5 E 90199.18477369 .00000256 00000-0 11723-3 0 987
2 20440 98.7008 275.3312 0012650 65.8478 294.4027 14.28810988 25294
WO-18
1 20441U 90 5 F 90207.08444772 .00000082 00000-0 40321-4 0 1007
2 20441 98.7018 283.2375 0013067 46.7923 313.4346 14.28908466 26420
LO-19
1 20442U 90 5 G 90207.07559340 .00000084 00000-0 41132-4 0 995
2 20442 98.7023 283.2494 0013439 46.6202 313.6104 14.28977533 26426
GPS BII-06
1 20452U 90 8 A 90206.57714778 .00000002 00000-0 99999-4 0 816
2 20452 54.5561 254.4163 0029103 44.0219 316.2824 2.00872397 3615
MOS-1B
1 20478U 90 13 A 90207.19223782 .00000316 00000-0 26115-3 0 3606
2 20478 99.1880 277.2465 0000590 65.1095 295.0121 13.94832016 23575
DEBUT
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1 20479U 90 13 B 90199.58691214 .00000106 00000-0 28803-3 0 946
2 20479 99.0360 240.1658 0540852 337.5079 20.3134 12.83157648 20779
FO-20
1 20480U 90 13 C 90206.99711595 .00000238 00000-0 58466-3 0 952
2 20480 99.0362 246.1713 0540602 320.7714 35.5372 12.83141261 21726
MOS-1B R/B
1 20491U 90 13 D 90199.61947455 -.00000755 00000-0 -13996-2 0 1012
2 20491 99.0397 244.7496 0470819 317.6475 38.9168 13.02741589 20493
Soyuz TM-9
1 20494U 90 14 A 90206.20795310 .00019212 00000-0 20977-3 0 2128
2 20494 51.6096 138.7369 0010346 179.0816 181.0198 15.63318214254048
LACE
1 20496U 90 15 A 90207.07652980 .00003357 00000-0 21038-3 0 1976
2 20496 43.0969 109.0250 0015709 237.1297 122.8058 15.10973433 24406
RME
1 20497U 90 15 B 90206.07034346 .00006290 00000-0 17803-3 0 2049
2 20497 43.1068 80.9123 0017249 233.0882 126.8388 15.36843027 24661
Nadezhda 2
1 20508U 90 17 A 90207.06498615 .00000030 00000-0 25451-4 0 1355
2 20508 82.9496 31.2353 0042961 237.7075 121.9917 13.73220066 20344
OKEAN 2
1 20510U 90 18 A 90207.11399834 .00000700 00000-0 10479-3 0 2299
2 20510 82.5235 61.8745 0020678 144.3091 215.9578 14.73279913 21805
INTELSAT-6
1 20523U 90 21 A 90206.81686838 .00002466 00000-0 16689-3 0 2331
2 20523 28.3472 10.4241 0018014 232.7426 127.1513 15.02694463 20262
GPS BII-07
1 20533U 90 25 A 90202.81208722 -.00000032 00000-0 00000 0 0 549
2 20533 55.0939 14.5409 0035623 102.8382 257.5798 2.00550551 2291
PegSat
1 20546U 90 28 A 90207.10450499 -.00002130 00000-0 -13218-3 0 1646
2 20546 94.1179 235.7717 0148497 190.6102 169.2008 15.00766147 16677
HST
1 20580U 90 37 B 90206.82447791 .00001615 00000-0 17053-3 0 1481
2 20580 28.4702 3.7550 0006020 170.0638 190.0083 14.84624918 13724
Cosmos 2079
1 20619U 90 45 A 90183.18162415 -.00000015 00000-0 99999-4 0 666
2 20619 64.8990 38.4694 0021232 211.7782 148.1393 2.13102858 940
Kristall
1 20635U 90 48 A 90205.88833369 .00018658 00000-0 20398-3 0 939
2 20635 51.6115 140.3514 0010518 177.7216 182.3831 15.63304241253994
ROSAT
1 20638U 90 49 A 90187.00592365 .00002308 00000-0 21651-3 0 291
2 20638 52.9885 326.8089 0015955 44.1557 316.0698 14.97741876 5108
1990 049B
1 20639U 90 49 B 90186.77313651 .00012056 00000-0 52549-3 0 363
2 20639 52.5158 315.1529 0074503 358.3877 1.6875 15.20114840 5158
INSAT 1-D
1 20643U 90189.97330122 -.00000137 10000-3 0 164
2 20643 0.1487 277.8879 0004816 163.5074 278.7114 1.00269441 243
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1990 051C
1 20645U 90 51 C 90190.98470716 .00146799 24824-4 66570-3 0 250
2 20645 27.1777 158.6411 7466348 194.5605 117.5635 2.10584253 563
Molniya3-38
1 20646U 90 52 A 90200.10814418 .00000037 00000-0 -73888-3 0 474
2 20646 62.8398 222.1210 7408122 280.1598 10.9867 2.00631672 753
1990 052D
1 20649U 90 52 D 90193.14108054 .00000552 00000-0 64582-3 0 218
2 20649 62.8452 223.2199 7449528 280.1064 10.7836 1.96250117 588
Gorizont 20
1 20659U 90 54 A 90200.67565930 -.00000191 00000-0 99999-4 0 309
2 20659 1.4506 269.2197 0018148 241.1368 119.4968 1.00255697 73
1990 054D
1 20662U 90 54 D 90194.63272051 -.00000331 00000-0 99999-4 0 126
2 20662 1.4948 269.1293 0015655 296.6548 63.6942 1.00512434 255
Cosmos 2084
1 20663U 90 55 A 90200.59639727 .00007190 00000-0 11641-2 0 538
2 20663 62.8053 82.4265 0125965 8.1706 352.1652 14.66814477 4062
1990 055D
1 20666U 90 55 D 90197.68699122 .00001667 00000-0 27488-3 0 193
2 20666 62.7952 91.3973 0121322 14.4345 346.0168 14.69533585 3647
INTELSAT-F6
1 20667U 90 56 A 90202.27683899 -.00000228 00000-0 99999-4 0 146
2 20667 0.3295 256.9105 0022964 329.7994 133.0798 1.00261572 304
1990 056C
1 20669U 90 56 C 90205.34975916 .00004894 00000-0 18629-2 0 212
2 20669 24.2163 253.6506 7415552 19.3527 358.1981 2.10983344 656
Meteor 2-19
1 20670U 90 57 A 90207.12344511 .00000088 00000-0 74115-4 0 242
2 20670 82.5439 257.7623 0016326 173.8807 186.2552 13.83840577 3909
1990 057B
1 20671U 90 57 B 90207.11694478 -.00000105 00000-0 -99625-4 0 90
2 20671 82.5443 257.7573 0015324 175.4728 184.6575 13.84158391 3900
GAMMA
1 20683U 90 58 A 90206.43851942 .00016247 00000-0 31684-3 0 327
2 20683 51.6180 19.0429 0013029 266.8296 93.1256 15.47578434 2197
1990 059A
1 20685U 90 59 A 90204.50601142 .00186141 -63919-5 45033-3 0 127
2 20685 28.4963 256.1649 0551391 205.7293 151.2654 14.92991381 1125
1990 059B
1 20686U 90206.42783542 .00361873 -67087-5 81988-3 0 219
2 20686 28.5006 243.4655 0533254 226.4388 129.0699 14.97909858 1411
1990 060A
1 20687U 90 60 A 90207.10978295 .00083364 22032-5 13943-3 0 214
2 20687 82.3128 93.7631 0014476 296.2166 62.8101 16.02594757 118
1990 061A
1 20693U 90 61 A 90205.68776425 -.00000025 00000-0 99999-4 0 96
2 20693 1.4812 272.0375 0019628 82.2183 278.4142 0.99911308 68
1990 062A
1 20702U 90 62 A 90207.11985849 .00044793 00000-0 88614-4 0 192
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2 20702 82.3288 87.7541 0081474 64.1972 296.7591 15.93793970 922
1990 064A
1 20707U 90 64 A 90206.81007288 .00000085 00000-0 99999-4 0 34
2 20707 62.8980 166.2331 7346085 318.1243 4.5758 2.04190646 09
1990 064B
1 20708U 90 64 B 90207.19554900 .00611339 92876-5 12233-2 0 36
2 20708 62.8245 164.7986 0254659 121.1450 241.4547 15.61446651 75
1990 064C
1 20709U 90 64 C 90207.19610508 .01381489 35886-4 99227-3 0 31
2 20709 62.8650 164.6910 0313299 123.6073 239.5399 15.60545257 70
1990 065A
1 20712U 90 65 A 90206.94610232 .00000065 00000-0 99999-4 0 10
2 20712 18.1192 47.3154 7125993 199.5387 105.4320 2.43366064 18
1990 065B
1 20713U 90 65 B 90206.94773599 .00000063 00000-0 99999-4 0 15
2 20713 18.0758 47.8888 7132915 199.0158 106.4350 2.42429083 12
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Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology
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4727. NASA Prediction Bulletin Format

Newsgroup: rec.ham-radio
Date: 1990-07-29 06:19:01 UTC
From: tkelso@BLACKBIRD.AFIT.AF.MIL
Message-ID: <9007302136.AA24017@ucsd.edu>
Source record: 9733

As a service to the satellite user community, the following description of the NASA Prediction Bulletin's two-line orbital element set format is uploaded to sci.space on a monthly basis. The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

==========

Data for each satellite consists of three lines in the following format:

```
AAAAAAAAAAA
1 NNNNNU NNNNNAAA NNNNN.NNNNNNNN +.NNNNNNNN +NNNNN-N +NNNNN-N N NNNNN
2 NNNNN NNN.NNNN NNN.NNNN NNNNNNN NNN.NNNN NNN.NNNN NN.NNNNNNNNNNNNN
```

Line 1 is a eleven-character name.

Lines 2 and 3 are the standard Two-Line Orbital Element Set Format identical to that used by NASA and NORAD. The format description is:

Line 2
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number
10-11 International Designator (Last two digits of launch year)
12-14 International Designator (Launch number of the year)
15-17 International Designator (Piece of launch)
19-20 Epoch Year (Last two digits of year)
21-32 Epoch (Julian Day and fractional portion of the day)
34-43 First Time Derivative of the Mean Motion
or Ballistic Coefficient (Depending on ephemeris type)
45-52 Second Time Derivative of Mean Motion (decimal point assumed;
blank if N/A)
54-61 BSTAR drag term if GP4 general perturbation theory was used.
Otherwise, radiation pressure coefficient. (Decimal point assumed)
63-63 Ephemeris type
65-68 Element number
69-69 Check Sum (Modulo 10)
(Letters, blanks, periods = 0; minus sign = 1; plus sign = 2)

Line 3
Column Description
01-01 Line Number of Element Data
03-07 Satellite Number

09-16 Inclination [Degrees]
18-25 Right Ascension of the Ascending Node [Degrees]
27-33 Eccentricity (decimal point assumed)
35-42 Argument of Perigee [Degrees]
44-51 Mean Anomaly [Degrees]
53-63 Mean Motion [Revs per day]
64-68 Revolution number at epoch [Revs]
69-69 Check Sum (Modulo 10)

All other columns are blank or fixed.

Example:

NOAA 6
1 11416U 86 50.28438588 0.00000140 67960-4 0 5293
2 11416 98.5105 69.3305 0012788 63.2828 296.9658 14.24899292346978

Note that the International Designator fields are usually blank, as issued in
the NASA Prediction Bulletins.

--
Dr TS Kelso Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil Air Force Institute of Technology

4728. Re: 73 Mag changes flavor

Newsgroup: rec.ham-radio
Date: 1990-07-29 07:28:50 UTC
From: tad@ssc.UUCP
Message-ID: <951@ssc.UUCP>
Source record: 9734

Someone asked for an e-mail address for 73 magazine. You can
use the MCI Mail network address, which is mcimail.com!2184001.

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4729. Re: RE: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-29 14:19:00 UTC
From: PLB@PSUARCH.BITNET
Message-ID: <59BB39B14C1F0001BB@PSUARCH.Bitnet>
Source record: 9735

Donald P Perley (crdgw1!galaxy@uunet.uu.net) on 29 Jul 90:

>If you get the same number of customers/channel, it will be just as crowded
>no matter how many channels, so where is your lower cost?

How that works is a mystery to me too... I think it has to do with fractions, something I've never been good at, but if you take the *fixed* cost of some items (ie, towers) and divide it among a *greater* number of customers, you end up with a *lower* cost... So, there may be the same number of customers per channel as before, but not the same cost per customer... get it?
What's keeping my cell company from serving more customers is the availability of channels (spectrum, that limited resource a chunck of which is allocated to you). So, by not getting the lower cell rates that I could, I am *indirectly* paying for your hobby/service.

> Am I willing to pay for your cellular service through
>the loss of spectrum?

You ARE paying. In case of an emergency, you're doing nothing but "pay back" for the privilege extended to you during "normal" times.
In other words, your exclusive use of a limited resource (spectrum) is payed for when the emergency arises, in the form of 'public service'.
Whether I'm willing to take advantage of your service or not, that's another story. In the case of my cousin, last fall I chose not to collect, for "reliability" reasons... not the "technical" reliability of the signal going through autopatches, around mountains, etc, but the reliability of the *message itself*...

>Whats the matter, would she lie to me?

No, but *you* may... unwillingly, of course... :*>

Like <zaphod.mps.ohio-state.edu!mips!wyse!stevew@tut.cis.ohio-state.edu>
(Steve Wilson x2580 dept303) writes on 25 Jul 90:

>Now that may cast into question the entire effort we exert with
>an admission that it's possible to get inaccurate information.

...and all the discussion that went on a few days back on the "accuracy" issue.

On a last note: how come I'm getting *my* posting AND a reply to it IN THE SAME DIGEST..? Do certain groups get special delivery..? Any comment, Brian?

-P. Bandini
==========

4730. vk2sg rtty report

Newsgroup: rec.ham-radio
Date: 1990-07-29 15:44:11 UTC
From: gws@n8emr.UUCP
Message-ID: <1574@n8emr.UUCP>
Source record: 9736

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============================================================
| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
============================================================

SB RTTYDX @ RTTYDX $RTDX0727
RTTY DX Notes, 1of3, 7/27/90

RTTY DX Notes for Weekending 27th June 1990.
Part 1 of 3.
BID: $RTDX0727

One wonders at times about the accuracy of the propagation reports.
It seems that WWV gives a letter that says the bands will be fair to
good, W1AW reports that the bands will be good this week, but by the
looks of the bands, everyone has gone out to play golf or tennis or
something, because there have been very few stations on the air in the
past week. Or maybe they have been checking their gear for the next
contest.

Our information this week came from F8XT, I5FLN, I5ICY, I5IGQ, JA1BLV,
OD5NG, SM5EIT, TG9VT, VK2EG, W2JGR and the Tri-State DX Association
VHF packet cluster. Thank you all for your help.

Bandpass

Friday 20

UQ2HO 14079 at 0420Z
BV4QA 14088 at 1400Z
VQ9RB 21093 at 1757Z QSL
UA1OJ/UA9Q 14087 at 1804Z QSL

Saturday 21

EA6ML 14082 at 0536Z
VQ9RB 14086 at 1448Z
5V7DP 21081 at 1752Z
HB0HTA 21082 at 1816Z
EC8AUD 21098 at 1930Z
RA2FB 14085 at 2108Z

Continued in part 2.
/EX
SB RTTYDX @ RTTYDX $RTDX0728
RTTY DX Notes, 2of3, 7/27/90
```

RTTY DX Notes for Weekending 27th June 1990.
Part 2 of 3.
BID: $RTDX0728

Sunday 22

PZ1BS 14085 at 0110Z
RB5QV 14084 at 0230Z
UT5RP 14068 at 0355Z ARQ
UA1OJ/UA9Q 14087 at 0449Z
J39BS 14091 at 0450Z QSL
ZL0AIC 14089 at 0500Z QSL/Note
BZ4SAA 14088 at 1313Z
9L1US 21088 at 1517Z QSL
5V7DP 21089 at 1800Z QSL
FT1MM 14090 at 1900Z Note?
VQ9RB 21085 at 1925Z
SU1HN 14083 at 2144Z

Monday 23

RC8O/UB4MZG 14085 at 0659Z QSL
BY1QH 14079 at 1358Z
JY9SR 14079 at 1439Z
ZD9BV 21086 at 1606Z
ZD8BOB 21088 at 1739Z
PZ1BS 14070 at 2318Z ARQ
EA8ES 21083 at 2319Z
UA4FAQ 14091 at 2323Z
EA6ZP 14089 at 2341Z

Tuesday 24

TJ1MW 14090 at 0045Z
UV1AT 14085 at 0306Z
J28TY 14092 at 0308Z
RF6FC 14086 at 0423Z
TA3D 14086 at 1951Z

Wednesday 25

UT5RP 14073 at 0111Z ARQ
TA3D 14089 at 0123Z
RC8O/UB4MZG 14085 at 0528Z
C31RI 14086 at 0951Z

Thursday 26

UA4FDS 14086 at 0038Z QSL
EA9MY 14083 at 0701Z
I2KYM/IG9 14090 at 0707Z Note

Continued in part 3.
/EX
SB RTTYDX @ RTTYDX $RTDX0729

RTTY DX Notes, 3of3, 7/27/90

RTTY DX Notes for Weekending 27th June 1990.
Part 3 of 3.
BID: $RTDX0729

QSL Information.

VQ9RB is Dick Barnes, Box 55, NSF, FPO. SF, CA 96685-2000 U.S.A.

UA1OJ/UA9Q is at Box 27, Severodvinsk, 164500 USSR.

ZL0AIC will QSL via HB9AAA.

9L1US will QSL via WA8JOC.

5V7DP says to QSL via KA1DE.

J39BS will QSL to WB2LCH, not WB2CLH as stated last week. Sorry Erik.

RC8P/UB4MZG says to QSL to Box 22, Schastie, 348903 Ukraine USSR.

PZ1BS QSL to Box 813, Paramaribo, Surinam.

UA4FDS to Box 555, Penza 440061 USSR.

Notes Of Interest.

DA1WA will operate from Frankenstein's Castle from August 4th to 5th.

6W6JX will operate from C53 August 9th to 23rd with the call of
C53/6W6JX. QSL via his normal path of F6FNU.

JH4IFF will sign VP2V/JH4IFF from around the 10th of August.

DF2UU is expected to operate from (TF) Iceland in August.

JA3DLE/1 worked FT1MM on July 22nd. Has anyone any information on
this station? I can't find any information here.

The Malpelo operation scheduled for January 1991 has been moved
forward to November 22nd this year. But they still need antennae and
transceivers for RTTY. Can anyone help? If so, Telex 033413
Barabquila Colombia. Financial assistance is also needed and can be
sent to: HK3BED, Box 584, Bogota, Colombia.

ZL0AIC is on Ross Island in the Antarctic, and works with/for the
Greenpeace people.

I2KYM/IG9 is an IOTA station. Reference AF33, Zone 19.

GL DE DX1.

Relayed via packet by Tad, KT7H @ N7HFZ.WA.USA.NA. Send RTTY DX tips
to VK2SG @ VK2AGE.AUS.AU, or via AMTOR on the VK2AGE APLINK mailbox.
/EX
SB ALL @ RTTYDX $KT7H0726

World Radiosport Aftermath

BID: $KT7H0726

It's been quite a week in Seattle! We just hosted the World Radiosport Team Championship, which is the first time ever that a radio contest was held with all of the participants in the same area.

Next week I will be sending out a summary of the scores and some "war stories" from the crew that hosted the contest and the teams. I attended a couple of the social events, but could not participate fully because of my involvement in War and Peace, an opera production of the Goodwill Games Arts Festival.

I was very impressed by the group that put on the contest, the volunteers who helped host the foreign guests, and the operators from around the world. The parties and the comraderie were great! I was most impressed with the Soviets. . .a real fun bunch of guys, some of them excellent English speakers, and do they know how to drink vodka!

More news next week.

73,
Tad
KT7H @ N7HFZ.WA.USA.NA
/EX

--
Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

4731. Re: R7000 Trap for Broadcast FM

Newsgroup: rec.ham-radio
Date: 1990-07-29 15:55:30 UTC
From: john@anasaz.UUCP
Message-ID: <2789@anasaz.UUCP>
Source record: 9737
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <3607@radio.oakhill.UUCP> charlie@oakhill.UUCP (Charlie Thompson) writes:
]used Pspice to simulate the response from filters
]designed using ECD. Normally you can expect
]about ~6dB of insertion loss; a gasfet preamp after
]the filter can make up for this. In summary the R7000
]can get overloaded from strong signals like FM stations.

A couple of comments here:
(1) the preamp AFTER the filter will have no beneficial effect at all
on a well designed receiver such as an R7000. Any good receiver has
more than enough gain - the enemy is noise, ie you want a good noise
figure. A 6dB insertion loss filter will add 6dB to your noise
figure, pre-amp or not! Once you have lost the SNR, you can never
improve it again.
(2) It is quite possible to design filters with very low insertion loss
(<.5 dB for example) to do what you want. However, the lower the insertion
loss, the higher Q elements you need. At 100MHz that shouldn't be
much of a problem. See the Reference Data for Radio Engineers for
design data (although it takes a lot of fiddling with the way the
data is presented in order to convert it from analysis to design
data). I'm sure there are other references. The calculations are
easy enough that you definitely don't need a computer to do them.
Any decent library should have the book. Possibly the Amateur Radio
Handbook has it also, but I haven't checked.
(3) The Radio Shack filter is likely to beat anything you can do yourself
unless you work hard at it and have the equipment to really measure
the filter performance (preferably a sweep generator or tracking
generator/spectrum analyzer). At a minimum, you need a signal
generator with flat output over the 75 - 130 MHz frequency range,
and some sort of good RF signal level detector (properly done,
a diode detector and a volt meter, and a calibration curve to get
dB's from it.
(4) If you build the filter, keep in mind that component characteristics
(using the right type of capacitor and inductor), component placement,
and grounding and shielding is going to significantly affect the
results. Use the right parts, LOTS of ground plane, high Q coils,
good capacitors, and appropriate shielding.
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4732. Re: How to get started.

Newsgroup: rec.ham-radio
Date: 1990-07-29 16:02:28 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880226@hpfcdc.HP.COM>
Source record: 9738

> I recommend "Welcome to the World of Ham Radio", by the ARRL,...

The correct title is "Tune in the World with Ham Radio". Sorry about
that, I was operating from memory.

Alan, N0MFW (Mountain Friendly Wireless, no more free watts, ...)

4733. Re: How about a reality check on the "ghetto" concept?

Newsgroup: rec.ham-radio
Date: 1990-07-29 16:55:41 UTC
From: cs00jmc@unccvax.uncc.edu
Message-ID: <2546@unccvax.uncc.edu>
Source record: 9739

In article <530017@hpdmd48.boi.hp.com> ritchie@hpdmd48.boi.hp.com (David Ritchie) writes:
>
> Why would would anyone stay as a novice for long? The Tech theory pool
>is not that hard to memorize :^>.
>
>
> Dave N4DJS

There may be several reasons:
1. No desire to work VHF.
2. lack of time to study (or memorize) due to other commitments.
3. travel difficulties to exam sites for upgrading (one could live in a remote
area, or be too young or otherwise unable to drive).
4. A desire to try ham radio for a while before deciding to stay in it.
Remember, entry-level licenses are there to give people a chance to try
ham radio out without having to take so many exams.
5. Only purpose of license is to communicate with spouse on 220 MHz repeater.

There may be others. When I had my Novice (1972-74) I was too young to
drive and had difficulty getting from Fayetteville NC to Norfolk VA.
As a result I was unlicensed for almost a year after my Novice expired.
This was not my choice but a consequence of NON-RENEWABLE licenses, which
I oppose.

Fortunately most VEC exams are held more frequently and are more geographically
distributed than the FCC exams were; but there are some parts of the country
where it is difficult to find a place to take an exam.
There are others where it is very easy. Within a 100 mile radius of
Charlotte there is an exam given about 3 out of 4 weekends. So that reason
would not apply here.

--
John Covington WN4BBJ Internet: cs00jmc@unccvax.uncc.edu
P.O. Box 217122 MCI Mail: JCOVINGTON 342-6957
Charlotte, NC 28221-7122 Packet Radio Mail: WN4BBJ @ W4BFB.NC.USA.NA
(704) 537-7653 "Kenneth, what's the frequency?" "I dunno, ask Dan"

4734. Re: Airwave Wars

Newsgroup: rec.ham-radio
Date: 1990-07-29 17:32:16 UTC
From: john@anasaz.UUCP
Message-ID: <2795@anasaz.UUCP>
Source record: 9740

In article <1613@excelan.COM> tonyb@ka.excelan.com (Tony Bamberger) writes:
]what would happen in a disaster. Every agency from the State "Office of
]Emergency Services" to "Bill's Towing" is going to try and use their cellular.
]I just don't know of a way to say "Break - Emergency Traffic" to someone using
]a cellular channel I need to pass traffic on - DO YOU?

Well, as a matter of fact, yes I do! Emergency agencies can get cell-phones
that have priority on the system. Someone else will get bumped to give
a dial tone to these folks. [at least, here in AZ].
--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4735. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-29 17:39:48 UTC
From: john@anasaz.UUCP
Message-ID: <2797@anasaz.UUCP>
Source record: 9741

In article <1102@ke4zv.UUCP> gary@ke4zv.UUCP (Gary Coffman) writes:
]>Consider base-band filtering. It's sure a lot cheaper to filter
]>at low power at baseband than at RF at high power. Let's say we
]>make a PERFECT baseband filter. We STILL need an ULTRA LINEAR
]>modulator or the interference comes back. This is true of
]>either fast frequency hop or direct sequence.
]>
]
]In our 100,000 watt TV transmitter, the sideband filter is a little
]SAW filter you can hold in the palm of your hand. In our old 50,000
]watt transmitter the filter was a huge water cooled monster on the
]output of the transmitter. The SAW filter is installed just after
]the modulator at the 100 miliwatt level. Assuming reasonable
]linearity (<2%) in the following power amplifiers, this little guy
]can do the job nicely. Assuming your PA doesn't act as a wideband
]noise generator on it's own, you don't need huge cavities anymore.
]Transmitter and filter design have changed dramatically in the last
]ten years. Nobody does "high level" modulation anymore and achieving
]linear power is much easier than it used to be. Amateur technology
]has a long way to come from the old Micor to the modern world.

Point well taken. However, your 100,000 watt TV transmitter is not
protecting sensitive receives just outside the passband. How much
are your sidebands reduced? 60 dB? That's just not enough for
the case we are talking about. 2% linearity is nowhere near
good enough - I'll bet your linearity is much better than that.

Remember, when we talk 100dB range attenuation, we are getting
into tough stuff. Your SAW probably leaks more than that - what is
the passband vs. stopband attenuation of it? Add to that nonlinearities,
AND wideband noise, and you may still have a problem if you are operating
in the amateur 440 band (or 2 meter) and trying to protect other services
in the 450 band (or 150). Finally, one reason for pass cavities is
that transistor amplifiers do radiate significant broadband noise, even
if unmodulated. When we put a pass cavity on an FM repeater, we lower
the site noise significantly. Leaving out that protection means that
the broadband noise is a problem. Of course, I guess we could use
tubes...

--
John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john
USnail: 7525 Clearwater Pkwy, Scottsdale,AZ 85253 anasaz!john@asuvax.eas.asu.edu
Voice: (602) 951-9326 Wishful Thinking: Long palladium, Short Petroleum
Opinion: Support ALL of the bill of rights, INCLUDING the 2nd amendment!

4736. ARRL DX Bulletin 30 ARLD030

Newsgroup: rec.ham-radio
Date: 1990-07-29 18:24:22 UTC
From: reisert@ricks.enet.dec.com
Message-ID: <14013@shlump.nac.dec.com>
Source record: 9742

W1GG Retransmission

DX Bulletin 30 ARLD030
From ARRL Headquarters
Newington CT July 27, 1990
To all Radio Amateurs

Thanks to Paul, KB1BE, and the Connecticut DX Association for the following DX information.

YEMEN, 7O. Pierre, F6HIZ, has announced that F2VX and F6EXV will operate from Aden from July 28 to August 12. They have been issued documentation from the Minister of Communication, Republic of Yemen. The calls used will probably be 7O1AB and 7O1AC.

Check 5 KHz up from the bottom of the bands for CW, with the exception of no CW operating on 80 meters. Check 3787, 7065, 14125, 14145, 14195, 21195, 21295, 28445 and 28495 KHz for SSB. They will announce the split listening frequencies.

THAILAND, HS. Members of the Japan UNICEF Ham Club will activate HS0ILY July 27 and 28. Operations will be on 80 through 6 meters, CW and SSB. QSL via JA2BCQ.

MARKET REEF, OJ0. Callsigns for the Market Reef dxpedition scheduled to start July 28 will be OJ0/KF7PO on SSB and OJ0/N7BG on CW. QSL via KF7PO.

CRETE, J4. A group of Greek operators will sign J49G from Gavdhos Island starting August 1. This two week operation will be on CW, SSB and teletype modes. The island is located just off the southern coast of Crete.

SVALBARD, JW. A Netherland dxpediton to Svalbard by JW/PA3CDO, JW/PA3FMK and JW/PE1MIS will be active from July 27 until August 8. Activity is planned for 80 through 6 meter CW and SSB. QSL to each operator's home address.

NORTH COOK ISLANDS. Look for Kiyoko to sign ZK1XH from North Cook. She has been using ZK1BY from Raratonga.
NNNN

4737. Re: New Ham needs help on 2m/TNC equipment buy recommendations / TM-731A

Newsgroup: rec.ham-radio
Date: 1990-07-29 18:34:17 UTC
From: bote@csense.uucp
Message-ID: <1990Jul29.183417.7464@csense.uucp>
Source record: 9743
Cross-posted to: rec.ham-radio,rec.ham-radio.packet

From article <1990Jul24.215835.21179@midway.uchicago.edu>, by gary@ellis.uchicago.edu (gary buchholz):
>
> In any case, I want to get a 2m/440 or 2m/220 radio. The first problem is
> 220 vs 440 ? It seems that you can't have everything. Any advice on that ?

Find a Drake UV-3 at a hamfest or in the Yellow Sheets. It has the capability of 144, 220, 440 all in one not so small radio. It has four diode programmable memory channels for each band, and its VFO is not confined to the standard channel spacing for each band as some of the newer radios are.

This is the kind of radio with which you could be comfortable for multiband packet operation; you certainly wouldn't miss it mobile, it's too big!

Just a thought.

--
John Boteler {uunet | ka3ovk}!media!csense!bote
NCN NudesLine: 703-241-BARE -- VOICE only, Touch-Tone (TM) accessible

4738. Re: Looking for Derek Koopman G1TLH

Newsgroup: rec.ham-radio
Date: 1990-07-29 18:48:59 UTC
From: daveh@compnect.UUCP
Message-ID: <745@compnect.UUCP>
Source record: 9744

In article <5CC57F3F71FF000375@NRCNET.NRC.CA>, EVERETT@HIARAS.NRC.CA writes:
> In July's QEX -The ARRL's Experimenters Exchange- GATEWAY Column
> there is an article on "Connectionless Mail Protocol and More" by
> Derek Koopman, G1TLH. The last line of the article says it is from
> Connect International via Herb Greeb, N8XX.
> I would very much like to contact Mr. Koopman to discuss his article.
> If anyone would have any information on how to reach him by Email,
> Postal service, or phone I would appreciate them passing it along.
> The article has spawned a possible undergraduate thesis idea on the
> subject of Connectionless Protocols.
> Any information or general comments on the subject would be valued.
>
From the 1990 Callbook:
Call: G1TLH
Name: D. J. Koopman
Address: 24 Cemetery Road
East Dereham
Norfolk NR19 ET
England, UK

--
Dave Hultberg KA3UZR Mail: 1407 Concord Road, Mechanicsburg, PA 17055-1955
daveh@compnect.uucp H: 717-766-0051 CI$: 72437,3215
uunet!wa3wbu!compnect!daveh W: 717-790-4507 Fido: 1:270/101.28
compnect!daveh@uunet.UU.NET FAX: 717-790-3689 Packet: KA3UZR@WB3EAH.PA.USA.NA

4739. Re: How to get started.

Newsgroup: rec.ham-radio
Date: 1990-07-29 19:00:03 UTC
From: daveh@compnect.UUCP
Message-ID: <746@compnect.UUCP>
Source record: 9745

In article <1618@ole.UUCP>, ssave@ole.UUCP (Shailendra Save) writes:
>
> I want to be a amateur-radio operator. What is the best way to
> get started? Where can I get good books to get started on it,
> is it possible to learn everything that is required for the test
> through self-study, or is it necessary to take an official course
> and pass it? I should think that receiving and monitoring airwaves
> is perfectly alright on any radio band?
> I would appreciate any help that you can give me and any suggestions
> that you may have as to good equipment that will get me started.

The best way to get started IMHO is to find an amateur or amateurs in your area who teach classes for new hams. One way to find out if there are any is to write to the American Radio Relay League, 225 Main St., Newington, CT 06111 and ask for their Prospective Ham Package. It will list clubs and local hams who are willing to help newcomers and who gives tests locally. Another source is your local Radio Shack. They might know some local hams, but even if they don't their Novice Course for $19.95 will give you all the information you need to pass the test. It even includes 2 morse code practice cassette tapes. I used their courses to pass both my Novice and Technician tests. I also passed the General written test using their course. All I need now is to practice my morse code. Good luck and hope to talk to you on the air soon!

--
Dave Hultberg KA3UZR Mail: 1407 Concord Road, Mechanicsburg, PA 17055-1955
daveh@compnect.uucp H: 717-766-0051 CI$: 72437,3215
uunet!wa3wbu!compnect!daveh W: 717-790-4507 Fido: 1:270/101.28
compnect!daveh@uunet.UU.NET FAX: 717-790-3689 Packet: KA3UZR@WB3EAH.PA.USA.NA

4740. costs... (long)

Newsgroup: rec.ham-radio
Date: 1990-07-29 19:29:33 UTC
From: mgb@TECNET1.JCTE.JCS.MIL
Message-ID: <9007291929.AA23143@tecnet1.jcte.jcs.mil>
Source record: 9746

<PLB%PSUARCH.BITNET@CORNELLC.cit.cornell.edu>
"P Bandini, PSU Arch Dept, 814/863-0062" writes:
>Frankly, I don't have hard facts. That would require survey, data analysis,
>etc, and all it would provide is confirmation of a basic truth that we
>already know about: there is no free lunch. Anything that is in limited
>supply does cost (land, water, spectrum...)

A logical statement can be made about supply and demand. Cell sites are
built to "supply" a service. There is a certain amount of overhead cost
that is required to do this. It is NOT a trivial amount. A business
person in cellular or land mobile service does NOT design his system to
meet emergency or overload conditions. If he or she did, it would reduce
profit by the requirement of higher equipment installation and maintenance
costs that would be used only rarely. Even if someone DID consider it, they
realize that in such an emergency, there are going to be other choke-points
such as the Telco switch itself. It is just not logical (profit-wise) to
do so.

>Lately we've been hearing a lot about how saturated landline phones AND cell
>phones become in case of an emergency. A gut reaction is "if they had more
>channels, the saturation threshold would be higher, right?"

Let us say that this is true. You would pay DEARLY for the cost it would
take to implement this. You would be paying for peak demand versus average
demand and the normal customer would not tolerate the additional costs. Most
especially so if even with the additional capacity of the cells, the call
could not be completed due to overload of the Telco switch. I.E. You would
be paying more for the privilege of hearing a busy signal from the Telco.

A much more logical method is to use the existing bandwidth more efficiently
rather than just adding more channels (which means more equipment, which
means more maintenance, which adds up to more $$$) This is why the "digital"
radios are being pushed! In addition, when this happens... the customers
will all have to go out and buy NEW radios... (maybe not all at once but
eventually) this is called "planned obsolescence" and is a favorite revenue
producing trick. Ask some of your Motorola dealers sometime what they do
with old radios that are "traded in" on newer models. In many MANY cases,
the dealers are told to SCRAP the old radios. Not give them to hams, or sell
them on the side.. just SCRAP them. Reason? Motorola no longer has to stock
spare parts support for the older models and thus can reduce their parts
overhead.

>Also, more channels = more customers = lower cost per customer, right?
>(At least, that's what has happened for just about anything I can think of)

Up to a POINT that is true. There is a balance ratio between number of cells versus number of users. That exact balance equates to the maximum profit. Deviate from it either way and you will start losing money. It is logical for the cell system operator to overload his system rather than underload it by design. It is a safer practice and is more likely to generate a consistent income. Always remember.. the purpose of cellular telephone is to MAKE MONEY. Every decision that they make is based on that premise.

>So, since we are not really arguing about this basic truth, the question
>could be "Am I willing to pay for your 'service' through a higher cell phone
>bill?" I might, but then we'd have to enter a less ambiguous contract: how
>do I access your 'service'? where do I find you when I need you? can you
>guarantee the accuracy of your 'service'?

Exactly! Would you enter a contract where the cell operator says "I will provide you with a 95% guarantee that I will get you to a Telco switch and in order to do that it will cost you $xx.xx amount more... but after that there are no promises!"? Maybe YOU would, but the average person would not, at least that is the general thought of the cell operators. Plus, keep in mind... THEIR profit margin. If they think that adding this capability would enhance their PR and bring in more customers, then they might do it. Logic says that it would be a bad risk unless there are a LOT of emergencies to keep this thought uppermost in the customers mind.

(sorry, but "your cousin in SF is ok" just won't do... when I *hear* her
>voice I will *know* she's ok...)

I would suggest then that the best solution for you and your cousin is for you both to become Amateur Operators.

>I would like to extend my sympathies to all volunteers of all kind, whether
>it be driving an ambulance, or preparing hot food in a shelter. I hope these
>comments will not be interpreted as an attempt to minimize their (in)valuable
>contributions.

I have to admit that it appeared to me that your comments just might be trivializing the importance and amount of service provided by Amateur operators during major emergencies and that you feel that such services could be better served by releasing the spectrum to commercial interests.

With this thought in mind, I have to say that you are more than likely always going to get the best EMERGENCY service from Amateur Radio simply because they are not profit motivated and are willing to switch their spectrum from hobby use to total emergency service on a moments notice. Commercial service operators are just that.... commercially motivated. They will ALWAYS plan a system with the maximum profit in mind and not "once in a blue moon" emergency conditions. If they can do the second while not affecting the first, they will. Otherwise, I would not care to count on it.

>However, I'm wondering if in the case of emergency communications, ham
>radio is the *best* we can have... comments anyone?

Absolutely NOT! In the case of emergency communications, there are a LOT of better methods than "Amateur Radio". Military Satcom comes to mind where a small radio and little fold out dish (about 1 foot by 1 foot) can be made operational in a matter of minutes, can talk across the continent or across the street, and can be made secure in a few seconds AND can be used by most any halfway trained operator. This is just one example but there are many MANY more! Ham radio in no way represents the *best* of theoretically possible communications methods. But it *IS* usually available first and can inherently handle a higher volume of trivial traffic than can the "designed for emergency" systems. You have to realize that whether or not your "cousin is ok" is a VERY TRIVIAL matter in the total scope of emergency communications. If there is enough depth available to handle such messages, that's great.. but in major emergencies Amateur Radio has time and time again been initially utilized as THE ONLY communication available at the disaster site. Once better methods are in place to handle the REALLY important traffic, ham radio can be released to handle secondary (trivial) traffic such as health and welfare.

Please understand, I realize that knowing whether people are dead or alive is a very important thing TO YOU. But if you don't know about this person, he or she will survive and so will you. Matters concerning medical supplies for the dying, potable water and drugs to prevent major outbreaks of infectious diseases and the local coordination of emergency recovery services take implicit priority over the status of relatives.

Ham radio provides the very necessary DEPTH, and sometimes is the ONLY communication for these matters. As such it is well worth keeping the spectrum for, would you not agree?

Mark Bitterlich
mgb@tecnet1.jcte.jcs.mil

4741. Re: Re:What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-29 20:56:10 UTC
From: mikey@pnet01.cts.com
Message-ID: <3746@crash.cts.com>
Source record: 9747

Ok, John, you did so well on your first assignment, now you get to work over a more difficult call sign. Yup,you guessed it, it's mine. A really nifty one to boot. If always thought that the local FCC head dud had it in for me 'cuase he caught be boot-leggin' on CB back in the 70's. I made the mistake of telling him that I really wanted to be a HAM and would give up my CB license, earn a HAM ticket, if only he would forgive that $200 fine....and the rest is history....

Oh, ya, my super-duper, hum-dinger call is -------> WB6WUI

...enjoy,
Mike
de Sandy Eggo

****
Mike Shirley, WB6WUI INET: mikey@pnet03.cts.com
PO Box 460 ARPA: crash!pnet03!mikey@nosc.mil
Lakeside, CA 92040-0460 UUCP: {hplabs!hp-sdd nosc}!crash!pnet03!mikey
****

4742. Re: RE: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-29 21:19:09 UTC
From: Jeepster@cup.portal.com
Message-ID: <32221@cup.portal.com>
Source record: 9748

Theoretically, the costs should be lower. However, I highly doubt it. One reason is greed. Why should the cellular companies lower their prices? They've got a great deal. And with more channels they rake in more profit. The 'public' doesn't need to know where the channels came from. Come to think of it, they (the cellular companies) might even advertise... "Use our company, Cell 2000. We have many more channels whyich you can use for only the base cost plus a slight nominal charge." Indeed, the cost *might* go *up*. Perceived value...

Just which frequencies should these new channels come from? Regardless where they come from, new antennas will need to be installed (assuming they come from the ham bands). The current antennas wouldn't be tuned to the new frequencies.

John KB0HBX

4743. Re: Communicator Class

Newsgroup: rec.ham-radio
Date: 1990-07-29 21:38:19 UTC
From: allbery@NCoast.ORG
Message-ID: <1990Jul29.213819.21069@NCoast.ORG>
Source record: 9749

As quoted from <9007290222.AA01282@tecnet1.jcte.jcs.mil> by mgb@TECNET1.JCTE.JCS.MIL:
+---------------
| >And I don't understand the need to test for a mode that is not commonly
| >used on the frequencies granted by the license.
|
| If the licensed person is granted the privilege to operate this mode, then
| it holds true that some basic understanding of the mode should be tested
| for. The fact that it is not commonly used RIGHT NOW should not detract
| from that. The only way to do it otherwise is to test someone only on
| what they are interested in. Then what? Do they get access to "those
| other modes" by default, or are they withheld?
+---------------

Show me the Novice questions on packet that weren't on the test I took.
Novices are allowed to work packet on 220, after all, and even have a specific
waiver of the repeater license class minitation for digipeaters.

Of course, all this proves is that the tests aren't particularly consistent....

++Brandon
--
Me: Brandon S. Allbery VHF: KB8JRR on 224.50 (Lake County, OH)
Internet: allbery@NCoast.ORG Delphi: ALLBERY
uunet!usenet.ins.cwru.edu!ncoast!allbery America OnLine: KB8JRR

4744. Re: Spread Spectrum Interference

Newsgroup: rec.ham-radio
Date: 1990-07-30 01:44:51 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007300144.AA21780@cmr.ncsl.nist.gov>
Source record: 9750

The people who have commented here seem to have forgotten the possibility of interfernce from SS to weak-signal ham activities. W1EJ tells me that he calculated the increase in noise floor from a 440 MHz SS rig he saw advertised.... the increase was 3 dB at a free-space distance of 50 miles from the one-watt rig when something like twice the bit rate away. The rig had little RF filtering, but the key point is that the EME activities would have been clobbered even with many 10s of dB better filtering, if the distance was a few miles. We're talking about 100-150 dB supression of the redundant outer sidebands. Low level filtering can make it cheaper, but the linearity requirements are severe and will still call for good filtering after the final amp.

Or so he says.

Bob W3OTC

4745. Microprocessor controlled NiCad DIScharger (was: August QST)

Newsgroup: rec.ham-radio
Date: 1990-07-30 03:47:51 UTC
From: jal@valha1.ATT.DSG
Message-ID: <569@valha1.ATT.DSG>
Source record: 9751

From article <1990Jul29.060743.9570@bellcore-2.bellcore.com>, by
karn@thumper..bellcore.com (Phil R. Karn):
>
> I think the aforementioned article would be better titled "A Microcomputer-
> Controlled NiCad-Battery DIScharger." If you look closely at the schematic,
> especially the interface between figs 1 and 2, you will note that there is
> no direct path between the constant current source and the battery, and
> furthermore the MOSFET pass transistor is bridged across the battery
> terminals.

And I thought that I was the only person to notice that the two
halves of the schematic did not make sense when connected.

Now, who noticed that the microcode (Assembly Code Listing) was NOT
available from the ARRL! Between the incorrect schematic AND the
lack of a program listing for the microprocessor there is little
chance of successfully constructing the project without purchasing
the kit from the author.

I understand the lack of space in the magazine to print the listing,
but it should be available to those who request it. Otherwise I feel the
article is nothing more than a subtle advertisement for a high priced
charger.

Question:
Could the same effect (that of turning off the high current
charge rate once a voltage peak is detected) be accomplished
in an analog circuit?

Answer: YES!

If you used an op-amp, fed both inputs through long time
constant integrators from the NiCads. Make one of the time
constants 3-4 times the length of the other. Then, the output
would change state after the voltage "peak" of the charged NiCad
occurs. Use an SCR (or a flip/flop) to switch the charge rate
to a trickle rate. Yes, I know it isn't as sexy as a
microprocessor controlled charger, but, it would probably
work just fine. I'll probably breadboard one to give it
a try.

--
Joseph Leggio WB2HOL ARRL Member since 1976
att!valha1!jal

4746. Wanted SANTEC ST-20T manual

Newsgroup: rec.ham-radio
Date: 1990-07-30 03:58:59 UTC
From: dale@crg2.uucp
Message-ID: <39594@sequent.UUCP>
Source record: 9752

I picked up a used 2 Meter rig with no manual.
It is a SANTEC ST-20T. Mostly a clone of my ICOM 02AT and I
can set frequency and repeter offset, but don't know how to
program for subtones, or even set the clock. Wouldn't think
that would be to hard, but I haven't figured it out yet.

If anyone has one of these and can copy the manual I sure
would appreciate it. Send me e-mail, uunet!sequent!dale is
a good path. I have been on vacation for three weeks with one
more to go so I'm not reading the net or mail regularly.

Thanks to the responses for my request for the TS-430S manual.
I got one, have some thank you mail to send out for the other
responses on that request, time away from computer has interfered
with that.

{ uunet pur-ee tektronix sun ogcvax cs.utexas.edu } !sequent!dale
Dale Mosby 503-626-5700 N7PEX // Sequent Computer Systems, Inc.
15450 SW Koll Parkway // Beaverton, Or. 97006-6063

4747. Re: PL Repeaters

Newsgroup: rec.ham-radio
Date: 1990-07-30 05:00:38 UTC
From: jay@splut.conmicro.com
Message-ID: <_LV&1#D@splut.conmicro.com>
Source record: 9753

In article <1990Jul25.125815.928@csense.uucp> bote@csense.uucp (John Boteler) writes:
>It's about time ham repeater operators crawled out of the 1960s and
>realized that in order for everyone to have his own repeater
>fiefdom, technological advances such as PL must be utilized to the
>fullest.

While I'll be the last to say that PL is a bad idea, I have to say that
it's not the panacea that many have held it out to be. You can't change
the laws of radio - especially such things as heterodynes and capture
effects - with a PL encoder.

--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jay@splut.conmicro.com (eieio)| adequately be explained by stupidity.
"It's a hardware bug!" "It's a +--
software bug!" "It's two...two...two bugs in one!" - _Engineer's Rap_

4748. (none)

Newsgroup: rec.ham-radio
Date: 1990-07-30 09:50:00 UTC
From: mletzko@ds0mpa51.bitnet
Message-ID: <0649334733@uwovax.uwo.ca>
Source record: 9754

unsubscribe

4749. Re: extra exam matter Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-30 12:26:12 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2359@ryn.esg.dec.com>
Source record: 9755

In article <10437@crdgw1.crd.ge.com>, perley@galaxy (Donald P Perley) writes:
|> I just started skimming through the ARRL extra study manual. It seems
|> odd to me that they have as much as they do on space operation regulations.
|> Since they only apply to transmissions originating in space (not someone on
|> earth using OSCAR), how many hams could these rules apply to?
|>
Easy question. They apply to all hams who are Extras. One of the privileges
of being an Extra is permission to operate from space. (Does the Shuttle count
as a DXCC country?) Thus you are prepared for questions on these new privs
in the study guide for Extra.

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

My employer doesn't care what I think. I, in turn, don't care what
you think. You probably don't care what my empolyer thinks. Thus is
life a circle.

4750. PRO-34 Questions

Newsgroup: rec.ham-radio
Date: 1990-07-30 14:25:05 UTC
From: dpalace@sunland.sunland.gsfc.nasa.gov
Message-ID: <DPALACE.90Jul30102505@sunland.sunland.gsfc.nasa.gov>
Source record: 9756

I would appreciate if someone could tell me the number of the diode
to cut and it's location on the PC board, so that I could restore full
800 MHZ coverage.
Also, is it possible to get 200MHZ-400MHZ with this scanner?
Thanks in advance.

WB3CSI
--
Dick Palace Goddard Space Flight Center (301) 286-9464

dpalace@sunland.gsfc.nasa.gov

4751. Re: ICOM IC-R1 Review

Newsgroup: rec.ham-radio
Date: 1990-07-30 14:31:58 UTC
From: geertj@philica.ica.philips.nl
Message-ID: <639@philica.ica.philips.nl>
Source record: 9757
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <1990Jul26.001037.21586@portia.Stanford.EDU> paulf@jessica.Stanford.EDU (Paul Flaherty) writes:
> By now, just about everyone has seen the ads for ICOM's new wideband
>receivers. And, by now, just about everyone also knows that the R1, and
>the R100 are not available in the US, and will not be for some time, due
>to production problems as well as legal difficulties. However, for a few
>hams who are lucky enough to be able to travel to Japan on a regular, it
>is possible to buy an R1. The list price is Y54,000; actual prices vary in
>the Y43,000 to Y48,000 range. This translates to around $300US, certainly
>not bad for a miniature wideband receiver.

During the AMSAT-UK satelite colloquium in Surrey, Great Britain, I saw
the ICOM R1 ready available. I forgot to write down the price, sorry.
Anyway, if someone comes over to the UK, you can get one there.
I believe it is also available in other European countries, but have
not checked. If you're going on a business trip..

Geert Jan

4752. Re: Stripline inductors

Newsgroup: rec.ham-radio
Date: 1990-07-30 15:30:00 UTC
From: michael@fe2o3.UUCP
Message-ID: <372@fe2o3.UUCP>
Source record: 9758

In article <1990Jul27.141038.26662@bnrgate.bnr.ca> mleech@bcarh342.bnr.ca (Marcus Leech) writes:
>
>In all the treatments of stripline design that I've read (including the
> "classic" Stripline Circuit Design, by Harlan Howe)--all the design
> equations assume a three-layer structure like this: (where =====
> represents a stripline inductor).
>
>
> -----------Upper-Ground-Plane----------------
> \\
> \\\\\\\\\\\\\\\\\=====\\\\\\\\\\\\\\\\\\\\\\\\\\
> \\
> -----------Lower-Ground-Plane----------------
>
> in this scenario, the stripline inductor is surrounded by
> a dielectric material of constant Er.
>
>In "real life", one is much more likely to see a structure like this:
>
> .air.....................................
> ....air...........air............
> ....
> .....air.........=====.....air.............
> \\
> \\
> -----------------Lower-Ground-Plane----------
>
> without an upper ground plane (or at least one that is far enough away
> relative to the lower one to be irrelevant).
>
>Can someone point me to some literature that deals with the "real-life"
> situation of a mixed environment.
>-----------------
>Marcus Leech, 4Y11 Bell-Northern Research |opinions expressed
>mleech@bnr.ca P.O. Box 3511, Stn. C |are my own, and not
>VE3MDL@VE3JF.ON.CAN.NA Ottawa, ON, CANADA |necessarily BNRs

The confusion lies in that you should be looking in books describing microstrip inductors rather than stripline inductors. I would not say that you are more likely to see a microstrip circuit in "real life" than a stripline. In general it is easier to fabricate a microstrip line than a stripline circuit but microstrip suffers from dispersion since some of the field lines travel in the slow dielectric and some in the

faster air. So depending on your application one may offer advantages over the other.

You could try "Microstrip Lines & Slotlines" by K.C. Gupta et al.

You could also look-up back issues of "RF design" magazine. There was an article that gave all the relevent equations, which appeared about 2 years ago.

---

email to
UUCP: uunet!mimsy!{arinc,fe2o3}!vk2bea!michael

_ _ _ _
Amateur | VK2BEA (Australia) '))) / //
Radio | G4NYV (United Kingdom) / / / o _. /_ __. _ //
Stations| NV3Z (United States) / ' (_<_(__/ /_(_/|_</_</_

Michael Katzmann
Broadcast Sports Technology.
2135 Espey Ct. #4
Crofton Md. 21114 USA

Ph: +1 301 721 5151

4753. Re: AMSAT News, 7/21/90

Newsgroup: rec.ham-radio
Date: 1990-07-30 15:40:51 UTC
From: charlier@hplsla.HP.COM
Message-ID: <5720080@hplsla.HP.COM>
Source record: 9759

>DOVE-OSCAR-17 RETURNS TO SERVICE!
>
>After a four month sojourn in a computer coma, DOVE-OSCAR-17 returned to
>service on July 22nd at 02:41 UTC when N4HY commanded its 2M transmitter on.
>As it passed over the horizon at his QTH, he knew immediately that the tedious
>and time consumming "auditory" software loading process had been successful
>and that this time the on-board computer (OBC) would not crash. Later,
>ZS6HKV heard DOVE's 2M beacon on 145.825 MHz at 06:50 and again at 08:26
>UTC over South Africa. ZS6AKV and stations in Zimbabwe heard DOVE sending
>ASCII telemetry for 2.5 minutes and then stop for half a minute, and then
>repeat this cycle again and again. At the present time DOVE's RF output power

I listened to the AMSAT net this past Sunday (7/29). It seems that after
3 days on the air, DOVE has shut down again. Apparently, though, this time
it is due to 'pilot error'. N4HY got DOVE working just before leaving
for a conference in England, and passed babysitting responsibilities on
to someone else while he was gone. DOVE has a 3-day watchdog timer in it
that will shut down the 2m transmitter if a certain command is not received
from the ground on a regular basis. Since there was some confusion about
what command that was, apparently this timer has timed out. The bulletin
predicts resumption of transmissions after N4HY returns sometime this week.

Charlie Panek (UUCP: hplabs!hp-pcd!hplsla!charlier)
KX7L (domain: charlier%hplsla@hplabs.hp.com)

(Tad: nice to meet you at the party last week!)

4754. Re: Cellular telephone as emergency service?

Newsgroup: rec.ham-radio
Date: 1990-07-30 16:24:28 UTC
From: kthompso@entec.Wichita.NCR.COM
Message-ID: <607@entec.Wichita.NCR.COM>
Source record: 9760

I find it interesting that Rick Spanbauer measures spectrum in dollars.

--
Ken Thompson N0ITL
NCR Corp. 3718 N. Rock Road
Wichita,Ks. 67226 (316)636-8783
Ken.Thompson@wichita.ncr.com

4755. Engineering help solicited: low-pass audio filter for the HTX-100 10 m SSB XCVR

Newsgroup: rec.ham-radio
Date: 1990-07-30 16:41:34 UTC
From: Eric_Rawson.PARC@XEROX.COM
Message-ID: <900730-094140-10059@Xerox>
Source record: 9761

The Realistic HTX-100 25 watt 10 meter SSB rig is pretty satisfactory in many ways. It offers a cost effective way to get on 10 SSB mobile, and gives a small saving compared to the fuller functioned Uniden unit from which it is derived. In my car with a quarter wave whip I work Japan, Australia, and New Zealand regularly from CA while commuting.

However, I have noted one flaw that bugs me; the receiver bandwidth is too broad. With weak signals there is far more static white noise crashing in the background at high audio frequencies than is necessary. Its so bad, in fact, that I can often improve intelligiblilty (in marginal conditions) by switching to CW mode, where the bandwidth is probably less than 1 kHz. Sure, this cuts down on the audio BW to less than the 3 kHz or so which most would say is near optimal for SSB audio, but it also cuts down on the static noise background even more, for a net gain. This says to me that the SSB mode audio BW is larger than optimal (for weak signals).

I suppose the ideal fix would be to use a narrower IF bandpass, but that too complex a mod. How about instead a simple mod which puts a low-pass audio filter in front of the final audio amplifier? Has anyone done this? I can imagine a small PC or perf board with an IC amp chip and a few R's and C's fitting inside the case somewhere, which rolls the audio off sharply above 3 kHz. Maybe it should have an on-off switch, so in strong signal conditions you could switch it off and have nicer audio.

IMHO, such a mod would make a very useful improvement to the HTX-100. Probably, such a mod would be usable in the Uniden "parent" unit as well.

Anybody interested in engineering such a mod, and passing on the details? Alternatively, if someone can design it but doesn't want to build it, I'll do the layout, build it, and test it.

Eric Rawson, WB6DDE
Xerox PARC

4756. Re: What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-30 16:42:34 UTC
From: alanb@hpnmdla.HP.COM
Message-ID: <1250206@hpnmdla.HP.COM>
Source record: 9762

>Ok, John, you did so well on your first assignment, now you get to work over a
>more difficult call sign. Yup,you guessed it, it's mine. A really nifty one
...
>Oh, ya, my super-duper, hum-dinger call is -------> WB6WUI

---

the "West's Ugliest Idiot"
"Whiskey Before 6 - We're Under the Influence"
"We Brought 6 Women Under the Influence"
"We Broadcast 6 Watts Until Insanity"

Al N1 "Able Lover"

4757. Hustler Antennas

Newsgroup: rec.ham-radio
Date: 1990-07-30 17:03:00 UTC
From: lwrclmr@sacemnet.af.mil
Message-ID: <9008012038.AA14291@ucsd.edu>
Source record: 9763

OK Folks,

Here's an interesting one for you antenna experts. I recently put a couple of HF antennas on my van. I used Radio Shack mirror mounts, springs, and Hustler's new MO-4 masts. I have five bands worth of resonators, all with excellent results EXCEPT 20 meters. If the whip is too short and resonates above 14.45 or so, I can get a good bandwidth and almost 1:1 SWR. Same thing below 14.00. In fact I can get a good 175 or so kHz almost 1:1 bandwidth from around 13.10 to 15.00 by adjusting the whip EXCEPT for 14.00-14.45, where I cannot get it below about 2.5:1! I have used both mounts, changed coax, springs on and off, moved/removed other antennas on the vehicle, done everything except exchange the resonator. All other bands work great. I can put my tuner in line and bring it down, but I would like to get by without the tuner. The radio I am using is an ICOM IC-720A.

If anyone has any suggestions, I would be most appreciative. Please e-mail or post, preferably both. I have tried just operating with the high SWR, but no one seems to hear me. There is no noticable drop in output power per the meter like I get with a really bad SWR, but in checking with other stations, there is a significant difference with the tuner in than out.

Thanks for any help any one may provide.

73,
Michael WA7SKG

4758. Re: Info-Hams Digest V1 #112

Newsgroup: rec.ham-radio
Date: 1990-07-30 17:05:41 UTC
From: doug@NISD.CAM.UNISYS.COM
Message-ID: <9007301705.AA14764@KRONOS.NISD.CAM.UNISYS.COM>
Source record: 9764

Subject: Re: Has anyone made any homemade valves...

When I was in undergrad school, EE, the department acquired a prof. who specialized in transistor construction. So the theory was each student would take a lab from him to build a transistor that would be used for all the remaining labs. Working transistors were generally not available at that time. We made junction transistors I believe. Details are quite difficult to remember. Anyway, they had to bake for several days at some outrageous tempreature. Seems that the janitor found the oven on and unplugged it - there was a rule that nothing could be left on at night. No amount of persuasion from the Dean ever solved that problem. As a result, most of the units were DOA. Mine must have been close to the center of the oven. It produced an amplified sine wave for close to a minute before going up in smoke. Our attempts at determining power dissipation were not very good. At least one of the units still worked at the end of the semester.

-- Doug

4759. Re: More hams or Less - a view from across the Pond.

Newsgroup: rec.ham-radio
Date: 1990-07-30 17:11:07 UTC
From: t-petesk@microsoft.UUCP
Message-ID: <56156@microsoft.UUCP>
Source record: 9765

In article <27.Jul.90.15:22:21.BST.#1327@UK.AC.NWL.IA> PJML@ibma.nerc-wallingford.ac.uk ("Pete Lucas, NCS-TLC, Holbrook House, Swindon") writes:
>More hams or less; Well personally i am opposed to the 'more at almost any
>costs' approach. Here in the UK there is a forthcoming 'Novice licence'
>(3 watts on certain VHF bands without code, same power in certain
>HF bands with a 5WPM code test. No age limitations or anything).
>IMHO this is a retrograde step; what can you do with 3 watts on the HF
>bands when the guy down the road has 1Kw to a TH6DXX?
>I must admit total opposition to this idea. IMHO what we need are more
>innovators from the 'professional' side of electronics. Has anyone
^^^^^^^^^^^^
t>thought of a ham-bands version of cellular? Who is using spread spectrum
>and/or digital speech-compression (like in CT2 phones)? Has anyone applied
>high-temperature superconducting elements to ham radio?
>I do not believe that a 3-watts licence will introduce the sort of
>talent required to maintain (let alone develop) the true spirit of
>ham radio over the next ten years. Equally, I have no reason to suppose
>that the mandatory-code-test, head-in-the-sand ostriches have any real
>contribution to make. Why should a person have to pretend he is a
>modem in order to prove he is a 'real' ham??
>
> Pete Lucas PJML@UK.AC.NERC-WALLINGFORD.IBMA 0793411613
>
>P.S. I speak solely for myself. If captured, the Government will deny all
> knowledge of my operations.

I hate to say it, but I think that the 'professionals' will keep their 'professionalism' where the money is. I think its too bad that we've proceeded to the point where ham technology is a few years behind commercial technology as opposed to commercial being behind hams. Realistically, I don't think hams are going to do the custom chip fabrication and so on needed to build these "cellular" systems. I know we could just use their technology directly, but then, just go buy a cell phone.

Hams do, however, have one thing over commercial technology. We are not market driven. This leavs a lot of room to try out unique, or even bizarre ideas which could be very useful in the future. There is no way commercial interests would put a lot of money into some of the projects that I've seen people come up with, but a lot of them are very good ideas.(I like the baloon launches myself). These creative ideas do not necessarily need people trained in professional engineering, and in most cases, this professional training impeeds things(you have to unlearn what they teach you to be creative).

Anyway, that's my liberal thought for the day.

Pete KB7GUD Skelly
microsoft!t-petesk

my opinions are my own.

4760. R7000 Overload

Newsgroup: rec.ham-radio
Date: 1990-07-30 18:34:05 UTC
From: charlie@oakhill.UUCP
Message-ID: <3611@radio.oakhill.UUCP>
Source record: 9766

>
>A couple of comments here:
> (1) the preamp AFTER the filter will have no beneficial effect at all
> on a well designed receiver such as an R7000. Any good receiver has
> more than enough gain - the enemy is noise, ie you want a good noise
> figure. A 6dB insertion loss filter will add 6dB to your noise
> figure, pre-amp or not! Once you have lost the SNR, you can never
> improve it again.
>--
>John Moore HAM:NJ7E/CAP:T-Bird 381 {ames!ncar!noao!asuvax,mcdphx}!anasaz!john

My point was perhaps misunderstood. If the receiver is suffering from intermod/overload it is better to first filter (even at a loss) and then to amplify. If you don't do this then the large signals will MIX IN THE PREAMP and you'll have intermod city. Noise figure is a secondary concern if your receiver is wigged out by a 50KW FM broadcast transmitter. I live 4 blocks from a behemoth FM station. FET amps are only linear for small signal levels so if you drive a 200 mV signal into a FET preamp you are likely to get mix products with other signals as well as harmonics.

Low-loss passive filters would be the best way deal with the filter-before pre-amp problem.

-C.T.

4761. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-30 19:14:47 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880227@hpfcdc.HP.COM>
Source record: 9767

> NICAD CELL CHARACTERISTICS

I read this and none of it disagreed with what I've learned from my friend and the Sanyo and GE books. Of course when you have cells in a battery pack, it is unfortunately difficult to do anything with or to the individual cells.

"Wouldn't it be nice if" all battery packs had a standard connector that had two pins for each cell? To use the pack you'd attach a "series" connector. To charge the cells you'd use a "parallel" connector (with sufficient smarts in the charger to do the job right of charging and checking each cell).

4762. Re: extra exam matter Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-30 19:15:01 UTC
From: perley@galaxy
Message-ID: <10528@crdgw1.crd.ge.com>
Source record: 9768

In article <2359@ryn.esg.dec.com>, taber@ultnix (Patrick Taber) writes:
>In article <10437@crdgw1.crd.ge.com>, perley@galaxy (Donald P Perley) writes:

(re: exam questions on space operations)

>|> Since they only apply to transmissions originating in space (not someone on
>|> earth using OSCAR), how many hams could these rules apply to?
>|>
>Easy question. They apply to all hams who are Extras. One of the privileges
>of being an Extra is permission to operate from space.

Great. So I pass my exam, then write NASA that I want to operate from the
shuttle? These rules don't apply to all extras, only the those with the
means to launch a sattelite or get a ride on the shuttle. That is very
few even compared with modes that most would consider pretty esoteric,
like moonbounce.

I have also heard of astronauts without extra tickets being granted
temporary priveledges for the duration of a flight. If that is
routine procedure, then being an extra seems to have little to do with
it.

Here is a more down-to-earth example. To get a ticket you have to pass
various exam elements with designations like 3e, 4a, etc. In a sense,
this affects every new ham. Once you get your license, those designators
have zero effect on whether you will operate your station legally.

Supposedly the reason for the legal portion of the exam is to ensure
that you know the rules well enough to operate within the law. What
is the point of asking which designators are required for which class
license when there are practical questions that won't get in for lack
of room?

-don perley
perley@trub.crd.ge.com

4763. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-30 19:15:42 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880228@hpfcdc.HP.COM>
Source record: 9769

```
>> Run about 30A through it very briefly (about a second?)...
> In which direction? The CHARGE direction or the DISCHARGE direction?

In the CHARGE direction. My friend says he uses a 50KuF electrolytic
capacitor as the controlled source.
```

4764. Re: Should I become a ham now or wait?

Newsgroup: rec.ham-radio
Date: 1990-07-30 19:39:12 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880229@hpfcdc.HP.COM>
Source record: 9770

> Will the license structure change so radically or so differently that I
> will have wished I had waited?

Don't wait. Do it now! Morse code *will* improve your sex life,
guaranteed. You'll see!

4765. Re: ICR1 and ICR100 available ex-stock.....

Newsgroup: rec.ham-radio
Date: 1990-07-30 19:47:47 UTC
From: crisp@mips.COM
Message-ID: <40506@mips.mips.COM>
Source record: 9771

In article <672@dg.dg.com> uunet!dg!lewine (Don Lewine) writes:
>decided not to import them because they are great cellular telephone
>receivers. Look for the IC-R1A with the cellular telephone freqs.
>deleted.

Come on, the R7000 will do a dandy job with cellular. Why would
Icom refuse to bring in the R1 on that basis. I keep hearing that
there is a patent infringement issue involving Uniden that is the
"real" reason that they are not being imported.

--
Richard Crisp crisp@mips.com
MIPS Computer Systems !decwrl!mips!crisp
928 Arques MS 2-02 (408) 524-8177
Sunnyvale, Ca 94086

4766. Re: Results of SURPLUS survey

Newsgroup: rec.ham-radio
Date: 1990-07-30 20:12:27 UTC
From: dmt@PacBell.COM
Message-ID: <5348@ptsfa.PacBell.COM>
Source record: 9772

In article <1530049@hpsadle.HP.COM> mikef@hpsadle.HP.COM (Mike Ferrara) writes:
. San Carlos, J&H, 476 Industrial Way, take Holly exit off of 101,
.near corner of Industrial and Holly. Good supply of Aluminum tubing
.---
.Oakland/Berkeley
.---
. Belmont, Jameco, 1355 Shoreway Road, (415) 592-8097.

Belmont is NOT near Oakland/Berkeley; it it next to San Carlos.

Jameco is about a mile from J&H, on the other side of 101.

--
Dave Turner 415/823-2001 {att,bellcore,sun,ames,decwrl}!pacbell!dmt

4767. Re: RE: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-30 20:16:45 UTC
From: paulf@jessica.stanford.edu
Message-ID: <1990Jul30.201645.3198@portia.Stanford.EDU>
Source record: 9773

In article <5A7AB6A06D9F000124@PSUARCH.Bitnet> PLB@PSUARCH.BITNET ("P Bandini, PSU Arch Dept, 814/863-0062") writes:
>Lately we've been hearing a lot about how saturated landline phones AND cell
>phones become in case of an emergency. A gut reaction is "if they had more
>channels, the saturation threshold would be higher, right?"
>Also, more channels = more customers = lower cost per customer, right?
>(At least, that's what has happened for just about anything I can think of)

...except telephone service. The marginal cost for adding an additional customer to an existing cell system is zero (and it's nearly zero for POTS). True, you ocassionally have to add another cell cite or MTSO, but that depends on the _stochastic_ nature of the users, and not necessarily on the absolute numbers. For example, you need a lot more cells during drive times than at midnight...

What has gotten cheaper are the cellphones themselves, due to economy of scale (and the use of old technolgy - NFM). Digital cellphones initially will be more expensive, but economy of scale will drive them down as well; given the larger market, the potential exists for even greater mass production savings.

-=Paul Flaherty, N9FZX/VK2WYX | "TEXAS! Has a USENET in it... (Lord have Mercy
->paulf@shasta.Stanford.EDU | on us all!)" -- _The Best Little Net in Texas_

4768. Re: Microprocessor controlled NiCad DIScharger (was: August QST)

Newsgroup: rec.ham-radio
Date: 1990-07-30 20:28:45 UTC
From: dmt@PacBell.COM
Message-ID: <5349@ptsfa.PacBell.COM>
Source record: 9774

In article <569@valha1.ATT.DSG> jal@valha1.ATT.DSG (Joseph A. Leggio) writes:
>Question:
> Could the same effect (that of turning off the high current
> charge rate once a voltage peak is detected) be accomplished
> in an analog circuit?
>Answer: YES!
> If you used an op-amp, fed both inputs through long time
> work just fine. I'll probably breadboard one to give it
> a try.

In Wireless World (Nov 1983) was a design for a Fast NiCd charger
that alternately charged and discharged batteries and detected the
difference between the peak charge and discharge voltages.
It claimed to charge batteries in an hour or so.

"The charger to be described in this article relies on a
voltage-sensing method, but a rather different one. If a
moderately heavy charging current is applied to a NiCd cell
for a short period, the terminal voltage will quickly rise
to a level somewhat higher than the voltage marked on the
cell. Discharging the cell a little will reduce the terminal
voltage once more. A repeating cycle will produce a succession
of slowly rising 'peak' and 'trough' voltages, as shown in
Fig. 1 [Not shown here, sorry.].

"If the cycle is repeated for long enough (Fig. 2 [not shown]),
there will come a stage at which the peak voltage is increasing
much more steeply than the trough voltage. At this point the
cell is losing the ability to accept further charge and the
charger can be shut off. By measuring the trough voltage as a
fraction of the peak voltage it is possible to make an end-point
detector which works independently of the number of cells
under charge, since the proportions will be constant whether
there is just one cell or a dozen."

I haven't made one of these yet. Most of the parts substitutions are easily
determined (but does anyone know a replacement for a BYX71-600?).

Mostly I need to get "a round TUIT".

--
Dave Turner 415/823-2001 {att,bellcore,sun,ames,decwrl}!pacbell!dmt

4769. Apple II HAM Software

Newsgroup: rec.ham-radio
Date: 1990-07-30 20:49:56 UTC
From: TJB@GNOS.NIST.GOV
Message-ID: <9007301641440E9.AYQP@CSCS855.CS2>
Source record: 9775

I have an Apple II Plus that isn't doing much except gathering dust.
I figure it could have a meaningful existance if it could contribute to
HAM radio.
Is anyone aware of:
Software for RTTY, CW, Packet, ...? Freeware, shareware, retailware?
BBS for Apple II's with emphasis on HAM radio?
Ways of using the cassette input and output port as a tone
modulator or demodulator?
Logging programs, direction finders, radio controllers, etc.?

Send replies via INFO-HAM or directly to my BITNET address: TJB@NISTCS2

Thanks in advance, Tom Buckley.

4770. Re: extra exam matter Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-30 23:47:44 UTC
From: karn@envy.bellcore.com
Message-ID: <1990Jul30.234744.19777@bellcore-2.bellcore.com>
Source record: 9776

In article <10528@crdgw1.crd.ge.com>, perley@galaxy (Donald P Perley) writes:
> I have also heard of astronauts without extra tickets being granted
> temporary priveledges for the duration of a flight. If that is
> routine procedure, then being an extra seems to have little to do with
> it.

There has yet to be an American 'ham in space' with an Extra ticket. ALL of them have obtained waivers. Agreed, the rule is pretty silly.

Being one of the very few people who have actually helped prepare an application for space operation (as part of the early Pacsat work) I can say that I looked up the requirements in the rules. As I recall, there weren't any questions about space operation on my Extra test in 1973, and even if there were I wouldn't have relied on my memory.

Amateur exams have a problem shared with many other exams - they test one's ability to do rote recall rather than test one's ability to reason out solutions to problems. And nowhere is there more undiluted emphasis on rote recall than in the CODE test...

Phil

4771. Solving the DXCC mess

Newsgroup: rec.ham-radio
Date: 1990-07-30 23:54:13 UTC
From: henryb@hpspdra.HP.COM
Message-ID: <12280011@hpspdra.HP.COM>
Source record: 9677

In the August issue of 73 magazine Wayne Green, W2NSD, writes a column "Solving the DXCC mess" about how DXCC is aversely affecting ham radio. I quote " . . . the amateurs [living in rarer countries] have been virtually forced off the air by DXers. DXers, driven by the 'need' for a QSL won't permit amateurs in rare countries to enjoy relaxed contacts." He goes on about international ill will caused by the agressive tactics of some DXers.

But surely these third world hams have the solution in their own hands, . . all they need do is to make it clear that they will QSL contacts made at the time, on the air, but will not send any cards out. The card collectors will soon lose interest in such stations and leave them free to those genuinely interested in DX (rather than awards) and/or ragchewing.

Henry Black (KK6JR, G4NOC) KK6JR @ WW6L.#NOCAL.CA henryb@hpspd.HP.COM
Purely my personal views.

4772. AMSAT News, 7/28/90

Newsgroup: rec.ham-radio
Date: 1990-07-31 00:56:46 UTC
From: tad@ssc.UUCP
Message-ID: <956@ssc.UUCP>
Source record: 9678

SB ALL @ AMSAT $ANS-209.01
DOVE WATCHDOG TIMER TIMES OUT

HR AMSAT NEWS SERVICE BULLETIN 209.01 FROM AMSAT HQ
SILVER SPRING, MD JULY 28, 1990
TO ALL RADIO AMATEURS BT

DOVE's Watchdog Timer Turns Off Two Meter Transmitter After Three Days

Last week the AMSAT News Service (ANS) reported that DOVE had come back to life sending its familiar AFSK ASCII packet telemetry on 145.825 MHz. For 3 days DOVE was heard all over the world until it became silent again on July 25th some time around 15:30 UTC. The speculation by Jim De Arras (WA4ONG) is that a pre-programmed software watchdog timer had expired and the DOVE on-board computer (OBC) had done what it was suppose to do: shut off the two meter transmitter. WA4ONG is DOVE's caretaker while N4HY and NK6K are out of the country attending the AMSAT-UK Colloquium at the University of Surrey July 27-30. The basic function of the watchdog timer is to tell DOVE's OBC "if you don't receive a valid command from the ground each day, then reset and give a safe-mode." Since N4HY got DOVE back on-line only hours before he was to leave for the University of Surrey in England, it appears there was some confusion as to what the proper command was that WA4ONG was suppose to send to update the watchdog timer daily. The default timer expiration was three days and it appears that DOVE did exactly what it was programmed to do, turn off the two meter transmitter after three days.

Because of the problem of the two meter transmitter transmitting while the DOVE's two meter receiver was listening for a ground command had been a major headaches last time, and it was necessary to use W5UN's gigantic EME station to get a reset command into DOVE's OBC, this watchdog was added by MICROSAT software engineers to prevent the two meter transmitter being on while the two meter receiver was looking for ground commands. DOVE listeners know that DOVE transmits for 2.5 minutes and then stops while its two meter receiver listens for 30 seconds. Basically, this timer tells DOVE that if "you don't hear a valid command from a ground station each day, then something is wrong. Go to a known state and wait patiently. But before you get there, turn off your two meter transmitter and be prepared to do an OBC reset command."

Next week both N4HY and NK6K will return from Surrey and the first order of business will be to go over all the diagnostic memory dumps to be sure it was indeed the watchdog that timed out. AMSAT-NA asks hams all over the world to please be patient once more as DOVE will surely return to two meters soon.

When DOVE resumes two meter transmissions, it is an indication that battery management is once again under OBC control and it is important to characterize battery behavior for several days thereafter. Amateurs

worldwide are requested to collect DOVE telemetry and send it on diskette to the AMSAT-NA Telemetry Archive managed by Reid Bristor, WA4UPD, 4535 Deerwood Trail, Melbourne, Florida, 32935, U.S.A.
/EX
SB ALL @ AMSAT $ANS-209.02
WO-18 VIEWS TOTAL ECLIPSE

HR AMSAT NEWS SERVICE BULLETIN 209.02 FROM AMSAT HQ
SILVER SPRING, MD JULY 28, 1990
TO ALL RADIO AMATEURS BT

WEBERSAT passed through a total solar eclipse which occurred on 22 July 90 from 0152 to 0412 UTC at about 0243 UTC. Whole orbit type data and pictures were taken during the event in which it is thought that the satellite passed through both penumbra and umbra of the moon's shadow. These data are being transmitted in the WEBERSAT data stream for several days so that interested users will have ample opportunity to collect it.

WEBERSAT controllers are very pleased with the results; solar array currents measured during the eclipse period do indeed show measurable reductions at the expected times.

Further information on this particularly interesting WEBERSAT event will appear later in ANS and AMSAT publications.
/EX
SB ALL @ AMSAT $ANS-209.03
SP SAT ACTIVITY FM ZIMBABWE

HR AMSAT NEWS SERVICE BULLETIN 209.03 FROM AMSAT HQ
SILVER SPRING, MD JULY 28, 1990
TO ALL RADIO AMATEURS BT

Four Special Callsign Stations to be Heard on AO-10 and AO-13

OSCAR enthusiasts from Zimbabwe have organized a special satellite activity month celebrating "1990: THE YEAR OF THE AMATEUR SATELLITE". Z21HJ/R and Z21GH along with the active support of the Zimbabwe Amateur Radio Society are sponsoring four separate satellite stations operating from four different locations around Zimbabwe. These stations have been issued the call-signs: Z21SAT, Z22SAT, Z23SAT and Z24SAT (prefix hunters should find some interest in these calls). It is expected that the stations can be found on Mode B around the frequency of 145.905 MHz on AO-10 as well as on AO-13.

The stations will be activated over the weekends of 31 Aug through 30 Sept 1990. Special QSL cards will be available for each of the four stations. ANS has been informed that QSLs will be sent either via the bureau or if a speedier reply is desired, the standard DX-QSL protocol of including an IRC will hasten the card reciprocation.

In addition to the special QSL cards, those stations who have worked at least two of the four call signs will qualify for the "ZIMBABWE SATELLITE ACHIEVEMENT AWARD 1990". This beautiful award is based on African culture and shows the famous Victoria Falls in the background. The award will be

available for a nominal donation. Further information on QSLing and the award should be available from the stations during the operation.
/EX
SB ALL @ AMSAT $ANS-209.04
YET ANOTHER AO13 ORBIT STUDY

HR AMSAT NEWS SERVICE BULLETIN 209.04 FROM AMSAT HQ
SILVER SPRING, MD JULY 28, 1990
TO ALL RADIO AMATEURS BT

Goddard Space Flight Center Experts Study AO-13's Perigee Decay

Tom Clark (W3IWI) and a fellow orbital dynamics expert, Erricos Pavlis of the the Goddard Space Flight Center in Greenbelt, MD have just concluded an in-depth and highly detailed study of AO-13's orbital decay situation. Both Tom and Erricos will present the results of their study in a paper to the AMSAT-NA Space Symposium later this year. While the purpose of this ANS bulletin is not to present the results of their combined efforts in great detail, some of the more outstanding points need to be mentioned to stop needless rumors.

Firstly, AO-13's perigee has been steadily decreasing at a rate of 785 meters/orbit. This was gleaned from studying orbital element sets from the day after AO-13's apogee kick motor was fired almost two years ago. Using a simple procedure of linear extrapolation of the perigee altitude from orbital elements, one would be inclined to predict a orbital re-entry of AO-13 around early 1992. However, life is not that simple. Orbital mechanics is capable of throwing the unwary analyst a celestial curve-ball. Using an extremely sophisticated orbital ephemeris program which includes the effects of everything and the "kitchen sink," and running this program on a large mainframe computer, the results indicate that a simple linear extrapolation technique can not always produce accurate results when it comes to orbital decay. W3IWI's and Erricos's efforts from this huge program show that AO-13's perigee will continue to collapse from the present 1500 KM altitude now to a minimum of 600 KM by 1992. Throughout that year, AO-13's perigee will wander around from 580 to 650 KM. And then just when you thought it would continue to decay, AO-13's perigee will then start to rise again! It will rise to 800 KM by late 1993, and then start to decay again! After staying around 800 KM for awhile, AO-13's perigee will then start to decrease again and a predicted re-entry MIGHT occur around late 1996 or early 1997.

But in all of this, W3IWI asks that hams keep in mind that "the collective effects of gravity of the earth, sun, moon and planets on a highly elliptical satellite do not constitute a neat, simple predictive system -- it is in fact a classic chaotic system ...dependent on the initial conditions." The complete results of this detailed study will be presented in Houston, TX at the Johnson Space Flight Center (JSFC) on Oct. 20th when the JSFC ARC, W5RRR, will host the annual gathering of AMSAT's finest.
/EX
SB ALL @ AMSAT $ANS-209.05
RUDAK-2/RS-14 LAUNCH DELAYED

HR AMSAT NEWS SERVICE BULLETIN 209.05 FROM AMSAT HQ
SILVER SPRING, MD JULY 28, 1990
TO ALL RADIO AMATEURS BT

RUDAK-2/RS-14 Launch To Be Delayed Until Autumn

The AMSAT News Service (ANS) has received information from a reliable source that the launch of RUDAK-2/RS-14 has been delayed until Autumn. This delay is due to a hardware failure in the primary payload. The primary payload is a Soviet oceanographic research satellite known as GEOS and RUDAK-2 is riding "piggy-back." In addition to being a packet radio BBS, RUDAK-2 will also contain a Mode B linear transponder. The RUDAK-2 transponder was designed and built by AMSAT-DL and delivered to representatives of AMSAT-U-ORBITA in Munich on January 21, 1990. Accepting the RUDAK-2 transponder on behalf of the AMSAT-U-ORBITA was Leo Labutin (UA3CR) and Dr. Alexander Tenyakchev (UW3CZ).

Originally planned to be launched in June of 1990 on a PROTON rocket from the Pletetsk spaceport, RUDAK-2 is intended for a circular orbit with an altitude of 1000 KM and an orbital inclination of 98 degrees. AMSAT-NA will release further information concerning the launch date of RUDAK-2/RS-14 as soon as it is available.
/EX
SB ALL @ AMSAT $ANS-209.06
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 209.06 FROM AMSAT HQ
SILVER SPRING, MD JULY 28, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970.

Date UTC Time Phs Mode NCS U.S. Day

07 Aug 90 0130 170 J/L N5BF Monday
18 Aug 90 0045 170 J/L N5BF Friday
28 Aug 90 0100 169 J/L N5BF Monday
08 Sep 90 0020 169 J/L N5BF Friday

Acting Operations Net Manager, Courtney Duncan, N5BF, is looking for assistance in running the net in the form of a permanent Net Manager and five or six additional net control stations. To volunteer, contact N5BF at: 4522 Ocean View Blvd, La Canada, CA 91011.

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, phone (301) 589-6062, or contact your local AMSAT Regional Area Coordinator listed below. Pick the Regional Area Coordinator that is closest to you and they can give you a list of other AMSAT Area Coordinators that may be closer to where you live.

Drew Deskur, KA1M, 19 Parker Dr, North Reading, MA 01864 (508) 664-0009
Harry Morton, WB2IBO, 261 N. Chestnut St. Massapequa, NY 11758 (516) 541-1783
David L Filmer, WB9QPG, Box 2077, West LaFayette, IN 47906 (317) 497-3007
Ron Curry, WA4GSS, 229 W. Green Hill Rd, Ashland, KY 41101 (606) 928-6672
Byron Lindsey, W4BIW, 1356 Vista Leaf Dr, Decatur, GA 30033 (404) 636-7452
Keith Pugh, W5IU, Box 121576, Fort Worth, TX 76121 (817) 292-5633
Jim McKim, W0CY, 1721 Glen Ave, Salina, KS 67401 (913) 827-2927
Gar Anderson, K0GA, 5820 Chowen Ave. S, Minneapolis, MN 55410 (612) 922-1160
Joe Holman, KA7LDN, 22909 N.E. 24th Place, Redmond, WA 98052 (206) 868-1040
David Cowdin, WD0HHU, 8325 S. Yukon St, Littleton, CO 80123 (303) 972-0648
Gene Davies, AA6NP, 3450 Ben Lomond Pl, Los Angeles, CA 90027 (213) 937-7942
Bob Gobrick, WA6ERB, 8825 Etcheverry Dr, Tracy, CA 95376 (209) 836-9160
/EX
SB ALL @ AMSAT $ANS-209.07
AO-13 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 209.07 FROM AMSAT HQ
SILVER SPRING, MD JULY 28, 1990
TO ALL RADIO AMATEURS BT

A new Transponder Schedule for AO-13 was put into effect on July 3.

The present transponder schedule for AO-13 is as follows:

Mode-B : MA 003 to MA 165
Mode-JL : MA 165 to MA 190
Mode-LS : MA 190 to MA 195 (Mode S Beacon only)
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 240
Off : MA 240 to MA 003
Omni Antennas : MA 240 to MA 060

Cross mode B and S QSOs are possible from MA 200 to 205.

The current attitude estimate:

BLON = 207 and BLAT = +1

AMSAT-OSCAR-10 appears to be receiving sufficient solar panel illumination to support Mode-B transponder operations, therefore, the transponder is available for general use whenever AO-10 is in view at your location. Please DO NOT use the transponder if the signals are FMing. The current estimate of AO-10's attitude is LON 24 deg LAT -9 deg.

Much activity has been heard on AO-10 centering around a popular calling frequency of 145.910 MHz.
/EX
SB ALL @ AMSAT $ORBS-209.O
Orbital Elements 209.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM N3FKV LORENA, TX JULY 28, 1990
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time: 90202.22227088
Element set: 535
Inclination: 26.0271 deg
RA of node: 193.6152 deg
Eccentricity: 0.5957350
Arg of perigee: 161.1032 deg
Mean anomaly: 237.0789 deg
Mean motion: 2.05879966 rev/day
Decay rate: -1.00e-07 rev/day^2
Epoch rev: 5343

Satellite: UO-11
Catalog number: 14781
Epoch time: 90205.02567339
Element set: 762
Inclination: 97.9470 deg
RA of node: 256.3744 deg
Eccentricity: 0.0013301
Arg of perigee: 126.9258 deg
Mean anomaly: 233.3151 deg
Mean motion: 14.65505065 rev/day
Decay rate: 7.91e-06 rev/day^2
Epoch rev: 34136

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 90205.86796798
Element set: 265
Inclination: 82.9291 deg
RA of node: 300.6886 deg
Eccentricity: 0.0012340
Arg of perigee: 21.8430 deg
Mean anomaly: 338.3251 deg
Mean motion: 13.72098597 rev/day
Decay rate: -1.12e-06 rev/day^2
Epoch rev: 15461

Satellite: AO-13
Catalog number: 19216
Epoch time: 90197.82067606
Element set: 139
Inclination: 57.0355 deg
RA of node: 145.3614 deg
Eccentricity: 0.6989638
Arg of perigee: 231.4991 deg
Mean anomaly: 42.6273 deg
Mean motion: 2.09702725 rev/day
Decay rate: -8.20e-07 rev/day^2
Epoch rev: 1602

Satellite: FO-20
Catalog number: 20480
Epoch time: 90199.58691214
Element set: 94
Inclination: 99.0360 deg
RA of node: 240.1658 deg
Eccentricity: 0.0540852
Arg of perigee: 337.5079 deg
Mean anomaly: 20.3134 deg
Mean motion: 12.83157648 rev/day
Decay rate: 1.06e-06 rev/day^2
Epoch rev: 2077
/EX
SB ALL @ AMSAT $ORBS-209.D
Orbital Elements 209.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM N3FKV LORENA, TX JULY 28, 1990
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 90206.83601518
Element set: 187
Inclination: 98.6956 deg
RA of node: 282.8304 deg
Eccentricity: 0.0011814
Arg of perigee: 46.6066 deg
Mean anomaly: 313.6111 deg
Mean motion: 14.28662307 rev/day
Decay rate: 1.86e-06 rev/day^2
Epoch rev: 2638

Satellite: AO-16
Catalog number: 20439
Epoch time: 90207.10311923
Element set: 96
Inclination: 98.7020 deg
RA of node: 283.2202 deg
Eccentricity: 0.0012450
Arg of perigee: 46.3855 deg
Mean anomaly: 313.8335 deg
Mean motion: 14.28766803 rev/day
Decay rate: 1.98e-06 rev/day^2
Epoch rev: 2642

Satellite: DO-17
Catalog number: 20440
Epoch time: 90199.18477369
Element set: 98
Inclination: 98.7008 deg
RA of node: 275.3312 deg

Eccentricity: 0.0012650
Arg of perigee: 65.8478 deg
Mean anomaly: 294.4027 deg
Mean motion: 14.28810988 rev/day
Decay rate: 2.56e-06 rev/day^2
Epoch rev: 2529

Satellite: WO-18
Catalog number: 20441
Epoch time: 90207.08444772
Element set: 100
Inclination: 98.7018 deg
RA of node: 283.2375 deg
Eccentricity: 0.0013067
Arg of perigee: 46.7923 deg
Mean anomaly: 313.4346 deg
Mean motion: 14.28908466 rev/day
Decay rate: 8.20e-07 rev/day^2
Epoch rev: 2642

Satellite: LO-19
Catalog number: 20442
Epoch time: 90207.07559340
Element set: 99
Inclination: 98.7023 deg
RA of node: 283.2494 deg
Eccentricity: 0.0013439
Arg of perigee: 46.6202 deg
Mean anomaly: 313.6104 deg
Mean motion: 14.28977533 rev/day
Decay rate: 8.40e-07 rev/day^2
Epoch rev: 2642
/EX
SB ALL @ AMSAT $ORBS-209.M
Orbital Elements 209.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM N3FKV LORENA, TX JULY 28, 1990
TO ALL RADIO AMATEURS BT

Satellite: SALYUT 7
Catalog number: 13138
Epoch time: 90206.42044929
Element set: 400
Inclination: 51.6003 deg
RA of node: 110.2086 deg
Eccentricity: 0.0001915
Arg of perigee: 88.9596 deg
Mean anomaly: 271.1709 deg
Mean motion: 15.66714211 rev/day
Decay rate: 2.9987e-04 rev/day^2

Epoch rev: 47084

Satellite: MIR
Catalog number: 16609
Epoch time: 90206.39972361
Element set: 817
Inclination: 51.6113 deg
RA of node: 137.7709 deg
Eccentricity: 0.0010092
Arg of perigee: 180.1747 deg
Mean anomaly: 179.9356 deg
Mean motion: 15.63331706 rev/day
Decay rate: 2.1369e-04 rev/day^2
Epoch rev: 25407

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 90206.82447791
Element set: 148
Inclination: 28.4702 deg
RA of node: 3.7550 deg
Eccentricity: 0.0006020
Arg of perigee: 170.0638 deg
Mean anomaly: 190.0083 deg
Mean motion: 14.84624918 rev/day
Decay rate: 1.615e-05 rev/day^2
Epoch rev: 1372

Satellite: BADR-1
Catalog number: 20685
Epoch time: 90204.50601142
Element set: 12
Inclination: 28.4963 deg
RA of node: 256.1649 deg
Eccentricity: 0.0551391
Arg of perigee: 205.7293 deg
Mean anomaly: 151.2654 deg
Mean motion: 14.92991381 rev/day
Decay rate: 1.8614e-03 rev/day^2
Epoch rev: 112
/EX
SB ALL @ AMSAT $ORBS-209.W
Orbital Elements 209.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM N3FKV LORENA, TX JULY 28, 1990
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 90205.09689309
Element set: 606

Inclination: 99.1694 deg
RA of node: 205.7859 deg
Eccentricity: 0.0014150
Arg of perigee: 265.2013 deg
Mean anomaly: 94.7540 deg
Mean motion: 14.12622879 rev/day
Decay rate: 2.76e-06 rev/day^2
Epoch rev: 28919

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 90202.36241059
Element set: 453
Inclination: 98.5980 deg
RA of node: 229.5400 deg
Eccentricity: 0.0013460
Arg of perigee: 166.3681 deg
Mean anomaly: 193.7863 deg
Mean motion: 14.23667498 rev/day
Decay rate: 3.59e-06 rev/day^2
Epoch rev: 19947

Satellite: MET-2/16
Catalog number: 18312
Epoch time: 90206.07430102
Element set: 464
Inclination: 82.5532 deg
RA of node: 260.2650 deg
Eccentricity: 0.0012152
Arg of perigee: 139.4123 deg
Mean anomaly: 220.7942 deg
Mean motion: 13.83664529 rev/day
Decay rate: 2.19e-06 rev/day^2
Epoch rev: 14822

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 90206.06963414
Element set: 326
Inclination: 82.5468 deg
RA of node: 320.3439 deg
Eccentricity: 0.0015789
Arg of perigee: 214.2284 deg
Mean anomaly: 145.7861 deg
Mean motion: 13.84353860 rev/day
Decay rate: 5.30e-07 rev/day^2
Epoch rev: 12542

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 90205.64662048

Element set: 537
Inclination: 82.5406 deg
RA of node: 250.9239 deg
Eccentricity: 0.0016359
Arg of perigee: 215.8167 deg
Mean anomaly: 144.1777 deg
Mean motion: 13.16897637 rev/day
Decay rate: 3.91e-06 rev/day^2
Epoch rev: 9588

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 90206.22907459
Element set: 320
Inclination: 98.9841 deg
RA of node: 154.5844 deg
Eccentricity: 0.0011958
Arg of perigee: 172.3537 deg
Mean anomaly: 187.7816 deg
Mean motion: 14.11654798 rev/day
Decay rate: -4.00e-08 rev/day^2
Epoch rev: 9433

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 90206.05120754
Element set: 270
Inclination: 82.5189 deg
RA of node: 198.2854 deg
Eccentricity: 0.0012584
Arg of perigee: 256.2335 deg
Mean anomaly: 103.7416 deg
Mean motion: 13.83985874 rev/day
Decay rate: -2.29e-06 rev/day^2
Epoch rev: 7080

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 90206.99655905
Element set: 176
Inclination: 82.5503 deg
RA of node: 190.6244 deg
Eccentricity: 0.0014914
Arg of perigee: 228.9452 deg
Mean anomaly: 131.0383 deg
Mean motion: 13.15865271 rev/day
Decay rate: 3.90e-07 rev/day^2
Epoch rev: 3605

Satellite: MET-2/19
Catalog number: 20670

Epoch time: 90207.12344511
Element set: 24
Inclination: 82.5439 deg
RA of node: 257.7623 deg
Eccentricity: 0.0016326
Arg of perigee: 173.8807 deg
Mean anomaly: 186.2552 deg
Mean motion: 13.83840577 rev/day
Decay rate: 8.80e-07 rev/day^2
Epoch rev: 390
/EX

Tad Cook
Seattle, WA
Packet: KT7H @ N7HFZ.WA.USA.NA
Phone: 206/527-4089
MCI Mail: 3288544
Telex: 6503288544 MCI UW
USENET:...uw-beaver!sumax!amc-gw!ssc!tad
or, tad@ssc.UUCP

4773. Re: Learning code (was: Help with mods and code)

Newsgroup: rec.ham-radio
Date: 1990-07-31 01:51:30 UTC
From: rwc@critz.mv.com
Message-ID: <240@critz.mv.com>
Source record: 9679

In article <1363@necis.UUCP> rbono@necis.UUCP (NM1D) writes:
> Of course, some say don't write anything down, start by copying in your head!!
>Well, I have yet to see anyone PASS THE TELEGRAPHY EXAM by copying in their
>head, and just jotting down a few notes.... some may have done this, but with
>a few years of being a V.E. (Volunteer Examiner), I have NEVER witnessed
>anyone passing an exam this way.
>

I've never seen it at a VE session either, however, Rich, you do know someone who passed his 20wpm that way (3 times, in fact since the FCC didn't issue CSCE's for code credit).

That someone was me. The FCC gave no credit for solid copy at that time, however. You either passed the fill-in-the-blank test or you didn't get code credit. I would not recommend that procedure now that one can pass the exam on solid copy as well as the 10 question test.

Rich KB4N
--
Richard W. Critz, Jr. | ...{decvax!ubbs-nh, decuac}!critz!rwc
141 Hills Ferry Road | rwc@critz.mv.com
Nashua, NH 03060 | Packet: KB4N @ KB4N.NH.USA.NA

4774. Re: extra exam matter Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-31 02:00:44 UTC
From: cs00jmc@unccvax.uncc.edu
Message-ID: <2558@unccvax.uncc.edu>
Source record: 9680

In article <10528@crdgw1.crd.ge.com> perley@galaxy (Donald P Perley) writes:
>In article <2359@ryn.esg.dec.com>, taber@ultnix (Patrick Taber) writes:
>>Easy question. They apply to all hams who are Extras. One of the privileges
>>of being an Extra is permission to operate from space.
>
>Great. So I pass my exam, then write NASA that I want to operate from the
>shuttle? These rules don't apply to all extras, only the those with the
>means to launch a sattelite or get a ride on the shuttle. That is very
>few even compared with modes that most would consider pretty esoteric,
>like moonbounce.
>

Agreed. It is of dubious value to have these questions on the Extra
exam, even if they are "privileges" of holding such a license.

>I have also heard of astronauts without extra tickets being granted
>temporary priveledges for the duration of a flight. If that is
>routine procedure, then being an extra seems to have little to do with
>it.

As far as I know NO ONE with a lower class license has ever been turned
down when requesting a waiver to operate from space. I don't think that
an Extra has done so yet.

>
>Here is a more down-to-earth example. To get a ticket you have to pass
>various exam elements with designations like 3e, 4a, etc. In a sense,
>this affects every new ham. Once you get your license, those designators
>have zero effect on whether you will operate your station legally.
>
>Supposedly the reason for the legal portion of the exam is to ensure
>that you know the rules well enough to operate within the law. What
>is the point of asking which designators are required for which class
>license when there are practical questions that won't get in for lack
>of room?
>
>-don perley
>perley@trub.crd.ge.com

This is on the Extra class exam for a much more important reason. An
Extra class licensee is authorized to be a Volunteer Examiner-Coordinator
or may become accredited to be a Volunteer Examiner capable of giving
ANY Amateur Radio license exam. General and Advanced class licensees
are allowed to give specific elements only. Each VE should know which
elements are used for which license and know whether it is legal for them
to administer it. In practice I don't think this is as much of a problem

since I think VECs are reluctant to accredit anyone who does not have an Extra Class license (makes it easier when you don't have to worry about who may give what exam).

IMHO the VE accreditation procedure should require potential VEs to learn the element numbers, and not the operator license exams. There are not many more VECs than there are space travelers. But remember, the VECs maintain the question pool so I guess they don't want it that way!

--
John Covington WN4BBJ Internet: cs00jmc@unccvax.uncc.edu
P.O. Box 217122 MCI Mail: JCOVINGTON 342-6957
Charlotte, NC 28221-7122 Packet Radio Mail: WN4BBJ @ W4BFB.NC.USA.NA
(704) 537-7653 "Kenneth, what's the frequency?" "I dunno, ask Dan"

4775. #Info Request for Ham HT's and Scanners

Newsgroup: rec.ham-radio
Date: 1990-07-31 04:44:15 UTC
From: wen@pro-sat.cts.com
Message-ID: <9007310442.AA09777@trout.nosc.mil>
Source record: 9681

I want to buy a HT for 2 and/or 1 1/4 mtrs with versatile scanning capablility and pl, etc. Unfortunately my present TEMPO fmh HT finally bit the dust. For all its faults, the battery pack lasted pretty well. Ability to access all types of repeaters and long battery life in the scanning modes are most important characteristics. Any recommendations from anyone pleased with the performance would be appreciated along with best liked and worst liked features and where they could be purchased/or prices would be helpful.

I also just bought the Radio Shack PRO-34 scanner, but am not particularly impressed with the operation and lack of a decent case may make a case for the exchange to a Bearcat 200 or just wait for the PRO-2005 to go on sale. I tried to contact Bob Parness, but have lost his net address to see if he had any recommendations on the scanner or the ht. Any assistance would be appreciated, particularly with regard to reviews, personal likes and dislikes, prices and mail order sources of supply.

4776. QST "Cover Stories" (or lack of)

Newsgroup: rec.ham-radio
Date: 1990-07-31 04:54:43 UTC
From: barry@hprmokg.HP.COM
Message-ID: <29490016@hprmokg.HP.COM>
Source record: 9682

Has anyone noticed that QST magazine covers often have very interesting covers but *NO* supporting cover story?

I noticed this especially then they had last year's decades of ham radio covers with some very interesting equipment on the covers but absolutely no story describing what was on the cover.

What's going on here, eh?

Barry M. Fowler Hewlett Packard Company

Networked Computer Manufacturing Operation - Roseville, California
(can't we think of a shorter name?)

e-mail: barry@hprmokg.rose.hp.com
Verbal: Hey Barry!
R.F. : WB6JZL
NAR : 51644

4777. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-31 06:12:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500631@ux1.cso.uiuc.edu>
Source record: 9683

> "Wouldn't it be nice if" all battery packs had a standard connector that
> had two pins for each cell? To use the pack you'd attach a "series"
> connector. To charge the cells you'd use a "parallel" connector (with
> sufficient smarts in the charger to do the job right of charging and
> checking each cell).

You do not want to charge NiCd cells in parallel. You want constant
current to charge the cells, not constant voltage. Of course you CAN
charge each cell INDEPENDENTLY if you want.

If you are RAPID (or RABID) charging the pack, you need to stop when
some cells are topped off, but others may not be full yet.

If you charge cells slowly, you can leave all the cells on charge while
the latent ones are still filling up.

Also be wary of connecting cells in parallel in any application. If
one cell is FULL and another is EMPTY, such parallel connection could
result in a damaging level of current flow between the cells, and a
possible fire or explosion as a result of heat buildup.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4778. Re: costs... (long)

Newsgroup: rec.ham-radio
Date: 1990-07-31 07:04:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500632@ux1.cso.uiuc.edu>
Source record: 9684

Just adding more channels to cellular is NOT necessarily going to lower the costs of cellular service.

Consider the case of operating a seaside motel. You have a peak seasonal demand during the summer months, and some business during spring and fall. In the winter things are so bad, you shutdown. But during the peak of summer, you get more than TWICE the number of reservation requests you have to turn down. Would you expand your motel? Suppose the land next door is up for sale. Would you build and addition there?

This addition would be able to service the peak, but would do you no good during the slower spring and fall.

When things are up and down like that, it is not necessarily economical to acquire the resources to satisfy only the peak demands.

Cellular services have these same kinds of peak demands, but they occur at various times of the day. During times other than these peaks, adding more channels is NOT cost effective. While there are some fixed costs in the cellular business (tower and site rental/payments) there are also many incremental costs. To add more channels requires more equipment. There have to be more receivers, more transmitters, more computer interfaces, and more landline connections. For any given market there is a particular number of channels that are the most economically optimal. It isn't always easy to figure this out, but it generally won't meet all the peak demands.

The next question is whether or not this optimal number of channels is greater than the number available in the cellular service. It just so happens that the FCC as set aside some portions of the 800 Mhz land mobile band for undetermined purposes. While morst of these are starting to be taken up, cellular could get a few more slivers. I believe I have read that there is at least one petition to open up some more frequencies and establish a third provider in major markets.

I have been seeing ads in Chicago newspapers in the business sections for very low cost cellular phones. Typically the prices are $200 WITH a hookup and $500 without. They also seem to require the hookup be with a particular provider, so I am believing from this that they are trying hard to get more business. They must believe they are going to make more than $300 for each cellphone sale made, or else have an arrangement to not have to support so much of this discount in exchange for advertising the sellers wares through some other means. It's not clear just what is going on except for the fact that they are trying to get more business.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4779. Re: ICR1 and ICR100 available ex-st

Newsgroup: rec.ham-radio
Date: 1990-07-31 07:13:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500633@ux1.cso.uiuc.edu>
Source record: 9685

> I believe that the R1 and R100 are available everywhere except places
> where ICOM America Inc. is the importer. IMHO, ICOM America Inc.
> decided not to import them because they are great cellular telephone
> receivers. Look for the IC-R1A with the cellular telephone freqs.
> deleted.

We've been hearing the problem is a patent issue.

However if it does turn out they delete the cellular frequencies then
I will certainly fuss, complain, and raise hell, and encourage everyone
else to do the same.

Remember, these frequencies are ALSO the 6th harmonic of 2 meters and
the 2nd harmonic of 435-445 Mhz.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4780. Re: Should I become a ham now or wa

Newsgroup: rec.ham-radio
Date: 1990-07-31 07:15:00 UTC
From: phil@ux1.cso.uiuc.edu
Message-ID: <30500634@ux1.cso.uiuc.edu>
Source record: 9686

> Don't wait. Do it now! Morse code *will* improve your sex life,
> guaranteed. You'll see!

It didn't work for me.

--Phil Howard, KA9WGN-- | Individual CHOICE is fundamental to a free society
<phil@ux1.cso.uiuc.edu> | no matter what the particular issue is all about.

4781. Re: ICOM IC-R1 Review

Newsgroup: rec.ham-radio
Date: 1990-07-31 09:19:45 UTC
From: kpt@doc.ic.ac.uk
Message-ID: <KPT.90Jul31101945@gummo.doc.ic.ac.uk>
Source record: 9687
Cross-posted to: rec.ham-radio,rec.radio.shortwave

In article <639@philica.ica.philips.nl> geertj@philica.ica.philips.nl (Geert Jan de Groot) writes:

During the AMSAT-UK satelite colloquium in Surrey, Great Britain, I saw
the ICOM R1 ready available. I forgot to write down the price, sorry.
Anyway, if someone comes over to the UK, you can get one there.
I believe it is also available in other European countries, but have
not checked. If you're going on a business trip..

Geert Jan

One company at least is selling the R1 for 399 pounds.

Did you know that the spec for the R1 in Germany only covers the
amateur bands? The R1 in France misses out the English VHF broadcast
band - about 97MHz to 108Mhz. I forget the exact frequency range; I
have the details at home and also, I believe, the full specs on the R1
and R100. I will look them up.

Kevin
--

Kevin Twidle G8RKU Tel: +44 71 589 5111 x5068 Fax: +44 71 581 8024
Dept of Computing, Imperial College, 180 Queen's Gate, London SW7 2BZ, England
Email: kpt@doc.ic.ac.uk, kpt%uk.ac.ic.doc@nsfnet-relay.ac.uk, ..!ukc!icdoc!kpt
"It's not the cough that carries you off, it's the coffin they carry you off in"

4782. Repeaters.

Newsgroup: rec.ham-radio
Date: 1990-07-31 09:56:47 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <31.Jul.90.10
Source record: 9688

Reading the recent discussions on repeaters, PL-tone etc, i am puzzled at the whole idea of 'private' repeaters. Here in UK we do not have any such beasties; all our repeaters are 'public access' i.e. anyone who can put up half a second of 1750Hz tone has access to the repeater.
Repeaters are not operated by private individuals here; they are run and maintained by local repeater groups (who hold the license for repeater operation). We dont have that many repeaters either (there are only 7 channel pairs allocated in the 2 meter band for repeater use under our bandplan - remember us poor Europeans only have 144-146MHz)
I am only able to get three repeaters from my home QTH, there just arent any more!
This sometimes leads to congestion, but also leads to increased operating discipline and faster, less timewasting QSOs. It also removes any ghettoising of particular groups. My question is: Why does anyone want a 'private' repeater? IMHO a mixture of elitism and one-upmanship?
And *such* a poor use of spectrum-space!

73's de Pete G6WBJ PJML@UK.AC.NWL.IA

4783. Re: Spread Spectrum Interference

Newsgroup: rec.ham-radio
Date: 1990-07-31 10:26:17 UTC
From: rc@CMR.NCSL.NIST.GOV
Message-ID: <9007311026.AA24732@cmr.ncsl.nist.gov>
Source record: 9689

Paul Flaherty comments that EME antennas are pointed above the horizon, thus he says that will reduce interference from SS stations.

My comment is that the first side lobe, say 15 to 30 degrees off the main beam, is usually down about 16 dB from the max gain. Other minor lobes may be down more or less from this number. Thus you can count on no more that another 16-20 dB of isolation from the SS station due to moon elevation. Many people work the moon when it is only a FEW degrees above the horizon. 15-20 dB doesn't make a big dent in the 100-150 dB that may well be needed.

Bob W3OTC

4784. Traps to take out Images, QRM etc.

Newsgroup: rec.ham-radio
Date: 1990-07-31 10:50:07 UTC
From: PJML@ibma.nerc-wallingford.ac.uk
Message-ID: <31.Jul.90.12
Source record: 9690

I had a similar problem to one recently discussed; i found a coaxial stub was the answer.
You will need: a 'T' connector for your coaxial feedline, plus a few feet of coax, and some suitable plugs.
Find out the frequency you want to cut off. Convert this to a wavelength (in metres) and divide by four to get the length for a quarter-wave.
Multiply this length by the velocity-factor of the coax you are using (get out your reference sheets, or look in the back of a Handbook).
Most solid-dielectric coax has a v.f. of about 0.66. Foam coax can be nearer 0.8 though, so check it BEFORE cutting!
Make up a length of cable with a plug on the end, to the calculated length. Short circuit the end remote from the plug. Put the coax 'T' piece in the feeder to the radio and attach the stub to the 'limb' like this:

```
from antenna>-------------------T------------------>to radio
!
!
!
!
! Stub;
+ <- inner & outer shorted.
```

Tune up the radio and the interference should have gone. If not, try two stubs, spaced 1/4 wavelength apart; this will give you at least 30dB of suppression. Attenuation 10% either side of the stub is less than 1dB.
Note that its perfectly safe to transmit through such a stub too; they make a great way of reducing your 2nd harmonic on 6 meters and preventing you being unpopular with FM broadcast listeners. Stubs are also useful for keeping local despatch companies, Police etc. out of your radio if it has a sleazy, zero-selectivity broadband front-end like many handie-talkies.
Transmitting people can trim the 'limb' of the stub for maximum attenuation (or lowest SWR). Be careful though; there can be some dangerously high voltages on the inner if you run even modest power.

73 de Pete G6WBJ PJML@UK.AC.NWL.IA G6WBJ@GB7SDN.GBR.EU

4785. Re: ICR1 and ICR100 costs

Newsgroup: rec.ham-radio
Date: 1990-07-31 12:00:54 UTC
From: KOSSACKB@RICEVM1.BITNET
Message-ID: <1729KOSSACKB@RICEVM1>
Source record: 9691

On 27 Jul 90, henryb@hpspdra.HP.COM (Henry Black) said:
- So an R1 is about US$300 in Japan but about US$750 in Britain!
- Someone is ripping someone off.

Can you say 'import taxes' ???
I thought you could.

Seriously though, what do you expect from the British Gov't?
After all, their income taxes are even higher than here in
the States. I never understood how the VAT (Value Added Tax)
adds value to an object. Sure, it increases the retail price
but not _value_ . . .

"Just say no to taxes." - R. Reagan

--**-- --**-- --**--

Post Scriptum: Thanks to everybody who sent suggestions on HTs.
For those interested, the general consensus was to
get the Yaesu FT-470. I'll be picking one up this
weekend, although it is a little bit smaller than
I would prefer. Again, tnx es 73.

Jordan Kossack | N5QVI | Student Staff
----------------+----------+ Office of Networking and Computing Systems
KOSSACKB@RICEVM1.RICE.EDU | Rice University Houston Texas

4786. TS-940S Software

Newsgroup: rec.ham-radio
Date: 1990-07-31 12:34:39 UTC
From: paul+@andrew.cmu.edu
Message-ID: <oahLfTy00WBKM0mlxT@andrew.cmu.edu>
Source record: 9692

Does anyone have the IBM pc software for a Kenwood TS-940. I would like to look at it to see what it's like before I buy the computer interface for my 940. Please email to: paul@andrew.cmu.edu

Thanks

Paul
WA3TLD

4787. Re: extra exam matter Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-31 13:13:20 UTC
From: taber@ultnix.enet.dec.com
Message-ID: <2369@ryn.esg.dec.com>
Source record: 9693

In article <10528@crdgw1.crd.ge.com>, perley@galaxy (Donald P Perley) writes:

|> >|> Since they only apply to transmissions originating in space (not someone on
|> >|> earth using OSCAR), how many hams could these rules apply to?
|> >|>
|> >Easy question. They apply to all hams who are Extras. One of the privileges
|> >of being an Extra is permission to operate from space.
|>
|> Great. So I pass my exam, then write NASA that I want to operate from the
|> shuttle? These rules don't apply to all extras, only the those with the
|> means to launch a sattelite or get a ride on the shuttle.

Hey, having a Tech ticket means you can run a microwave mountain-topping operation. Does that mean the FCC or some other agency is now responsible for getting you up a mountain? Does the privilege of being trustee of a repeater mean that someone has to give you a repeater? With an Extra ticket, you get the privilege of being able to run a space operation without having to get a waiver. If that's one of the privs, then there have to be SOME questions on the subject. It doesn't matter if you never use the privilege -- you get it. (And, yes, all the astronauts have gotten waivers for space operation but that doesn't mean no Extras have used the privs -- the privilege was defined with an eye toward satellite operation, and extras have put their callsigns on satellites.

|> Here is a more down-to-earth example. To get a ticket you have to pass
|> various exam elements with designations like 3e, 4a, etc. In a sense,
|> this affects every new ham. Once you get your license, those designators
|> have zero effect on whether you will operate your station legally.
|>
|> Supposedly the reason for the legal portion of the exam is to ensure
|> that you know the rules well enough to operate within the law. What
|> is the point of asking which designators are required for which class
|> license when there are practical questions that won't get in for lack
|> of room?

Another Extra privilege is being able to be a VE. You have to know something about the tests you are going to administer. Again, it doesn't matter if you personally don't intend to be a VE -- you get the privilege, so there have to be questions covering that privilege.

Licenses aren't custom-crafted; you don't get to say, "I'll never use SSTV, but I will run 1,000 watts, but only on HF, and I'll never be trustee of a repeater -- make me a test." You're effectively licensed for life when you get your ticket, and there's no telling what you'll suddenly find attractive. If there's a privilege, there have to be corresponding questions just so the licensing

authority can say the test corresponds to the

>>>==>PStJTT
Patrick St. Joseph Teahan Taber

My employer doesn't care what I think. I, in turn, don't care what you think. You probably don't care what my empolyer thinks. Thus is life a circle.

4788. ICOM R-1 and the ECPA

Newsgroup: rec.ham-radio
Date: 1990-07-31 13:19:16 UTC
From: MEHARP01%ULKYVM@PUCC.PRINCETON.EDU
Message-ID: <9007311322.AA07324@ucsd.edu>
Source record: 9694

>>Stuff about UK purchase of ICOM R-1 deleted...

>I believe that the R1 and R100 are available everywhere except places
>where ICOM America Inc. is the importer. IMHO, ICOM America Inc.
>decided not to import them because they are great cellular telephone
>receivers. Look for the IC-R1A with the cellular telephone freqs.
>deleted.

Then why did they market the R-9000 and R-7000? I don't think ICOM
gives one hoot about the ECPA, I think the Uniden story is a lot more
credible. I would look for a Uniden/ICOM arrangement that allows sale
of the unit here. If the gray market gets them in, Uniden may abandon
the suit since it's pointless.

If I could get one gray market, i'd do it. $300 US for that radio is
a steal!

Michael Harpe, N4PLE | BITNET: MEHARP01@ULKYVM
106B Ormsby Building | VOICE: 502-588-7785
University of Louisville | FAX: 502-588-5048
Louisville, KY 40292 | AURAL: "Mike!"

"Sir, there is a large multi-legged creature crawling on your shoulder"
- Spock

4789. Re: ICR1 and ICR100 available ex-st

Newsgroup: rec.ham-radio
Date: 1990-07-31 13:26:35 UTC
From: gp310ad@prism.gatech.EDU
Message-ID: <12033@hydra.gatech.EDU>
Source record: 9695

The RZ-1 Kenwood DIN format in dash scanner is readily available and
covers cellular. Why should the pocket model be treated differently?
BTW. I would be interested in trading my RZ-1 on the pocket model.
Bob

--
ROBERT DUCKWORTH
Georgia Institute of Technology, Atlanta Georgia, 30332
uucp: ...!{allegra,amd,hplabs,ut-ngp}!gatech!prism!gp310ad
Internet: gp310ad@prism.gatech.edu

4790. Re: Spread Spectrum Repeaters - Technical

Newsgroup: rec.ham-radio
Date: 1990-07-31 14:10:16 UTC
From: gary@ke4zv.UUCP
Message-ID: <1105@ke4zv.UUCP>
Source record: 9696

In article <2797@anasaz.UUCP> john@anasaz.UUCP (John Moore) writes:
>
>Point well taken. However, your 100,000 watt TV transmitter is not
>protecting sensitive receives just outside the passband. How much
>are your sidebands reduced? 60 dB? That's just not enough for
>the case we are talking about. 2% linearity is nowhere near
>good enough - I'll bet your linearity is much better than that.
>
>Remember, when we talk 100dB range attenuation, we are getting
>into tough stuff. Your SAW probably leaks more than that - what is
>the passband vs. stopband attenuation of it? Add to that nonlinearities,
>AND wideband noise, and you may still have a problem if you are operating
>in the amateur 440 band (or 2 meter) and trying to protect other services
>in the 450 band (or 150). Finally, one reason for pass cavities is
>that transistor amplifiers do radiate significant broadband noise, even
>if unmodulated. When we put a pass cavity on an FM repeater, we lower
>the site noise significantly. Leaving out that protection means that
>the broadband noise is a problem. Of course, I guess we could use
>tubes...

Well lets review for a moment. We are discussing protecting a narrow
band commercial receiver just outside an amateur band from the
emissions of an amateur spread spectrum transmitter. Let's examine
a worse case. Assume another amateur system inside the amateur band.
Now with a SS transmitter spreading a 20khz voice signal over
20Mhz, one one thousandth of the total power of the SS transmitter
will appear in the passband of the narrow receiver. That's a 30db
decrease. Now move the receiver outside the band and use a SAW filter
on the SS transmitter that has ONLY 60db of stopband. Total power
into the receiver will be more than 90db down from the total power of
the SS transmitter. If the SS signal is reasonably clean and keeps
it's intentional radiation inside the amateur band and the narrow
band receiver has any front end filtering at all, we should see
better than 100db isolation. This looks pretty good. As for wideband
noise generated in the final amplifier, we do use tubes. :-)

As a practical example let's take the Grapes 56k modem. With it's
tapped shift register randomizer, it can be considered a somewhat
narrow (70khz) spread spectrum source. On one of our sites we have
one mounted in the same rack with a narrow band receiver operating
300khz away from it's channel center. We haven't noticed any
desense or intermod to the narrowband equipment. We did wind up
adding a cavity to the output of the modem, but that was because
the narrow band equipment was desensing our modem enough we couldn't
copy a weak signal from one of our other modem links.

Now if the SS system is running a lot of power and the narrow receiver is trying to maintain a -140dbm noise floor, THEN we've got a problem. I wouldn't recommend a SS site be colocated with a moonbounce array. Most commercial sites typically want a microvolt or two at their receiver and most proposed amateur SS equipment will run modest power. I don't think there will be any problems at a well engineered site. No doubt there will be problems at many of the poorly engineered sites that I have had the misfortune to use however. One particular site that I am thinking of has 200 transmitters on about 2 acres of mountaintop and the best engineered equipment on the site is in the two amateur installations. We're talking unshielded cabling, unshielded racks, unshielded PAs(!), mobile units pressed into repeater service, and even Radio Shack coax on UHF equipment. With those kinds of problems, they're not going to notice a SS transmitter.

Gary

4791. Re: ITU Code Requirement

Newsgroup: rec.ham-radio
Date: 1990-07-31 14:19:48 UTC
From: montague@npdiss1.StPaul.NCR.COM
Message-ID: <143@npdiss1.StPaul.NCR.COM>
Source record: 9697

In article <939@ssc.UUCP> you write:

>The CB radio service is not part of the Amateur Radio service.

Are you sure? There are more "CB" transmissions in the 28MHz cw band than in the 11 Meter, oops - er "CB" band :-)

John Montague montague@StPaul.NCR.COM W0RUE@WB0GDB

4792. Re: World Radiosport Team Championship

Newsgroup: rec.ham-radio
Date: 1990-07-31 14:30:06 UTC
From: trey@ut-emx.UUCP
Message-ID: <34752@ut-emx.UUCP>
Source record: 9698

In article <5720075@hplsla.HP.COM>, charlier@hplsla.HP.COM (Charlie Panek) writes:
> Seattle, I got to talk to some of the /WG contesters the morning after
> the contest. Guess what: they hardly worked any JA's at all..
>
> Charlie Panek (UUCP: hplabs!hp-pcd!hplsla!charlier)
> KX7L (domain: charlier%hplsla@hplabs.hp.com)

It wasn't from lack of effort. I was in SE Asia during the World Games
thing and I heard zero, zilch, zippo North American stations during the
contest period (21-07Z I believe). I guess this means I don't get a
badge. *Sigh.*

Trey Garlough
Computation Center, University of Texas, Austin, Texas 78712
trey@emx.CC.UTEXAS.EDU (internet) (512-471-3241)

4793. Re: extra exam matter Re: Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-31 14:56:12 UTC
From: gary@ke4zv.UUCP
Message-ID: <1106@ke4zv.UUCP>
Source record: 9699

In article <2359@ryn.esg.dec.com> taber@ultnix.enet.dec.com (Patrick Taber) writes:
>In article <10437@crdgw1.crd.ge.com>, perley@galaxy (Donald P Perley) writes:
>|> I just started skimming through the ARRL extra study manual. It seems
>|> odd to me that they have as much as they do on space operation regulations.
>|> Since they only apply to transmissions originating in space (not someone on
>|> earth using OSCAR), how many hams could these rules apply to?
>|>
>Easy question. They apply to all hams who are Extras. One of the privileges
>of being an Extra is permission to operate from space. (Does the Shuttle count
>as a DXCC country?) Thus you are prepared for questions on these new privs
>in the study guide for Extra.
>

And the astronaut-hams who have operated from the Shuttle have had to
get a waiver from the FCC because they aren't Extras.

And the hams on Mir got their licenses by radio because they weren't
even hams before they arrived in space.

Both groups of space travellers have been very effective communicating
over ham radio.

The requirement seems silly doesn't it?

Gary

4794. Re: August QST

Newsgroup: rec.ham-radio
Date: 1990-07-31 16:07:05 UTC
From: kthompso@entec.Wichita.NCR.COM
Message-ID: <615@entec.Wichita.NCR.COM>
Source record: 9700

There is also the small matter of the software to run the machine.
He sure did not have it published. Not even the (software) flows.

--
Ken Thompson N0ITL
NCR Corp. 3718 N. Rock Road
Wichita,Ks. 67226 (316)636-8783
Ken.Thompson@wichita.ncr.com

4795. Re: Costs...

Newsgroup: rec.ham-radio
Date: 1990-07-31 16:22:24 UTC
From: ptb@MBUNIX.MITRE.ORG
Message-ID: <9007311622.AA04987@mbunix.mitre.org>
Source record: 9701

In regards to your getting ahold of the hams when you need us, I assume that you are in the Cornell University area, and there are probably many hams there that handle traffic. You can find out who by having someone send a message to you, and then getting the address and/or phone number of the person who telephones you to deliver the message. (If you dont know of anyone to start a message, please send me your address electronically, and I will send you one.)
Alternatively, you may have a ham club at Cornell, and could find someone through them. Hopefully, the hams have made themselves known to emergency agencies also, so the police, fire, Red Cross, and civil defense agencies can also call on the hams if the need arises.

One of the areas where your argument appears to be quite weak is in the initial response time frame for a widespread emergency. In this case, any "publicly available" resources will be completely saturated by all of the normal users wanting to get on. I am not trying to complain about the phone company or cellular industry here, but to depend on them 100% would be unwise.

It does not follow that adding more spectrum for these services will make them immune from saturation because of the economics of the design of the services themselves. It is simply not cost effective for any communication system to be designed to handle everyone getting on at once for any given coverage area (If they did this, the cost of the equipment would push the rates sky-high, and the competition would take over the business). An example in point is the telephone system. Ma Bell (or Pacific Bell, New England Telephone, etc.) only designs a fraction of the users to be able to get dial-tone service at once. The telephone land-lines could be 100% good, and still if everyone were to pick up the phone at once, people cant talk.

Not only that, but the human response to a problem is to try and get on the system to let people know that you are OK or to request aid. So the human response of the people compounds a capacity problem, with the result of not being able to get through.

In addition to the initial response time being the most problematic to landline telephone and cellular coverage, it is also the most crucial to emergency communications. The initial response period is the period where most of the direct help is provided regarding the immediate safety of life and property, such as: Evacuation notification, Rescuing folks who are trapped by floods, fires, and damaged buildings, Putting out fires, Getting people out of the way of a flood, Providing emergency shelter, food, and clothing, Shutting off energy supplies (gas, electricity) that could cause additional

danger if left on in failed buildings, Preventing radioactive, chemical, or biological contamination of remaining food, water, and air, Determination of the extent of the emergency, etc. These are tasks which can not tolerate a "busy" signal, because lives will be lost or property severely damaged.

Once the above tasks are done (or sometimes mostly done), then people working at the disaster site start being concerned about health and welfare traffic, such as "How is my cousin who might have been in the affected area?"

Amateurs fill in the gap nicely. Most people are probably able to get at least a short-distance (VHF) radio going within the initial response time frame (each one fixing their own radio or antenna, rather than everyone waiting for a small team of technicians, who may be responsible for 30 or 40 sites, plus the communications lines or microwave links used to hook them together), and plans have been put in place in many areas to facilitate assisting the emergency agencies through emergency communications.

Now the emergency agencies have their own communications tools, spectrum, and procedures. Use of internal agency bandwidth solves many problems, but hams can help where (a) there is sufficient cross-agency traffic and the radios for the two agencies do not inter-operate (This is VERY COMMON - just a look at all of the differing police frequencies in the country is very convincing that they will probably NOT be able to communicate outside of their own boundaries), or (b) the agency's own radio system becomes overloaded with emergency traffic or inoperative due to the emergency itself.

That is the theory. On the practical side, this argument is also bourne out.

Hams have helped out in many disasters or problems every month, such as Hurricane Hugo in September 89, and the October 17 quake in Northern California, the Earthquake in Mexico City a few years back, etc.

There are also many that are unknown unless someone writes them up. These include the search for a missing girl in Billerica, the putting out of a particularly bad fire at the Naval Air Station in Whidbey Island, the Crash of Avianca Flight 52 in January, a severe ice storm in Feb 90 that knocked out phone, water, and electricity to several counties, etc.

Well, I hope that this has shed enough light on what value ham radio can be in an actual emergency, and why the commercial providers will not be able to fill the total needs in the immediate response timeframe, that you will reconsider the implications of taking ham radio's bandwidth and giving it to cellular communications. If I personally

were in charge of disaster planning for some geographical area, I would want to include hams in the emergency planning process to maximize the safety of lives and property.

Where there is a will, there is a way....

English: Peter T. Baldwin
Arpa: ptb@mbunix.mitre.org
Phone: (617) 271-7647 (days)
Snail Mail: Mitre Corp, MS K306, Burlington Rd, Bedford, Ma. 01730
Voice: Peter!

Disclaimer: These views do not necessarily represent the views of MITRE or its clients.

4796. Re: ICR1 and ICR100 available ex-st

Newsgroup: rec.ham-radio
Date: 1990-07-31 18:41:47 UTC
From: kline@ux1.cso.uiuc.edu
Message-ID: <1990Jul31.184147.25445@ux1.cso.uiuc.edu>
Source record: 9702

phil@ux1.cso.uiuc.edu writes:
>However if it does turn out they delete the cellular frequencies then
>I will certainly fuss, complain, and raise hell, and encourage everyone
>else to do the same.

My IC-24AT allows me to enter frequencies in the cellular band when I
enable extended receive, but claims that the synthesizer won't lock up
in that range. Since it locks up solidly just above this, in the 902MHz
band, I wonder if it's just lying to me and was programmed not to allow
reception at these frequencies by faking an unlocked synthesizer.

Charley Kline, KB9FFK, PP-ASEL c-kline@uiuc.edu
University of Illinois Computing Services (217) 333-3339

4797. Re: Spread Spectrum Repeaters - Technic

Newsgroup: rec.ham-radio
Date: 1990-07-31 19:16:14 UTC
From: wright@hayduke.slc.unisys.com
Message-ID: <690@hayduke.slc.unisys.com>
Source record: 9703

In article <1990Jul28.012658.1398@bellcore-2.bellcore.com>, karn@envy.bellcore.com (Phil R. Karn) writes:
>
> In article <30500625@ux1.cso.uiuc.edu>, phil@ux1.cso.uiuc.edu writes:
> > If the the RATE of the stepping of the shift register is 1 Mhz, for instance,
> > then we will see peaks and valleys at that interval....
> > ... the information beyond 1 Mhz is redundant. Or maybe for some reason
> > you want the redundancy.
>
> No, you want to filter off everything beyond the first null. It's redundant.
> ...
>
> Phil

Actually, all you really *need* is either the upper or lower half of the main lobe, ala SSB. Periodically chipped BPSK (and QPSK, for that matter) exhibits phase periodicity at the chip rate (half the main lobe width). But.. the signal processing gets real ugly when you try to generate, transmit, receive, and then reconstruct such a beast. In an application of our type this would only be of interest in a very spectrum-limited situation.

Just in case someone cared...

Bob Wright, K7RW

wright@slc.unisys.com
or ...!giga!wright

4798. Re: What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-31 20:14:10 UTC
From: ajs@hpfcdc.HP.COM
Message-ID: <7880231@hpfcdc.HP.COM>
Source record: 9704

Thanks, y'all, for the suggestions posted and mailed. Nothing really wonderful popped out but I found a short list of possibles for various occasions. I guess the normal one will be "Mountain Friendly Wireless". "No mountain freeways" is a close second.

With lemons you make lemonade. With a lemon of a callsign I guess you make phonetics. :-)

> Oh, ya, my super-duper, hum-dinger call is -------> WB6WUI

Oh ecch. Uh, "Way Below Six Word Units per Inch"? "We Be Sexy, Whoo-Eee"? Good luck. :-)

Alan, N0MFW

4799. Re:What to do with WB6WUI?

Newsgroup: rec.ham-radio
Date: 1990-07-31 20:17:08 UTC
From: hbg6@citek.mcdphx.mot.com
Message-ID: <13312@mcdphx.phx.mcd.mot.com>
Source record: 9705

In article <3746@crash.cts.com> mikey@pnet01.cts.com (Mike Shirley) writes:
>
>Oh, ya, my super-duper, hum-dinger call is -------> WB6WUI
>
With Undue Interest
White Underwear Inappropriate
Wonderful Under Ice
Will 'U' Impregnate
Wake Up Itchy
Want Unfanciful Intercourse
Wanting Upgrade Instantly
Wireless Until Impossible
Wife's Under Inflated
Wont Use Inductors

John

.....
All opinions expressed are mine and not Motorolas, their loss.
.....

4800. Qualification-based licensing

Newsgroup: rec.ham-radio
Date: 1990-07-31 21:00:26 UTC
From: goldstein@carafe.enet.dec.com
Message-ID: <14117@shlump.nac.dec.com>
Source record: 9706

QUALIFICATION-BASED LICENSING

The FCC's proposal to create a new no-code class of license may be a useful first step, but it does not go far enough towards addressing the problems with the American amateur licensing structure. The fundamental premise upon which licensing should be based has long been lost; the new proposal is an inadequate step towards reclaiming it.

When someone applies for a driver's license, the state tests them on both written knowledge (of the rules of the road) and practical skills required to drive a car. When someone applies for a private pilot's license, the FAA tests them on both written knowledge and practical skills required to fly an airplane. When someone applies for admission to the bar in order to practice law, the Bar Examiners test them on knowledge of the law. These candidates are not tested on repairing magnetos, celestial navigation and golf. They are tested on the skills required to safely and competently use the privileges granted.

Yet the amateur radio licensing debate has almost never even mentioned this fundamental concept. Instead of testing applicants on required skills and knowledge, applicants are expected to learn various the arcana of theory and (at least today) Morse Code. While some of these are directly relevant to the field of amateur radio, the actual license classes do not grant privileges in line with the tested skills. The current "incentive" licensing structure has become capricious, granting access to a public resource -- the spectrum -- based upon a general level of knowledge largely irrelevant to the privileges granted. Instead, privileges are granted as a reward for learning what the system believes should be learned. The spectrum has become a Merit Badge. Is this the type of structure that can withstand increasing scrutiny and pressure from other applicants for spectrum space?

I would like to propose, then, that once the dust settles on Docket 90-55, we readdress the entire licensing structure with an eye towards making amateur radio more attractive to newcomers, while ensuring that the airwaves are only open to those who, like pilots in the sky, have demonstrated the requisite competence to use them as they do. This means that licensing should be simpler, both in structure and in requirements. But not only the requirements to obtain licenses, but the privileges granted to licensees, should be revamped.

The present proposal (FCC 90-55) seeks to reassure the existing amateur community that all existing privileges will be retained. This is a politically useful goal for the short term, but it stifles any possibility of creative change. Are we willing to allow a few privileges to be taken away from some amateurs, in exchange for others? If we think

not, then what if it is necessary in order to create a positive growth rate, as may be needed to preserve our spectrum?

Amateur Radio should be inclusive, not exclusive

Much of the support for a no-code license seems tempered with a twinge of guilt: No-code is only acceptable, many of us have said, if it is accompanied by a more difficult theory examination. This seems to be a defensive view, designed to defend against claims that we are "giving away" too much, or opening up our bands to the "riff raff". Visions of the eleven meter mess are invoked, as if the only difference between CB and ham radio were the code.

But it is wrong to condemn CB! While only a few hundred thousand Americans hold amateur licenses, several million are squeezed onto forty channels, forced to use AM emission, with sporadic-E skip adding to the chaos. It only takes a few bad apples with illegal power and zero courtesy to create a mess. Does this mean that everyone on that band is bad? Is everyone in a neighborhood guilty of the crimes of one neighbor? Of course not. CB was destined for chaos by its poor design. Millions of CBers are well-mannered and desire the same kind of orderly bands that we like to imagine that we have (although that claim is often hard to justify). They just aren't given an adequate opportunity to join us.

I propose that we replace our current "incentive" licensing structure with a more modern "qualification" based system. The premise is simple: Each license class can be achieved by demonstrating the knowledge required to use the privileges it grants, no more, no less. This is only tempered by the expediency of keeping the structure simple and thus limiting the number of classes.

Just as we had only three classes during the 1950s and early 1960s, when amateur radio had it biggest growth years, we can survive on three basic classes today. They just need to be modernized -- radio isn't what it was in 1950, or in 1966 when Incentive Licensing was decided.

Entry-level requirements

An entry-level license is a marketing tool. It should be easy enough to earn that potential applicants are not repelled, yet should be difficult enough to guarantee that its privileges are understood. The traditional definition of the Novice written examination seems to be proper: Amateur radio regulations and sufficient theory to understand them. Not an engineering degree. Not advanced mathematics. Not digital communications expertise. Just enough theory to understand how to operate an amateur radio station within the rules. This Novice examination should include basic operating practices, simple electronics (Ohm's law, electrical safety, etc.), and relevant regulations. The number of questions is irrelevant if the pool is large enough, but a 30-question multiple choice examination seems about right.

The existing Novice privileges are not selling. Thirty years ago, the ability to "work the world" on the HF bands was a selling point, but

today it's possible to dial up a telephone call to Paris or Sydney. CB and cellular telephones have taught people that chatting on a radio can be fun. This type of activity is mostly on the VHF bands. So the entry-level ticket can be a VHF license, like the proposed Communicator, and of course should be codeless. It should be easy, because it serves a marketing function, and relevant to the privileges earned. Start with the current Novice written exam, modified for more VHF emphasis. And stop before it gets harder!

These licensees should not be "ghettoized" in narrow bands where they are not exposed to mainstream amateurs. The Novice-level license should be allowed on all VHF and UHF bands, especially the popular FM and digital frequencies. They should not be allowed to operate in the small areas used for weak-signal operation, which requires a higher degree of skill. But how much theory does it take to operate an FM transceiver? Not much. Qualification-based licensing reflects that. It also means that a Novice, with little knowledge of the dangers of VHF power, should be limited in power. The current Novice limits seem sensible -- 5 watts on microwaves (902 and up) is plenty, while somewhat higher power levels are adequate for most voice and packet operation. Modes should also be unrestricted; a Novice should be allowed to use any mode that is permissible within the authorized frequencies. This does not include the right to own a repeater.

Does the entry-level ticket need HF privileges? Perhaps, but here we can see some reasoning for requiring the code. A no-code Novice can thus be granted HF privileges (say, the current Novice ones) for passing a 5 WPM code test. The FCC can simplify this by using a CSCE process, so long as the applicant need not use the suffix (i.e., /KN) after the FCC has been given sufficient time to update its records to reflect the endorsement (say, 30 days).

General license

The next license will grant general HF privileges, so it can be called the General. Morse code is less important today than it used to be, so a 5 WPM code test is adequate -- if someone wants to use CW, they'll learn to go faster! The General written exam should be harder than the Novice, as it needs to cover more HF propagation, additional operating procedures, and more theory needed to understand these additional privileges. Today's Technician and General exams have the right idea, though it seems unnecessary to have separate VHF and HF elements. Let's go back to the level of the 1960's Technician exam, which had the General written exam and a 5 WPM code test. Current Technician and General licensees can be merged into this one class, further simplifying the system.

What privileges does this new General earn? With a modest technical background but a general understanding of the Amateur service, all bands and all modes seem appropriate. But almost every country that has multiple license classes, outside of the United States, recognizes that high power operation requires a higher degree of knowledge and skill.

The General can thus be power-limited to, say, 250 watts PEP output, after a transition period. But it gains larger sub-bands, today's Advanced level, in return.

One higher class

A few sub-bands may still be reserved for the highest class. Again two existing classes can be merged here. The misbegotten Advanced, created for the 1966 Incentive Licensing program, can be merged with the Extra. This can be earned via the current Advanced examination (13 WPM with additional theory beyond the General); all existing Advanced licensees thus gain Extra privileges. In addition to the right to run maximum legal power, the top class can still have some small sub-bands reserved for it, along the lines of today's Extra bands. The higher code speed is, after all, relevant to the type of DX operation pursued in the Extra sub-bands; the greater theory is relevant to high-powered operation.

Perhaps an "Extra" license class can be preserved, complete with a 20 WPM code test. But it needn't be the FCC's! In reality, the top rung of the Incentive Licensing ladder is more of a Merit Badge than a credential. Perhaps the ARRL or some other organization can give it out as an earned award, valued for bragging rights and wallpaper value, just as it was before 1967. And if call sign assignment is ever privatized, the Extra holders can stand on the front of the line.

The names of some licenses may need to be addressed too, to avoid inappropriate connotations. "Novice" implies temporary. But it no longer is temporary, and an entry-level license need not be. If you're qualified, you're qualified! "Communicator" carries baggage of its own. And what about the Morse-endorsed version? Novice Plus? It may be close to today's Technician in privileges, but when that name was introduced in the 1950s, it was meant to imply that its holders were well versed in the arcana of then-obscure VHF lore. In some countries, a codeless VHF ticket is called "Class B". This or some other neutral name may be most appropriate for the entry-level ticket. An endorsed one can be nicknamed "B Plus". (Maybe old tube fans will get a charge out of it.) "General" and "Advanced" are sufficiently neutral terms to keep for the higher classes.

In summary, we end up with three and a half license classes:

1) Class B - No code, easy test. Most VHF privs, power-limited.
1.5) Class B + 5 WPM - Class B plus current Novice HF privs.
2) General - 5 WPM plus General written test. 250W, all bands except current Extra sub-bands.
3) Advanced - 13 WPM plus Advanced written test. All privs.

Current Novices become Class B+, current Technicians get the General, and the Extra is grandfathered as a "merit badge" class.

This simplifies the licensing structure, puts privileges in line with the examinations, and provides a marketable entry-level license. Most current licensees gain privileges. The only major loss, to today's

General and Technician classes, is to the power limit, and both gain frequencies in return. Incentive Licensing was a disaster. Perhaps Qualification-based licensing can begin to undo the damage.
fred k1io

Fred R. Goldstein goldstein@carafe.enet.dec.com
or goldstein@delni.enet.dec.com
voice: +1 508 486 7388

4801. Radio Control

Newsgroup: rec.ham-radio
Date: 1990-07-31 21:23:55 UTC
From: rengland@synopsys.com
Message-ID: <565@synopsys.COM>
Source record: 9707

Does anyone have experience using the 6 meter ham band
for radio control boats or aircraft? I know there are
some freqs like 50.1 50.2 etc that we can use. Can
manufacturers of this equipment be easily found?

Please reply via Internet email.

Thanks, 73 de Rick

Internet address: rengland@synopsys.com
:

4802. Re: What to do with N0MFW?

Newsgroup: rec.ham-radio
Date: 1990-07-31 21:29:28 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880232@hpfcdc.HP.COM>
Source record: 9708

> Oh, ya, my super-duper, hum-dinger call is -------> WB6WUI

While Under Investigation. Sorta fits with the bootlegging thing :-)

4803. Re: battery questions

Newsgroup: rec.ham-radio
Date: 1990-07-31 21:40:36 UTC
From: perry@hpfcdc.HP.COM
Message-ID: <7880233@hpfcdc.HP.COM>
Source record: 9709

Re: NICAD CELL CHARACTERISTICS

I've heard a theory that "memory" is the product of two modes of misuse - not completely discharging the cell, then overcharging the cell. While not disagreeing with an excellent article, I'm offering another remedy for vanquishing the "memory effect": don't overcharge to the point that it heats up the cell.

I'm not particularly attached to this theory, and wouldn't mind hearing substantiating or contrary evidence. Note that most commercial cell-boilers with Temp Cut Off thingies overcharge a cell.

Perry Scott
KF0CA

4804. Re: ICR1 and ICR100 available ex-st

Newsgroup: rec.ham-radio
Date: 1990-07-31 22:13:07 UTC
From: kline@ux1.cso.uiuc.edu
Message-ID: <1990Jul31.221307.2447@ux1.cso.uiuc.edu>
Source record: 9710

kline@ux1.cso.uiuc.edu (I) write:
>My IC-24AT allows me to enter frequencies in the cellular band when I
>enable extended receive, but claims that the synthesizer won't lock up
>in that range. Since it locks up solidly just above this, in the 902MHz
>band, I wonder if it's just lying to me and was programmed not to allow
>reception at these frequencies by faking an unlocked synthesizer.

Since this made the rounds I've gotten several pieces of mail from
people whose 24AT's WILL lock up in those frequencies. Mine must be a
funny one, I guess. My hypothesis that the 24AT might be programmed to
not receive the cell band was reinforced by the fact that mine also
loses lock at EXACTLY 451.00MHz and regains it at EXACTLY 500.00MHz,
thus very elegantly excluding the UHF public service (i.e. police)
frequencies.

Obviously I'm wrong and my radio is just being fascist all by itself.
Thanks for the corrections.

Charley Kline, KB9FFK, PP-ASEL c-kline@uiuc.edu
University of Illinois Computing Services (217) 333-3339

4805. Re: Spread Spectrum Repeaters - Technic

Newsgroup: rec.ham-radio
Date: 1990-07-31 22:47:10 UTC
From: wright@giga.slc.unisys.com
Message-ID: <691@giga.slc.unisys.com>
Source record: 9711

In article <690@hayduke.slc.unisys.com>, I blurted:
>
> Actually, all you really *need* is either the upper or lower half of the
> main lobe, ala SSB. Periodically chipped BPSK (and QPSK, for that matter)
> exhibits phase periodicity at the chip rate (half the main lobe width).
> But.. the signal processing gets real ugly when you try to generate,
> transmit, receive, and then reconstruct such a beast. In an application of
> our type this would only be of interest in a very spectrum-limited
> situation.
>
I may have said something misleading there in my $.02 worth.

What I said is true for BPSK because the amplitude of the spectrum
is symmetric about the carrier. Thus, with symmetric amplitude and
periodic phase, half the main lobe gives you everything. QPSK, while
having the same phase period, does not necessarily have symmetric
amplitude. You still need the whole main lobe for that. :-[

Possible application: additional diversity. If your main lobe is too
junked up by all those spectral co-users, then maybe one half of the main
lobe, by itself, is OK.

Bob Wright, K7RW

wright@slc.unisys.com
or ...!giga!wright